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# The Oxford University Ellesmere Land Expedition

EDWARD SHACKLETON.

A. R. COURTICE, Chairman:—Exploration, in the past, was more or less confined to the discovery of unknown lands. That is done with, and the modern explorer is required to devote himself almost entirely to scientific research. Such was the purpose of the Ellesmere Land expedition of 1934 and 1935, which was arranged by the Oxford University Explorers' Club with the support of the Canadian Government and the Royal Geographical Society. It is interesting to note that the average age of the party was twenty-three. At that time our guest of honor today was just twenty-two years of age. But, though young, Mr. Shackleton was well equipped for his position, both by birth and training. He is the son of Sir Ernest Shackleton, famous Antarctic explorer, and he has inherited his father's enterprise and ability. He is a graduate of Radley and Magdalen College, has written many articles, and delivered many lectures. The royalties on his book go towards paying the expenses of the Ellesmere Land undertaking.

MR. SHACKLETON:—Mr. Chairman, Gentlemen, I feel it a very great honor to have been given the opportunity of addressing the Toronto Canadian Club. This afternoon I am going to tell you about the Oxford University expedition to Ellesmere Land, and I should mention that the expedition was organized by a small club of the University called the Exploration Club. The expedition had a number of different purposes, and to show there was no rivalry with our sister university I must tell you that we took two Cambridge men with us.

We left London on July 17, 1934, and the expedition consisted of Dr. Noel Humphreys, leader and surveyor, A. W. Moore, photographer and biologist, Sergeant H. W. Stallworthy of The Royal Canadian Mounted Police, Robert Bentham, geologist, David Haig Thomas, Ornithologist, and myself, organizer and assistant surveyor.

We sailed from London in a Norwegian Sealer and our object was to force our way through the pack ice north of latitude 81 and establish winter quarters in Northern Ellesmere land but things did not work out that way. It was heavy going all the way and we finally were met by a huge jam of ice, twenty feet thick, interspered with icebergs that blocked the whole of Smith Sound. As a result we were forced to winter at Etah in Greenland. With the help of our two Eskimos we hunted walrus and seal for ourselves and the dogs. The sun left us in October, and when it returned in February thirty of the dogs had died, some from the severity of the winter, some from food poisoning, and not a few killed by their team-mates. Etah, indeed was not a very suitable place for winter quarters owing to the prolonged and violent winds that blow off the ice cap most of the year. This, together with the shortage of dog food, due to bears and foxes that had broken into our walrus caches, resulted in our dogs being rather weaker in the spring than we had hoped, but we managed to feed them up with pemmican.

The dogs took up a good deal of our time. We began with nearly a hundred of them, and on our arrival at Etah put the majority of them on a small island in the middle of the fjord where we hoped they would keep out of mischief. But they were a ferocious lot and at least six or seven were killed and eaten by their team-mates. A good deal of rough ice, too, drifted against the island, and some of the more adventurous ones decided to go for an arctic cruise and disappeared entirely. Some however were noticed in time and rescued, one a really remarkable beast whose adventures would have made a splendid Walt Disney cartoon. If there was ever any trouble around Oswald was in it, but he did provide a great deal of entertainment for us. Once he found his way into the hut and before anyone knew what he was up to slipped under the stove to thaw out. He found it fine



at first, but then it got too hot, and Oswald did not know enough to get out. So he just lay there and howled, defying for a long time our frantic efforts at rescue. In the end he was a very singed dog.

During the first months following our arrival we made a number of boat journeys to lay food depots, but towards the end of September the fjord began to freeze over, and on October 11 we had to abandon the boats and take to sledging.

Except for Stallworthy, none of us had had any experience of dog driving, and most of our early attempts were entirely disastrous, particularly so because we were compelled to use the fan system of harnessing. In this system each dog has his own line which may be anything from ten to twenty feet long, and each dog is thus able to pick his own route, and so avoid being strung up in the air across a small chasm in the ice while the lead dog on a single line pulls ahead. It was the only possible technique amid the very rough ice and pressure ridges over which we had to travel.

