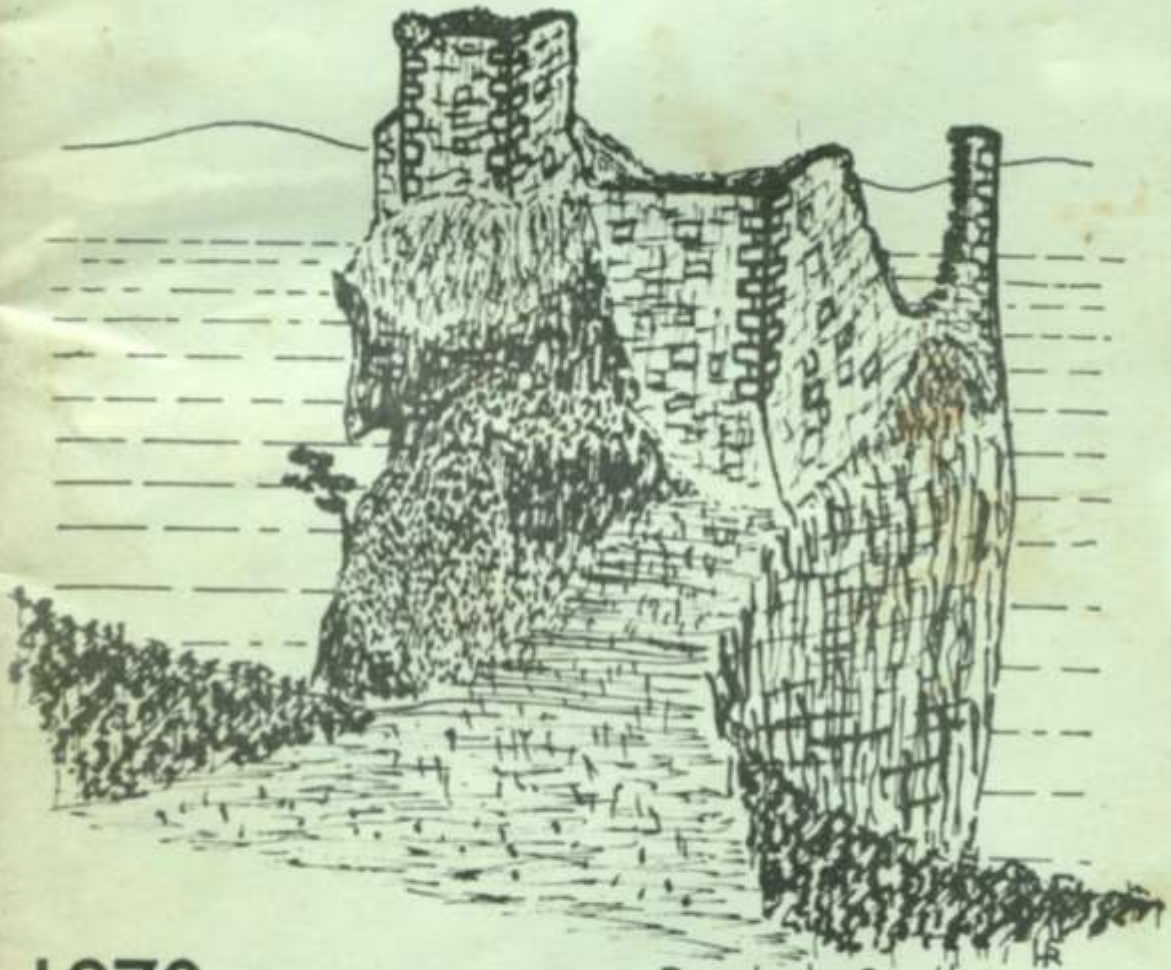
SCHOOLS HEBRIDEAN SOCIETY



Brochel Castle

1970

Alan Ervin

SCHOOLS HEBRIDEAN SOCIETY

ANNUAL REPORT 1970

Directors of the Schools Hebridean Co. Ltd.

A.J. ABBOTT, M.A., F.R.G.S. *(Chairman)*

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P.N. Renold will succeed A.J. Abbott as Chairman with effect from 1st January, 1971.

Hon. Advisers to the Society

THE LORD BISHOP OF NORWICH

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The Editor of the Report is: GAVIN MACPHERSON, 201 Lampits, Hoddesdon, Herts.

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ACKNOWLEDGMENT

Every year the Society receives a vast amount of help from firms, organisations and individuals, and it would be impossible to mention them all by name. We would, however, like to place on record our very sincere thanks to all those people without whom our activities would not have been possible.

EDITORIAL

So Report Time is here again, and surprise, surprise, we are celebrating by producing a Report! A new-style, slim-line, instant Report, no less.

I make no apologies for the style, which is pos rather less sophisticated than the luxury to which we have treated ourselves in previous years. It was dictated entirely by the financial wizards who, for the moment, are masters in such things. In any event, it is possibly worth making the point that the Society exists to run Expeditions, and the Report is something of a side-effect. I only hope that in cutting down the size (compared with last year's encyclopaedia) I have not missed out too much valuable material. The numerous articles, reminiscences, maps, drawings etc. which have gradually filled my flat to capacity over the past month or so, have been encouraging indeed. I am sorry we could not print them all. My thanks, in any case, are due to everybody who sent in material, whether in the end it has been included or not.

We not only have a new-look Report, we also have something of a new-look Society, at least at the sharp end. The retirement of Bot (no, he isn't really that old) must be something of a happening. His successor is expanding on his virtues elsewhere, so let it suffice to say here that the Society will certainly not be the same again. We owe to him our existence. Without his enthusiasm and, perhaps more important, his ability to install enthusiasm into others, there would have been no Society, no Expeditions, and possibly not even a Report, Meanwhile, Phil Renold takes over, and we all wish him the best of luck in his unenviable task.

There have been other changes in the Board, as well, following the resignations of Alan Bateman, who has gone to Canada, Chris Dawson, Dave Vigar and Rich Fountaine. Each of them has put in vast amounts of work in their own fields, for which we are extremely grateful. Their places on the Board have been taken by John Hutchinson, John Lace, Alan Fowler and myself. Whether this new team comes up with new ideas remains to be seen. It is, at any rate, an opportunity to examine the possibilities of change. That, however, is all in the future. The function of the Report is to record the past.

A final thought: I must claim, in 1970, to have found the secret of a successful Expedition. The presence of a wife, and the availability of a hot bath, really makes the S.H.S. quite civilized - even if it means that one's fellows are forced to exclaim in horror on finding certain unmentionable items hanging out to dry between the tent poles'.

- GAVIN MACPHERSON

* * *

THANKS FOR THE PAST AND EXPECTATIONS FOR THE FUTURE

In the last ten years the Society has grown from a few students organising their own visit to Rhum to become the largest organisation of its kind in the country. Throughout this period 'Hot' has been our chairman and without him it is difficult to see how we would have survived. Whether facing the hostile elements on an expedition or an obstreperous board meeting, his personality has made an enormous impression on both the Society and on all those who have met him. Now that he has decided to retire from the chairmanship we must be thankful that his experience will not be lost for he continues as a Board member. For all that he and the other original members of the Society have done we must say 'Thank You'.

In the next ten years I very much hope that we shall continue to expand. The first task is to streamline our organisation and cut costs and once that has been achieved we must give really serious thought to the provision of a permanent store and of more and better boats, canoes and equipment.

We will also have to face the questions of widening the field from which we recruit to include many more from the less affluent members of the community, possibly by finding the money to pay for them ourselves. Mixed expeditions are another possible development which some will regard with horror and others with delight but it must be seriously considered before long. We must also be prepared to justify our existence in the field of projects to a far greater degree.

Above all, we must look to the future and not dwell on past achievements. What I have suggested above are only a few of the possible developments, but develop we must.

- PHIL RENOLD

FLADDAY EXPEDITION 1970

Leader: Mike Baker

Officers: Peter Forsaith, Jonathon Shutes, Terry Samuel, Peter Jackson, Chris Hague-Smith, Launcelot Fleming.

Boys: David Allport, Richard Anderson, Andrew Sevan, Robert Bergman, Robert Buries, Roger Crawshaw, Peter Darbyshire, Ian Deacon, Stephen Elliott, Andrew Gale, Tim Griffiths, David Haigh, David Martin, Austin McRoberts, Brian Monk, Nigel Paddon, Robert Pooles, Mark Potter, Humphrey Southall, Eddie Stuart, Philip Tew, Paul Willis, Nicholas Wiltshear.

LEADER'S REPORT

The small island of Fladday is linked by a causeway to the northern part of Raasay, and looks across to the impressive coastline of Skye.

We used MacBraynes as far as Inverarish, and then with the help of Mr. Nicholson's boat, stores and tents were taken up to Fladday. Meanwhile, Mr. Gillies transported bodies and rucksacks to Brochel, followed by a trudge in light drizzle along the track to the fully submerged causeway, across which 'Dignity' ferried the tiring overlanders. A temporary camp was pitched in the failing light, and re-sited next morning on the most suitable area of flat land, close to one of the empty cottages that had been bought recently by Margaret MacLeod of Surrey. Her very kind offer to let us make use of the cottage gave us five very useful rooms which we used for stores and drying downstairs, with fieldwork rooms above for geological and biological work, plus a little den which became Terry's hideout, papers with elaborate charts, maps and statistical detail.

The weather was excellent for the first week, and the beauty of Fladday and the magnificent cliff tracks on Raasay, encouraged all to make fairly extensive recces. Within the next six days, 20 projects got under way, including not only regulars such as ornithological recording, geological hammering, and biological identifications, but also studies of the stars, rotting thatch, shrews, gas-masks, bog, and dung (I might add that there is no correlation between these projects'.) The geologists had a great variety of unmapped territory, but

they wisely left the more difficult tasks to the undergraduates working in the area. However, in the vicinity of Eagle's Cave they produced a detailed geomorphological pattern of faulting ' and igneous injections that jig-sawed the pattern of rock formations.

Our weather watchers were saddled with a 'High' - with rain gauges empty, they prepared charts for when the pressure dropped. It did ... down and down and down ... off the scale which had to be hurriedly revised. The ornithologists seemed to spend as much time dismantling and reassembling, scrubbing and scraping bones, as they did squinting through binoculars.

With no 'Vinga', there was no sailing. Only one of our two canoes was reasonably watertight, and they both had to be kept close to the causeway for ferrying. Podge gallantly operated this service on several occasions, disaster only coming when Passenger Humfrey dodged a missile. Canoe, Humf, and bread supply submerged while hoots of laughter from the soaking 'Splodge' turned to gurgles below the water-line. A sinking canoe had also created problems on an illegal cigarette run several days earlier. Sea-soaked Co-op stocks were seen drying on the tilly lamps that night. Climbers found some good rocks on Raasay, organised by Pete Jackson and Bob Pooles. Volleyball (crook court), fishing (disastrous) and swimming (brrrr!) happened, but no diplomas were awarded.

We had no guitars, nor even any melodious voices to make up a choir. We were very happy to have Launcelot with us for several days; he conducted a Communion service in the marquee and assisted Chris with geology. We all hope that his legs will continue to gain momentum in the coming months. His determination and drive in overcoming his physical disabilities impressed us all. His camp record remained unchallenged to the end!

The food supply both in quantity and quality was of a higher order than we had tasted on previous camps. Thanks must go to John Hutchinson's planning, to Peter's (or was it Eddie's?) organisation and to the 30 cooks. We were very grateful for the friendship of Mr. Parke and the MacLeods at Arnish; for the varied services performed by Peter Gillies; for the use of the schoolroom on the last night which Mrs. Rutherford arranged for us; and to many other people on Raasay who did all they could to help us enjoy our stay; to Margaret MacLeod and the Reading Geographers for the use of their crofts; and to the Department of Agriculture and Mr. Alistair Gillies for letting us use Fladday. I would like to thank members of the S.H.S. Committee.

for their contributory work in organising the Expedition, the officers for their part and, above all, the boys who were a great bunch and whose enthusiasm and friendliness set the tone of a most enjoyable and highly successful Expedition

Finally, the camp records:

45 Prunes at a sitting - Podge

Camp marker to weather station and back

Tim 6 mins 16 sec (Over 60s record - Launcelot 17 mins 52 secs)

Non-stop solo - Eddie, Phil, Andy, Mick. 71/2 hours

Biggest blister - Chris 37mm x 19mm x 5mm

Biggest Pollock •- Dave Haigh 13/4 lbs 18"

- MIKE BAKER

* * *

THATCH STUDY

We studied the thatch of a small outhouse on the eastern side of Fladday. It lies east/west, and is of dry sandstone construction.

The roof is supported by two basic 'A' Frames, with the thatch laid on top of loose wooden planks. The thatch is generally of one mass of roots (dead and alive) and rotten bracken. Many of the live root and runner systems are very extensive, and hold the thatch together firmly. As expected, the centre of the thatch was much damper than the outside.

There was some difference between the ecology of the east and west sides:

East side: False oat grass
Species of bent grass
Lesser club moss
Grey fungal moulds
West side: Species of bent grass
Sheep sorrel Ling
Soft rushes
Grey fungal moulds

The drier region of the thatch contained several corns of plants, and many grass seeds, both germinated and un-germinated. In this drier region were many dry fronds of bracken, but towards the damper region we found more stems and rotting heather.

Many of the roots, especially from the grass seeds, actually passed into and along some of the rotten stems.

Several white fungal growths, some very small spiders and two immature worms were also found in the damper region. Many of the dead stems had curious grey-green fungal growths on them shaped like upturned trumpets.

- ROBERT BURLES

* * *

FLADDAY ORNITHOLOGICAL REPORT 1970

The survey carried out during this year's Expedition covered the whole of Fladday and a large proportion of Raasay itself. Fladday is no longer inhabited, but there are three crofts in good condition and we commandeered a room in one of them for ornithological and biological work.

The ornithological survey got off to a very good start when two red-throated divers were seen flying over the camp on the first day. Chaffinches and meadow pipits were found to be the most abundant land birds and the former could be seen in flocks of thirty outside the croft. It was noticeable that there were very few adult males amongst them, suggesting that a lot were juvenile and that they breed on Fladday.

The first trip that we organised was a walk around the coast of Fladday to establish the sites of the main colonies of sea-birds. This was followed up by a canoe trip around the island, made by Dave Haigh and myself. The main colonies are in the An Roinn area at the north-end of the island, where shags occupy the north-east and north-west coasts, and gulls occupy the most northern tip. There is evidence that shags, herring gulls, greater black-backed gulls, and at least one pair of kittiwakes have bred this year. Despite the very rocky coasts several waders were found including a flock of 20 curlew, oyster-catchers, redshank and one ringed plover. One golden plover was seen near Loch Mor. One notable absentee was the lapwing which is abundant on the mainland near Kyle, but which does not occur in Raasay.

Having covered most of Fladday, we ventured across to Raasay several times, including a Bivouac trip to Balmeanach (Grid ref: NG 558408). The most interesting part of this was a stay of several hours at Brochel (NG 586485), where we saw 17 sooty shearwaters skimming the waves as they flew north.

Black guillemots were found to be the commonest auks around the island, but puffins were absent. Also at Brochel, there is an area of deciduous trees in which we saw chaffinches, long-tailed tits and a spotted flycatcher.

The following day we walked further south to Inverarish where we saw most of the common 'town' birds, except the starling, of which there were no sightings recorded. We passed through South Raasay forest but saw no birds until we had left the wooded area. On the south-west coast there are two sandy beaches and one small mud flat, on which there were 21 oyster-catchers feeding. There is also an area of grassland and trees around Raasay House where we sighted 2 greenfinches and a grey wagtail. On the journey back from Balmeanach to camp we saw a golden eagle, 3 buzzards, a sparrowhawk and a kestrel.

Other trips on Raasay were to Ardnish, where there is a deciduous wood, and to Loch Arnish, where we saw several kittiwakes, auks, gannets and divers. A further trip was made to the north of Raasay, which proved rather unfruitful except for a Sabines gull seen flying over Caol Fladday from Raasay and then northwards out to sea. We decided the northern point is quite a good place for sea watches, as both coasts can be seen and there is a wide field of view.

'Mad Doc' Jon made a collection of bird skulls, including 7 shags, 1 guillemot, 1 razorbill, 1 greater black-backed gull, 1 wheatear, 1 meadow pipit and one wren.

A classified list of all birds seen was also made.*

- NIGEL PADDON

(*It is regretted that lack of space precludes the publication of the complete lists. All records are, however, forwarded to the Society's 'bird-man' JONATHON SHUTES, 'Hennons', Theobalds Park, Waltham Cross, Herts.)

* * *

SMALL MAMMALS ON FLADDAY

On Fladday, I decided to carry out a survey of small mammals, made possible by the traps supplied by Jon Shutes. These traps are humane and catch the animal in a box with food and straw. They were set both day and night, using cheese as bait. All the buildings on Fladday were tried, and the state of the building and floor noted.

The total catch over two weeks was 9 shrews, 5 mice and 1 bank vole, divided between six buildings.

The general conclusions were that mice prefer dry buildings and shrews do mind wet floors. Mice feed during storms but no shrews were caught during storms.

On Raasay, and presumably Fladday, six species of small mammals are to be found: the common shrew, pygmy shrew, water shrew, field mouse, house mouse, and bank vole. The field vole may be present but is unconfirmed in recent years. The bank vole of Raasay is a recognised island race, its main feature being its large skull.

