SCHOOLS HEBRIDEAN SOCIETY

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The Editor of the Report is : GAVIN MACPHERSON,
'Thorens', Magdalen Road, RIPON, Yorkshire. (Tel. Ripon 4119)

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	1970/71	*1971/2*
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	Hugh Williams	
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Mixed Expeditions Working Party:	Alan Fowler, Sally Fowler, Richard Fountaine, Paul Caffery, Gavin Macpherson, Jenny Macpherson.	

C 0 N T E N T S

ACKNOWLEDGEMENT

Each year, the Society receives help from so many people, firms and organisations that it would be impossible to mention them all by name. We would, however, like to express our very sincere thanks to all those who have donated food and equipment* or supplied it at reduced rates; to those who have loaned us boats or storage space, or any other commodity; to those who have transported us around the countryside; to those who have allowed us to tramp about the islands and made us welcome wherever we have gone; indeed, to everyone without whose help and advice we would be unable to exist.

* * *

EDITORIAL

Here, once again, is the S.H.S. Annual contribution to English Literature, bringing you the usual mixture of scientific research, artistry, and complete codswallop.

One slightly unusual feature is that the Editor has had to do a considerable amount of editing, due to the vast amount of material submitted, that must have broken all past records for both quantity and quality. I will apologise at once to those whose work has been omitted or drastically cut, and emphasise that all material, whether published or not, will form a part of the library of information being built up by Alan Fowler for the use of future expeditions and anyone else who is interested. 1 hope what remains gives a reasonably accurate and balanced picture of what happened on this year's Expeditions.

Congratulations to Alan and Sally Fowler, whose wedding on August 7th formed the first S.H.S. Expedition to Norwich. Congratulations, too, to Chairman Phil on gaining a B.A. from Lanchester Polytechnic. Rumour has it that he did consider, for a few brief moments, going out to earn his living, but has elected instead to go climbing in North Wales for a year or so, which explains the totally unpronounceable address he's got himself (unless you're fluent in Welsh, 1 suppose).

There has not yet been a Report in which there has not been a note on resignations from the Board, and this issue is no exception. Barry Smith, whose baptism in the S.H.S. subsequently led him to take part in expeditions to the West Indies and the Himalayas, has decided that his other commitments prevent giving enough time to the Society for him to remain a Director. His experience will be sorely missed, although we hope his advice will still be available when it is needed. Cliff Fountaine, who has been Secretary of the Company since before most of us can remember, also retires from the Board, although the firm in which he is a partner have been appointed the Society's Solicitors. To them both we offer our grateful thanks for all the work and effort they have put in over the years on our behalf. Meanwhile Alan Howard and Peter Smith get their names on the notepaper. Neither is any stranger to the Society's organisation. Peter will retain his old job co-ordinating the Recruitment campaign; whilst Alan joins battle with MacBraynes.

As is by now generally known, a working-party was set up after the 1971 Conference to consider the pros and cons of having young ladies along on our expeditions to keep the young gentlemen company. Pros and cons there undoubtedly are, and at the time of writing the working-party has not reached any final conclusions (other than that Sally makes good spaghetti bolognese). All, however, will be revealed at the Conference, which sounds like good value at £5.90.

Which almost brings me to the point where you can get on and read the Report (if you haven't read it already and turned to my bit last). I must first, however, thank everyone concerned with the production of the Report, particularly Alan, Phil, Roger and Jane, without whose sub-editing and typing the publication would have been delayed until about a year next Christmas; and also Mr Lord of Bettaprint. I think I should also thank Jenny for putting up with the sound of my typewriter when she thought she was going to be taken to the pictures, and, of course, SPAM ... who is ginger, and purrs, and was so christened by Alan Howard who seemed to have memories of Colonsay. Maybe she reminded him of a Hebridean wildcat!

- GAVIN MACPHERSON

NOTE ON PROJECT RESULTS

Owing to lack of space and/or time of publication, it is impossible to include in this Report a full account of all the projects carried out this summer. In particular, the following work has been omitted or drastically shortened:

'Sociology on Jura[1]

'Geology of Rhum[1]

'Geomorphology of Harris (Rhum)[1]

'Ornithology of Rhum[1]

'Ecology of the Manx Shearwater Burrow*

'Ecology of Mingulay[1]

These, and the results of many other projects carried out by the S.H.S., can be obtained from the Society's Director-in-Charge of Projects:

ALAN K. FOWLER, Top Flat, Ashleigh,
The Settlement,
OCKBROOK - DERBY.

-G.M.

PROJECTS

The value of projects in a Society which urges enjoyment as its first priority is frequently and readily questioned. It may, therefore, seem puzzling that leaders and officers assume that 'projects are a good thing[1] and that you 'must plan your projects early'. What is the point of going away to the Hebrides to enjoy yourself if someone is going to nag you about work?

Quite truthfully, it is wrong of anyone to 'nag' you into preparing or doing a project. The desire to do it should come from you - be you member, officer or leader; it should be your idea and your enthusiasm for it which produces and carries out any project that appeals to you. It is the expedition's job to provide you with other enthusiastic people, a great deal of encouragement, possibly some equipment, and the means to have your work published to the rest of the Society and other interested people afterwards.

The last nine years have seen forty-two expeditions from this Society visit fourteen of the Inner and Outer Hebrides and two other remote areas. They have produced an amount of writing sufficient to fill a book seven hundred and fifty pages long, and many unique maps and diagrams not to be found anywhere else in records of these remote islands. It is not surprising that some original discoveries have been made by these expeditions; yet all this has been accomplished by people dedicated only to a full enjoyment of the experience of the Hebrides!

There is no doubt at all that if more researchers at universities up and down the country knew that about one hundred and fifty people spend a week and a half each summer camping in remote sites in the Hebrides with no aim but to enjoy ourselves, we should be denounced as lunatics to waste our opportunities so. It would startle them yet more if they knew that the Society has only twice made an effort to organise all its project work on a concerted front; and they would go 'green with envy' if they discovered how

easy it is for each member's work to be published in a fat magazine.
If you find a green and startled scientist denouncing you as a lunatic, just make a note not to waste your opportunities and ask him what he'd like you to find out for him about the Hebrides. He'll probably suggest something - he might even want to come along as well. Don't expect him to be doing Egyptian P.T.

- ALAN FOWLER

* * *

SOUTH UIST 1970 SOME MORE RESULTS

Since the previous report appeared in print (S.H.S. 1970 Report,pp.57 to 63), some more results have emerged from the investigation of our finds by experts in Edinburgh and Aberdeen.
Firstly, the pollen analysis of the peat samples has been completed, and shows that trees, particularly birch and alder,
were common in the area of the 'cairn' at about the time that the earliest peat started to form. There were also some pine trees and hazel, and even some elm. This is interesting as there are no trees growing near the site now, but whether their disappearance is due to climatic change or human interference is impossible to say. In that connection, the pollen evidence shows "at least two cycles of destruction of heather, and expansion of grasses and rushes. These may be natural, due perhaps to spontaneous heath fires, but could reflect deliberate clearance for cultivation." (I quote from Alan Fowler's comments).
Secondly, the examination of the boxful of pottery from the 'hearth', though not yet complete, has disclosed unexpectedly a large sandstone chopper, with a finely bevelled edge, mixed up with the clay inside the pot. Stone tools of this kind are fairly commonly found on Hebridean sites, and could be any age between Neolithic and Viking - if not later.
Thirdly, the aforesaid pot is really three pots, all squashed together but differing considerably in type, though probably not in age. The reason for this 'pot mess' (sorry.!) is still uncertain.

- GEOFF DAVID

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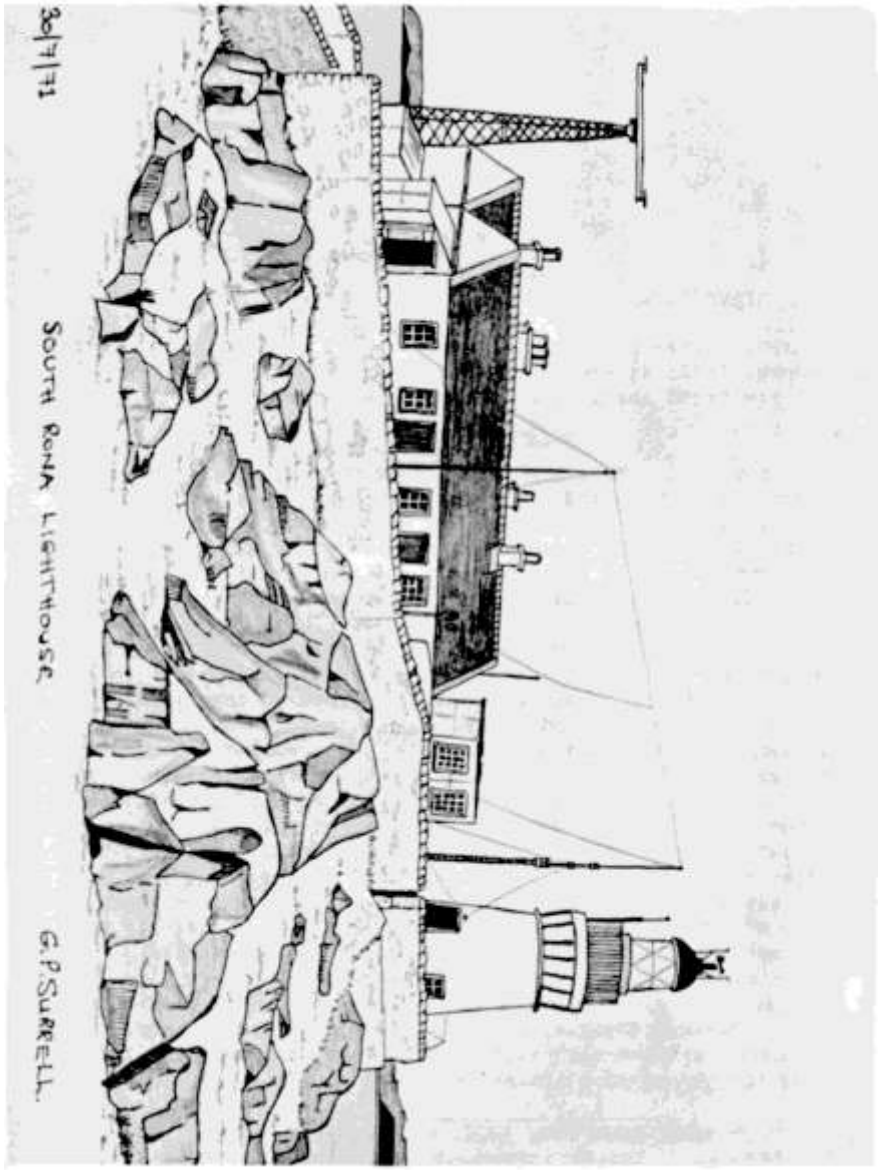


SOUTH RONA EXPEDITION 1971

Leader: Roger Weatherley

Officers: Mark Rayne, Greg Surrell, Mike Cunliffe Lister, Nigel Padfield.