Well, you get your dogs all lined up and ready, the driver cracks his whip, and away you go, every dog pulling his weight and keeping his place. At least that is what you do in theory. In practice it is not quite so simple. What actually happens is that as soon as you get going they spend a good deal of their time jumping over the lines in order to have a chat with a friend on the opposite side, or to take a bite at their nearest enemy, who either retaliates or jumps across the rest of the lines in order to get away. Whatever he does the result is disastrous and entails a great deal of work disentangling lines. My early memories of sledging are of making no progress at all but of untwisting dog lines.

Sometimes we used to harness the dogs to the sled at the top of the twenty-foot bank on which the hut was situated. The result was usually devastating. The sledge would end up in the hummocks of sea ice upside down, with three dogs being dragged along howling underneath, the other dogs fighting and the driver lying somewhere between the starting point and the pile of tins at the bottom of the bank. Generally, therefore we preferred to start from the level surface of the sea-ice itself. As soon as all was ready

the driver cried "Huc" and away went the dogs. There were several words for stop, and on hearing them the dogs usually leapt forward with greater keenness than ever, especially if the dog driver was running on foot after the sledge. In that case he had to return to camp under his own power.

Supposing, however, that he had successfully remained with his sledge, and had not been thrown off negotiating the rough ice nor lost his dogs at the other end of the fjord while disentangling their lines (which meant that he had to push the sledge home himself), there was always the final problem of stopping the dogs when they arrived in the neighborhood of camp. If they were returning homeward from the direction of the glacier and the Etah wind was blowing the speed was tremendous. The sledge leapt and skidded over the ice at a good fifteen or twenty miles an hour.

As he neared the hummocks the driver tried to slow up his team, but by then the dogs were going all out and continued their break-neck speed. If he were a man of the die-hard breed the driver would wind his arms around the handlebars of the sledge as if it were an enemy three quarter within five yards of the line, and allow himself to be dragged, bumping and banging over the irregular surface, while a continuous flow of interesting comment would be born upon the breeze. Summary vengeance was usually taken, which sometimes resulted in the team running away again with the driver inextricably tangled up with it. But at last the dogs would be separated, their lines untwisted, and comparative order restored.

With practice we improved greatly, and as our dogs came to know us and one another they began to listen to our orders. It was necessary to be fairly adept with the whip in order to be certain of enforcing any particular command. This is no easy task for a beginner for the seal-skin thong may be anything up to thirty-five feet in length, and it is particularly difficult to handle in a strong wind. At first we hit ourselves more often than the dogs, and this was painful. Sometimes — and this was infinitely more dangerous—we hit other members of the expedition. But in the end we could be reasonably certain of hitting if not the right dog, at least the one next to it. Our chief use for



the dog teams during the winter was to maintain the fresh water supply. There is of course no fresh water during the arctic winter, except in solid form, either as ice or snow. It was customary, therefore for the expedition to take their sledges out on fine days and nights and drive to the glacier or the nearest iceberg and chop off and bring back a load of ice. This was put in some convenient place adjacent to the house where the cook could easily bring in a block to melt on the stove. Sometimes when we could not travel, owing to blizzards it was necessary to cut blocks out of the snow-drifts close to the house. Snow, however is not a very satisfactory form of water, for as soon as a little has melted it is absorbed by the rest of the snow in the same way as a sponge. In consequence it is necessary to see that it is melted very slowly, or a valuable pan may be burnt.

As the winter drew on there were sometimes blizzards lasting for four or five days on end, with the wind reaching a force of ninety miles an hour. It was then impossible to go out, for when the wind blows in the Arctic it blows the snow along with it, and the snow is not like English snow: it does not consist of big soft flakes but is made up of very fine, very beautiful crystals. Their beauty, however, is not in the least apparent to anyone trying to walk in a blizzard; they feel much more like hard grains of sand which cut the face in an agonising way. In fact, snow at low temperatures bears much resemblance to sand: a sledge will not pull well over very cold snow, for the runners stick nearly as much as if they were being pulled over desert sand, while an attempt to treat a frost-bitten nose by rubbing cold snow on it, as advised by popular theory, would do as much good as rubbing it with sandpaper.

As a result, however, of these bad weather conditions our interest became more and more centred within the house. This was especially designed for the Arctic. There was an inner wall and an outer wall, and between the two there was an air space of two inches, lined with asbestos and aluminium foil, so that we were well insulated against the cold. Over all, the hut measured twenty-four feet by twelve feet, including a porch which was an absolute necessity for ensuring that the house remained warm whenever anybody wanted to go in or out. In addition to the main

living-room downstairs there was a low attic above, on the floor of which four of us slept.