- IAN DEACON

BOG SURVEY

The purpose of this survey was to acquaint people with the different plant communities found under different physical conditions. The make-up of a plant community can be used more effectively in the study of the physical conditions than can individual species, most of which have a range of conditions in which they can survive. The survey would help in a follow-up study of land use, as man has had a great effect upon the biology of this island, despite its wild and natural outward appearance.

A study of four main communities was therefore started:

(a) Bog

(b) Recently burnt heather

(c) Recently burnt heather in a very damp situation

(d) Climax community of unburnt heather

To study each community, a quadrant of one square foot was thrown randomly ten times. A species list was made, and each species was marked present or absent in each of the ten quadrant stations. The percentage rooted frequency was then plotted for each species in the community. If a species was present in 9 out of 10 quadrant stations, it had a percentage rooted frequency of 90, etc.

The resulting graphs show:

(1) Different species occur in different locations

(2) In different communities there is a different dominant plant

(3) The different collections of species that occur in different habitats.

The insectivorous plant, the Sundew (Drosera Rotitndifoiia) was common in the bog. Mineral salts are leached out of boggy ground and this plant obtains mineral salts from insects.

SPECIES	% rooted frequency
	0 10 20 30 40 50 60 70 80 90 100
SITE (a)	
Eriophorum Angustifolium	
Sphagnum Moss	
Eleocharis Multicaulis	
Erica Tetralix	
Potentilla Erecta	
Drosera Rotundifolia	
Calluna Vulgaris	
Sieglingia Decumbers	
Carex Pilutifera	
SITE (b)	
Nardus Strictus	
Calluna Vulgaris	
Shoenus Nigrisans	
Potentilla Erecta	
Sphagnum Moss	
Pedicularis Sylvatica	
Drosera Rotundifolia	
SITE (c)	
Nardus Strictus	
Calluna Vulgaris	
Potentilla Erecta	
Erica Tetralix	
Moss	
SITE (d)	
Calluna Vulgaris	
Carex Pilutifera	
Pteris aquilina	
Festuca Ovina	

* * *

FLADDAY ASTRONOMICAL REPORT

The great barrier between the astronomer and the universe is the atmosphere around our planet, which firstly refracts light waves arriving from the stars, and secondly forms an increasingly opaque blanket from the various pollutants poured into it. A high point in the clear air of the Hebrides, well away from urban disturbances, is as good a spot for observational astronomy as will be found anywhere in the British Isles on a cloudless night.

The Fladday camp-site was situated below the highest point on the island, and on the six cloudless nights which we had during our stay the clarity of the stars was excellent. Needless to say there were many disadvantages, such as the predominant bad weather as regards cloud cover and sea mist, and the fatigue encountered whilst the astronomer-contortionist holds himself in a position where he can get his eye to the end of the telescope. This, however, is the price which must be paid for the available equipment.

The other major drawback was the horizon which the Raasay hills formed to the east. A number of planets would have been visible had this horizon been lower.

The telescope, which was a small refractor, 30 x 40 mm, was mounted on a large camera tripod, which proved indispensable. Our actual observations included a number of nebulae, double stars, the Milky Way, and many other sights of interest. Below is a brief list of what we studied:

1. Many perseid meteors.
2. Multiple star in Lyra.
3. Double stars in Cygnus, Bootes and the Plough. (Mizar and Alcar)
4. Spiral nebulae in Andromeda.
5. A satellite passing through the Plough.
6. Nebula in Herculis.
7. The Milky Way.
8. The Moon in its last quarter.

- PAUL WILLIS and MARK POTTER

SETTLEMENTS ON FLADDAY

The abandoned settlement on Fladday consists of about 24 buildings, including outhouses, of which three are still used from time to time. The rest of the buildings are in various states of repair. Some of the outhouses still have roofs contain some oddments. The remaining buildings are without roofs.

The original settlement of the island seems to have been a few hundred yards due north of the causeway across to Raasay. In this area there are the remains of a few very old crofts, some with only about two feet of wall standing. The larger of these crofts is divided into two separate parts, and the chimney-stacks are still intact. Another building, about five yards further south, is older. On top of the walls are traces of the old fern and peat roof, and traces of the wooden beams that supported it. We found gas-masks and beer bottles in the area, suggesting that this croft was occupied at least until World War II, and possibly more recently.

At one corner of the croft an old well exists, presumably the water supply for the original settlement.

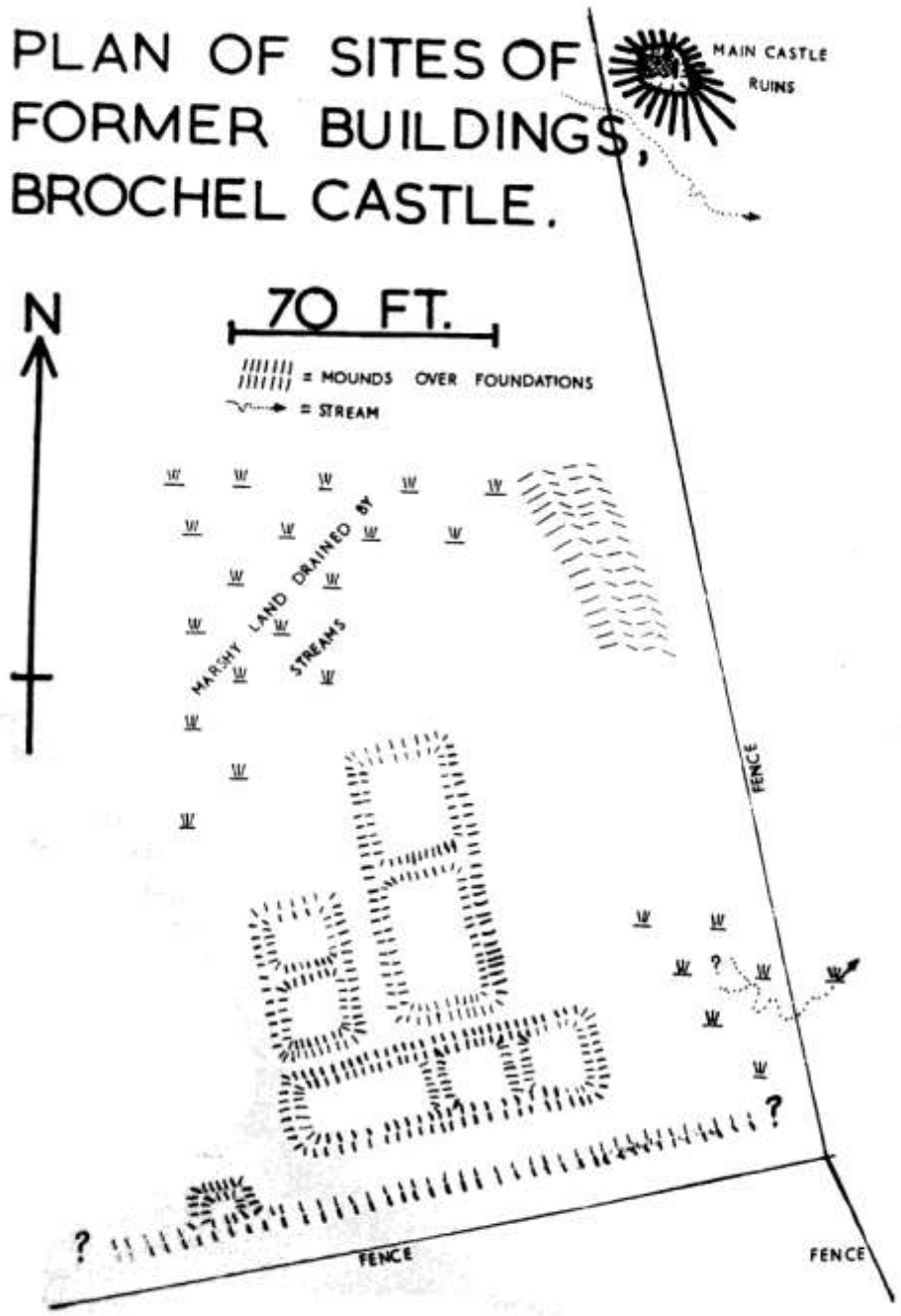
Another croft in the area, which has walls about three feet above ground level, and is very overgrown, proved to have pots, crockery and jars in the walls. Some of these had trade marks on them from Bavaria.

Indications of earlier settlements were found further north where there are the remains of two beehive dwellings.

The Island of Fladday as a whole has reasonably good resources to support a fair-sized population for its area. Water is supplied by adequate wells; fuel would have come from the many peat cuttings all over the island; and a large area of land is suitable for cultivation or grazing. The population at one time must have been over 30. It is reported that there were 12 left on the island in 1964, but they all left in that winter.

- ROBERT BORGMAN and ROB POOLES

PLAN OF SITES OF FORMER BUILDINGS, BROCHEL CASTLE.



BROCHEL CASTLE

Brochel Castle is situated at the mouth of a valley on the east coast of Raasay. The local rock surrounding the castle is torridonian sandstone, of the grey facies type. The castle itself is built on a volcanic agglomerate of unknown age. This plug is composed of a more weather-resistant combination of rocks than the sandstone, and stands erect on the top of a cliff towering fifty feet above the flat land in the valley to the S.S.W. This dominant position is perfect for a defensive site. Little is now left save the shell of the castle walls.
The main entrance faces the sea on the south-east side, which is only accessible by climbing over the scree and eroded rocks beneath it. Once through the entrance, a flat area, now covered by grass, about ten yards by four, is visible. Part of this area overhangs the land below. About fifteen feet above this flat area is a small room, 10' x 7', the walls of which are almost complete. It has been suggested that this could have been a look-out tower. From the top one has a view of the whole of the Inner Sound and Applecross. Besides the major agglomerate, a smaller agglomeritic crag was found about fifty yards to the north.
On the land to the S.S.W. of the castle extensive foundations were found, with two deserted crofts. This might point to a settlement at some time, of which the castle was the defensive point.

- TIM GRIFFITHS

* * *

GETTING WET

or

HOW TO GET A BISHOP FROM BROCHEL TO FLADDAY

The first time that I met the Bishop of Norwich was on a rough track about a mile north of Brochel. Three-quarters of a mile or so away two canoes were drawn up on the beach. This was how Launcelot was first to see Fladday, by canoe.

Earlier that day, Pete Jackson and I, with Robert Buries as ballast, had tried the sea to see if it was too rough. Pete's canoe was tied together with hits of string and poly, bags, and both canoes leaked like sieves. At that time, the sea had been too rough, but it calmed later, and we decided to try to reach Ardnish. From there we walked up the track to meet the Bishop.

On our way back across the bay, he told me that the last time he had been canoeing he had shot rapids by moonlight by mistake I On this trip, however, we saw only one seal although we nearly capsized whilst watching it. However, we had a pleasant canoe, and Launcelot proved a most willing paddler. (Praise indeed! - Ed.) We did, in fact, beat the walking party back to Fladday.

On arrival, I left Launcelot and Pete by the causeway, which was now covered, so I spent a very wet evening ferrying twenty people, one by one, across to Fladday.

- EDDIE STUART

HISTORICAL BACKGROUND TO THE STORM BEACH ON FLADDA

There are numerous legends surrounding the occurrence of the storm beach at the north-end of Fladda. Traditionally, it was thrown up one night in 1671, the night that MacLeod of Raasay was drowned. This particular chief, Iain Garbh, was one of the best that Raasay ever had.

One day, in the summer of 1671, he was returning in his galley from Lewis. When he left Loch Seaforth, it was a clear, calm day, but a very bad storm blew up and he and all his crew were drowned off Trotternish (opposite Fladda, in Skye). The Sennachie singles the storm out for description thus: 'The waves rose as high as the Cuillins and the boulders of Mol Stamhain were hurled far above the shore cliffs, and deposited on dry land. '

The blame for MacLeod's death was put squarely on the witches. Raasay, with its flat-topped mountain, was renowned for its witches. Indeed, it is said that Satan himself appointed that the main coven should meet in the island. On May Day and Hallowe'en, witches came from all over the islands.

Iain Garbh was determined to stamp out witchcraft, and the witches, in their turn, were equally determined to have their revenge on him. They tried to drown him, but at each attempt he was saved by his wife. On the night he returned from Lewis however, he was without her, and the witches had their chance.

Accounts vary of exactly what happened, but it is generally agreed that three ravens flew over the boat as the storm

blew up. Soon, twenty more arrived and, as soon as they came aboard, they changed into frogs and black cats. Now Iain was a good man so he was well protected from such evil until he smote the largest of the cats, saying: 'What in the Devil's . name brought you here?' This was his undoing, for his mention of the Devil gave Satan power over him, and the boat sank. A man in Uist that day was taking shelter from the storm in a ruined hut when in came a large, wet, black cat which turned into a local woman. She said that she had just come from the drowning of Iain Garbh, which is how the story became known, so everyone knows it is true !

- PETER FORSAITH

CLIMBING ON FLADDAY

To tell the truth there was no climbing at all on the island of Fladday even though attempts were made. The sea cliffs on all sides were examined and found to be excessively unstable and liable to sudden collapse, leaving the climber dangling at the end of a. rope. The cliffs around Eagle's Cave had a noticeable lack of good belays, and pegs were necessary at all times.

The best climbing to be had was undoubtedly on Pipers Rock on Raasay, where the faces were less crumbling. Several climbs were led on this rock by the fearless (well, almost fearless) Pete Jackson. The routes ranged from moderately difficult to mild severe, and there was a lack of protection on most pitches.

On the whole, though, the climbing was good and enjoyable. Future Expeditions to Raasay should be well equipped with pegs and piton hammers, and possibly a pair of shears as some faces could do with a bit of gardening'.

- ROB POOLES

* * *

EXPEDITION TO DRAGON'S CAVE, 1970

Expedition to investigate sounds of heavy breathing emanating from a hole in the sea cliffs. The first sea-borne assault party returned with one perforated sieve called (by some) a canoe. After calling on a passing Bishop to bless the expedition, a second assault party attacked overland just after lunch. The main attack was launched into the voluminous gap.

By a swim across forty yards of tortured, lung-squeezing icy water rushing between narrow, barnacle-encrusted, overhanging cliffs Penetration into the very lungs was rapidly accomplished before the dragon was fully awake from his afternoon nap.

As retreat was hastily put into effect, the rising breathing rate caused a great ebb and flow of water into the chasm, tumbling the unwary from their footholds. Only cost to the Expedition was two short-circuited, rusty torches and one jammed camera!

SILENCE

The first time that I saw Fladday was from an open, heavily-laden boat in a high wind at evening, and I was very wet and cold. When we had off-loaded the boat we waited whilst the walkers were ferried across Pete Forsaith and I went up on top of Fladday to look at the camp-site, and once over the ridge we could no longer hear the noise of the boat' motor. When Pete and I stood still and held our breath the noises of London and the world were gone. There were no insects, no people, no wind.

For the first time in my life I heard nothing but the noise of silence.

- EDDIE STUART

BUTTERFLIES

This report is intended as a guide to future Expedition leaders of the potential of Raasay for a thorough survey of its moths, butterflies and dragonflies.
No formal survey was carried out this year, the following observations being mainly my own.
Despite the unsettled weather experienced and the lateness in the year, a period of four sunny days proved that there was ample material for investigation.
The species of butterflies seen were:

1. Scotch Argus
2. Meadow Brown
3. Small Heath
4. Grayling
5. Speckled Wood
6. High Brown Fritillary
7. Red Admiral
8. Small Tortoiseshell
9. Common Blue
10. Large White
11. Small White
12. Green-veined White

With the exception of the Grayling, which should be found along the line of the seashore in remarkably unfavourable weather, all the species seen were confined to the sheltered areas of Ardnish, Brochel and Inverarish, with the Scotch Argus, Green-veined White and Small Tortoiseshell by far the most common. Single specimens of the other nine species were seen, but in view of the haphazard nature of my viewing I have no doubt that all were present in quite large numbers, and the presence of more species is almost certain.

Large numbers of moths were seen in both day and night. The Noctuas family were seen in the greatest numbers. Eggar Caterpillars were found quite commonly in the heather. There were also numerous types of Geometers in the sheltered areas. A survey with the use of a mercury vapour lamp could be very profitable in future Expeditions, though I would stress the need for a good identifying book.

Another common insect to be seen on the warm days was the Dragonfly. Unlike the South, the acid soil of Raasay favours those types that can breed in the acid marshes. Most sorts of northern Dragonfly were seen, including Common Aeshna, Black Sympetrum, Golden Ringed Sympetrum, and Common Sytnpetrum. More species were seen but not identified.

In view of these sightings in Raasay it would be interesting to hear the results of more detailed surveys in the future.

- JON (DOC) SHUTES

* * *

GEOMORPHOLOGY THE 'EAGLE'S CAVE' PROJECT

A study was made of a complex part of the north-west coast of Fladday which was found to have numerous features of interest including the cave system that we later christened 'Eagle's Cave'. The study consisted of :

(1) Mapping the geomorphological features of the area (C.H.S.)

(2) Field sketching features of note (H.S.)

(3) Quantitative analysis of a pebble ridge feature (T.R.G. & S.E.)