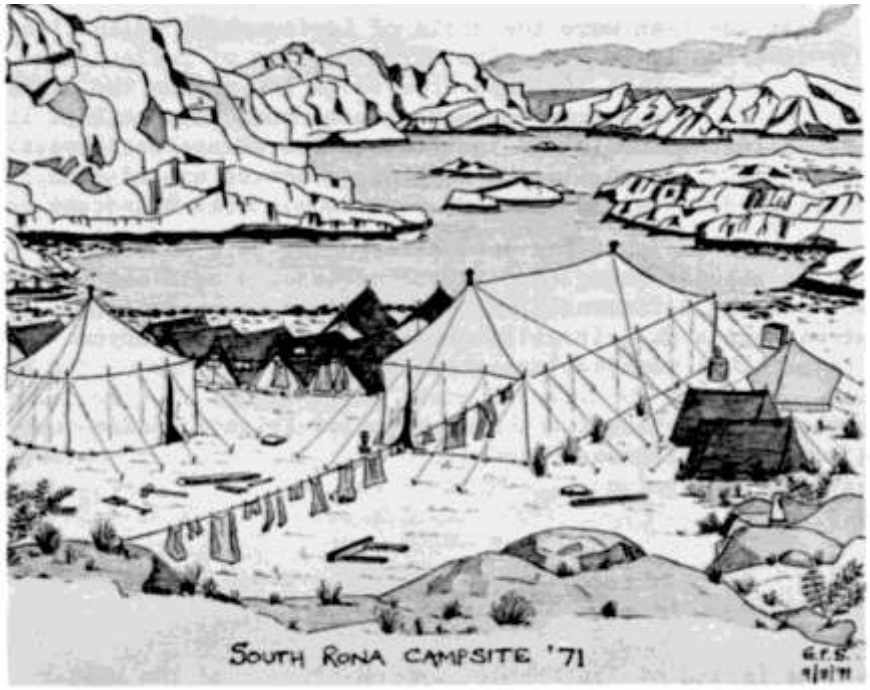
Boys: Simon Manning, Timothy Bell, Brian Mahler, David Stredder, Richard Tope, Michael Griffin, George Sloane Stanley, Nigel Gates, Philip Slatter, Ian Cough, Christopher Collins, Kevin Jones, Stephen Gibbins, Nigel Saunders, Keith Broadbent, Paul Gill, James Livingstone, Joe Neal, Stephen Pope, Graham Holdup, Ian Burgess.

LEADER'S REPORT

Where to begin? At the beginning. Well, the beginning was hardly promising. We set off without a work boat, with the wrong fuel for the boat we did have, and with the prospect of an enormous manual grind moving equipment from Big Harbour to the Camp-site. Through the leader's incompetence we had almost left the personal luggage on Euston Station, and it was midnight before the last members of the Expedition finally set foot on the island - tired and convinced of their own insanity (and mine). What happened next is a credit to everyone. Looking back, this testing time at the beginning set the tone for the rest of the Expedition. The equipment was moved, and our occupation of Dry Harbour began - gas cylinders, black boxes and all.

All of us found South Rona a superb island. Looking ridiculously small on the map, it yielded much project material and many recreational opportunities. There were fifteen different pieces of project work - including comprehensive studies of ornithology, settlement at Dry Harbour, seashore ecology and geology. We (or some of us) actually enjoyed bathing in the rock pools; Nigel Padfield and Mark Rayne led some climbing; the fishermen broke the Raasay pollack record from 1964 - and the music was very good. Greg Surrell & Co. sketched beautifully. Paradise[1]. The initial grind was more than worth while.

Summarizing the expedition concisely is very difficult. From what may be read elsewhere it is clear that we were very active and that the island has great potential. Yet we were limited by a lack of equipment - especially boats and canoes,



only a couple of musicians remained up. A ballad drifted out from the marquee - softly, barely audible -

... and the vision that DOB planted in my brain
still remains -
the sound of silence ...

I hope Rona planted one vision at least on everyone who came.

* * *

THE KIRAGE

A party of us was walking down to the south end of the island to look at An Teampull, a ruined Celtic chapel. On the way we had just passed over a rise when I turned round to look at the view. The hills of Harris were very clear, but what made me stare was a fantastic sight over Lewis. All the rest were called back to look at the mirage. There followed a quarter of an hour of inspection, offering of highly improbable explanations and suitable comments of astonishment. The number of people who had not seen anything like it was astounding!

but also good climbing gear. This said, however, I must applaud the spirit of resourcefulness which developed - in true S.H.S. style! We faced and defeated many problems, and lived creatively to the limits of our environment. From the shore and our inflatable dinghy, kindly loaned by Mr Livingstone, some of us fished enthusiastically (and one of us was pulled in by a monster). We sang, discussed, baked 72 lbs. of bread and ate it all; we marvelled at the skill of the sheep dogs when the flock was rounded up for shearing. We were amazed by the ruggedness of the island; we enjoyed a few glorious days in otherwise showery weather. I never heard anyone complain unjustly. Of course, the Expedition was full of individuals, each one with the freedom to pursue what he thought valuable. For many this involved really serious project work, and the standard reached was very high. Some other* passed a more relaxed time, mainly staying quite close to the camp. I only hope that everyone was equally stimulated by what he did regardless of his disposition.

Singling individuals to thank is invidious but 1 must mention the officers. They were few in number, but magnificent value, and the success of the Expedition owes a lot to their hard work. There are many others to thank, too - Mr Cameron and the Crew of *'DANCING CLOUD'* for transporting us so efficiently; Mr Edwards and the Applecross Estate for the use of their boat; Mr Thorburn and all the lighthouse keepers on Rona for their untiring hospitality and interest in us and, of course, the Owners of the island for allowing us to come. Mr Robson and Mr Frazer allowed us to use the Scout Hut in Kyle and we thank them sincerely. Finally, the 'backroom' staff within the Society without whom no Expedition is possible

On the last Sunday of the Expedition some of us went across to the cave on the east side of the island to think about man in his environment. Here, feeling the purity and power of Rona, we found civilised man healthily in perspective - we valued the privilege of viewing our Society from a distance.

We were all genuinely sorry when it was over. As we sailed away with *'DANCING CLOUD'* under full sail and engines, Rona seemed so small and low in the sea. It seemed incredible that we had lived there for nearly three weeks, yet all of us had memories which proved the time well spent. Perhaps it will be the sunsets over Skye, the remarkable mirage over the Long Island, the cave, the climbing, a rock pool or the seal colony which will provide the most lasting memory for each of us. For myself, I remember lying in my tent late one night when

What was seen were the hills of Lewis, above which floated their inverted image. A quite definite line of reflection could be seen. This line appeared to be lover than the higher hills so that their image appeared to be touching the hill itself, while the summit was invisible. The mirage was always changing, due to the line of reflection moving up and down. The upside-down island was also seen from a hill near camp.
Various explanations were offered for this phenomenon, the most popular being that layers of hot and cold air refracted light differently, making an image above Lewis.* Explanations apart, it will take a long time for everyone there to forget this remarkable sight.
Another explanation for the sighting of islands upside down is offered by Sigmund Freud.

- PAUL GILL

* * *

GEOLOGY

The island of South Rona is probably one of the most complex areas geologically in the British Isles. It is made up predominantly of Lewisian Gneiss; that sounds simple enough, but no-one knows exactly what this is! The gneiss has been formed over a vast length of time including many periods of immense heat and pressure, melting, crushing, and contorting the rock until it is now impossible to trace its history closer than a few hundred million years within the 2,700 million years that appears to be its maximum age.
Intruded into this Lewisian background are many veins and dykes of different materials, some of which, themselves metamorphosed, are classified as part of the gneiss. The most important of these dykes are the east-vest swarms of epidiorite and hornblendefechist. The island is also abundant with pegmatites, running generally north-south, in one of which we found large veins of mica about 2 cms. across. Quartz is by far the most common vein mineral on the island and its veins come in all shapes and sizes up to a 4ft x 50yd outcrop. In the south of the island is a truly remarkable intrusion of Teshenite, which is a semi-columnar form of gabbro.
To go into our findings here would take too much room; however, I am preparing a full report and map for the Society library.

KEITH BROADBENT

LOBSTER-POT

On arriving at the camp-site one of the first things Kev and I noticed was a rather decrepit lobster-pot. But with a few nails and some string it was soon repaired. The next problem was bait, but this was soon solved when the first fishing party came back with some pollack.
On positioning the pot we first followed the lighthouse keepers' advice of putting in at the low-tide line. There we just caught lots of shore crabs. So with fresh bait we moved the pot further out and left it there for a couple of days. Again, we just caught shore crabs but also we caught some velvet shore crabs and fiddler crabs. The third position was slightly better - there we caught a couple of small edible crabs. But the biggest edible crab was found when a spring tide covered the rocks on the low-tide line,

- IAN TOPE and KEVIN JONES

* * *

FISHING ON SOUTH RONA

There was a high proportion of anglers in the party, so a fair number of fishing softies were made - meeting with mixed results. Unfortunately we had only one boat, but most tries from her were successful. As expected, pollack had a monopoly over other species of fish although five coalfish were caught. A 3 ½ lb pollack was caught from the rocks near the camp-site by Kevin Jones, establishing a new record weight for either a Rona or Raasay Expedition; the fish was used as bait for the 'Heath Robinson[1] lobster-pot.
Some of us went to the east coast of Rona where the ten fathom contour touches the shore. Here, some very big fish were hooked and lost, some biting through heavy nylon or wire traces. Salmon were seen jumping close nearby and these could be responsible for the breakages.
Dyed chicken feathers tied on to hooks and spinners proved the most successful lure. As soon a some bright culinary expert comes up with a palatable recipe for pollack, S.H.S. expeditions will be blessed with a change from Kendal mint cake and baked beans. At the moment there is only one thing worse than a badly cooked pollack, and that is an untimely Mark Rayne banana joke.

