

of the attics would look down and explain to the fireman in the very frank language that we used on the island just how little he knew about making fires. He would reply suitably, but the smoke went on, and the dwellers in the boats would close the flaps of their sleeping bags until breakfast was ready.

At night, light in the hut was provided by small wicks of cotton wool floating in tins of seal oil, which shed a small gleam for a yard or two, but on the whole emphasized the gloom. The general dinginess was relieved by a glint of light reflected from an aluminium mug or a tin plate, or from the pipe of some unfortunate trying to get satisfaction out of dried seaweed, tobacco having long since given out. Probably an argument would be going on over some point that could not possibly be settled without reference to a book we did not possess; but, as always, lack of knowledge stimulated argument. After supper Hussey would generally play on his banjo, and we would sing sea chanties or sometimes topical songs of our own composition. At an early hour all lights but one would be put out, and we would retire to dream of food.

Thus the winter passed, not unpleasantly. We were dry and warm and not actually hungry, so that our physical needs were more or less satisfied; but we had read and re-read our few books, and I fear that our mental existence was not very brisk. At last on 30 August, 1916, just as we were sharing out a stew made of seals' backbone and seaweed, a small steamer appeared out at sea. It was the Chilean vessel *Yelcho*, and from it a boat was lowered, standing in the bows of which was the very characteristic figure of Shackleton, who had reached South Georgia safely, and after three attempts at rescue that had been prevented by drift ice round the island, had at last succeeded in reaching us. Within an hour we were sailing northwards towards Punta Arenas in the Magellan Straits, hearing of the madness of a world at war, from which we had been cut off for two years. Nowadays, it is sometimes hard to remember that wireless communication with an Antarctic expedition was at that time still impossible, and that once communication by sea was severed a party was literally cut off from the world and from all news of it.

## WHY I WENT TO THE ANTARCTIC

by Dr. J. H. Harvey Pirie

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Ever since boyhood, when I scoured the countryside for miles around my home hunting for birds' eggs, I have tended to be a bit of a roamer or explorer.

Chemistry was my favourite subject at school and I went to Edinburgh University with the idea of becoming a research chemist. At the end of the first year, in an interview with the Dean I was asked what were my plans. I told him and he then looked up my examination records, finding mathematics—50 per cent. He clapped my shoulder and said: "Laddie, you might become an analyst, but you'll never be a chemist". That changed my plans and I switched over to the natural sciences, with Geology as my major subject.

Apparently I did fairly well in this for after getting my B.Sc. I was offered a job in the Scottish Geological Survey. But, somehow this did not appeal to me and I decided to go on with a medical course. Soon after finishing this and doing a hospital residency, I heard of Dr. W. S. Bruce organising the Scottish National Antarctic Expedition. This aroused my roaming instincts and on going to see him I got appointed to the double post of Medical Officer and Geologist.

The "Scotia" was mainly fitted out for oceanographical work in the Weddell Sea area; no extensive land work was contemplated, so that an expert geologist was not required. Nevertheless in the months before sailing I managed to rub up my field work with an officer of the Survey in the Hebrides. In my other capacity I acquired some skill at something which I had not been taught as a student, viz., pulling teeth. I thought that might come in useful, and it did. But now for the actual work in the Antarctic.

During the two summer cruises in the Weddell Sea (early months of 1903 and 1904), there were two outstanding events. (1) Wiping the "Ross Deep" off the map; this was based on *one* sounding of 4,000 fathoms, no bottom, taken 60 years earlier by Sir James Ross. With modern sounding gear we found the true depth was only 2,660 fathoms. (2) Finding and tracing for about 150 miles, the

continental ice-shelf which forms the southern boundary of the Weddell Sea. This was nearly 400 miles north of where it had been hypothetically placed on the basis of Ross' one sounding. We named it "Coats Land" in honour of the chief subscribers to the funds of the expedition. The blank area on the map to the northeast between it and Enderby Land has since been filled in by the Norwegian discovery of Queen Maud Land, in which the South African Antarctic Station is located. The blank area to the southwest is now filled in by the Filchner Ice Shelf.

For eight months our ship was frozen in at the head of Scotia Bay, Laurie Island, South Orkneys. Here there was good opportunity for surveying and geological work. Although only in 60°S latitude the climate was polar in type; we had temperatures as low as minus 40°C—cold enough when a wind blew, which it did for about six days a week. But it was seldom we could not get around on skis. Laurie Island may be described as the top of a buried mountain ridge, 12 miles long from west to east, with peninsulas jutting out north and south. On my longest trip, with three companions, to the eastern tip of the island, we were away for several weeks. We mapped the whole south coast, taking the risk of travelling over the sea ice. Hauling a laden sledge over the rough pack was mighty hard work and often we could not do more than a mile an hour. We also did the eastern part of the north coast, with much easier going over glacier-covered, flattened-out land. The rest of the north coast was mapped later by boat.

The rocks of Laurie Island are entirely sedimentary, consisting of sandstones, greywacke-conglomerates with some interbedded shales; they are much faulted and folded. I searched the shale assiduously for fossils but only found a few graptolites and some fragments of a custodian carapace. They were sufficient, however, to identify the rocks as being from either the topmost Lower Silurian or from the base of the Upper Silurian. The rocks as a whole are almost identical in character with rocks of these periods found in Northern Wales and in the Southern Uplands of Scotland.