Geological aspects of the Western half

Inclined Torridonian (Red Facies) sandstones were eroded back, producing a flight of minor escarpments rising S S W in faces of 5 to 15 ft. high, and extensive, craggy, wave-cut platforms and cliffs.

Great erosion was noted along weak red shale bands between 1 inch and 2 feet thick. They formed most of the numerous undercuts of the wave-cut platforms and major weaknesses at the foot of rock faces.

Regular triangle patterns were seen, especially in the wave-cut sandstone platforms. We decided these might be due to the great stresses undoubtedly experienced by Torridonian strata during their long and complex history.

Fissures:

(a) Fissures were plentiful, eroded down the main N.W. to S.E. lines of weakness, in places reaching to over 50 ft. in depth.

(b) Two large fissures cutting across the normal weakness trends were found to be eroded along dykes of dolerite.

(c) The largest fissure, causing the Eagle's Cave inlet, was eroded along a fault, unmarked on the 1" geological survey map, which extended east to west completely across the island. The shatter zone was clearly visible.

Geological aspects of the Eastern half

An extensive, open low rock platform was observed, with no cliffs or deep fissures. Inlets were shallower with alignment N.N.W. to S.S.E. instead of N.W. to S.E. This may have been a product of less massively bedded Torridonian sandstones.

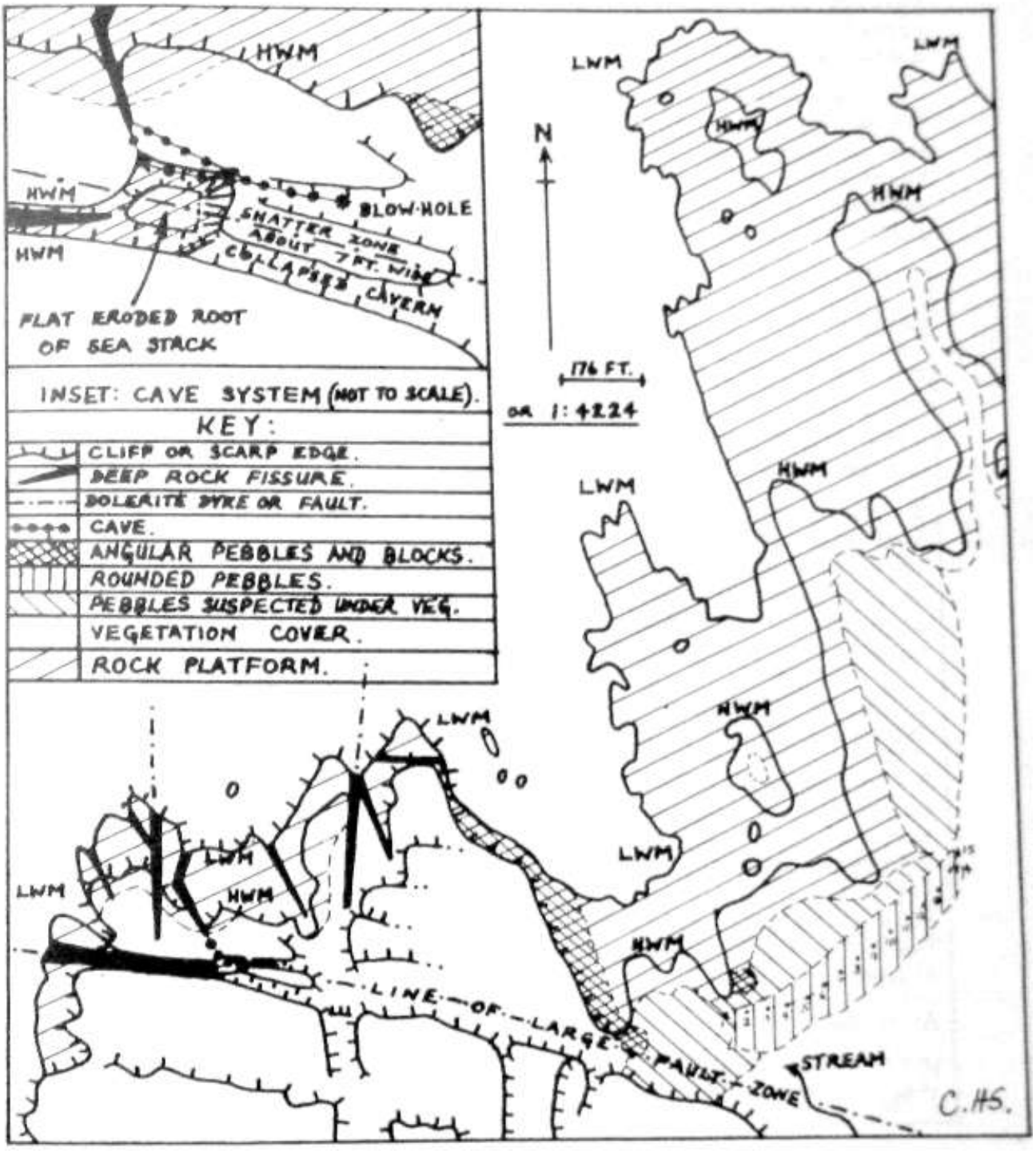
Several large pebble ridges backed up above high water mark above shallow inlets were considered to be possible storm beaches. The largest was 700 ft. long, 20 ft. high and 50 ft. wide.

Large, well-sorted, water-rounded boulders were the usual constituents of most ridges.Certain areas of angular boulders were attributed to cliff debris from immediately adjacent areas.

Quantitative studies of the Pebble Ridge

By measuring boulder sizes along the crest of the ridge at regularly recurring intervals, it was possible to statistically examine the size of sediment and degree of sorting of the ridge. Results showed peculiar lateral sorting of the sediment, with the finest material in the centre of the ridge, becoming coarser it each end, but with the coarsest materials of all distributed spectacularly towards the N.E.end of the ridge.

THE "EAGLE'S CAVE" AREA.



Conclusions

The observations bring out a great contrast within the study area. The western half of the area is more massive and more varied relief, with numerous rock faces, wave-cut platforms and deeply eroded fissures and weaknesses. The eastern half is of gentler relief, without cliffs and with widespread wearing down of the bare rock surfaces. In addition, it contains great dispositional features, the pebble ridges.

The overall picture is of greater, more active erosion in the western half, with some disposition in the east. Suggested, but unproven reasons for this pattern of geomorphological features are (a) the influence of the prevailing wave direction, seemingly N.E. and (b) more massive Torridonian sandstones and shales in the western half.

My thanks are due to Humphrey Southall, Tim Griffiths, Steven Elliott, Mark Potter and Pete Jackson for their help in carrying out this survey.

- CHRIS HAGUE-SMITH

LEWIS EXPEDITION 1970

Leader: Alan Howard

Officers: Roger Evans, Tim Hughes, John Marchment, Mark Rayne, Roger Weatherley
Boys: Tim Bell, Phil Benson, Paul Birchenough, Keith

Broadbent, John Burgess, Paul Butterworth, Tim Edwards, Steve Gibbins, Paul Gill, Mike Griffin, Julian Hodge, Graham Holdup, Chris Knight, James Livingstone, Simon Manning, Marc Moninski, Martin Moss, Richard Pooles, John Ramsden, Mike Sharp, Paul Sheard, George Sloane-Stanley, Ian Tope, Mark Williams.

LEADER'S REPORT

How do you start a Leader's Report? As I sit at my desk, looking out on an early morning Durham mist, Aird Bheag seems a long way away. Memories flood back: the horrible feeling of muddy wetness as I was dropped in the stream; the gnawing tension waiting for Vanguard to arrive with the stores; the calm and tranquility as I sat on a rock looking out into the grey, heaving, Atlantic swell. Those were the days'.

When Bot first mentioned to me the prospect of leading Lewis 1970 the reality of the situation did not really hit me. Not even during the seemingly endless evenings of synthetic smile letters, 'Dear Mr and Mrs Gruntfuttock, I'm delighted that your pet mule, Algernon ... etc' did I fully realise what I had let myself in for. Lewis 1970 had its moments of near disaster and, I think, more frequently, its moments of great enjoyment. Each of us will remember different events. My everlasting memory will be meeting twenty-nine other individuals who could not have been better for the Expedition if I had cast the moulds myself. We got on well together.

Of course, we had our troubles. When Vanguard did not arrive with the stores, and we had to spend a foodless night in the croft, I was not on top of the world. Fortunately, our contingency plans worked and the premature ending of the Expedition was avoided! Also, when Tim Edwards became ill and Doc Tim thought it could be mumps, the officers were not a picture of happiness. Again, we survived the minor crisis, and luckily Dr. Mathieson was found and treated him. It is at moments like these that one tends to attempt soul-searching investigations for coming on S.H.S. Expeditions. But we keep coming back for more.

Activities on Lewis this year followed similar patterns to previous years. We climbed, canoed, rowed, boulder-rolled, chased a sheep, started and attempted to complete projects, sang (some better than others), discussed the world and its problems and basically enjoyed ourselves. Camp Spirit was good, camp food was excellent, projects could have been much better, and the weather - well! at least we did have a couple of very good days with actual sunshine.

We were lucky this year to have an excellent group of officers. Of course, words fail me on the brilliance of the leader. 'There was Roger W with his superb admin, and food; Tim H treating all and sundry with aspirin and swift humour; Roger E working very hard and a constant inspiration to potential climbers; Mark R with his banana jokes and enthusiasm; John M never tiring of ferrying people across the loch. Thank you very much. This thanks should be extended to the twenty-four people, without whom the Expedition would have been very foolish. Forgive my threats of ‘strop’, and accept my gratitude for working and laughing so hard.

It is, of course, vital to remember all the many people who gave such great help in the preparation and organisation of the Expedition. George and Sheila Newhall gave their usual excellent advice and hospitality, and we must thank them very sincerely. Similarly, the postmaster and his family at Islivig for their hospitality and help; Neil Morrison and the *Vanguard* crew for their help, brute strength and patience; Mr Buchanan of Mangersta for allowing us to use the croft; and the many people on the island who helped to make the Expedition possible. Also to the S.H.S. 'behind-the-scenes' crew, and to David and Liz in Durham for their encouragement. All that is left is to say, Thanks.

- ALAN HOWARD

ARCHAEOLOGY ON LEWIS

Inevitably, much would have been gained had the Report for 1969 been available before the 1970 Expedition set off. As it was, instead of following up previous work, we attempted to survey the Land Utilisation of the Aird Bheag area, and excavated a good example of a lazy bed to the east of the croft. As was feared, the waterlogged peat and prevented stratification of fines, and there was no sign even of a buried turf level, which at least would have been apparent in other soil horizons. However, the excavation was of some use as the water table was reached at 29 inches from the surface, and the de-composition of the parent rock at this depth was observed and photographed. Those who dug the 'urban facility' pits confirmed the water-level at this depth.

It seems, with due respect to others who have excavated the Aird Bheag site, that we will have to show great care in the future, and plan excavations more systematically. A specialist archaeologist might be asked to provide a master plan for a number of years' work. Much the same can be said for the beehive huts. One was found more or less intact in a very remote area between Loch Resort and Gisla, and another nearby was partially disintegrated, showing the method of construction using corbelled flat stones. These sites could be very usefully examined, but I think it would be irresponsible to do so without expert attention first. Photographs should, I hope, be available of the huts described before too long.

- ROGER WEATHERLEY

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SOME IMPRESSIONS FROM A 'NEW BOY'

It is difficult to condense a couple of weeks into a few words; for one thing many of the really important experiences cannot be expressed in words. To those who have never visited Aird Bheag how can one express the feeling of isolation - the fact that apart from the Gamekeeper we were alone in over 50 miles of wilderness? The evening discussions too were on the same elusive plane - one remembers the hiss of the Tillies, the soporific heat of the 'Dining-room' in the croft .... but verbally we must resort to clichés and call it "Camp Spirit", for mere words are too clumsy.

For me, this was my first experience of an S.H.S. Expedition. What impressed me most was the attitude of all taking part. Although we cannot pretend that the group projects were energetically pursued, individuals achieved worthwhile research objectives, and the climbing, bivvying and boating excursions were filled with enthusiasts. For my part, the Camp Admin, was made much easier than it might have been by the willingness of the duty sections to bear with Fanny's extravaganzas in the kitchen. On a lighter note, none of us will forget the extraordinary scenes when it was learned the celebrated Fifi from sunny Stornoway would present Tim Bell with his birthday cake. Back pockets yielded combs, and manners were resurrected. Needless to say, the ravaging Fifi was no disappointment.

Finally, a mention of the last dinner before we left the croft.

"Ingenious' and 'Educational' are the words which describe it best - a note to future Lewis gastronomes, however that prunes and freshly-caught crab do no after all, go together, especially on Cream Crackers. Reproduced for posterity is the menu..

The Aird Bheag Mohammedan New Year Memorial Dinner. 1970

(in fond memory of those who died from it last year).

* * * * * *

Fruit Cup

Chopped Apples, Oranges, Mandarin Oranges, Pineapples, Prune juice, Lemon, Lime and Orange cordial etc.

Hors-d'oeuvres* Cheese, Pineapple and Sausages

Consomme' French Onion Soup

Fish The Dreaded Crabben und Prunen (for men)

Pasta Entree Beef Risotto with Spaghetti, Macaroni and Tomatoes

Joint Steak and Kidney Pudding, Pommes Hebrideanne, Peas, Carrots

Curry with Rice

(upon the insistence of our worthy Leader (Sir) who alone knows what went into this dish, since the curry powder had previously been appropriated by elements unknown)

Dessert

'Fifi-Pops' - speciality of the House: Rice Krispies, Drinking Chocolate, Rum Fudge, Mandarin Oranges

Cheese Board (self-propelled)

Coffee

* * *

*An O.B.E. was awarded to the Officer who carefully prepared the match-sticks for this dish)

- ROGER WEATHERLEY

CLIMBING ON LEWIS 1970

It was obvious from the start that there was tremendous enthusiasm for climbing in the Expedition, and that large numbers of the boys wanted to do at least some climbing. The effect was somewhat overpowering, but with four out of the six officers able to climb, the prospect was not as bleak as it might have been. Also, there were plenty of short climbs immediately above the camp-site.

The climbing gear was eventually found, after much frustration and some premature disgust, and the climbing began almost immediately. During the next few days the other officers and myself forced our way up a copious number of climbs, all of which were short and most fairly easy, although I found myself, more than once, trying to maintain an air of calm whilst hanging on by my fingernails and quaking with fear, only to see the beginners on the other end of the rope run up in half the time I took.

Eventually, when the glut of initial enthusiasm had been satisfied, we turned to something a little more serious, and John Marchment and I led a two-day bivvy to Teinnasval. We pitched the tent under the cliffs of Teinnasval on the first evening, and looked forward to a long day's climbing the next day. We should have known better than to make such plans! The day dawned dull and cold with persistent drizzle. Despite this, we set off at about 11 o'clock to the bottom of the buttress. However, having taken two hours over three fairly easy pitches, most of which I spent stuck under a minor torrent, we came down. I have since seen a report of a v.diff. climb on Teinnasval in the S.M.C. guide-book. If this could be found, it would be ideal for keener climbers on future Expeditions.

In contrast, a second bivvy to Loch Tamana was more productive. This was a so-called canoeing bivvy, generally meant for doing little more exhausting than sitting in the sun. However there was a very impressive cliff near Loch Tamana visible from Aird Bheag, and so I took a rope just in case. On closer inspection it turned out to be even more impressive. Initially the rock must have been almost vertical, but at some time, a massive chunk has broken away from the centre of the cliff, leaving it concave, i.e. overhanging, in most parts. In addition, the rest of the cliff looked as though it was about to follow and most of the holds were of a temporary nature.

After several abortive attempts to climb on this loose, overhanging rock, we found a relatively easy but very interesting route.

We started up the easy, angled rock below the depression, and continued by crawling through a gap formed by a big flake which had become detached from the main rock. This brought us out on top of the flake, about 15 ft. below the top of the cliff. The third part was the crux of the climb, the rock being vertical but for once secure.
Generally, then, the climbing was not of a very serious nature, although there were some moments of anxiety. A large number of boys did at least some climbing, all of which was very enjoyable.

ROGER EVANS

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FLY FISHING IN THE LAND LOCHS OF LEWIS

There were two lochs within a reasonable distance of the camp: one was Loch Grunavat and the other Loch Bodovat. The fishing was very expensive in that I lost about 12 shillings' worth of flies.
There is no need to have any specialised equipment apart from flies and nylon. The fish in Loch Bodovat are larger than those in Loch Grunavat. All the fish caught were brown trout, and twelve fish, of which four were over 1/2lb.

-STEPHEN GIBBINS

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SEA-SHORE ECOLOGY

The loch wasn't the ideal place for sea-shore work as the tide didn't go out far enough. However, there were three suitable sites, and I found three species not found on Rhum last year:

Velvet shore-swimming Crab
Lobster
Brittle Star and Feather Star

The Brittle Stars were on the ropes going down to the lobster-pots. These animals are really brilliant, fine, feathery and light.

- IAN TOPE

THE CLIMBING BIVVY

"How far are we going to walk, John?"

"Only about two miles up the valley; I'm not walking any more!"

So, with these encouraging words, Chris Knight, Roger Evans John Marchment and myself set out on a bivvy which was to be an experience, to say the least.