Just for the record, about 50 fish were caught, several over 21bs - the biggest 3 1/2 lbs.

- STEPHEN POPE

* * *

THE SPRING TIDES

"Do you think the Spring tide "get our tents here?" This question was addressed to Hairy while we were pitching our tents on a patch of flat ground about 1 foot 6 inches above the beach.

"No, of course not!"

Hairy's prediction seemed as if it would be right - that is until the second Thursday of the Expedition. Just before supper on that day everyone trooped out of the marquee to admire the extent of the ground that the tide had covered. Right on cue they were treated with the sight of Kev and Ian unintentionally capsize and sink the canoe in dead calm water!

Someone remarked that John Burgess' tent was almost under water. His tent was pitched lower than ours SO we felt we had little to worry about, even though the highest tides weren't until Sunday and Monday evenings. On Friday morning, John retreated to higher ground. The Friday evening tide was watched anxiously and on Saturday Hairy was seen to be beating a hasty retreat as the tide came up almost to his tent - pitched marginally lower than ours. Needless to say Ian and I moved our tent the next morning and the evacuation of the shore line was complete.

On the Sunday evening we were able to observe jellyfish swim over where our tents had been, while on the Monday I floated over the spot in the boat!

* * *

SEAWEED - SOUTH RONA 1971

Altogether 16 species of seaweeds were identified this year. This figure is down on the last South Rona Expedition but I experienced identification problems because of the number of filamentous weeds which are quite similar. Dry Harbour has very good potential for seeing the zonation of seaweeds relative to the position of the tide and, due to the high tides we had during our stay, quite a few weeds were washed ashore which would not otherwise have come within range for collection.

In addition to the 16 species mentioned above, I can perhaps identify a few more once photographs are developed.

- IAN GOUGH

* * *

THINGS THAT GO BUMP IN THE NIGHT DON'T NECESSARILY TURN OUT RIGHT IN THE MORNING!

It is usually the practice on S.H.S. expeditions to 'hit the sack' at the very latest at 11.30 pm., and on the night of 2nd August this was very apparent. But for the 'GOOD GUYS' as we had nicknamed ourselves, and who were Bunge Livingstone, Nigel Saunders, Brian Mahler, Ian Tope, Kevin Jones, and myself (no less), the night was still young, and after a rather jovial boating trip spirits were very high. When everyone else had gone to bed the sounds of brutal exchanges were heard as the 'GOOD GUYS' had a minor civil war, demolishing each other's tents. Then all sides friendly again, Mike Griffin's tent volunteered to have a 5 ft high pile of driftwood placed in its doorway. After a lot of bickering on all sides a bivvy in the marquee at 1.30 am. on the 3rd was arranged. So, in due course, a tent was pitched and a trip-wire set up so that any other likely lad who came wandering along could personally inspect our piece of tent-erection genius. The scene wouldn't have been right without a football-type atmosphere, so a roll of Izal found its way over the gas-rings, gas-cylinders, map-stand and a Tilley lamp hanging from the marquee roof. Climbing gear and canoeing were also activities for the evening, but with only the gear taking part ... climbing and canoeing along a washing-line hanging between the two marquees.

The call of nature was not forgotten and for any desperate person who happened to charge into No.2 urban facility, a surprise was in store for him. For as he unzipped the door he would find the 'facility' buried up to the lid, making it almost impossible for any custom to be negotiated. Then there was the matter of the two 'unknown' labourers who decided to try their hands at building. Their choice of project was to build a wall outside Hairy's tent. The 1ft. high wall did serve the purpose of giving one of the occupants what he thought was a bad dream when the call of nature aroused him at 5.0 am.

But, alas, next morning, the 'GOOD GUYS' could hardly keep straight faces, which partly expressed their profound guilt, and a few nameless officers shot rather dirty looks and comments our way, with VERY SMALL hints of revenge.

- SIMON MANNING

SEA ANEMONES OF SOUTH RONA

Rona's rocky and deeply fissured coastline, with several sheltered inlets, provided an excellent environment for a wide range of anemone species, and it was unfortunate that only a small fraction of it could be studied in any detail. •lowever, six species were recorded, two of which were previously unrecorded from the island. By far the commonest species was the beadlet (Actinia eqiflna) % which was also the only truly inter-tidal form. Also fairly common in rock pools around the island was the attractive Sagartia elegans of which three varieties were found, the commonest S.e. Ventura was light orange with light tentacles and was usually accompanied by a few of the all-white variety S.e.nivea. Lower on the shore the larger and more heavily patterned S.e.minata could be found. The two new species were the Cave Anemone (Sagartia troglodytes) an inconspicuous grey-brown animal found only among coralline algae in a few pools near Dry Harbour, and the Plumose (Metridium senile) a very large anemone noted for its very feathery tentacles. This anemone was only found in a few deep and inaccessible chasms north-west of Dry Harbour, but was here very abundant indeed, there being about 1,000 small orange or grey individuals in one crack and about 50 very large pure white ones in another. Snake locks (Anemonia sulcata") were common on the laminaria in sheltered water, and Daliah anemones were also abundant in cracks and deep pools on the lower shore. Some magnificent Daliahs, four inches or so across, we *t found in the pools.

Sea Anemones found in 1971

Actinia equina (Beadlet)
Tealia felina (Daliah Anemone)
Sagartia Troglodytes (Cave Anemone)
" Elegons var. Venusta
-" Minata
" " Nivea
Anemonia sulcata (Snake locks)
Metridiin senile (Plumose Anemone)
CereitB Pedunoulatus

- TIM BELL

* * *

SOIL ANALYSIS

Half-way through the Expedition during a brief meeting on the progress of various projects, it was discovered that the soil analysis kit had not been used so I volunteered to do a survey.

To begin with the only knowledge I had was that a low pH indicates acidity, but I soon mastered the use of the kit, and here are the results in ascending order of pH :

5.75	Peaty - 1 foot deep (typical soil on Rona)
6.00	Peaty topaoil
7.00	Peat bog - saturated
7.50	Surface soil at camp-site
7.50	Camp-site - 1 foot deep
8.00	Beach gravel near shore
8.00+	Camp-site - 2 feet deep

These results are interesting because they show leaching of acidic elements in the soil. The readings were taken after heavy rain; further readings taken after the surface had dried showed an average reading of 5.75.

The soil 2 feet under the camp-site was more alkali, probably because at one time the area was used as the garden of the school-house. It may have been improved (with seaweed and shell lime?)

- JOE NEAL

'THAT SINKING FEELING'

I never knew how foolish I was being when I said I would take the 'canoe[1] round from Dry Harbour to Big Harbour at the end of the expedition. It was known to have a leak but the hole could not be found; in any case, I told myself, I could always land and bale out. I forgot that it would be almost impossible to land anywhere. Rog and the Banana Man were going round in the inflatable, so there was another boat handy. I stuffed the canoe with life-jackets and we set off.

By the time we had got across the bay (about half a mile) the water was coming over the top of my waterproof trousers, but still very little over the side. Then came the turn round the headland, changing from crossing the waves to running with them. There was one nasty moment when the canoe decided to get rid of me and began to broach; after that, though, all

went fairly smoothly. Soon I noticed the dinghy crew giving me strange looks; I turned round just in time to see a wave lapping at the coaming - the stern canvas was completely covered! I decided to get a move on and the canoe promptly started surfing, which was fast but hair-raising and hard work, so 1 vent back to my normal speed.

Gradually the canoe sank deeper and deeper until I thought that baling time had finally arrived, and then ... Oh Joy! we entered Big Harbour. The harbour lived up to its name, but we survived due to the water being calm, and we finally reached the jetty. 1 got out and immediately wondered why I had not sunk out in the main channel - there was about six inches of water in the bottom of the canoe!

- GEORGE SLOANE STANLEY

* * *

WATER AND RAINFALL MEASUREMENTS IN DRY HARBOUR

Streams large enough to allow the normal types of hydro-graphic measurements don't exist on South Rona: the island just isn't large enough to keep them supplied with water. They tend to be little more than muddy trickles draining down Thorn boggy land between the crags on the summit ridges of the island.

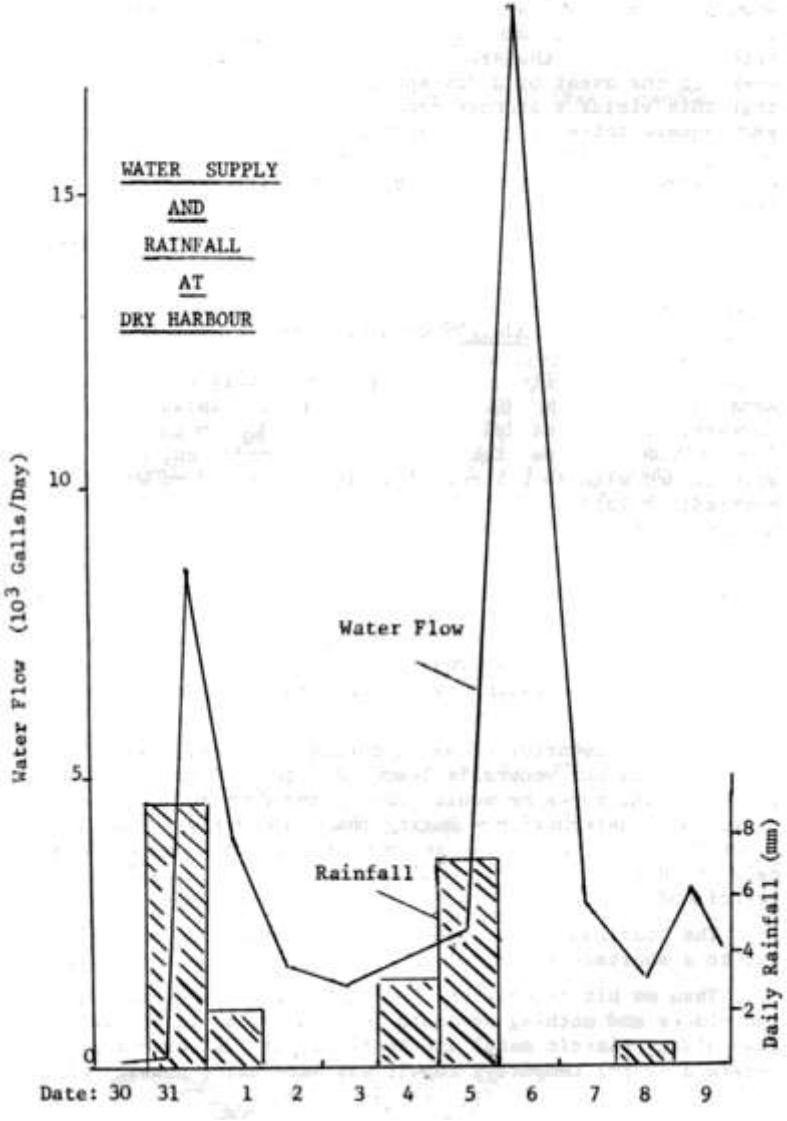
The water supply for the Expedition was no exception. It flows into Dry Harbour at map reference 622579. However, members of previous Expeditions have channelled it through some old piping to facilitate its collection in a bucket. Though small in quantity, the water is surprisingly clean, but boasts numerous water shrimps which were frequently washed down into the collecting buckets.