In the main room there were bookshelves, tables, wireless apparatus, and chief of all a small coal range which kept the house warm (except when it smoked and had to be put out) and on which we did all our cooking. For our cooking had now become very important. Food, as is the experience of other expeditions in the past, became one of our chief interests. Only one of us had previously had much experience of cooking, so the earlier results could scarcely be described as an unqualified success. The first time I tried to bake bread, the result was unanimously agreed to be quite the most effective form of missile to throw at the dogs. The more conscientious of us used to take a cookery book to bed at night and look up something special for the next day. There was one particularly famous, or perhaps one should say notorious, dish, known as Abyssinian porridge. This turned out to be a mixture of burnt rice which even the dogs refused to eat.

One tremendous advantage, however, that the Arctic housekeeper has over those of more civilized regions is that there is no danger of anything going bad. Even bread remains absolutely fresh for long periods when it is left in the freezing outside air. If the soup, for instance, were unfinished, all the cook had to do was to place it on the roof and leave it there until his turn as cook came round a few weeks later; it was then only necessary to bring it in, thaw it out on the stove and serve some perfectly good soup. We had plenty of vegetables, in the form of potatoes and onions, which we left in the snow outside the house. These kept satisfactorily, and never showed signs of going bad provided they were cooked as soon as they were thawed out.

By the middle of November it had become so dark even at midday that there was no particular advantage in trying to get up according to the sun, and so we used to suit our hours according to the moon. Quite frequently, however, there was no moon, and then we used to get up according to the wireless programmes. We had the most wonderful reception. Although we were over two thousand miles from England we heard nearly all the National and Regional



stations. We also listened-in to American programmes, but although many of them were extremely good the one thing which completely ruined them for us was the number of advertisements which seemed to be mainly about food. We found it particularly trying, and rather incongruous, to be told exactly what we should eat when we had very little choice in the matter.

It was now impossible to do any serious work out-of-doors, on account of the darkness, but we sometimes took walks up the fjord for the sake of our appetites, which had diminished greatly, and also in order to tire ourselves out so that we should sleep better. We tried, too, a certain amount of ski-ing outside the hut, but we failed to discover any really good slopes, since most of them were very steep and dotted with boulders. On fine moonlight nights we took our sledges and carried out short journeys in the neighborhood of the fjord. Fortunately for us the moon was at full just about the time it was at its farthest north, and we had some glorious moonlight nights when the fjord was lit up as completely as in daylight, for the reflection of moonlight from ice and snow produces a brilliant radiance. Often, however, we could do nothing but sit in the hut and listen to the howling of the wind. The storm used to reach hurricane force, and we could feel the whole house shaking and trembling as if it were about to be torn from its foundations. Frost began to form in places on the inside walls, and the windows iced over as the moisture in the air condensed and froze. This ice attained a thickness of two or three inches, effectively obscuring the view even if there had been any light to see it by.

In addition to regular routine jobs we had to complete our preparations for our main sled journeys. Our dog lines had to be seen to and, where necessary, repaired or renewed. The best type of line, both for strength and ease of disentangling, is cut from an oojuck seal.

At first it is inclined to be stiff and consequently brittle; in order to make it pliable enough for use it is necessary to chew it well and then stretch it. Fortunately the Eskimos volunteered to do this for us; for whereas we used to accomplish a yard in perhaps half an hour, they managed to polish off six yards in the same time.

For our other occupations we had a fairly large selection of books to choose from, and several of us took this opportunity to read certain lengthy volumes which one is often unable to finish in civilized life. Our choice ranged from Prescott's *Conquest of Mexico* to H. G. Wells' *Wealth, Work and Happiness of Mankind,* while the most popular of all was *Anthony Adverse.* There were, too, the usual discussions on matters of general and particular interest, for which our dictionaries and reference books were in continual demand. The wireless, the gramophone, poker, birthday celebrations, all helped to pass away the time.