We were ferried across the loch from Aird Bheag in Soak Bottom by Roger Weatherley and George S.S. after waiting for hours for their return from taking the canoe bivvy's gear.

We reached the other side of the loch and bade farewell to the boat and its crew, and set off. The first mile was fine, but as the trek wore on, backs and calves started aching. We covered about two miles to a plateau, and then stopped for a breather. After a while we continued up over a ridge and down to the camp-site, which turned out to be a soggy bed of moss.

The tents were pitched, the gear unpacked and stowed away, and John and Roger started cooking the meal. All went well until we came to eat it ..

"Where are the spoons, Roger?" "Oh .. well ... er ....'.!"

Evans had boobed. So we ate our soup with digestive biscuits, chunks of bread, cocoa-tin lids, etc. and the rest of the meal with our fingers.

John and Roger went on a recce after tea, Christ went to sleep, while I did the washing-up! At about half-past ten, after scaling the north face of a 5 ft. boulder, we retired too our sleeping bags.

Next morning we set off up the mountain, intending to climb to the top, but when we started the weather was so bad that we were climbing, literally, with our heads in the clouds. Halfway up the second pitch, John and Chris decided to do some mountain shifting, with a giant boulder as their victim. The weather slowly deteriorated until Roger called it a day, and we descended to find John and Chris already drying out. Chris and I raided the Horlicks rations, bread and soup, and numerous bars of chocolate.

There we stayed until 4.0 pm. when we broke camp and headed back for the 'ranch'

- SIMON MANNING

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THE WREN

The Wren population around Aird Bheag was fairly large and most of the birds were of the Hebridean sub-species. Their appearance was similar to those on the mainland in form and size, but like those in Shetland in colour. There is more buff underneath than on the Shetland bird, and the barring is less heavy. I did see one bird which appeared to be of the St.Kilda sub-group, which had possibly reached Lewis by a chance crossing. The St.Kilda wren is larger than the mainland bird, greyer-brown above and paler below. The barring is heavier on the wings and more extensive on the back.

The Wren is thought to be distributed up to about 2000 ft. depending on the climatic and vegetational features, which in turn control the availability of food (dipterus larvae, beetles and other insects). It is likely that the larger number of wrens is due to the minimal number of predators. These predators are probably restricted to the smaller hawks, e.g. kestrels,

The Wrens of the northern isles show an interesting example of evolution: the further north one goes from the Scottish mainland the greater the size of the wren, until in Iceland, the wing span reaches 60 mm.

- MIKE SHARP

THE GROUNDS OF LEWS CASTLE

Lewis Castle lies on the west bank of Stornoway harbour, and is now a technical college. The grounds run for about a mile along the harbour-side, and about half a mile inland. Formerly beech, pine and sycamore plantations, they have been allowed to run wild, and are now used by the public as a park. The most dominant plant in the vegetation must be the wild rhododendron, *R. ponticum*, which forms impenetrable thickets, six to seven feet high and hundreds of yards across. In the more sheltered areas there are specimens of the blue fir, various spruces, the Scots pine and cypresses of the Monterey and Lawson's varieties. On the more exposed hilltops, the Swiss dwarf pine, *Pinus mugho*, forms a thin scrub. Also found in a semi-naturalised state were the giant rhubarb and the evergreen *Escallonia macrantha*, both from South America, and an unidentified form of wild raspberry which grows nearly everywhere.

- TIM BELL

"UP THE EVANS' CRAG"

"Climbing!"

Carelessly I clambered up the first ten feet of rock to the base of a harrow fissure up which I would have to crawl. It vac here, about half an hour earlier, that I had last seen Roger Evans. After his boots had disappeared from view, all that indicated his presence was the frequent avalanche of small stones and the gasps and groans he uttered.

From my perch I could see Roger crouched about thirty feet above me, between two walls of rock. His trunk was silhouetted against the sky, and he resembled one of the boulders that were stuck in the crack.

After receiving a variety of instructions from Roger as to how I should proceed with the climb, I started up the fissure. It was cold. The rock was clammy and crumbled under my touch, slipping noisily down the crack. About halfway up I stopped and rested. My knees and back ached from the strain. I remember thinking that it was like pot-holing backwards. Wriggling on upwards I eventually reached Roger. We exchanged a few comments about the climb whilst I removed the rope from my waist. Crouching close to the edge of the crack I looked over, regarding the seventy feet drop with some horror. The vegetation here was thick and green. Ferns, grasses, toadstools and even a wild rose grew out of the rock. Strangely reminiscent of the hanging gardens of Babylon!

We still had another ten feet or so to climb to the top of the cliff. The rock face was smooth quartz, and to make it worse, was wet. Roger went first and made it look so easy that I grew very envious of his ability. My turn soon came though, and I proceeded to climb. It was hard going, and I was not frightened by the height - I was petrified'. It was a great relief to climb over the heather-covered lip and lie horizontally at last.

If it had not been for Roger's encouraging words I don't think I would have made it. I called the climb Evans' Crag after Roger. He found it, recorded it, and was the first to climb it

-MIKE GRIFFIN

* * *

NORTH UIST EXPEDITION 1970

Leader: Phil Renold

Camp Administrator: Peter Smith

Officers: Robin Dance, Alan Evison, John Houghton, John Nash, Peter Tatham, David Vale.

Boys: Rupert Abel, Peter Barnes, Rupert Bates, Peter Beresford, Antony Berry, Fraser Black, Ant Bowden, Michael Clarke, Nick David, Jonathan Fairhurst, Michael Gallant, Jeremy Goff, Phil Gray, Ian Hitchmough, Nick Johnson, Stephen Kane, Andrew Lambert, Kwok Li, Jon Morgan, Rob Musgrave, Bill Payne, Roderick Peers, Richard Ritter, Dickon Sandbach, Michael Strachan, David Stredder, Michael Wilkie, Andrew Wordsworth.

LEADER'S REPORT

For the first time the S.H.S. visited North Uist, quite a change for those who had been on that 'holiday camp' island of Colonsay in 1969. The island is one incredible mass of bog and loch with a very prominent rock ridge on the east coast, and is surrounded by numerous causeways, strands and small islands. Thus it was natural that boats played a most important role on the Expedition.

When we put that much maligned vessel the *Rock Bottom* into the water at Kallin my hopes were dashed for, as in past years, she leaked like the proverbial sieve. Luckily we had arranged, with Ewen Nicholson and Dougal, to take the equipment on the three-mile trip to the site so we were not stuck for transport. In addition to this most valuable service Dougal also promised to do what he could to the R.B., and it was after only four days and much hard work that he delivered her. Wonder of wonders, she hardly leaked at all! Since the outboard was in perfect working order she was used throughout the Expedition not only to collect bread and mail but also to transport bivvy parties all over the east coast. The longest trip was to Lochmaddy and back, a distance of 25 miles in a day. Without her we would have had to limit our activities very severely.

However, as reported elsewhere, it was not all roses with the Bottom. If I have a few grey hairs today they appeared on one or other of the two occasions on which John H got lost in her. I hasten to add that neither were his fault, being due to very bad weather on the first occasion and to a very strong tide race on the second. However, search parties were mobilised and sent out before he returned very late on both occasions.

In addition to the R.B. we had a small boat, kindly lent by the estate which was used for ornithological and fishing trips. and to complete the Eaval fleet two double canoes which were kept on Loch Obisary and used, on most days, for pottering around, and also on one bivvy to the head of Loch Eport.

The site itself was situated on the coast south-west of the summit of the highest point on the island, Eaval (1139 ft. pronounced Ay-Val) at a cottage of the same name. We used the cottage, which had four rooms, for cooking, eating, drying clothes, storing food and equipment and for project work as well as a focal point for the Expedition. We slept in small two-man tents, each section of six boys using three tents, most of the officers having a tent each. The advantages of having a cottage were obvious when everybody and everything got soaked in the continually poor weather which we had to endure. We only had two or three days of good weather in the entire fortnight, and a couple which were described by the islanders as being as bad as anything they could expect in the depths of winter. In this respect, however, we were blessed with still dry conditions for both our arrival and departure.

Apart from canoeing and boating the most important single event was undoubtedly a project which has never been tried before on a large scale on an expedition. Guided by Robin and Alan most expedition members were persuaded to try their hand at drawing, painting or rubbing the most unlikely objects. No special lessons were given and it was left very much up to the individual to 'do his own thing'. The results were remarkably good, and thanks to Robins' efforts the projects room became an ever-changing gallery where we could admire and criticise each other's works. At the end of the Expedition a number of small prizes were awarded to those who had shown most interest and consistency. Also presented was the Ponders End Lavatorial Prize for Graffiti. The recipient must remain anonymous to save his blushes!

During the course of the Expedition everybody went on at least one of the seven bivouacs. Some were more cushy than others owing to wildly variable weather conditions and energy of the officers leading them, but all were enjoyed if for no other reason than the escape from the main camp. Most notable were the first one to the Lees which entailed an extra night out for some of its members on a diet of a tin of sausages and rum fudge, and the two to Baleshare and especially the trip to see the dig at Udal, fifteen miles distant, as the fish swims.

Alan's archaeological project was another success due largely to his enormous store of enthusiasm and a vivid imagination which not only sustained his labourers but also the 'barp hunters' on their long return trip from Langass after they had failed to meet up with C.P.O. Houghton. We would like to thank Mr Norman Johnson for lending us his copy of that invaluable tome by the redoubtable Erskine Beveridge without which we might never have found many of the ancient monuments with which North Uist is so richly endowed.

One thing which the site lacked was a readily accessible place to rock climb. The nearest was on the shoulder of Eaval at a height of 800 ft. and a mile-and-a-half distant. However, Peter Tatham and Peter Smith managed to take nearly everybody out at least once. A trip was made to Ronay where the possibilities of Craig Mor were investigated. It was found to be of a much too high standard for novices but might be of interest to anyone willing to 'develop1 it.

Dave carried out a rather ill-fated project on plankton.

Either he could not tie knots or else the string broke but after losing his carefully-constructed net as it was towed behind the R.B. he showed a greater preference for Egyptian P.T.'. However, since he also looked after the canoeing and took a couple of bivvies I really cannot complain too much.

For fishing enthusiasts the attractions of the site were obvious. On the one side was the sea; on the other were myriad lochs containing the most succulent brown trout, a number of which were caught. Attempts were also made to catch the salmon and sea trout with which Obisary abounded.

John N, making almost his first trip north of Stamford Bridge, bore the heavy burden of any Chelsea supporter with great courage and managed to assist in nearly all of the activities. I hope that he enjoyed his baptism by rain in the Hebrides. Last, but by no means least amongst the officers, was that great feeder of men, Peter S; his most notable achievement being the "officer's chat', a nightly event when all the officers made a pilgrimage to the kitchen to eat cheese and chutney butties in peace and quiet. However, his efforts would have been in vain but for the really excellent food provided by John Hutchison.

Talking of food, it is worthy of note that one evening, after a supper of macaroni and steamed pudding, all the boys accompanied by Peter T and Alan, ran up Eaval and back. Peter did the three miles and 1100 ft. of ascent and descent in thirty minutes dead! And the boys were not far behind.

Having said all this I must be honest and add that the Expedition was not an unqualified success. Whilst the site was a very good one in some respects it lacked a large scope for different activities. To the east was Eaval which everybody climbed at least once. To the west was an almost impenetrable maze of bogs and lochs. It was a very uninteresting walk of ten miles to the west coast. With a sailing boat equipped with an outboard in addition to the R B. and another two canoes the site could prove to be very good for a junior expedition. The situation itself is superb and is remote yet only half-an-hour boat trip across very well-sheltered waters to the landing on Grimsay. Another expedition might prove even more successful now that the exploration has been done and the snags ironed out.

The second reason for calling the Expedition only a qualified success is that we lacked that elusive thing called 'Expedition Spirit'. Whether this was due to the small tents making us less of a single unit or because we had an almost total lack of musicians to lead the traditional evening sing-songs I do not know. Whatever it was the Expedition never quite achieved true cohesion.

In conclusion, I should like to thank Lord Granville for letting us use the site. Especially I should like to thank Ewen Nicholson for letting us use the croft and for all his help and advice on a multitude of matters. We met so many islanders who were so very friendly and hospitable that it would be impossible to name them all. I hope that we shall return to see you all again soon.

-PHIL RENOLD

* * *

WHERE DID WE SLEEP ON OUR BIVVY?

We set out for Baleshare on a clear, warm Wednesday morning.

"It will be a fine day for a walk, don't you think?" I remarked cheerfully to Alan.

"Yes, by the look of things it will, but the weather can change pretty quickly up here," warned Alan, as we set off across the heather with Pete and David.

I laughed to myself at the thought that it could possibly rain but I soon found out that I was mistaken: About an hours' walk later it clouded over and started to rain and blow and in a few moments we had to get out our waterproofs.

We had our lunch at the Carinish Inn at about one o'clock

(their time) and were soon dragging on our way to Baleshare in the pouring rain. We arrived at the Church just after four and went in hoping that no one would mind; we shed our wet things and David and I decided to have a sleep. We got into our sleeping bags and were so tired that we knew no more for a couple of hours.

When Dave's group arrived, having canoed up Loch Eport, we were told that we could not sleep in the Church, which I suppose was not surprising, but the schoolmistress kindly let us use the classroom and we were soon warm and dry.

We had a most delicious meal of stew and cold rice pudding. We finally got to bed about 12.15 (our time) and slept through until 9.0 next morning in spite of the noise of the storm.

We were unable to canoe from Loch Eport as there was a gale-force wind still blowing so we decided to walk back to camp via Obisary. Luckily, we were shown a short cut which saved us almost two hours' trudge.

When we got back we found Dickon, of Dave's group, had suffered from exposure but was recovering in the cottage.

To sum up: it was not the driest of bivvies but thanks to the schoolmistress it was not too bad.

- RICHARD RITTER

SECTION ONE'S TRAGEDY

Alan opened the zip of our tent and said "Time to get up." Kwok and I stayed in our sleeping bags for another five minutes and then got up. Outside the tent I had placed a large flat stone so that we could stand on it in order to put our shoes on. Since the sun was shining on this particular morning I assumed that it was dry and stepped out in my stockinged feet. As I was putting my left boot on I could feel the water seeping through the sock in my right foot. A heavy dew had fallen that night! I told Kwok not to stand on the stone (a likely story - P.N.R.)

Eventually I decided to go about with no shoes on and after having had a quick wash I walked into the kitchen to find the rest of the section already there and preparing the breakfast. However, we had a problem because we had two dixies containing milky water, both of which were simmering away merrily. One had salt in it and the other none since they were for the porridge and the coffee respectively, but we did not know which was which. (Perhaps tasting might have helped you thick bunch - P.N.R.)

We took a vote on which was the one for the coffee and the one on the right won by six votes to three. As we were putting the porridge in Peter Smith came in and burst out laughing. "You blundering idiots! That's the coffee one!" Too late, the damage was done.

Alan asked somebody to go and wake the rest of the expedition and they all ate their breakfast and drank the coffee quite happily although some did notice a curious taste to the latter although they could not quite place it. Everyone said that it was a good breakfast - little did they know!

Lunch and supper are INDESCRIBABLE'.'.!

- RUPERT BATES

* * * * *

'A PICTURE SPEAKS A THOUSAND WORDS'

This year on North Uist, for the first time on an S.H.S. Expedition, we had a drawing project. My aim with this project was to encourage as many members of the Expedition as possible to draw and paint things seen on the island.

Many drawings were done. The subjects included landscapes, portraits, skulls, ferns, antlers, Eaval, heather stalks, hurricane lamps, hinges, water, seaweed and lichen - to name but a few. Drawings were made in charcoal conte (a soft, black crayon).

The results were mixed and it was interesting to compare drawings of the same subject as done by different boys and also the differing subjects which boys chose.

Many 'rubbings' were done (just like brass rubbings).

Almost everything in the cottage was "rubbed" at some time but unfortunately we did not pursue this far enough to produce any finished pictures.

I am hoping that this type of project will be done again on future expeditions since there is *a* tremendous scope in the Hebrides for anyone keen on drawing and painting. Personally, I think that it is an excellent way of exploring the islands and, of course, one has something to take home.

A selection of the work done will be on display at the Conference.

- ROBIN DANCE

* * * *

GULL

Boomerang wings pull gull round in white curve,
Silently strumming in the storm like a thousand dumb wires.
The gull falls from the heavens,
Its body vibrating with the ecstatic shriek of prophet of old;
Steadies,
Then is lifted upwards,
Borne on a breath of holiness,
Drifting up to Paradise,
Pausing,
For one moment,
To utter a Parthian prophecy,
Of the prospects of peace and prosperity.
But we deafen our ears Against the gale. Against the gull.

- ANDREW WORDSWORTH

WATER-COLOURING

Sitting blue-veined with brushes
In a seaweed clump
We are dealing with mist.

The open-mouthed sea is calm and awful,
Its sand is mist-coloured and yielding.

This place has been forgotten by men .
In the midst of its sweepings
We see it still-mistily

And we have walked over two-dimensional dunes
To where the dry-brush hollowings
Of archaeologists
Reveal
Stone-chocked houses stacked downwards
Four thousand years together in the sand.