When we arrived at Dry Harbour, the weather had been fine for some weeks and the stream was dwindling daily. Since the stream flowed conveniently down a rusty drainpipe, I decided to investigate its discharge rate by the simple process of timing the filling of the water buckets. The first measurement yielded the rather alarming value of 120 gallons per day.

However, there was a fair amount of rain subsequently, and the discharge increased dramatically, up to a maximum of 18,000 gallons per day.

The hydrograph we produced shows a comparison between rainfall and discharge. Clearly, after the rainfall on 5th August, the flow rate increased much more dramatically than it did on 31st July, as the ground was nearly dry on the first occasion.

The catchment area of the stream is about 0.14 km^2 estimated from the 6" map. Thus, during the time that measurements were made, 2400 m^3 of water fell on the catchment area. Calculation of the area under the hydrograph shows that only 40,000 gallons (183 m^3) were discharged.



Perhaps the explanation for this was the fact that the ground was almost dry when we arrived on the island, whereas when we left it was quite boggy in parts. The figures suggest a storage of about 2200^3 (half a million gallons) over the catchment area of the stream - enough to last for several weeks in the event of a dry spell. Further calculation shows that this yields a storage capacity of about 31/2 gallons to each square metre of ground surface. It might make an interesting future project to devise a method of measuring this more directly, and tying the results up with ecological investigations.

- MARK RAYNE

* * *

BOATING ON SOUTH RONA

The boating situation promised to be very good on South Rona this year with *'ROCKBOTTOM'* and an Avon inflatable dinghy. However, arriving at Kyle, we were greeted with the news that *'ROCKBOTTOM'* had been taken by another expedition, and so we were loaded with 16 gallons of useless fuel and no work boat. Hurriedly 5 gallons of pure petrol was bought to help make the mixture suitable for the Avon's Johnson engine.
As you can imagine, an inflatable dinghy, only 8 feet long, is hardly an ideal work boat, but since it was impossible to land any equipment at the camp-site, everything had to be transported from Big Harbour to Dry Harbour. The Avon made about 13 forty-minute journeys, moving most of the equipment, and towing the gas cylinders behind. We succeeded in getting extremely wet.
The most eventful occasion during these trips was the only one with our venerable leader Rog (God bless his lallies). If he saw any rocks he would jump up and down and shout causing great consternation. During the journey the engine stopped about 15 yards from the shore - when a voice rang out 'Keep calm - don't panic - we'll make slowly for land.' The petrol had run out but who was to know that ...?
The boat had to be used sparingly during the expedition due to a shortage of petrol, but it was often used for fishing.
Then we hit trouble - the carburettor case cracked in two places and nothing we could do would block it up, including solder, plastic metal and Bostick. At last becoming desperate a (very) temporary repair was made using chewing-gum, a

medical bandage, Bostick, rubber solution and candle-wax!
Altogether, the inflatable did not prove a great work boat, and we could have done with *'ROCKBOTTOM'*. However, it proved a good 'fun' boat and very good for fishing. Probably no-one used it without getting drenched in one way or other.

- BUNGE LIVINGSTONE &
NICE (Baby) SAUNDERS

* * *

MUSIC REPORT

By some strange quick of fate about fifty par cent of the people on the Expedition played the guitar to some extent, and in view of this one could picture one or more super-groups springing up and getting it together' in the space of three weeks. There was, however, one limiting factor - there were only two guitars, and one of those had a string missing. Nevertheless, by the end of the first week, the 'Plastic Rona Band' was underway and continued to thrive on Chris Collins[1] endless Beatles[1] repertoire.
The highlight of the 'jam session' was the screaming guitar riffs of, perhaps, the greatest white guitarist alive today - Bunge 'wild thing' Livingstone - which certainly brought tears to our eyes along with exclamation of disbelief.
The only song written on the Expedition - by Stephen Pope - was of a very high standard. Meanwhile, Phil Slatter experimented with incredible criss-cross rhythms exploding with sarcasm on a red plastic bucket.
On a sensible note however, there was some kind of musical entertainment nearly every night of the Expedition, which seemed to go down well. On the homeward journey came, perhaps, the grand finale with Chris's ill-timed remarks in a Scottish record shop about bagpipe music!
But all in all I think I am safe in saying the music side of the Expedition was successful.

- NIGEL SAUNDERS

* * *

ECOLOGY

The ecological work on Rona was performed sometimes with unnerving enthusiasm. For example, when one of your associates starts spouting the Latin names for genera and species as though he has a peculiar speech impediment, you begin to wonder ... Or you pick up a common mussel (or so think you) and someone yells *'Mytilus Galloprioinoialis*'- this sort of thing can get on your nerves.

The seashore ecology did, however, prove to be good partly because we had two or three exceptionally low tides when we discovered many things that ware not found otherwise, and people spent many long hours just pottering about looking for new things.

We completed a transect across Dry Harbour - a transect being a form of studying the quantity and variation of forms of life in a certain area. Across the area to be studied a length of string is stretched and at intervals along this (every five yards) a one foot square quadrant is thrown randomly five times. A record is made of all the animals and plants found in each square. Thus at each five-yard interval out of the five times the square is thrown, any organism can appear 0-5 times, giving a quantitative idea of the distribution of that organism in a certain area. The results can be plotted on a kind of graph.

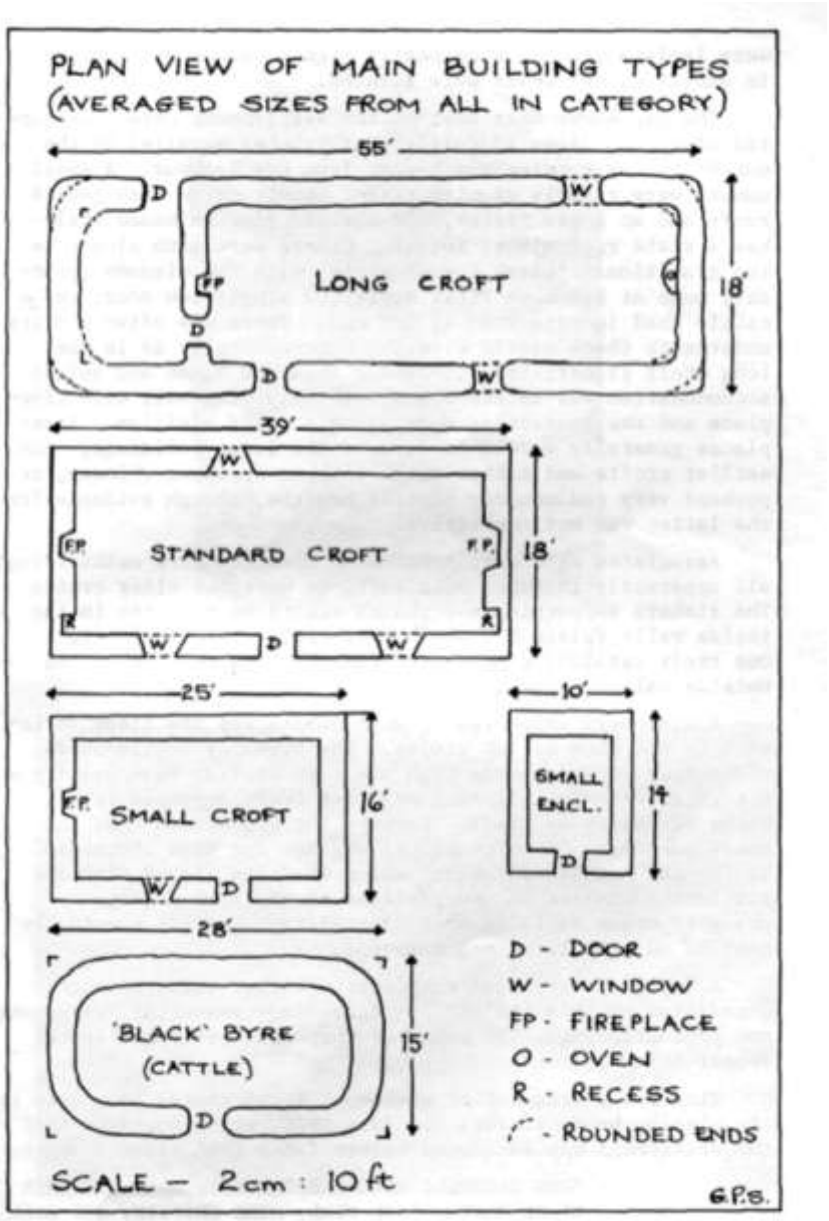
During the few days with very low tides some unusual sponges were found, and good specimens of the squat lobster and broad-clawed porcelain crab. Also a large edible crab that was changing its shell, and many varieties of fish ranging in size from 1/2-inch to 1 foot. To most of the people involved, this kind of work was new, and we hope gave them a pleasant first taste. A full list of all animals and plants we recorded appears in a separate report.