Midwinter's day was an important date for us, for although there was only the faintest streak of light on the southern horizon we realized that from then on the dawn would gradually return. The New Year came, and towards the end of January it became lighter. At first the only noticeable sign was that the blackness of the ice-encrusted windows became a little less intense, but sometimes as the spring dawn grew stronger the whole white countryside was tinged with a beautiful mauve colour. After a fresh snowfall our humble little hut assumed the magic beauty of a winter sports chalet, and at last on February 18th the first rays of sunlight touched the tops of the hills above the camp. Every day the sun rose higher, although the temperature continued to drop, reaching a minimum of over 70 degrees of frost. At the beginning of April we were able to set out on our main sledge journeys, and the long winter was at an end.

There is perhaps one point which is worth emphasizing, and that is the contentment in which we lived during those four months of winter night. The hardships which spring from living at close quarters in a small hut, the boredom, hunger and cold, were troubles which never materialized; and I think most of us look back on it as a period of considerable happiness.

We all came through the winter in good health, and our main sledge journeys started at the beginning of April. Previous to this, a couple of trips had been made over the ice-cap south to the Eskimo settlements at Robertson Bay and Thule to obtain dog-feed, and also the assistance of Eskimos. We finally set off in three parties, each consisting



of 2 members of the Expedition, driving a sledge with about 15 dogs to it and 4 Eskimos, each with an average of 10 or 11 dogs and their sledges. We had a total in the field of 6 white men, 12 Eskimos, 15 sledges and 175 dogs.

Perhaps the most important discoveries were made by Stallworthy and Moore in Grant Land, the exploration of which was the main objective of the expedition. After a 300-mile journey amidst very rough ice, they reached Lake Hazen in southern Grant Land. Here, at the eastern end of the lake, they made a temporary base as their dogs were very weak owing to shortage of food. Stallworthy volunteered to stay and fish for dog-feed, while Moore, with one Eskimo, pushed on up the Gilman glacier through the United States Range into unknown Grant Land. The dogs soon began to weaken under the strain, but not before a new range of mountains, 10,000 feet high, had been discovered. Moore himself climbed to a height of over 8,000 feet and planted the Union Jack presented by the Duke of York, in latitude 82° 30′ north. From there he had a view across the unknown territories to the ice of the Polar Sea. He and Stallworthy finally arrived back at the base at the end of May bringing with them a good collection of geological specimens, including some coal, and a map of the new country. They had covered nearly a thousand miles.

The second party, consisting of Dr. Humphreys, surveyor, and David Haig-Thomas, ornithologist, sledged across Smith Sound from Etah to Ellesmere Land where they attempted to cross the Grinnell Land ice cap. After sighting some new mountains they were however stopped by some very deep snow, and changing their plans, they made the crossing over Flagler Pass to western Ellesmere Land. Here they travelled in unexplored territory, completing the first crossing from Bay Fiord to Vendon Fiord. On this particular trip they were able to make a good collection of fossils of the carboniferous epoch. Later they found some coal and also some ancient Eskimo relics, which an archaeologist has pronounced to be of considerable value. They returned safely to Etah a few days before the Grant Land party, having also covered about 1,000 miles and mapped a good deal of new territory.

The third party consisting of Bentham, geologist, and Shackleton, surveyor, also crossed Smith Sound to Ellesmere Land. Bentham was able to make a very good collection of Cambrian fossils, mostly trilobites, while Shackleton reconnoitred the glaciers at the head of Princess Marie Bay and took a number of sun observations for latitude and longitude. In the third week in April they pushed north up the coast towards Scoresby Bay, meeting a good deal of rough ice. However, Scoresby Bay was safely reached, and Bentham made a very large collection of Silurian fossils. The head of the bay was explored and the Victoria and Albert Mountains, originally seen by Nares and mapped by him 20 miles inland, were actually found to border the shores of Scoresby Bay. This party also began to run short of dog-feed, but managed to return safely at the same time as Dr. Humphreys. All three parties were able to obtain a good deal of seal towards the end of May.

We spent the summer at Etah preparing for the ship and carrying out routine scientific work, particularly ornithology, botany, geology and marine biology, being finally picked up on August 24th.

The return journey was not uneventful, since our propeller, previously fractured by ice, dropped off during a storm 700 miles west of the Scottish coast. We finally reached Barra in the Outer Hebrides all fit and well on October 7th.