And they told us all they knew
Among the sedimentary broken pots
Of learned sand

When life was here and when it left and when...
But always the elemental cries of circling birds
Mocked the articulation of their words

So we are blankly water-colouring
In the mist together
At Sollas
In thirty-second washes. - ALAN EVISON

EXPEDITION EXPOSITION

Left at night from Euston station,
Parents wave commiseration,
Boys depart in relaxation,
Sleeping-car accommodation.

Meet up with Phil on Glasgow station,
He can lead this combination
Using B.E.A. (viation),
To North Uist - our destination.

Camp is pitched midst acclamation,
Of its pleasant situation.
Three long miles from civilisation
Give us splendid isolation.

Philip is our inspiration,
Leads us through great tribulation.
Enduring constant irritation
From the Camp Administration.

John Houghton causes consternation
With errors in his navigation.
He fails to keep an assignation,
And searchers leave in trepidation.

Alan starts an excavation,
A most adventurous innovation,
Entailing great perambulation
To monuments of reputation.

Dave is best at lichenation,
There's scope for his imagination.
It gives us all some recreation.
Collecting varied vegetation.

Too soon the end, the culmination
Of all our plans and preparation,
And everyone starts speculation –
Which Expedition next vacation ?

-PFS

* * *

ARCHAEQLOGY

Brief reconaissance in April with the aid of Erskine Beveridge's 'slim' volume *(NORTH UIST: Its Archaeology and Topography.* One edition of three hundred and fifteen copies printed; leather-bound; over four hundred pages) revealed that North Uist was rich in antiquities. Even the thorough going Mr Beveridge himself emphasised that his survey was by no means exhaustive (if very exhausting!).

The project fell naturally into two parts: first, the partial excavation of two relatively recently occupied dwellings situated close to Eaval; and secondly, a survey of the different classes of antiquities scattered throughout the island.

The excavation of a croft a mile north-west of the cottage took up two days. The first day's digging partially uncovered a drainage channel which ran along the inside of the east wall past the doorway and disappeared under the massive south wall. It appeared to run the length of the croft and further digging revealed that its function was to channel a small underground stream which came in at the north-west corner. The second day's digging gradually made it evident that the croft did not have a stone floor except for some small stones laid crazy-paving style in a few places, and also that it had been occupied more recently than had been originally supposed, as finds of broken china and a flat iron pointed out. We were later told that its last occupant left only forty-five years ago.

The only other attempted excavation was north of the cottage on the west face of Eaval, where some unusual structures had been seen by various parties walking near there. These were three very small croft-shaped dwellings built upon massive stone mounds. Our opinion (later confirmed by that of Erskine Beveridge) was that they were relatively modern shielings (summer dwellings) built on top of prehistoric tumuli.

The second, and more fruitful, part of the project was the survey of antiquities. To many members of the Expedition this meant only one word - barps. This unusual class of monuments was North Uist's greatest archaeological attraction (and amusement, under the instigation of our hopelessly uncultured Camp Administrator. - *libel Ed.)* Barps are basically massive chambered cairns constructed about three and a half thousand years ago as both tombs and monuments to the memory of great chieftains. (The word 'barp' derives from Norse and related to the Saxon deviation 'barrow' or long cairn of which there are examples in Yorkshire and elsewhere).

We visited two barps -Caravat and Langass - whose only important similarity was in their massiveness. Caravat Barp was of the Long Cairn variety and roughly arrowhead-shaped with an oval graveyard in front of the entrance to its chamber (now dilapidated). It measured about forty yards long and twenty yards at its widest by fifteen feet high.

Langass Barp, the most impressive and best-preserved of all the monuments visited, was reached only by a hard walk of twenty miles (half of which was unscheduled since the combination of *Rock Bottom* and Petty Officer Houghton proved, once again, fatal!). It was a circular mound of stones approximately fifty feet in diameter by twenty feet in height with an opening on its eastern face leading in to a burial chamber four feet high at its entrance and seven-and-a-half feet high at its western end by a width of about eight feet. The roof of the chamber was made up of two massive slabs about a foot thick which rested both upon slabs set on end and on smaller stones piled up on their flat surfaces. Where the floor was not covered by fallen stones there was evidence in the peat of many scattered cremations probably dating back to the Bronze Age.

The day's walk to Langass was particularly rewarding in that we saw almost every type of prehistoric monument which the island contained. We first saw Dun-Ban in Loch Caravat. The duns, which are scattered all over the Western Isles and in particular profusion in the Lochs of North Uist, are circular fortifications built around the turn of the millennium most probably as protection for the islanders against seafaring raiders from the North. However, little is known of them for sure, in spite of their numbers, and the origins of their high-walled circular design (Carloway in Lewis is the best example in the Hebrides) are mysterious. Although there are none in good condition on North Uist they appear to have had extremely thick walls at their bases, containing guardrooms and probably staircases leading to whatever forms of battlements they may have had. They were usually completely self contained units with wells in the middle, and space for livestock in case of siege.

Moving on to Craonaval we saw two Neolithic chambered cairns of a fairly crude type of construction. Both appear to have had an entrance passage of triangular shape (i.e. without horizontal roofing stones) and a chamber formed by one very large slab placed on piles of smaller stones at its edges.

On the south face of Craonaval we saw the largest megalith

I had come across in the Outer Hebrides. It was called 'Fingal's Lift', or literally 'Fingal's Armful', and measured over twenty-three feet long by an average width of three-and-a-half feet, and thickness of thirty inches. The legend goes that it was lifted by Fingal, which is incontrovertibly proved on its eastern edge by the imprint of his thumb measuring twelve inches long by four inches wide! It appears to have been some sort of giant's tomb since the top of a small surrounding wall is visible at its edges.

On the same day we also saw two stone circles: 'Sornach Coir Fhin' on Ben Langass, and 'Sornach a Phobuill" on Craonaval. The former was oval-shaped with a large ceremonial stone at its eastern end, while the latter was circular and made up of unusually closely-spaced small standing stones.

Except for the duns, all these monuments are Neolithic (late Stone Age) or Bronze Age and have one overriding feature in common: all are built for the dead. (The function of stone circles is not certain although they are often assumed to incorporate graveyards) This suggests that their religion was chiefly one of ancestor worship (possibly tied in with sun worship as the standing stones of Callanish would seem to point to). It also seems significant that almost all these monuments command wide, if not spectacular, views. However, I am not sure what can be deduced from this with any certainty.

However, perhaps the most interesting place visited in the fortnight was Udal, near Sollas, on the north coast of the island. There, Ian Crawford of Cambridge University has been directing a dig since 1963 on a site in the dunes that has been occupied and developed for over four thousand years.

A visitor to Udal needs to have the site explained to him by a guide because the work, having dramatically enlarged its horizons within the last two years, is still in its early stages. There is apparently at least twenty years' work ahead on the two hills undergoing excavation as well as on another hill, as yet unexcavated, known to contain a Bronze Age settlement .

What makes the site of international significance is that, like Jarlshof in Shetland, it incorporates within about one hundred square yards continuous settlement over a period of four thousand years - and in the sort of sandy ground which preserves materials, as the prevailing blanket peat of the island does not.

To conclude, North Uist, though not containing <u>all</u> the most spectacular monuments that the

Outer Isles offer, is possibly the richest and most rewarding island in the Outer Hebrides for an amateur archaeologist for a number of reasons: first, one is not quite stepping into the unknown - Erskine Beveridge has done the pioneering! Secondly, the island is not as large nor the monuments as inaccessible as, for instance, those in Lewis where Callanish and Carloway are both on the remote north-west coast. Thirdly, as Udal shows most forcefully, the island has been extensively developed throughout the ages and has a high concentration of differing varieties of monuments. And finally, of course, North Uist has barps'.!!

- ALAN EVISON

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A SIMPLE LESSON IN BOAT BREAKING AND GETTING STUCK IN LOCHS WHEN THE TIDE IS COMING IN

It was a fateful day when I volunteered to accompany Chief Petty Officer Houghton on a seemingly harmless trip from Eaval (cottage) to Langass Barp, by boat, to collect Alan's party of intrepid barp-hunters.

We collected seven or eight life-jackets and set out for the landing place. On arrival we found *Rook Bottom* full of water (mostly rain) and just as I was about to climb aboard to bale her out I heard an almighty rumble, then a crunch, followed by a splash! No, it was not John falling in (shame). It was something far less helpful. The barrel which had been deftly balanced for perhaps fifty years on the shore for the purpose of mooring boats had fallen onto the boat moored alongside *Rock Bottom.* John went for Phil whilst I surveyed the wreckage and baled out the S.B.

We left Phil to sort it out while we set out for Langass. The journey over was fairly uneventful except for the engine running out of fuel in the middle of the Minch and a few wrong turnings in Loch Eport, and we arrived without difficulty only to find that there were no barp-hunters waiting. He stayed for a bit and then assumed that they had walked back and set off for home. However, the tide had other ideas as we could not get out against the tide race in the entrance to Loch Langass. After two good tries we rested on an island and explored our first-aid kits for the emergency rations which were, of course, missing. After a bit we made for the nearest cottage where we were asked in and given tea. After some time had elapsed we re-emerged feeling much fuller and fitter and had another try. We failed; but succeeded a second time and made for the cottage at Eaval.

When we finally got back at 12.30 am. it was very dark and search parties had been sent out. Peter Smith's had to be recovered from the far-side of Eaval mountain. Upon their return we gave them the hot coffee prepared by them for us and retired to get as much sleep as the duty section would allow us.

- STEPHEN KANE

* * *

HONDERFUL MEMORIES

What a fantastic Expedition - and what a great holiday! I enjoyed every moment of it. Well ... almost every moment; there were one or two exceptions.
I had just had a marvellous swim, draped the towel around me and sat down to admire the view - but not for long. Suddenly I leapt up in agony and on inspection found my backside alive with ants!
Then, next day, on Ronay in the canoe, just as we were leaving the shore, someone yelled "Throw me out my jersey!" and ever helpful, I heaved it out - and myself with it!
You know what it feels like to spend the whole day in sopping wet jersey and jeans??
However, now that I have dug out the last of the sheep ticks, I am able to look back on the Expedition with the greatest of pleasure.

-FRASER BLACK

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BARP-HUNTING ON BEN LANGASS

"... well, I want to take a party Barp-hunting." That was Alan Evison one evening during cocoa-time, when we were discussing what we should do the following day.
Barp-hunting was the latest craze.
A barp - according to Alan, our eminent archaeologist, is an ancient Tumulus. No one was any wiser after that! In fact it is an old cremation place which the early Scots used in the first Century, either A.D. or B.C. Alan wasn't quite sure which - "but a long time ago, anyway."
However, to get back to that fateful evening by Eaval, when Alan had said that he wanted to go to Langass Barp.

"Oh, yes," said Phil, eager to show off his brilliant(?) seamanship, "I'll take you there in *Rock Bottom.* Then when you have had a good look round I'll come and collect you at about teatime." It all seemed so easy.

However, dark deeds were forthcoming, and plot* were hatched. For instance . "When are you going to take us on our bivvy, Phil?" asked John Nash very innocently.

"Oh, yes," said Phil, "I'm sorry, Alan, do you mind walking to Langass Barp because I've got to take John on a bivvy in *Rock Bottom* in the morning? I'll pick you up in the evening though."

We agreed that as we would only have had to walk one mile if we had gone both ways in *Rock Bottom,* we would take a little exercise and walk one way and come back by boat. Next morning, armed only with Erskine and a map, we set out.

After a good walk we arrived at the head of Loch Eport, where we started looking for a mysteriously elusive stone circle. After almost an hour's searching we gave up, and walked round the head of the loch to the Barp itself. Halfway up Ben Langass we found it - a huge pile of stones about 130 feet in diameter, with a smallish opening on the north side. This small opening drew us like a magnet, as the rain which had started at the beginning of our search was now torrential, and the interior of the Barp was 'bone' dry. We sat down and Alan read aloud to us all what Erskine had to say about the Barp. I mentioned before that it was "bone" dry - this was literally true, as the floor was a mixture of peat and burnt bones.

We spent about an hour-and-a-half inside the Barp, and then walked down to another stone circle by the loch, and then on to the place where we were supposed to meet *Rock Bottom,* Half-an-hour later we started walking back again! John Houghton had brought *Rock Bottom* and somehow he had managed to get into the wrong loch. He was stuck there by the tide for 31/2 hours. Fortunately he got back to the camp safely - though not before search parties had been out looking for him.

There was a consolation to our having to walk back – we found the Stone Circle which had eluded us all morning!

- PETER BARNES

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MIDSUMMER MADNESS

"All the boys from the camp at Eaval have started to run up the mountain - and for why?" Roving-reporter Robert Fifeson was amazed to see clean-limbed young gentlemen and a barefooted officer desporting themselves in astounding fashion on the slopes of Ben Eaval - haunt of the golden eagle and J. Houghton Searchers Ltd.

"What caused this run?" he asked the leader of the Expedition, gay, debonair, 21-year-old Philip Renold. Shy, retiring, 25-year-old Renold, surrounded by the glare of publicity, broke down under interrogation and admitted that he had sent the boys up the mountain at the point of a loaded steam pudding. Renold, a swinging 28-year-old bachelor, went on to explain that the boys showed an excess of energy that even a dinner of macaroni and steamed pudding had failed to dissipate and he thought they could best dispose of this unusual energy on the gentle slopes of the 1100 foot hill.

"I suppose it was a bit hard of me telling them to go," said 32-year-old Renold (a man with real cool), 'but I just wanted a bit of peace, you know how it is ..." Fifeson smiled sympathetically but pressed the 37-year-old trend-setter, leading his first expedition, for more details of the exodus. "I have a rather large bee in my bonnet about Mountain Safety," said tubby 41-year-old Renold, grimacing apologetically, "and I thought I'd see whether all those marvellous rescue techniques actually worked! As it was, Peter (Rubber Lungs) Tatham covered the course to the summit and back in thirty minutes, which is two hours less than it took me yesterday when I went by stretcher. Perhaps walking is quicker after all."

And so, as the boys straggle back into camp after their momentous climb, Robert Fifeson leaves you with a final question, "And for why?"

- PETER SMITH

* * *

ULVA EXPEDITION 1970

Leader: Alan Fowler

Officers: Paul Caffery, Peter Carlile, Tim Webster, Chrt. Hood Jonathon Orr, John Round.

Boys:- Richard Friend, Michael Ruffle, Anthony Johnson, Timothy Thomson, Charles Runacres, Jeremy Turff, Martin Turff, Colin Hyland, Nicholas Cust, Graham Ralph, Peter Thomas, John Adams, Nigel Parker, Peter Sadler, John Parrett, Alan Beaney, Timothy Jeans, Gregory Watson.

LEADER'S REPORT

Eeyore came with us to Ulva - between the pages of a book, of course. In spite of this, I can imagine him describing the Expedition to Piglet as if he had been there, commenting in his melancholy way:

"Not that there wasn't any sunshine and here-we-go-round-the-marquee, mind you; but it was quite damp in some people's tents around ten o'clock in the evening. In fact, quite between us and the tent-post, little piglet, it was WET."

But this, of course, is not the whole story. To be sure, we endured a depressing two days at the beginning and end of the Expedition, confined by hours of heavy rain and dripping, clapping canvas, but during the intervening heatwave (coinciding with the visit of Hugh Williams, whose sun-magic is more powerful than my rain-sorcery, it seems) we walked and climbed and sailed and surveyed and rested with energy rarely found in more southerly latitudes. Perhaps there was a sense of the uniqueness of the opportunity, for we were allowed to camp and to explore on the very private island of Ulva, as a result of dire emergency within three days of the Expedition's departure, and the generosity of Lady Congleton.

Many and dark were the difficulties that loomed on the horizon, but thanks to Jonathon's epic first ascent of the marquee pole to rig the storm guys, and Paul's second ascent to get the nails out; thanks to John and Chris's sortie to re-organise food supplies and to recover the *Vinga;* thanks to Tim's attention to our minor ills ('though I'm not sure how grateful I am for those liver salts, Tim); thanks to the hard work and optimism of the boys; thanks to the patient and good-humoured work done by Paul with the stores, and finally to Pete's unfailing wit and songs, there were no problems that got the better of us.

There is no doubt that much of this would have failed without the support and friendship of Mr McPhail and Hugh McPhail. and the good company of Rose, Emma and Katrina - and, of course, it would not have taken place at all without the hospitality of Lady Congleton.

We did more than exist, however. To some extent, the articles which are included in this Report will show what else took place during the Expedition, but they are a small reflection of the patient and detailed observations made, the hours of sailing, the shaking crises of climbing, the elation of hill-walking, and the quieter moments of swimming, evening canoeing, fishing and drawing. I think we did something of everything we set out to do, and everyone will remember their experiences in their own personal way. At least everyone who was on the Expedition could tell you what happened to the brick with SMITH written on it ... which shows you that we sometimes share memories.

- ALAN FOWLER

CLIMBING ON ULVA

Perhaps the most outstanding feature of the climbing on Ulva this year was that there were no rocks to climb on. Reconnaissance parties went out to search the area and came back with stories of 40 ft. cliffs, but on examination they were either too loose, or the size of the fish that got away. However, a small stretch of sea-cliff was discovered, and a few routes were established. Delicacies, such as Sewerage Chimney are hard to come by on established crags, possibly because climbers aren't too keen on climbing up effluent-ridden fissures to attain their goal. Wet, neck-high ferns on the path down to the climb were hardly encouraging for people wishing to partake of this noble pastime, but nevertheless many brave lads trod the road to glory.