- NIGEL SAUNDERS &
BUNGE LIVINGSTONE

* * *

DRY HARBOUR SETTLEMENT STUDY

The purpose of this study was to map all the remains of settlements in the Dry Harbour area, to measure the dimensions of each, and to classify the main building types. This proved a much greater job than anticipated as the settlement was much larger than first thought. Eventually 22 groups of dwellings were isolated, comprising nearly eighty buildings or walls. In addition, two wells were located.



The map shows that most of the settlements were constructed along the lines of fairly flat benches parallel to the marshy valley running north-east from Dry Harbour. A small number were clearly of quite recent construction with gabled roofs and an upper storey, and the old mission house still has a slate roof almost intact. Others were much closer to the traditional 'black house) style, with few windows (probably none at all when first built), a single low door, and a cattle shod incorporated at one end. There wan often a drain underneath these cattle byres, and occasionally as in the long croft illustrated, it deemed that the human and animal accommodation was intermingled; the dividing wall with fireplace and the connecting door being a later addition. Fireplaces generally were a feature of the later buildings; the earlier crofts had either ovens with no apparent chimney, or perhaps very rudimentary central hearths, though evidence for the latter was not conclusive.

Associated with most settlement clusters were outbuildings, all apparently thatched with turf, as were the older crofts. The timbers supporting the thatch rested in recesses in the inside walls (plate 1), which were often clearly visible. One croft retained some of the thatch along the top of two outside walls (plate 2).

A discovery which led to much debate was the clear variation in the size of the crofts. The byres or cattle-sheds where they were separate from the main crofts, were usually of a regular size (as illustrated), but there appeared to be three varieties of croft. Perhaps the suggestion that the small ones were 'granny-crofts' was not far from the truth! As for the 'small enclosure' which was often found within a settlement cluster - suggestions ranged from a large draughty urban facility to a distillery; opinion eventually settled on a small animal compound.

A dedicated group of enthusiasts worked throughout the Expedition on this project - recording, measuring, sketching and photographing. The names of the principal participants appear below.

Finally, a fragment of newspaper found pasted to a wall in the mission-house yielded the date 1926, which suggests that the settlement was abandoned rather later than first thought.

- GREG SURRELL, ROGER WEATHERLEY,
DAVE STREDDER NIGEL GATES,
PAUL GILL, MIKE GRIFFIN, JOE NEAL

TIDAL MEASUREMENTS IN DRY HARBOUR

Dry Harbour is an enclosed bay, connected to the sea by a fairly narrow channel. The bay is shallow and only gently sloping, so that it is left completely dry at low tide. This was useful for the ecologists, but made the measurement of tidal variation rather difficult as a tide pole which was set up at the low tide mark was so distant as to be virtually invisible at high tide. However, we decided to attempt to record the progress of the tide to see if we could obtain what we expected would be a sinusoidal variation of height with time. The tide pole was weighted down at the bottom with rocks and erected at the low tide mark. It was simply a tall, thin and, unfortunately, rather crooked tree trunk, around which string markers had been tied.

The problem of distance was partially overcome by using a pair of binoculars to inspect the pole - Stephen Pope made observations every fifteen minutes over a period of nearly twelve hours. The resulting measurements have been plotted on a graph, and show a curve which is far from the sine wave expected. It is difficult to explain this. Maybe an inaccurately constructed tide pole is responsible, but it is possible that the enclosed nature of Dry Harbour and the surrounding bay is responsible. Or the tide may have slightly shifted the pole. Another more careful investigation of this both inside Dry Harbour and outside the enclosed part of the bay, might be worthwhile on some future expedition.

- MARK RAYNE and STEPHEN POPE

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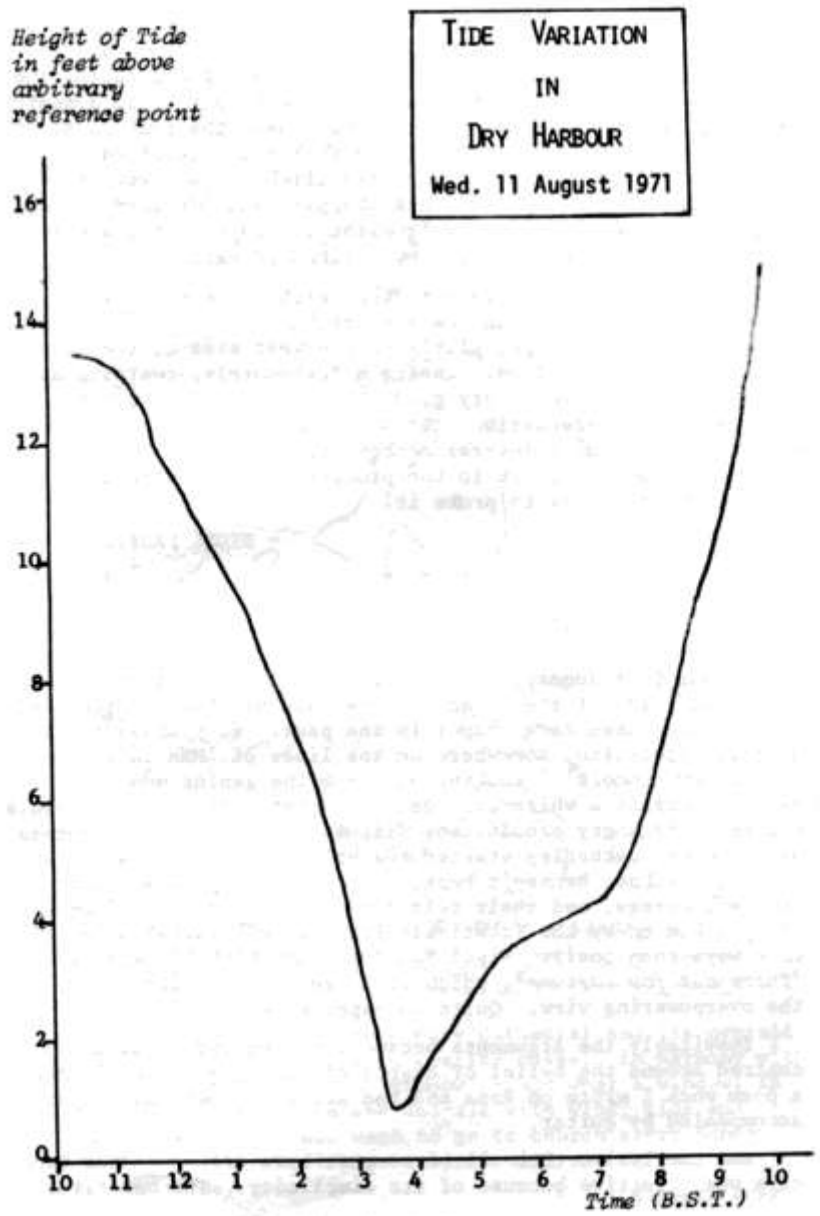
CLIMBING REPORT

For an island as rocky as South Rona, the opportunities for climbing are disappointingly limited. There are virtually no sea cliffs, and inland the climbs which do exist are too short. More sizeable crags that from a distance appear to be suitable turn out, on closer inspection, to be overhanging. Nevertheless, there was quite an active climbing contingent on the Expedition with a few regulars and a greater number of occasionals.

Perhaps the best climbing area (and also, unfortunately, the most midge-ridden) not found until the last few days of the Expedition, was the cliff on the east side of the island in which lies the consecrated cave. This was the scene of the climbing bivvy, when four of us (happily a 'bridge' four!) John Burgess, Mark Rayne, Mike Griffin and myself - braved a chilly night for the dual purpose of climbing and seeing the sun rise.



The sun, unfortunately, failed to put in an appearance, but we did manage some climbing. Here the rock is steep and mainly sound, though with loose rock and vegetation towards the top providing quite tricky climbs of 60 feet or so. Several members scaled 'Griffin's Grapple' and 'Crumbly Corner' with more or less assistance from the top rope, but there is scope for further exploration by a stronger party.
We found some easy slabs to the north, some short steep pitches above the camp on the left of the 'main road' to Big Harbour, and some larger cliffs to the west side of the 412 high point of the island. These, unfortunately, overhang at the bottom, but gave a very good 100 foot abseil. It was a feature of this Expedition that more energy was expended going down than going up! Several members developed their abseil techniques to perfection in the process - and there are numerous photographs to prove it!

- NIGEL PADFIELD

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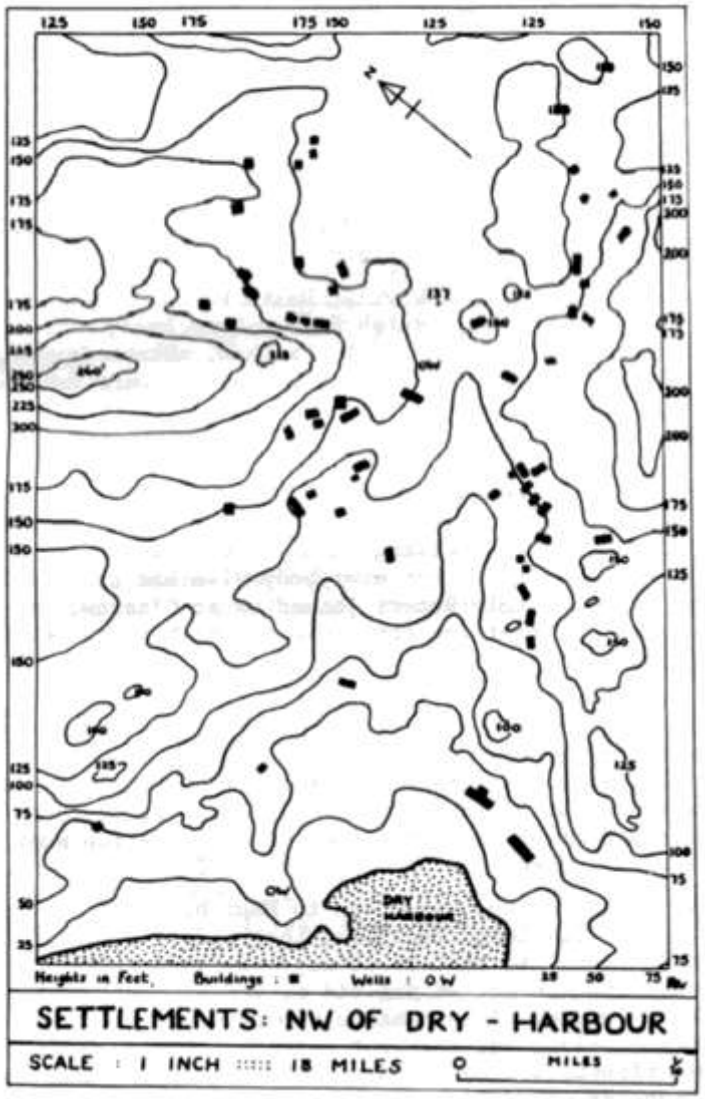
VISIT TO THE CHAPEL CAVE

On our last Sunday, fifteen of us went across to the cave on the far side of the island. This cave has been consecrated and has been used as a chapel in the past. We planned to have a small discussion, somewhere on the lines of 'Man in relation to his environment. • Looking out from the gaping mouth of the cave - across a white-crested sea to the Applecross peninsula blanketed by angry clouds, any discussion seemed hardly necessary. Roger Weatherley started the ball rolling with a passage from Dr. Michael Ramsey's book, on one of his points concerning man, things, and their relation to God. This was immediately taken up by the insatiable Greg Surrell (insatiable in more ways than one!). Nigel Saunders sang with his guitar *'There but for Fortune'*, which we looked across with awe at the overpowering view. Quite an experience!
Inevitably the arguments became more and more heated and centred around the belief or disbelief in a god. Then I sang a poem which I wrote on Rona and had set to my own tune, again accompanied by guitar.
One conclusion that all of us must have drawn was that the cave was effective because of its simplicity. The beautiful stained-glass windows of Canterbury Cathedral and its overall splendour make it difficult to realise oneself in harmony with one's environment.



But one 'window' - and what a window! in the cave chapel makes you one-and-all with wind, tide and mountains. Who would not want to go to church every Sunday with a chapel like that? I certainly will not forget that Sunday for a very long time.

STEPHEN POPE

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RHUM EXPEDITION 1971

Leader: Phil Renold

*C.A.*Alan Evison

Officers Launcelot Fleming, Mark Hayden, Eddie Stuart, Jim Turner, Ric Weightman.

Boys: Rupert Abel, Nick David, David Horn*-, Stephen Kana, Robert Marchment, Ralph Pain, Rory Post, Dickon Sandbach, Michael Strachan, Steve Stuart, William Warin, Andrew Wordsworth.

LEADER'S REPORT

By the time the main party had left York on the way north we had already managed to lose two members of the Expedition, and I had visions of arriving in Mallaig to greet the other officers with the news that everybody else had been 'lost on transit'. Fortunately Rupert joined us at Glasgow, and it was later discovered that the other missing member had been taken ill the day before and was unable to come.

It was thus in a relatively peaceful state of mind that we disembarked from the Loch Arkaig at Kinloch. Having made three trips from ship to shore we were all assembled on the jetty and with two tractors with trailers waiting to transport us to the site at Salisbury Dam I was just beginning to congratulate myself on a superb piece of organisation when the unexpected happened. The midges attacked!

Now all those who have been to Rhum or anywhere else in the Hebrides will immediately say that midges are very far from unexpected. Be that as it may: by some extraordinary piece of mismanagement we arrived to set up camp on the worst evening for midges of the entire summer season on Rhum. In addition to this I later learnt that 1971 has been the largest and most plentiful midges ever recorded and that Rhum was the worst place of all (Nature Conservancy Report). Throughout the entire Expedition, and in particular during the first week, we had to endure vast numbers of these little flying friends at quite literally all hours of the day and night.

Despite this very considerable handicap the Expedition went extremely well. Rhum itself is probably the very best of all Hebridean islands in that within its 26,400 acres one finds a remarkable variety of landscapes ranging from the mixed woodland of Kinloch and the beautiful sands at Kilmory to the extensive moorland of the area round the camp-site and the extremely rugged 2,500 ft. mountains of the south-east.

We fished, walked, drew, surveyed, climbed, went on bivvies, practised Egyptian PT, and wrote poetry. Most important of all we did a large amount of project work, details of which will be found elsewhere in this report. Ric, our tame geologist, Look everybody out rock-spotting at leant once and built up an impressive collection of all the major rock types of the island. Jim went on many 'geomorphological rambles' to explain the mysteries of glaciation. Mark went climbing when the mood took him. We were all sorry when he had to leave early. Eddie surveyed the stream around (and on some occasions very nearly through) the camp-site, and produced a very fine map of the Harris area which provided the basis for much project work there. In addition, he was misguided enough to accept the malicious suggestion of Mark and myself and attempt to ascertain the exact height of Trollaval which was then thought to be unknown. Having been forced to leave the theodolite on the summit it was finally retrieved, at the third attempt, on the last day of the Expedition.

Alan persuaded others to draw and paint as well as acting as editor and scribe for our very own newspaper. David took meteorological recordings and failed to provide a reliable 'midge forecast'. Rory spent his days watching the oyster-catchers and other 'birds' at Kinloch, often accompanied by Rupert. William worked on mosses. Steve and Bob, amongst others, on their poetry. Space forbids any mention of the other members of the Expedition, but I know that they all did a great deal of project work judging by the number of articles which I have received. I fear that there will not be room to print them all.

The most memorable thing about the Expedition was the 'ethos' surrounding it. Partly explained by the small size of the Expedition and the poor weather, it was also due to the hard work and good (or possibly bad) humour of all concerned. Memories of the rain and gales, of the storm-watch, of Bob's cartoons, or Rhumidge, of Launcelot's all too short visit and the Communion Service which he took, of the search-party sent out to look for Eddie, of our rehearsal of the Ritual which we were never able to perform, of late nights spent writing poetry, bathing people's blistered feet, singing and eating 'Healthy Life' biscuits, all flood back in a revolting plethora of nostalgia. Our guided tour round Kinloch Castle on the last night provided a suitable finale to a successful, though exhausting, Expedition.

On a slightly less euphoric note I must conclude by saying that if the weather had been kinder and the preparation more thorough we might have done considerably more project work. The Site itself, despite its central location, was not good because it was situated right in the middle of a rather uninteresting midge-infested piece of moorland.

Finally, I must thank Peter Wormell, George and the whole Nature Conservancy Staff both on the island and in Edinburgh for all their help and advice which contributed co greatly to the success of the Expedition.

- PHIL RENOLD

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WEATHER REPORT - 19th August to 31st August

With the aid of a barometer, a max - min thermometer and an improvised rain-gauge in addition to observations of the wind direction and force and hours of sunlight, we were able to take daily readings and attempt a weather forecast. An attempt was also made to provide a 'midge' forecast, but this proved well-nigh impossible because they are such 'versatile[1] insects.

When a graph had been drawn the relationships between pressure, rainfall, wind-speed and cloud-cover could clearly be seen. The weather for the first week was good with only a trace of rain. However, the second was very unstable with heavy rain and gales alternating with sunny intervals as fronts swept across from the west.

Highest temperature 70°F (21OC)
Lowest temperature 42°F (5°C)
Most Rain in one day 0.88 inches
Total Rainfall 3.50 inches
Highest barometric pressure 29.93*
Lowest barometric pressure 29.35*
*subject to inaccuracy.

- DAVID HORNE

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MOSSES ON RHUM

The purpose of this project was to diacover some of the factors that controlled the growth of mosses on rocks and Curl by the sea.

The type of rock on which the muoaco grow seemed unimportant. The same apecieo were found growing equally well on peridotite and granitic rocks at Harris and on Turridonian SandEton* at Kilmory.

Exposure to prevailing wind: Moeuuu on an exposed aite at Harris were compared with those from a sheltered dike at Kilmory. On the whole the same mouses were found growing both on turf and rocks in similar profusion at both Bites. At Harris there is a lot more ground vegetation than at Kilmory and the mosses tend to grow under this, thus being sheltered from the wind.

Proximity of rocks to sea: This does seem to have some effect on the growth of mosses (apart from the very hardy *Grirrwia* Martttma). At KiUwry th« rocks tend to be further from the sea and thus out of range of the spray, whilst at Harris the mosses grow on high rocks and on sites further from the sea where the spray cannot reach them.

- WILLIAM WARIN

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ART PROJECT

The island of Rhum was privileged with the presence of a considerable number of distinguished artists last August. Most prolific and accomplished of these virtuosi was Andrew ('Hatchet – Man') Wordsworth whose output of landscapes and portraits, including a perhaps unique nude study of a midge, would have made even Sir Joshua Reynolds green with envy. The second figure immediately to spring to mind is the provocative cartoonist and mystic, Mahareshi Marchment, whose delicate drawings and words of wisdom impressed us all. And besides these two giants of North-western Civilisation *(vide* - Sir Kenneth Midge), many other artists, whose works[1] lack of quantity was amply made up for by its incomparable quality (inestimable personal charm, inimitable good looks, etc....!) contributed to the rich aesthetic ethos of Rhum '71. Rupert Van Trogh's truly unforgettable cornfield (or was it a beach?) filled the marquee with sunshine on the greyest of mornings,

and Nick 'Cezanne' David's still-life sketches of peasants' boots and a walking-stick quite captured the rustic atmosphere of camp life.
Of course, we did suffer from the eccentric productions of the avant-garde fringe, who shall remain nameless (modesty forbids etc) - their weird, un-wonderful works on wood and stone are a monument to all that philistinism and sheer ineptitude mean to us today.
Finally, a word about an unusual phenomenon (even by SHS standards); I feel it my duty to report that Rhum '71 was afflicted by a mysterious complaint. (for the full account see page 1, col.1 of that much sought after periodical RHUMIDGE, No.3 - 'Literary Virus Hits Rhum').
Towards the end of the Expedition the complaint became evident in a number of boys and officers, including our leader and chairman (R.I.P.), its most obvious symptom being an extraordinary literary lucidity, resulting in unheard of outpourings of verse and, in some cases, poetry. I should just like to say by way of conclusion how deeply I sympathise with all the friends and relatives of these unfortunate victims, and hope that the after effects of this unfortunate ailment will not be too devastating.