Because of the rather vegetated nature of the rock, it was necessary to garden it. Spades, pickaxes, trowels and a sickle revealed one particularly good route, which was climbed and named as soon as possible.

To make up for the rather poor climbing on Ulva, three parties, led by Jonathon Orr, John Round and myself, did some fine walking and climbing on Mull's Ben More. Ben More is a 3000 ft. peak rising directly up from the sea-shore, with steep, craggy sides. The three parties climbed the mountain from three different sides, repetition only occurring on the descent route.

The most memorable thing about climbing however has been the enthusiasm shown by the boys and their approach to learn new skills.

- PAUL CAFFERY

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ORNITHOLOGY ON ULVA 1970

In an ornithological project, it is very important to define the area which has been studied, and so to separate observations of birds seen in that area from other incidental observations made elsewhere during the Expedition. First, therefore, we require a description of the area and the habitats within it.

Habitat Types

A. Shore

B. Bracken and Grass. Sea-level to 100' including cultivated ground.

C. Deciduous Woodland.

D. Coniferous Woodland.

E. Low Moorland. 100' to 850'. Grass, heather, bracken in valleys.

F. High Moorland. 850' to 1000'. Heather. Rockier than E.

G. Sheltered Sea.

H. Open, exposed Sea.

I. Small Islands and shallow seaweed channels between them.

The main habitat on Ulva is moorland. The distinction between habitats E and F is fairly clear from maps and from an inspection of the island itself; the high moorland being much steeper and rockier than the low moorland, with pronounced differences in vegetation. Despite its large area, the moorland's bird population was small, due to exposure to the weather. However, in the valleys in the low moorland, several species (meadow pipit, chaffinch, wheatear, etc) were present.

The B habitat type is a somewhat arbitrary division between shoreline A and low moorland E. This includes land once under cultivation (lazy beds), but now overgrown with grass and bracken.

The woodland on the island is small in acreage, but contains within it a fair species diversity. Mainly it is deciduous, but some conifers are present in Ulva woods.

The last major habitat division is the sea and the seashore. The shore 'A' was mainly rocky, and so there were few waders. The most heavily-populated sea habitat was 'I' - groups of small islands and reefs, separated by narrow channels full of seaweed. This habitat provided shelter and food in abundance, and many seabirds were observed. It was unfortunately not possible to observe the islands off the south coast very thoroughly.

The difference between the south and north sides of the island was very pronounced: the south, type 'H', was exposed to the Atlantic gales, whilst the north shore bordered the more sheltered waters of Loch Tuath. This factor undoubtedly influenced the distribution of ocean seabirds, and probably the distribution of landbirds on Ulva.

Altogether a total of 48 species were observed. The Collins system of classification divides birds into land, water and waterside species, and using this method the 48 species observed consisted of 58% land species, 27% water species and 15% waterside species. By analysing the species found in each habitat, these figures proved to be 62%, 29% and 9% respectively. So it seems that this method of ecological classification is more accurate than has been thought. It is certainly of more use to the practical ornithologist than the phylogenetic system.

The following factors will influence the bird's choice of habitat:

1. Vegetation (A) availability of nest site and material (B) food - plants, insects etc.

2. Exposure to weather.

3. Intraspecific competition.

4. Interspecific competition.

5. Predation.

6. Influence of man.

The effect of predation on bird distribution in Ulva cannot be gauged from the survey carried out, but due to the absence of most predatory birds, except buzzards, predation is probably a fairly unimportant factor.

However, there are over 2,000 sheep and 100 cattle on Ulva.

The grazing effect of these on vegetation, together with burning of heather and removal of bracken, is probably man's greatest effect on Ulva's wildlife. But Ulva's principal habitats in terms of species variability *(&, c,* G, and I) would not be greatly influenced by these activities. So the remaining four factors mainly determine the bird distribution on Ulva. Of these four, the first two are the most important, and competition is dependant on them. Therefore, the number of species in a given habitat probably represent the effects of weather and vegetation.

The number of species in each habitat are given in the following table:

Habitat Type	B	C	G	I	E	A	D	H	F
No. of Species	20	20	12	12	10	9	9	4	1

From the table it can be seen that H and F, the most exposed habitats, come last on the list. As far as the other habitats are concerned, it seems that the actual environment (availability of food and nesting sites) is more important. 'A' comes low in the list because there are no sandy beaches or mud-flats for waders. Deciduous woodlands contained a far greater variability than coniferous woodland, possibly deciduous woodland provides more cover and variety of nesting sites.

To obtain a more accurate assessment of the variation in actual numbers of different species through different habitats on Ulva, an *Ornithological Transect* was carried out. This was basically a strip census technique in which a transect crossing the various types of habitat was walked over four times during the Expedition. Care was taken to cover the distance between selected points on the transect at the same time on each day, so that the results obtained on each occasion would be comparable. The transect counts were made by recording the numbers of all species seen, and the time at which they were observed. This enabled us to move from rather vague terms such as 'common' and 'rare', to absolute figures indicating the relative abundance of different species in different habitats over a fairly large area.

Our study of the birdlife of Ulva lasted for two weeks, and some tentative conclusions were drawn. However, there is much to do if expeditions return to Ulva in the future. In particular, the south side of the island, with all its adjacent islets, must be explored. The influence of the weather (and the number of observers!) on the number of birds seen, must be assessed.

Only after much more observation could a really accurate species list for Ulva be drawn up. But in carrying out this survey I very much appreciate the help that I had from Chris Hood, Tim Jeans, and all the other budding ornithologists who tramped along the transect. To them I owe my thanks. I, for one, very much enjoyed watching birds on Ulva.

- JOHN ROUND

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(The above is only an extract from the very comprehensive report John has prepared following his observation on Ulva. The full report has been forwarded to Jon Shutes. - Ed.)

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AGRICULTURE OF ULVA

The main crop grown on Ulva is for silage for animal feeds. Cows are kept for milk for the population of Ulva and Gometra, and there is also a herd of beef cattle, amongst which is a champion at the Edinburgh Show. Sheep are kept for their wool, which is sent to Mull for sale. There were 2,500 sheep and lambs on the island. A major problem is the growth of ferns.

All the farm equipment and buildings, and all crops, are on the eastern side of the island, close to Ulva Ferry.

Livestock is as follows:

100 head of cattle (half of this is a pedigree herd of Highland cattle; the other half a pedigree herd of Galloway cattle)

4 Ayrshire cows

2 British Fresians

1,400 breeding ewes

300 one-year-old sheep

40 rams

900 lambs

- ALAN BEANEY

THE. OLIMPET GAMES

(so named after Paul Caffery's golliwog, Limpet)

In the heat of the afternoon, there being nothing else to do, it was decided that we should have some sport. We started with the sprints: two hundred foot along the road. This was followed by the long-distance track events: four hundred foot along the road.

Field events included putting the fairly large stone which, unfortunately, became progressively lighter as pieces broke off every time it was put. It was replaced eventually by throwing the hammer (small tent mallet).

Finally, there was the hurdles: four times round the marquee, leaping over the storm guys.

At the end of the afternoon everyone seemed quite exhausted.

- TIMOTHY THOMPSON

* * *

'PEARL FISHING'

"What do you know about the sea-shore?" asked Pete Carlile. "Nothing," said I, "but I'm interested in shells." "Good. Then go and help Paul find some oysters."

So into the sea I went, slipping on seaweed and tripping over the rocks on the way. Looking in a shallow, sandy patch I found millions of oysters (five to be exact), but Pete and Paul came up with exactly none.

Later, Paul decided it would sound good if we had dived for pearls, so he took one of the oysters out into deeper water and dived for it .... and dived for it .... and dived for it ....

When we opened the remaining oysters on the shore there weren't any pearls in them, only some beautiful mother-of-pearl. So we kept that instead.

- GRAHAM RALPH

* * *

BEN MORE CLIMB

We had a very pleasant journey to Mull in *Vinga,* and, having unloaded all our equipment, we had some lunch on a sandy beach. At about two o'clock we shouldered our packs and set off at a slow but steady pace.

It was a long, hard slog up to our camp for that night, but we had come a good long way and had broken the back of the climb. We had a meal at about six, after which we were all ready for bed. By eight o-'clock our group was in bed, nearly 2,000 feet up. Our intention had been to be up by 3.30 am, but that proved rather optimistic. However, after breakfast of bread and boiled eggs at 5.30, we packed up all our equipment and by seven were on our way. It was a tough climb, and the never-ending scree made matters no easier. We intended to take in a neighbouring peak called A'Chioch, on the way, and as the ascent was quite steep and rocky we roped together after our first rest.

At 8.15 we reached the summit and were able to see the peak of Ben More not half-a-mile distant. It was a shame to have to descend 250 feet, only to have to climb a further 700 feet to reach our goal. However, we traversed the ridge connecting the two peaks, and then climbed the final slope to the summit of Ben More. It proved a difficult and tiring climb over rocks, our 30-40 Ib. packs putting us off balance at every opportunity, but at last we reached the summit, 3,169 feet above sea-level. After a rest and an early lunch, Paul Caffery left a piece of paper in the cairn, signed by us all, and inscribed *'We cane, we saw, but mountaineers never conquer, they only climb. '*

On our descent, we set up a camp 600 feet above sea-level, for the use of the remaining parties who were to climb by an easier route. Finally, we headed for the shore and the *Vinga.*

- TIMOTHY JEANS

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METEOROLOGICAL REPORT - ULVA 1970

The weather-station on Ulva got off to a bad start when it was disclosed, just before the Expedition left, that there were no instruments of any kind to be had. Plans were hurriedly revised, plans for home-made barometers and the like were drawn up, and a simple alcohol thermometer was obtained in Oban.

A makeshift observatory was almost ready for operation when what should we find in one of the black boxes? A hoard of meteorological instruments. Plans were changed again, and by the Tuesday evening after our arrival readings were being taken left, right and centre.

However, this station was to be short lived. On the first Wednesday afternoon it was put out of action by RAIN. There was a violent storm, with winds of up to Force 6 (21 to 35 mph) recorded in camp, which would probably have reached Force 8 or 9 at sea-level. 1.7 inches of rain fell during the storm.

During the length of the Expedition the following recordings were made:

Total Rainfall..... 4.78"

Max. Temperature (Shade) . ... 87°F

Min. Temperature.....48°F

Max. Pressure .....29.97 in/mercury

Min. Pressure .....29.00 in/mercury

Average humidity .....86% (Relative)

Average Temperature .....64°F

- PETER THOMAS

WAITER: WAITER: THERE'S A PIECE OF SEAWEED IN MY SOUP:

Depressed? Tired? Feeling one degree under? Come alive with seaweed! For those of you who care what you eat on Expeditions and try to maintain a healthy diet. Why not, for a change, wake up to the odour of a sizzling, fried seaweed frond with its vitamins A. E. B_1, B_2, and C, together with trace elements Iron, Sulphur, Iodine, Phosphorus, Magnesium and Sodium. Or, if a little more ambitious, roll your seaweed in oatmeal before frying it. After all, vitamins never tasted so good!

As the population explosion continues to use up our supplies of green vegetables, it will become increasingly important to supplement our foods by farming the sea.

On your next Expedition, instead of wasting that shilling on a packet of cabbage or potato seeds at Easter, why not wander on to the seashore and pick the natural harvest? All the species mentioned are fairly common in the Hebrides.

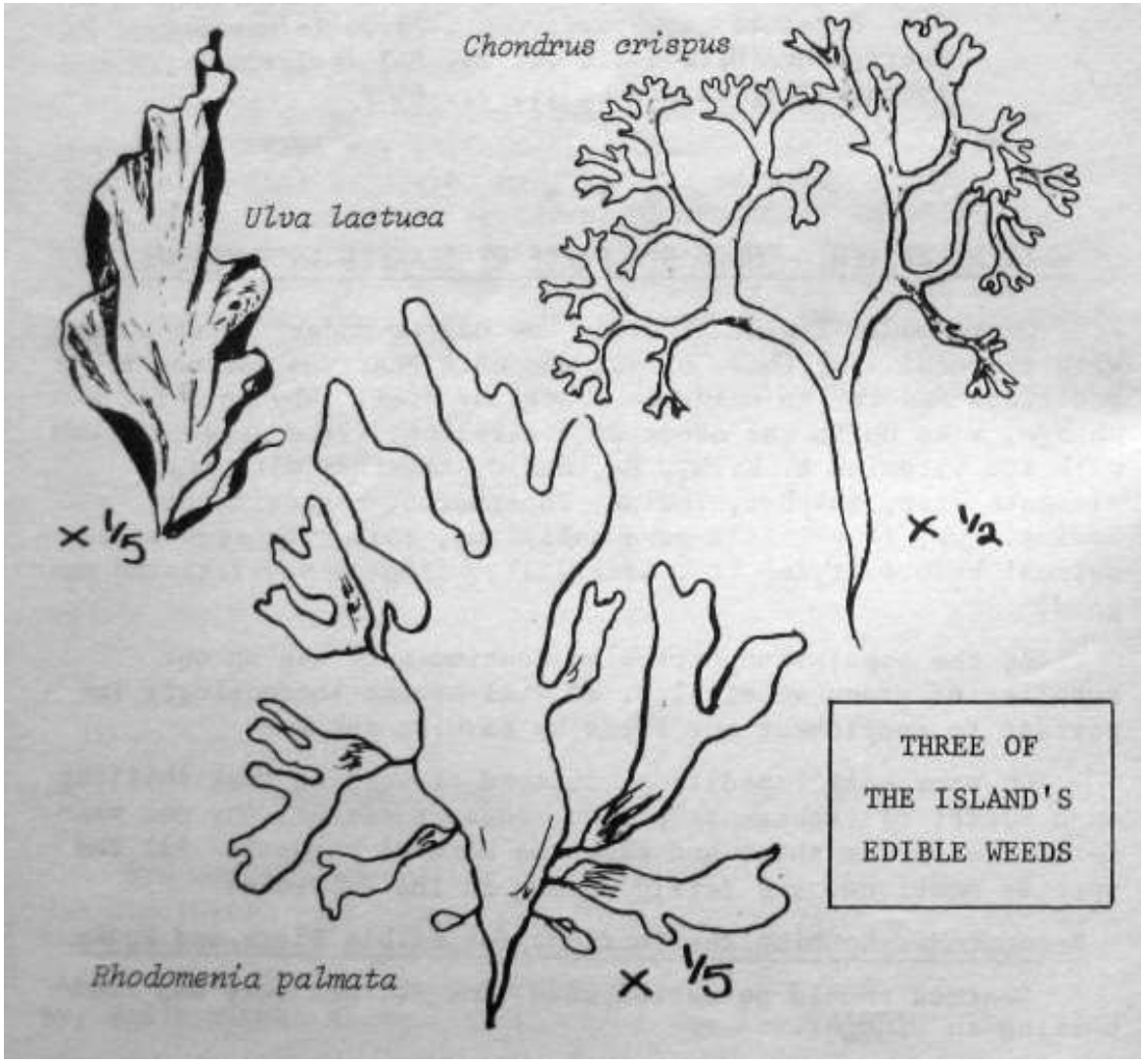
Recommended Cooking Instructions for Edible Flora and Fauna

Seafood should be served with vinegar, and some may need boiling in vinegar.