- ALAN EVISON

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GEOLOGY OF RHUM

The island of Rhum is basically a bed of Torridonian Sandstone into which a Tertiary Volcano has been intruded.
Torridonian Sandstone is an extremely old (Pre-Cambrian) sedimentary rock composed mainly of quartz and feldspar (to which it owes its pink colour). Occasionally, large grains of feldspar are found in the rock *(cf.* - with caution!-phenocrysts in granite, for example). There are three fairly distinct beds of this rock, of varying age, differing in colour and grain size. One variety is a dark shaley sandstone. The Torridonian was probably laid down under marine conditions to judge from the current bedding structure and sand volcanoes occasionally found. The 'shaley' type would have been laid down in muddy water. The whole Torridonian sequence is approximately 14,500 ft. thick and is fairly well exposed, together with some doleritic(?) dykes (for example, in the bed of the stream Allt Slugan a'Choilich which flows into Loch Scresort). The sandstone is found in most of the north and west of the island and is well exposed along the northern coast. Most of Mullach Mor is composed of the rock and the bedding plane can be well seen from the Kinloch road (Dip 35° approx.).

The Torridonian rests uncomfortably on Lewisian Gneiss, a Pro-Cambrian metamorphic rock, but there are only a few outcrops of this rock notably at Askival, the Dibidil coast and the summit of Ard Nev. The Lewiaian contains quartz, feldspar, olivine etc. and has a salt and pepper appearance. It is one of the oldest known rocks.
The main volcanic period on Rhum was the Tertiary, when a shift in Suina convection currents caused America and Eurasia to drift apart. In consequence the Tertiary was a period of great volcanic activity and much faulting occurred *(.e.g.* Great Glen Fault, Moine Thrust). Rhum was the site of a large ultra-basic volcano which intruded through the country rocks causing both radiating and ring dykes. As well as this there is an Acidic rock complex. The relationship between the ages of these two igneous complexes is as yet undecided, but I think that the Acidic rocks were present first owing to the greater number of ultra-basic dykes in these rocks.
Where the two rock types meet a thin layer of 'hybrid* rock has formed. At the surface this rock has a 'crow's feet' appearance. Underneath it resembles dolerite.
The Acidic rocks comprise a pink, medium-grained granite which is exposed along the S-w coast. The base of Ard Nev is also composed of this granite. Associated with this granite is granophyre - granitised Torridonian - a grey rock with black specks.
The rest of the igneous rocks are found in the S-E quarter of the island and are the ultra-basic remains of a volcano. Rocks found here include peridotite (a dark, coarse-grained rock), and allivalite (a type of gabbro named after the mountain Hallival). These are found in alternating layers on Hallival and Askival, and also much lower down: for instance, allivalite is found by the Priomph-lochs and peridotite is found on the beach, as layered rock, at Harris.
Finally, basic lava flows, such as basalt and mugearite lavas, can be found in the hills in the west of the island -Orval, Bloodstone and Fioncra. An interesting association with the lava capping of Bloodstone Hill is a greenish, hard amorphous stone (Bloodstone) that appears to have formed by filling the vesicles in the lava.

- RALPH PAIN

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RHUM - GEOMORPHOLOGY

In geomorphological terms, Rhum is an especially interesting place because It has boon extensively glaciated and serves as an excellent example of this type of erosion.

The most obvious pointers to this fact are in the glens or the island. There are fine examples of morraine (Kilmory Glen), eratics (the upper regions of Glen Harris, between Barkeval amd Trollaval), smoothed rock surfaces (Long Loch region), rock scratching and perched boulders (Kinloch Glen). Clear-cut and almost 'text-book' corries are present in Glen Dibidil and Glen Harris.

Most of Rhum was covered by an ice-sheet and what high points there were which managed to remain clear have been heavily gouged, leaving aretes and pyramidal peaks in the Askival area.

Other interesting features are also present on the island. There is an obvious fault-line running in a north-south line from Kilmory to Papadil, the whole length of the island.

At Harris there are examples of river rejuvenation and raised beaches.

- BOB MARCHMENT

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THE OYSTERCATCHER COMMUNITY AT KINLOCH

The island of Rhum has a mainly rocky shoreline with very few areas of mud or sand. The only area of mud is to be found at Kinloch and the only area of sand which is large enough to be of any significance is on a half-mile stretch at Kilmory. Hence these two areas are the only ones of any great importance to waders. Kinloch seems to hold the greater number of waders, while Kilmory harbours more species. The two common species at Kinloch were the Curlew (approx. 10-15) and Oystercatchers (approx.15-20).

The beach at Kinloch is at the end of an east-facing sea loch - Loch Scresort. The upper 100 metres of the beach is covered with small, seaweed-draped rocks which are covered completely only at high tide and totally uncovered at about half to three-quarter tide (depending on whether the tides are spring or neap). Nearer the low-water mark these small rocks give way to mud. The area of transition is a large mussel-bed, with mussels clinging to all available rocks. These beds are about

25 metres long, from rocks to mud. The mudflats are only uncovered at medium-low tides and then it is about 75 metres from mussels to water.

When the tide is very high there are few, if any, oyster-catchers around the loch, but when the high tide does not cover all of the rocks some oystercatchers are to be found loafing. At this time, in general, they do not feed but display, preen and rest.

An the tide goes out more birds fly into the area and settle on the rocky beach at the head of the loch. The birds then follow the tide down to a certain extent. Whilst only the weedy rocks are uncovered only about half of the birds feed. The others continue loafing. The feeding birds possibly eat near the water on shrimps and Crustacea left by tide and on molluscs.

When the mussel-beds start to be exposed all the feeding birds switch their attention to these. At this stage only a few birds continue loafing.

The way in which the oystercatchers feed upon the mussels appears to be characteristic. The individual bird moves from patch to patch testing individual mussels at each patch. It does this, presumably, to test the mussels' strength' It hammers at the mussel, bringing its bill straight down on it and apparently tries to strike it off the rock. It may find one which it apparently feels is suitable and then tries to knock it off with less random blows than described above but again hitting down vertically with the point of its bill, thus delivering a number of shots in quick succession and maybe changing its position to get a better blow in. If the bird knocks the mussel off it will usually remove it a metre or so, and then hammer at it in the way already described (like a woodpecker hammering a tree). It will then break the shell and devour the contents, then continuing onto another patch of mussels.

All the broken shells which I examined *(Mytilus edulio)* had been broken in a similar way. A hole had been made into the shell about half-way along the ventral side on only one side of the opening crack. They were always broken on the same side (as shown in the sketch). Presumably this is the weakest part of the shell, and the bird breaks it open here. It either then pushes its bill in and levers the shell open in order to remove the contents, or removes the contents direct through the hole which it has just made without opening the shell. I cannot be certain but I think that the former is true.

If the tide continues to go out further, generally all the birds will follow it out over the mudflats. This is probably explained by the fact that the mud would be more easily penetrated by the bill when wet. The bird moves along parallel with the shore probing the mud at irregular intervals, in general pushing the bill in to a depth of 2-3 cm. withdrawing it and moving on. Whether the bird simply probes into the mud at random or pushes its bill down existing holes or other external evidence or underground organisms, I cannot say, but I feel the latter to be more probable. The bill is placed in the mud slightly opened so that any suitable organism found can be gripped on either side and withdrawn. Sometimes it appears obvious that the bird has found something because it will stop, perhaps readjust its pulling position, and dig deeper, sometimes to such a depth that its head is completely submerged. If it is successful in withdrawing its prey it can be seen to swallow it. The food taken in this way will consist mostly of Crustacea, worms and larvae. When the tide once again turns the birds follow it back up the beach approximately in reverse order to the way that they followed it down.

Oystercatchers fly into the loch to feed at low tide and out again at high tide, except for a few, and spend high tide at some other place. The birds had not yet formed their winter flocks and could be seen flying out as individuals or pairs. Indeed, one pair in particular, still showed aggressive tendencies to other oystercatchers, in particular to young ones. This pair were seen regularly doing the 'piping display'. This display is associated with all types of excitement except fear. The neck is thrust forward, shoulders raised, bill pointing downward and slightly opened whilst a piping trill is emitted. This is done on the move, either walking or running. The young birds previously mentioned could be separated from the adults by their duller leg and bill colour. They could both (I only saw two young distinctly) be recognised individually by slight irregularities of plumage, presumably brought about because of the first moult.

The oystercatcher community at that period (late August) was very unsettled and generally in a changing period from the

pairing instinct of the summer, which could still be seen as mentioned, to the gregarious instinct of winter, which was not yet evident to any great extent. In addition, there was also a general dispersal movement away from the breeding grounds. As a result of all this no organised community existed at the time.

- RORY POST

Information: Handbook of British birds
Collins' Guide to the seashore

* * *

POLLUTION ON HARRIS BEACH

On Sunday, 29th March, a party of five went to Harris to assess the pollution, and to remove or burn as much of it as possible.

The length of beach covered was from Glen Duian River (338956) to Abhainn Rangaill (342954). This is a total length of about five hundred yards. It was divided into three separate shingle areas - No.l being open to the sea, whilst Nos. 2 and 3 are sheltered by rocks.

All the shingle areas had a lot of driftwood on them and no attempt was made to quantify the amount.

The rocks were entirely free from all forms of pollution except where lengths of rope etc. were trapped between rocks, but this was minimal.

The amount of debris other than wood which was collected was as follows:

Area	1	2	3	Totals
Plastics	6 cu.ft.	4 cu.ft.	5 cu.ft.	15 cu.ft.
Metals	1 "	1 "	2 "	4 "

The plastics were all burnt, and the metal - consisting mainly of tin cans - was 'bashed' and buried. Area 3 was cleared of all driftwood and about half of the driftwood on the other two Areas was burnt.

The following points may be considered worthy of note:

1. Plastics were almost entirely bottles, polythene bags, ropes and shoes.
2. No natural fibre ropes were found.

3. The remains of two seabirds were found, but neither showed any signs of oil.
4. One oil-drum and a large metal buoy were found in Area 3 and left there. In Area 2 a large rubber buoy was found and burnt.
5. There were no surface oil patches anywhere on the shoreline, but in Area 3 tar and emulsified oil was found in the shingle below a depth of three inches.