Ulva laatuaa (Sea lettuce) ... Eat raw or boiled
Rhodomenia palmata (Edible Dulse) Boil and mash thoroughly
Dilsea carPiosa (Dulse)..... Boil and mash thoroughly
Chondrus crispus .....Boil. May be added to jellies
Porphyra imbricates..... Fry with bacon or rolled in oatmeal

Plankton..... Raw or fried. Rather bitter
Homarue vulgaris .... (Lobster) ... Boil
Cancer pegirus ..... (Edible Crab) . Boil
Palaemon elegaris ....(Prawn) ... Boil
Crangon vulgaris .....(Shrimp) ... Boil
Ostrea edulis .....(Oyster) .... Eat raw
Pecten maximus..... (Scallop) . ... Boil
Cafdium edule .....(Cockle)..... Boil
Mytilus edulis .....(Mussel)..... Boil
Littorina littorea .....(Periwinkle) Boil

- PAUL CAFPERY



SOUTH UIST ARCHAEOLOGICAL EXPEDITION 1970

Leader: Geoff David

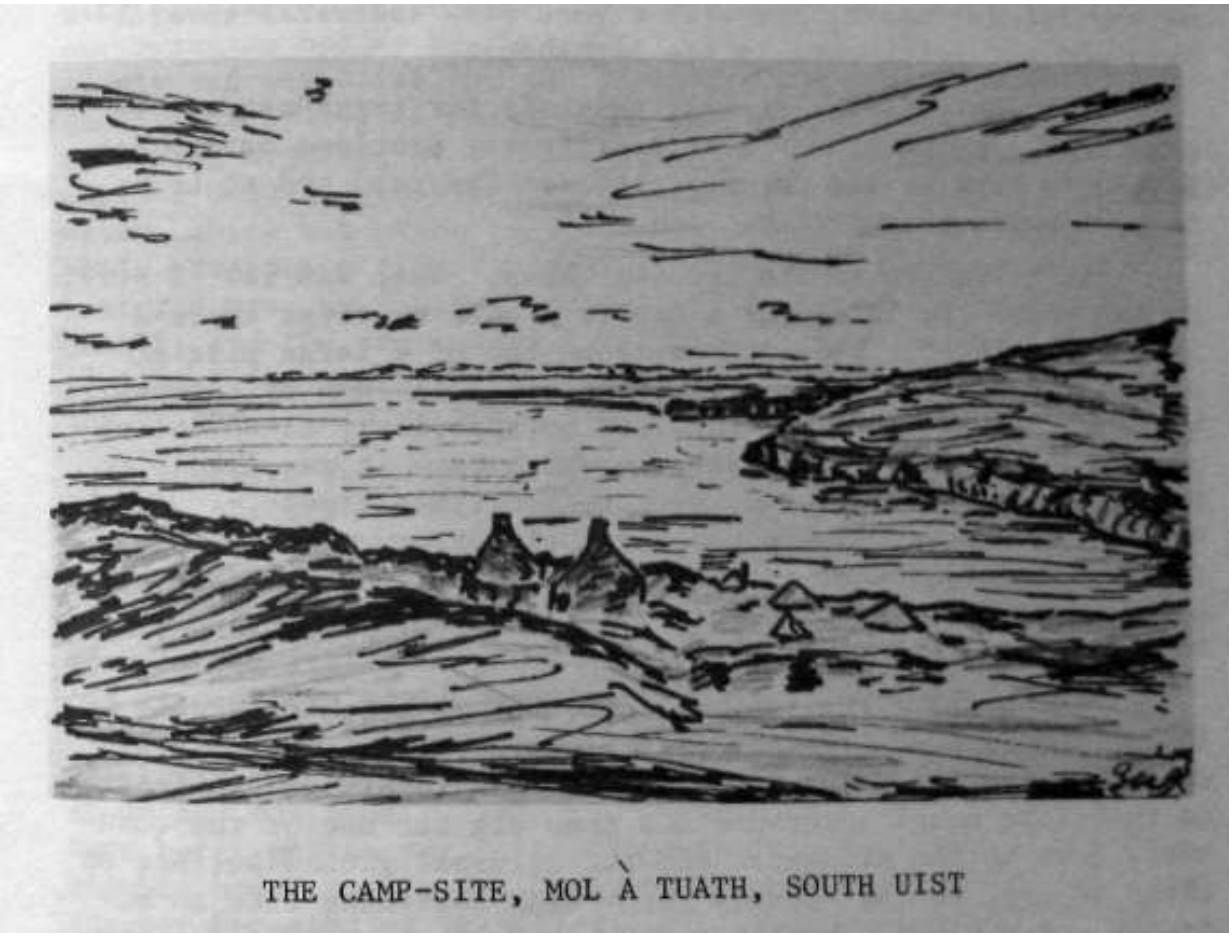
Stephen David, Alan Fowler

Gavin Macpherson Jenny Macpherson

Jonathon Orr Alastair Philips

LEADER'S REPORT

This was a hard, hard Expedition, full of peat and feet, sweat and toil, and tiny little bits of shapeless pottery that looked as though an angry Heffalump had stamped on them. But for all that we did what we cam to do - we proved that the Usinish Thing is a Man-Made Thing, we brought lots of juicy evidence back for the National Museum in Edinburgh to chew over, and we managed, really, to enjoy ourselves.



THE CAMP-SITE, MOL À TUATH, SOUTH UIST

Part of the secret of our success was, of course, our Interior Economy. We had masses of food - almost more than was necessary to wipe out the memories of Starvation Camp, South Uist, 1969. Needless to say, this was purely due to miscalculation on my part: I had budgeted for twelve large and ravenous bodies, and by the time I had woken up to the fact that we were only going to be seven, it was too late to change the order.

But apart from that, the cooking and catering and the general camp comfort were of the highest order, thanks to the superb competence of the other members of the Expedition, notably Admiral Fowler, Baden Powell Orr, and Professor Philips; also Gavin our indomitable Surveyor, Jenny, our first Lady Officer, and Stephen of the Occasional Expletive. One of the nice things, in fact, about trying to 'lead' a very senior expedition like this is that one need not do anything at all except look wise and nod approval at intervals.

The camp-site helped, I think - within a few paces of a burbling stream which lulled us to sleep every night, well-sheltered from gales, dry, within 200 yards of the only trustworthy landing beach, and with a good view eastwards towards Skye and our neighbours in the lighthouse.

Also, we were luxuriously well off for transport - three - cars in all, with a boat most efficiently provided by Mr Mac-Eachen to take us and our gear between the road end at Loch Skiport and our camp-site.

But to return to the Usinish Thing. What was it? I still do not know. In last year's Report I gave my first impressions - a carefully-built hearth on top of a large pile of stones (or 'cairn') that might be natural (a lump of rock split by frost action and later engulfed by the slowly accumulating peat), or possibly artificial, in which case it was likely to be a chambered cairn dating back to Neolithic times - 3000 B.C. or even more. There was a lot of pottery mixed up with the hearth and some of it looked like Early Iron Age (say,500 B.C. to 500 A.D.), so this might be a site belonging to more than one period.

So much for first impressions. Our main job this year was try and find out if the 'cairn' was natural or artificial, this we tried two methods. One was to divide the 'cairn' up into four equal quadrants and then dig out one of the quadrants down to the stonework and the original ground surface on which it lay, in the hope of uncovering something like an entrance, or a burial chamber, or a carefully constructed outer kerb of large stones, all features of a chambered tomb.

The other method, using Alistair Philips' Electronfc Wizardry to take readings of the resistivity of the soil at regular distances all round the 'cairn', in the hope that anomalous

readings caused by stonework hidden below the peat would show up some sort of significant shape.

While all this was going on, Alan Fowler would take samples of the peat at 5 cms. intervals from the present ground surface down to bedrock, and these, when analysed by the boffins in Macaulay Institute for Soil Research in Aberdeen, would show what types of vegetation were growing in the area at the time that each layer of peat was forming. As the experts already have a fairly good idea of what type of natural vegetation growing in Scotland during each of the slow stages between end of the last Ice Age and the present day, this was another way of deducing the approximate age of our 'cairn'.

So much for the plans. The actual work was not quite so beautifully simple. To be fair, the weather helped a lot. For most of the first week the wind blew and the skies were overcast and the air was cool, so that millions of little midges died of starvation or were borne shrieking in exasperation past our sweating bodies by the gale. Meanwhile, the work proceeded slowly and methodically, the Resistivity Surveyors maintaining their stately ritual dance along invisible lines, the rest of us hewing mightily at the everlasting peat which said "Shlurp" - in a heavy, determined way, every time our spade got near water, which was often - in fact, too often. In fact, the whole area was a gigantic sponge, carefully designed by pre-historic man, we decided, to satisfy his prehistoric sense of humour, and the peat would eventually kill us all and preserve us like Tollund Man in an inglorious nameless grave far from the bright lights of home.

However, we were over-pessimistic. Quite soon, we began finding pottery - little bits, but definitely pot, and definitely a different type from the stuff found in the hearth last year. Then Jenny found a RIM - a nice odd-shaped rim with a bit of crude decoration - probably finger-tip impressions - on its lower part. By this time we were down to the old ground level, all the stonework had been exposed, and the lower part was surely artificial - it looked like a platform carefully and skilfully put together from angular blocks of stone and designed to take the heavy weight of a stone structure built on top of it, rather than form the roof of a burial chamber beneath. In any case, there was not room for a burial chamber beneath, as less than a foot below the level of the platform was the old ground surface, liberally sprinkled with very small bits of pottery.

Could these have been scattered with household refuse over the ground as a primitive kind of manure on one-time fields? This was apparently the case at Gwithian, a Bronze Age site in Cornwall, so why not here too? At any rate, this ancient ground surface covered a clayey soil, definitely not peat, so it could have been quite good arable land.

Meanwhile Alan had finished his peat sampling and was able to point out that the peat was in clearly distinct layers, some marking sphagnum (and therefore rather wet conditions) and others marking heather (and therefore a return to a drier climate). To get more peat samples in an area undisturbed by the 'cairn', he dug a control pit a short distance away - and deep in this peat came upon a piece of wood about a foot long, lying horizontally, with one end showing a straight edge as if cut by a sharp tool. Below this, he found the remains of what seemed to be a layer of brushwood, and below this again some large angular blocks of stone fitted closely together - seemingly the lowest stones of the 'cairn' on that side.

The wood is highly significant, as no trees grow in that area now - it is too exposed and the peat is inimical to tree growth. In due course we shall know what type of tree this was, as the wood fragment is now in the National Museum in Edinburgh being analysed.

Not content with that, Alan then dug another control pit slightly further from the 'cairn'. This pit went down through solid peat for over 2 metres, then through 30 cms. of earth, the top 10 cms. of it black with streaks of charcoal and the rest grey clay like the old ground surface found below the stones of the 'cairn'. The very great depth of peat above this charcoal layer suggests that the latter is prehistoric in origin - could this be more of the cairn-builders' primitive manuring?

Meanwhile, in the evenings, Alan and Alistair had been plotting on graph paper the results of the resistivity survey. The final effect was most impressive - a definite zone of high readings around the stonework that we had uncovered and extending over the whole of the area where we believed the 'cairn' to be. This suggests that there is a great deal more of the structure yet to be uncovered.

What we had uncovered was skilfully surveyed by Gavin (ably assisted by the Surveyor's Mate, Jenny) using a variety of instruments ranging from an Artillery Director borrowed from the splendidly co-operative Army Stores Officer in Benbecula to a levelling staff concocted out of driftwood and coloured, paper. Heath Robinson would have been proud of them.

Finally, on the last day, when all the measurements had been done, all the photographs taken, and most of the peat thrown back in, we decided to open up the rest of the hearth that we had uncovered last year. We did this partly for completeness and partly to amuse Philip Renold and his party who had come over from North Uist to visit us. We soon uncovered the pottery that we had left in place last year, and to our delight, found that it included two large pieces of rim, both decorated with parallel lines of thumb impressions. This was splendid, as the style of decoration is a great help in dating prehistoric pottery, and we got most of it out in one large piece mixed up with the clay and ash from the hearth, which should please the experts in the National Museum.

Unfortunately, the pottery was so fragile that getting it back to camp was a problem. In the end we bound the whole lump together with a crepê bandage, laid the resultant cocoon carefully to rest in a herring box brought up from the beach, padded it round with sphagnum moss, and then lugged the box -by now unbelievably heavy - the mile-and-a-half over the moor, taking it in turns to carry it between us. A monumental effort, and a fitting climax to ten days of very hard work.

And that was the end of the dig. The next day we were smoothly evacuated from our camp-site by the ever-efficient Mr MacEachen and his cousin in their lobster boat (overloaded like a Noah's Ark, but the sea was flat calm), and the following two days we 'swanned' unashamedly, spending one unforgettable afternoon on one of the huge west coast beaches, slightly crowded because there was another party of two people visible about a mile away; we also investigated the southern tip of the island and found an idyllic camp-site looking south to Eriskay - definitely a 'must' for next time.

We owe a lot of thanks to a number of people. To Mr McIntyre, the factor of the Daliburgh Estates, for kindly advice on a number of points; to Mr MacEachen and his cousin for their excellent boat transport; to the Keeper of the Usinish Lighthouse, and his assistants, for their friendly help and forbearance on several occasions; to the Army at Benbecula Camp for their help over surveying equipment; to Philip Renold and his friends for much appreciated luxury accommodation in North Uist on two occasions; and perhaps most of all to John Hutchinson for organising our food supplies so thoroughly and well. .. Seldom has an expedition marched so faultlessly on its stomach!

-GEOFF DAVID

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RESISTIVITY SURVEY

During the Expedition a resistivity survey of the area around the 'cairn' was carried out, and much credit must be given to the patience of Geoff David who had to negotiate his way across the wires that seemed to trail all over the site.

Electrical resistivity, the property of resisting the passage of an electric current, is one of the fundamental properties of matter. In common with other materials the surface layers of the earth form an electrical conductor and exhibit the property of resistivity. Normally the more moisture a soil or rock contains per unit volume the better it will conduct a current, and the lower will be its resistance and *vice-versa*. The peat around the 'cairn' is of fairly uniform density and water content, and therefore any marked departure from the normal range of values will probably be due to the rocks of the 'cairn'. A few patterns might show up slightly due to the 'lazy-bed' method of agriculture forming 'drainage ditches'.

The resistance is measured by passing an alternating current between two electrodes (or probes) pushed into the ground and measuring the voltage developed between two inner probes and then relating this voltage to the current passing between the outer two electrodes. During early 1970 I had been developing an instrument for this type of surveying, containing nine transistors and an integrated circuit, which has an overall accuracy of about ±1%. We used a system of evenly-spaced electrodes known as the Wenner arrangement. With this arrangement the effective measured depth is approximately equal to the spacing of the electrodes which we placed at four foot intervals (much to Geoff's disapproval evidently we should have been measuring in metres - Systeme International ? What's that? !) We placed these electrodes in lines working across the site in a series of parallel traverses. We had to miss out certain areas due to piles of peat caused by our excavation of a quadrant of the 'cairn'.

The survey was carried out with help from everybody on the dig, taking turns to move the probes and to write down the results. Alan Fowler interpreted the results and drew the isographs - quite a task.

Anyone wanting further information on this form of surveying should refer to:

'The Scientist and Archaeology ' edited E. Pyddoke

- Chapter One - pub. PHOENIX 1963 - 35/-

This book is suitable for general reading and also includes chapters on pollen analysis etc.

'Physics and Archaeology ' - M.J. Aitkin (1961)

- pp. 60-78 - pub. New York

This book is now out of print but most central libraries should have a copy. This book is for the more technically-minded.

- ALISTAIR MACLEAN PHILIPS

SHETLAND (UNST) EXPEDITION 1970

Leader: Dave Vigar

Richard Jeavons, Mike Jeavons, Gary Chidwick, Roger Dean, Allan Deery, Neil Forsyth, Paul Bracey, Nigel Tooke, David Mark, David Purves, Gwyn Jones, Jeremy Cook, Ian Goddard

LEADER'S REPORT

Few people appreciate how far away is Shetland. On maps it generally appears as an inset; on television weather forecasts it is generally off the screen. However, the S.H.S. never does anything by halves, and having decided on an Expedition to Shetland, it was then decided to head for Unst, the most northerly island. The party met in Aberdeen. Amazingly, there was only one absentee (who had last been heard of a month since in Morocco), and the rest of us were faced with a ten-hour boat journey from Aberdeen to Lerwick followed by a four-hour boat journey from Lerwick to Vyeasound.

For the majority of people living in an urban environment, places like the Hebrides and Shetland offer a complete contrast. I was very much aware of this, landing at Vyeasound. One immediately experienced a feeling of more space, more time, more 'elbow-room', and I welcomed the opportunity of this new situation, not only for the contrast but also for the chance of a peaceful reflection on life in general.

Our camp-site was at Lund, in the south-west of the island. This site was recommended by last year's Shetland reconnaissance Expedition, and in itself was an extremely good recommendation. Lund is a fine bay, where the Norsemen drew up their longships a thousand years ago, and where, until very recently, fishing boats of all nationalities took refuge from rough seas. Nowadays, the community around Lund is only a shadow of its former strength, with many croft houses empty, and after a few days there one realised that a crofting reorganisation scheme will ultimately be essential if this district, rich in agricultural potential, by Shetland standards, is to survive.

Having set up the camp, we set about exploring the island. Unst provides ample opportunity for geographical botanical and ornithological activities, not to mention the abundance of archaeological remains, many of which have never been excavated. However, after a while,

it became apparent that most of the interesting things, especially botanical field, were in the north end of the island would be well to bear this in mind when selecting a campsite for a future expedition.

I was personally most interested in the prospects Unst's future. One got the feeling that in the past few the island has put much faith in the future of the R A F camp at Saxavord. The reasons for this are obvious - benefits include electricity from the Camp's generators, employment of islanders on the Camp, dental treatment, availability of fire fighting equipment, etc. But one also could perceive a change in this attitude a realisation that, at the whim of the Government, defence policy can change overnight and the Camp could be no more, and hence a realisation that the island must look to itself as insurance for the future. Local initiative is at the forefront. Many re-seeded areas are increasing agricultural production, and there is much more scope for expansion in this respect. Old crafts are being revived; there is a knitwear factory and a boat-building yard; the export of talc has risen to 10,000 tons a year, and fishing is also increasing rapidly. So, all in all, one cannot be unhopeful for the economic future of Unst.

However, whatever the future holds for Unst, we may rest assured that there will always be a welcome reception for the Schools Hebridean Society. The local people were extremely helpful and friendly and everywhere we were able to remark on their warm personality and conviviality. We were all disappointed that our two weeks in Unst seemed all too short, and I, for one, very much look forward to returning.

- DAVE VIGAR

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BOTANY REPORT

The Expedition did not have a strong contingent of botanists, but nonetheless I think something useful was achieved. Being less mobile than last year, I decided to concentrate on a particular section of the island's flora, rather than to attempt to make a general species list, which would necessarily have been incomplete.