- MARK HAYDEN

* * *

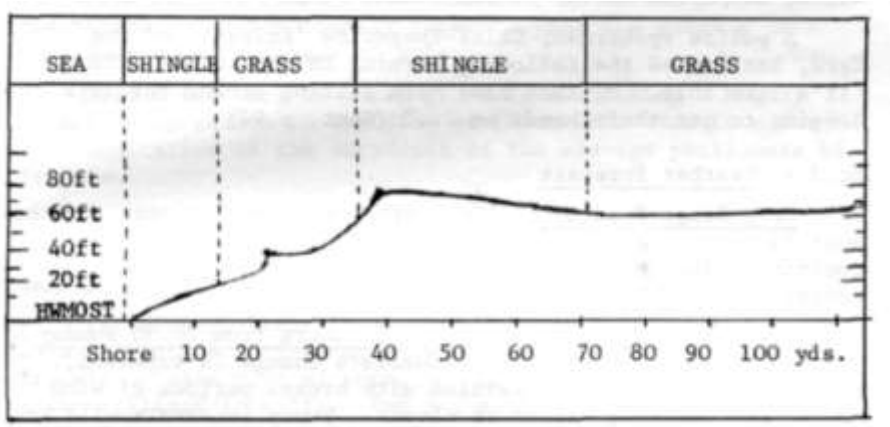
HARRIS – GEOMORPHOLOGY

The most obvious feature at Harris is a 100-yard-long shingle bank (the top of which is 80 feet above the High Water Hark of Spring Tides), and running roughly parallel to the present shoreline, some 40 to 50 yards from it. Stretching back from the top of the bank and sloping slightly downwards is a shingle beach about 35 yards wide. Inland again of this beach is a very flat area of what might almost be called 'water meadow' - the only on« of its kind on Rhum.
The explanation of the shingle beach 80 feet above HWMOST is that the sea-level was once higher, relative to the land, than it is today. At that time the sea deposited the shingle in its present position. The highest point of the bank was probably only affected by the sea during storms and exceptionally high tides. The shingle is large (up to 8 inches long), and deposition was likely to be on the front of the bank, causing the shingle beach to progress seawards, leaving behind the present 35-yard wide shingle bank.
At a level of 25 feet above HWMOST there is a grass-covered terrace, flat on top and sloping at 70° down on the seaward side. This is either another raised beach deposited at a later date or else the old shore-platform of the upper terrace. Without taking samples from beneath the grass no firm conclusion can be reached.
Also associated with the various levels of the sea in relation to the land are rejuvenation of the drainage system and wave-cut platforms at the base of the cliffs south of Harris. The latter were not examined closely by us.
There are two rivers flowing into the sea at Harris, the Glen Duian River on the north-west side of the bay, and the Ahhainn Rangaill on the south-eastern side. Due to the relative

rise in the level of the land the erosive powers of the rivers have caused new valleys to be cut within the old ones. The subsequent gorge is plainly visible on the Glen Duian River. In this case the 'nick point', where the entrenched valley begins, is about a mile and a quarter from the present shoreline.
There is no gorge in evidence on the south-eastern side of the bay, probably due to a band of hard rock near the mouth of the river which has resisted erosion.

- JIM TURNER and RALPH PAIN

GENERAL CROSS-SECTION OF AREA BEHIND PRESENT SHORE-LINE AT HARRIS



RHUMIDGE

RHUMIDGE was a scurrilous rag edited and published by our redoubtable C.A. and in form was not unadjacent to PRIVATE EYE or THE NEWS OF THE WORLD. Here are a few extracts ...
No.l - Man bites Midge by our Crime Correspondent
A man, 43, was alleged to have bitten a midge in an unprovoked and vicious manner as it settled on his slice of bread and syrup yesterday at Salisbury Dam. The man, Hal Ival, 57, of Seaview Terrace, Dibidil, Rhum, is being held for questioning. The midge, 5 hours, one of a large family of illegal immigrants, is expected to reappear in a few hours' time.

No.2 - First Issue of Rhumidge Causes Storm by the Met Office

Hardly had the presses stopped rolling and the first inky copies of RHUMIDGE reached the public when a violent storm of reaction held the islanders of Rhum in its awe-inspiring grip. ('And for why?' - Come in, Fyfe Robertson). Tents were flattened under the gale of protest whipped up by offended celebrities whose names were felt to have been taken in vain. So strong and high did feelings run that a midnight sit-in was arranged in the marquee. I am informed by reliable sources that the instigator of this flagrant incitement to conspire to rebel against Luwanorder, the Establishment, Edward Heath, the Common Market and bowler hats was none other than the prominent anarchist and trunk-murderer, Bobby Marchbent, whose cartoons have shaken the moral fibre (not to mention the canvas and nylon fibre) of the entire camp.

A police spokesman, Chief-Inspector 'Knicker' of the Yard, has issued the following warning to all future offenders: "It's like this. My lads have been sitting around for days longing to get their hands on ..." (Cont. p.94)

No.3 - Weather Forecast

Long-Range Forecast; The weather will be imminent for the next 24 years. All prevailing weather conditions will be dominant. The general trend is vertical though there are horizontal possibilities.

General Synopsis for the next 24 hours from 10.30 Sunday 29th August:

Whilst no immediate change is expected, the general outlook is unsettled with broken periods of wind and some minor indigestion of clouds. Sunny intervals will be interspersed with the advance of secondary glaciation down Kilmory Glen. No major earth movements are anticipated before lunch although the possibility of fifty foot floods cannot be ruled out. However, rumours that pairs of animal species are congregating around the boathouse at Kinloch should be dismissed as ridiculous and taken quite seriously.

Tomorrow, the weather is expected to clear up (up, and away!)

And that is the end of the weather.

Steam Lubricant Chickens Out Once Again by our Non-Walking Correspondent and Feurher.

At an early hour of Sunday 29th August in the year of our Lord 1971, one Mark 'Steam Lubricant' Hayden was rumoured to have seen crawling from his tent on the island of Rhum in an attempt

to begin the widely publicised and infamous 'Ridge Walk'. If this report is true, which we have reason to doubt, then the attempt foundered at birth (or thereabouts) since the Great Midge in the Sky had decreed that the clouds would descend unto the self-same precipitous mountains on which the attempt was planned.

Using this as an excuse, Hayden, 46, and hit trusty companion Jim 'Marmite the Terrible' Turner, like the craven cowards that they are known to be, opted instead for cushy trips to Harris-de-la-Zouth and Cuiridil-de-la-Mere. It is of interest to note that Hayden, 72, whose hobbies include a bizarre taste for a steam-engines (note his pipe which is really a cheap imitation of Stephenson's Rocket), was most keen to visit Harris, where there is, of course, the much used bath (in which Admiral Eddie sailed his navy of rubber ducks). On his return it is confidently expected that his grizzly chin will look a whiter shade of pale.

This total lack of moral fibre in abandoning a highly dangerous operation in the face of impossible odds is a further indication of the decadence of the old-age pensioners of Britain.

* * *

Dear Sir,

Yesterday I broke free. I was tired of watching the rain droplets drip from my glasses and feeling the constant trickle of rain down my neck. I was bored of this detachment, this civilised immunity. And so, sir (and 1 do apologise, sir), I broke free ...

I pulled off my sou'wester, and took off my waterproofs, I waded through the peat burns, and wallowed in the bogs...

And I saw: I could see how the rain had turned the peat burns into bubbling silver streams, and the silver streams into rushing golden torrents. Rain danced on the puddles and drummed against my face. It ran down my face in tiny rivulets, like the water ran down the hills. I drank the rainwater as it collected on my lips, and I smiled, for although my hair and clothes clung, soaked, to my body, I was in harmony with nature. I watched the water which had overflowed from the streams as it poured down the hill, looking for an outlet for its bubbling turbulent joy. I loved that water because, like me, it had broken free.

From now on, sir, I must be considered,

Yours unfaithfully,

- ANDREW WORDSWORTH

TALK GIVEN BY LAUNCELOT AT THE COMMUNION SERVICE HELD IN THE MARQUEE ON AUGUST 29th, 1971

The two lessons chosen for this service were the account of the 40 days which Jesus spent in the wilderness before His temptation and the Transfiguration.
Jesus seems to have gone into the wilds before most of the critical period of His life. There were the 60 days which He spent in the wilderness. Was the wilderness In His mind, or in His surroundings or in both? The narrative seems to point to the last. That is to say that here you have the description of a young man who felt he needed to get away to work out how he was going to live his life.
It wasn't simply a matter of living rough, but being in a situation where superficial things don't count - where you can think about and wrestle with the main issues - the testing tensions which everyone, sooner or later if they are to live their lives fully, must come to terms with.
Jesus also withdrew to the hills before He chose His Apostles, before He delivered the Sermon on the Mount, and He went into the Garden of Gethsemene before His arrest.
And so, in keeping with this, Jesus withdrew from the crowds and took the three who were closest to Him - Peter, James and John - up Mount Hebron before His entry to Jerusalem. Quite a stiff climb, rising to a height of 9000 ft. with the top in snow. There Jesus prayed.
He had on His mind a load too heavy for man to bear. He clearly realised what would be the result of the forces which were building up against Him if He stuck to the course which He knew was the only right one, but which He also knew would cost Him His life.
As He prayed with the light reflected from the snow, Peter, James and John, who had fallen asleep, woke up - and they saw His glory. They saw Jesus transfigured. And then a cloud came down and out of the cloud a voice - "This is my Son, listen to him." That is the gist of the account - a disclosure, as they felt, of something supreme in Christ - a disclosure of the inner heart of God. There will never be a time when self-giving will cease to be at the heart of the universe.
But there is some significance in the fact that Jesus was transfigured when He had withdrawn to the mountains.

This withdrawing has a wide and general application where new values and standpoints are to be found.
At least, I'd like to think of this as escaping to Rhum, rather than escaping from one's home or job. Undoubtedly, the greatest creative acts of man have come out of experiences of withdrawal, when it has not been escaping from, but escaping to.
And it is neither too fanciful nor too far-fetched that we should think of escaping to the Glory of God - catch something of the same vision which Peter, James and John were given when they saw Jesus transfigured by His acceptance of the way of Love*
Because if once we can begin to see and to understand this, we shall have the vision of all life transfigured -every part of God's creation - and that will have a profound effect on what we become and how we live.

- LAUNCELOT FLEMING

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THE SOUND OF NOTHING

The silence creeps on like an encroaching mist,
Filling every crack in the crouching rack face,
Swirling and swooning like a drunken maiden,
Covering the heather, swamping the grass,
Soon, everywhere is void of sound,
Every pinnacle encased within it.
The man stands up and shouts,
Hailing every star in the sky,
Addressing every planet in the heavens,
But who will hear?
The silence soon eats the sound,
And all is left,
As still as before.

STEVE STUART

* * *