Earlier this year I had been lucky enough to obtain Pugsley's monograph on the Eyebrights of Britain, which was printed in 1930. Shetland, and Unst in particular, is one of the best areas to study this extremely complex genus, and so

I decided to concentrate on these plants. The species are all to each other and variable in many of their characteristics and they frequently hybridise. It is hardly surprising that they are often ignored, and that much work still remains to be done before they are fully understood and their distributions known. Obviously when entering such a field I could not hope to emerge triumphant and all-knowing, but I hoped both to see how confusing the situation was, and how adequate the standard work was in sorting it out. To this end I collected and carefully described specimens from the area around Lund and then compared my descriptions with Pugsley's. In this way I hoped to avoid wishful thinking in my descriptions.

The situation was certainly confusing. Few of my descriptions tallied exactly with Pugsley's, but the fault may well have been mine. The commonest species was essentially like Pugsley's *Euphrasia borealis,* but consistently differed from it in minor aspects. Furthermore, his sub-species of it seemed to be largely forms due to habitat. Altogether, it appeared that his descriptions of this species were not wholly adequate. This seems to be the general opinion, as it has been re-described and re-named. I could fairly confidently identify several other species, but two similar populations from near the camp-site completely baffled me, though their characteristics seemed too constant for a hybrid. I hope to get an expert opinion on them. In all, the following species were found and identified:

E. borealis borealis)

E -"- zetlandica) Both *borealis* and *zetlandica* now re-named *E arctica*

E. foulaensis

E. curta ? piccolo.

E. ? foulaensis x *borealis*

In view of the fact that the Critical Supplement to the Atlas of the British Flora does not mark any *Euphpaeia* species for the area around Lund, this is quite a satisfactory list.

However, apart from studying Eyebrights, I also went north to the Haroldswick area to look for the very rare *Cerastium nigrescene,* which had eluded me last year. For two days I searched without success, but when I had given up and was returning home I found quite a large stand outside the area where it is reputed to grow! The report of the British Botanical Society's Expedition to the Shetlands states that they saw *'the plant of Shetland Ceraetiim nigrescens. '* In view of this it seems that I may possibly have stumbled on a new stand of this almost extinct plant.

Anything else after this was a distinct let-down, but I did also find two interesting Northern sub-species, plants near the camp-site, namely *Dactylorchie fuchei-hebridensis,,* the Hedridean Marsh Orchid, and *Gentianella amarelle septentrionalis,* the Northern Felwort. Both of the, rather rare, and the first was new to me. All in all a very interesting and informative fortnight.

--RICHARD JEAVONS

* * *

ARCHAEOLOGICAL REPORT

The remoteness of Shetland to the mainland of the British Isles has given it a history and a culture unique to any other part of Great Britain. Even today, a Shetlander, while technically a British subject, does not regard himself as a Scot or Norse or Scandinavian, but as a Shetlander. However, he realises that he can only remain economically viable with the co-operation of Scotland, and many Shetlanders are of Scottish descent. But the Norse heritage is very much in evidence, not only because of recent history, but also because of the physical closeness of Norway and her current fishing industry. Island societies, run during the long, dark, winter nights, include a Norwegian language class. At Baltasound, the general store has a cash till devoted to Norwegian currency. And in most crofts, at around mid-day, one might find the inhabitants tuning to the Norwegian radio service to receive the weather forecast for an area that the BBC succeeds in ignoring. In addition, there is the 'Up-Helly-A' annual celebration echoing the traditional funeral of a Viking king. Yet the most respected and widely read poet in the islands is Robbie Burns. It is this curious mixture of traditions that make the Shetlanders what they are.

Today, the islanders live in a land rich in evidence of a varied history. In Unst, there is no shortage of historic monuments to bear witness to this past, though there was much to be demanded of the condition they were generally found in.

About 17 heel-shaped burial cairns, made 3,000 years ago by the late Bronze Age people, exist in various places in the island. Some are in groups, as in the Crussfield/Muckle Heog area, and others are individually situated. Apart from a particular cairn on Muckle Heog, they tend to be undefined piles of rubble, with a circular tracing of stone on the perimeter.

The conditions were obviously poor, and the visits to these cairns ceased to be illuminating after the first few had been seen. In addition, there were three concentric stone rings at Crussfield, dating from this period, no doubt having some ritualistic purpose in association with the cairns. Finally, there were several standing stones on the island which also date from this period.

Of considerable interest as a part of the early history of Unst are the 11 brochs, built during the Early Iron Age of Scotland between 100 B.C. and 100 A.D. Their position relative to each other, and to others in Yell and Fetlar, is worth pointing out. The Underhoul broch in Unst was in sight of Broch Holm in North Yell, and a broch in Fetlar. Also, in south-west Unst there are three brochs within two-and-a-half miles of each other, which throws open the idea of an interlinking and complex defence system for those brochs that had sacrificed a good strategic position for the necessity of being on the best agricultural land.

The Picts (the Early Iron Age people who built these brochs) lived on until about 800 A.D., by which time, the Vikings, who had been coming in ever-increasing numbers, became the dominant people. It is not absolutely known whether the Picts were exterminated or whether the two peoples coexisted, though the theory that areas were assigned to the Picts is a favourite in view of the existence of such names as Petester. Remains of Viking settlements have been found, e.g. at Sandwick, where sand erosion has been taking place, but there is a shortage of Viking sites, considering the scale of the invasion.

In Shetland, there is an abundance of fascinating history, illustrated with field sites and augmented by the mood of the terrain and the people, both of which have changed little in centuries. I strongly advise any future Expedition that information and stories of monuments and traditions be learned from the local people, as maps and their markings betray precious little of what is really to be found.

- DAVID MARK

GEOLOGICAL REPORT

Unst is totally made up of a variety of metamorphic rocks. The predominant rock is serpentine, which occurs in several different forms. This rock is mined in the north of the island for export as a furnace liner, and is also used locally for road materials.

The other major rocks are of the gneissose, schist and metagabbro type. The gneiss was of great interest, found in abundance around the camp, and often it was found conjunction with schist and hornblende. The metagabbro of the greenstone type, and was uniform with no special features to cause any particular interest.

Minerals occur on Unst the major one is serpentine, Garnet was to be found in the mica-schists, as was kyanite and stanrolite. Chromate also occurs on Unst, and many old disused quarries are to be found over the island. It appears that gold is to be found in the far north, and an American company has the mineral mining rights. They also hope to find copper.

Faults and thrusts appear all over the island and many different types can be found. One of the best is at Blue Mull Foreland, near the camp. This and many others is of interest to geographers, as they give rise to such geomorphological features as caves and geos. Dykes and intrusions, made mainly of granite and pegmatite are common.

The geology of Unst is very interesting and varied, and one really needs more than two weeks to look at it. It can be best seen on the coast, as inland the rocks are often covered by heath and peat, and also heavily weathered. It is also worth noting that the solid geological map is often inaccurate, as the geological boundaries are only estimated.

- GWYN JONES

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THE HOUSE OF LUND

It was a black, still night when the House of Lund was assaulted by a team of seven brave and pioneering men. There has been a building on this site for centuries, and out of it has grown the legend that the house was once visited by the Devil himself, after the laird occupying it had damned Lund Church and all who subsequently praised there.

The Devil left his footprint on a stone near the house, which became haunted, that they have been for walks with their dogs near house and the dogs have mysteriously become hysterical. So the S.H.S. had arrived to establish the Truth, once and for all, for all of Mankind.

It was a quarter to midnight when the magnificent seven arrived, merry, content and confident of our powers to withstand all the dimensions of the supernatural that might be-offered to us. We scrambled in with torches blazing, lighting the damaged room, but casting vibrating shadows that shimmered on the walls and through former doorways. The cold blackness outside became suddenly blacker and colder. We were unwelcome.

However, as is generally appreciated, the S.H.S. is made of stern stuff, so by five to midnight, having taken up our positions, the lights were extinguished.

Seconds and minutes slipped coolly by, eyes grew accustomed to the dark, the sky above the black, daunting walls could be seen as a lesser shade of black than the interior. To expect the unexpected from an unexpected place at an unexpected time gave us the feeling of expecting something! Oh, yes, folks! What drama!

At midnight, as the inaudible Big Ben struck twelve..... nothing happened. Then, an enormous stone, reported to be the size of a hundred apple pips, shot out of the sky and hit David on the shoulder and bounced onto the floor, invisible in the darkness.

There were a few unruffled words as Jerry explained that he had been bored, and David suggested a tactical withdrawal.

David left, but the remainder of the party stayed longer, now in the company of lights. If any of the locals had seen the house then, they would have had convincing evidence of the reality of the Ghost of Lund! Then, out of a dark silence, another stone, at least the size of a thousand apple pips, appeared. Torches shone towards the origin of the stone, and a strange, large bird was seen speeding northwards towards the camp.

Was it or wasn't it?

At this stage, the rumour that the decision to move out of this black, spooky hole was due to a wavering of fortitude should be immediately repudiated. The decision was one ofwell reasoned strategy. And on return to camp, they found a cautious David tucked snugly into his sleeping bag, reading, with obvious pleasure, *'Tales of Mystery and Terror'.'*.

- DAVID MARK –

UNST BIRD REPORT 1970

1970 saw the first full-scale senior Expedition to the Shetland Isles. The camp was situated on the west coast of Unst, the most northerly of the Islands. The whole area afforded many varied habitats for virtually all the species of birds which it is possible to see in the Islands: cliffs seashore, moorland, lochs, rivers etc. We were fortunate to be on Unst because this put us within travelling distance of the R.S.P.B. Reserves at Fetlar, Herma Ness and Mucca Flugga The following is a list of those species seen by members of the Expedition.

Red Throated Diver	Zetland Wren	Merlin
Great Northern Diver	Wheatear	Knot
Fulmar	Blackbird	Turnstone
Manx Shearwater	Cornbunting	Oystercatcher
Herring Gull	Twite	Ringed Plover
Common Gull	House Sparrow	Golden Plover
Kittewake	Starling	Lapwing
Common Tern	Jackdaw	Dunlin
Arctic Tern	Raven	Redshank
Black Guillemot	Hooded Crow	Common Sandpiper
Puffin	Gannet	Curlew
Wood Pigeon	Shag	Common Snipe
Rock Dove	Grey Heron	Great Skua
Snowy Owl	Mallard	Arctic Skua
Skylark	Common Scotter	Black-headed Gull
Meadow Pipit	Eider	G.B.B. Gull
Rock Pipit	Red-breasted Merganser	L.B.B. Gull
White Wagtail		

(52 species)

In all, a very good ornithological Expedition, with good opportunities to see breeding birds at close quarters, and many other species of interest. One observation which I consider worthy of mention was that of a Sooty Tern. I have not included it in my list as it was seen by a Geologist and not by one of the Ornithologists!

-GARY CHIDWICK

S.H.S. COMMITTEE 1969/70

Chairman:	JohnAbbott
Secretary:	Clifford Fountains
Finance:	Richard Marshall
Membership:	John Houghton
Officers:	Alan Bateman
Stores:	-(Phil Renold
	-(Barry Smith
Provisions:	John Hutchinson
Travel:	- (Gavin Macpherson
	-(Charles Jackson
Boats:	Nick Yates
Editor of 1969 Report:	Chris Dawson
Conference 1970:	John Lace
Recruitment:	Peter Smith
Maps and Charts:	Hugh Williams

Leaders of 1969 Expeditions:

Ulva:	Alan Fowler
North Vist:	Philip Renold
Lewis:	Alan Howard
Fladday:	Mike Baker
Shetland (Unst):	Dave Vigar
South Uist:	Geoff David

CONFERENCE '71

The Annual Conference of the Schools Hebridean Society
will be held at Lincoln Hall, University of Nottingham
from 1st to 3rd January 1971

Details can be obtained from John Lace, 15 Julian Road Sneyd Park, Bristol BS9 UZ

PLANS FOR 1971 EXPEDITIONS

COLONSAY EXPEDITION 17th August to 3rd September Age 12| - 14 (Group J)

COLONSAY has been variously described as 'the ideal site' and 'too much of a holiday camp'. Certainly, it is a very beautiful island, and the camp-site itself, situated on the west coast lies at the head of a sandy bay on what was once the island's golf course. There have already been four S H S Expeditions to Colonsay, the last in 1969, so the ground has been well explored.

The island does not lend itself to such strenuous exertions as some of the other parts of the Hebrides. It is comparatively small and comparatively low. However, there is climbing to be had in the hills behind the camp, and plenty of sea in which to 'muck about in boats'. In common with the rest of the Hebrides, Colonsay, of course, has birds for ornithologists, rocks for geologists, fields for land-use surveyors, etc. It also has a local football team, against which we have never yet lost by more than ten goals.

Colonsay, too, has its surprises. Long, sandy beaches, such as Kiloran Bay, are reminiscent of the Outer Isles, or perhaps of Blackpool before the people went there. Tropical plants flourish in the gardens of Colonsay House, a reminder that the weather in Colonsay is reputed to be the best in all the Hebrides. And there is Oronsay, a tidal island to the south, where St.Columba is reputed to have landed first on his way to Iona.

JURA EXPEDITION ... 27th July to 13th August Age 14 - 15 (Group I)

JURA is a large island, and one of the most southerly of the Hebrides, but nevertheless it only supports a small population. For the most part it is wild and mountainous, sporting in particular three conical hills, the Paps, the highest of which reaches 2,500 feet.

The S.H.S. has visited Jura twice before, in 1965 and 1966, and on both these occasions, the camp-site was in the 'highly populated' area at Ardlussa, on the east coast this time however, it is hoped to find a new site, probably on the west coast where the wild scenery is more what we are used to. Rocks and cliffs, caves and raised beaches are features of this west coast, whereas the east is more gentle, with wooded bays and inlets.

Although not really rivalling its neighbour, Islay, Jura has a name for distilling good whiskey. The malt whiskies of these parts will put any of the blended forms to shame!

And then there are the herds of deer. What more impressive sight can be seen than that of a fine stag on an evening skyline?

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RHUM EXPEDITION ... 15th August to 3rd September Age 15 - 16 (Group H)

Of all the Hebrides, RHUM is surely the most magnificent! Their wild beauty is all here, all their qualities and moods combined in this one island. The site of the original 1959 Expedition from which the S.H.S. was eventually formed, Rhum is in many ways the perfect island for our purpose. It has an infinite variety, and can suit the tastes of anyone on an S.H.S. Expedition.

Not that it is an easy island. Quite the reverse in fact, as anyone will testify who has carried calor-gas cylinders from the road-end at Kilmory, or trudged across the infamous Mullach Mor to a taste of civilization at Kinloch. The hills, the highest of which is Askival (2,700 feet) offer as stiff a climb as any in the Isles, and rival the Cuillins of Skye in their grandeur.

The island is owned by the Nature Conservancy, and a great deal of their fieldwork is done here. We are fortunate in being one of the few organisations to whom the Conservancy grant permission to use the island. Among the attractions to be seen are the herds of deer and wild ponies, the latter supposedly descended from a herd which swam ashore from a wrecked galleon during the Spanish Armada.

Rhum has its fair share of oddities (apart, that is, from the occasional S.H.S. Expeditions). Kinloch Castle, still inhabited occasionally, is a fine example of Victorian extravagance; and the mausoleum, the little Greek temple at Harris, is a strange monument to find on these north-western shores. The Post Office at Kinloch (telephone number Rhum 1 - just try asking a London operator for that) is the only one I have ever found that sells beer and stamps, and nothing else.

But best of all is the camp-site at Shamhan Insir. This I state quite categorically, is the most beautiful place in the world. A flat, grassy area stands at the side of a small bay, looking out across the sea to the Cuillins in Skye. My most vivid memory of the Hebrides is of being woken in the early morning at Shamhan Insir, to be summoned to watch the sunrise. Across the still, shimmering water, the hills were black, silhouetted against the early morning sky. As the sun rose, there was orange and gold, yellow and red, a startling magnificence above the still sea.

* * *

SOUTH RONA EXPEDITION ... 26th July to 15th August Age 16-17 (Group G)

I remember SOUTH RONA as a long, low, grey, rocky wilder-ness. But I was there in the early Spring when the snow still lay on the hilltops of Skye. In the summer it turns to greens and blues, a low lump jutting out of the sea just north of Raasay .
The S.H.S. has been here twice before: in 1964, led by John Abbott, and in 1968, led by Chris Gascoine Hart. The island is uninhabited now, except for the lighthousetmen who live their lonely life on the northern tip. Ruined cottages, however, abound, as evidence of the population of perhaps 300 that once lived here. The camp-site is in one of the former settlements, where two buildings are still in reasonably habitable condition, or were in 1968. The sea is much in evidence at South Rona. The camp is at Dry Harbour, which may sound a contradiction in terms but which comes from the fact that when the tide goes out the bay is left quite dry. It is a rocky shore, full of seaweed and rock-pools, a paradise for marine biologists.

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MINGULAY EXPEDITION - 15th August to 4th September Age 17+ (Group F)

MINGULAY represents the ultimate in remoteness. It is a small island, approximately 2 miles by 1 mile, at the southern tip of the Outer Hebrides. It is uninhabited, but like most other small islands in the area once carried a considerable population, and the signs of these people still abound. On the west coast, 700 ft. cliffs rear up against Atlantic, home of millions of seabirds.

The above are merely a few notes that I have made from my memory of the various islands to which Expeditions will be going in 1971, which will, I hope, give some idea of the individual islands to anyone who has not visited them. They do not, of course, constitute anything like a full description of the islands, or of the activities likely to be carried out by the Expeditions. The best way to find out more is, naturally, to join an Expedition and see for yourself!

- GAVIN MACPHERSON