



THE ISLAND OF UMENAK, SEEN FROM THE MAINLAND.

FROM A PHOTOGRAPH BY EDWARD WHYMPER.

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SOME NOTES ON GREENLAND AND THE GREENLANDERS.
By EDWARD WHYMPER. Read before the Alpine Club on
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FIVE years ago I communicated a paper to the Alpine Club which contained a brief relation of a journey that I made in North Greenland in 1867. That journey was the result of an early ambition. Ever since I first began to take interest in anything, I have taken great interest in the Arctic Regions, and when I was able to travel in the Alps I eagerly seized the opportunity, in the hope that I might acquire such a knowledge of snow and ice as might perhaps procure me a post upon some future English Arctic Expedition. After six years' scrambling in the Alps, finding that my hopes were not likely to be realised, I looked about for some country where larger experience might be gained, and eventually my choice fell upon Greenland. Remote as the probability is that another Arctic Expedition will leave our shores, I nevertheless hope that Polar exploration will not be abandoned by our countrymen; and, as a member of this Club, I wish that they may attain the highest latitudes and climb the very Poles themselves. I hope the time may speedily come when the Chancellor of the Exchequer may feel that there *are* 'pressing reasons' for sending out another expedition, and that we may one day have a Government which shall be of opinion that there *are* occasions when the national honour should be considered before pounds, shillings and pence.

I went to Greenland in 1867 with two distinct and very different aims. Rumour said that the interior of the land was completely and absolutely covered up by glaciers. It seemed to me that if this were the case it should be possible to travel over

the interior of the land with sledges, and that, if this could be done, a novel and very valuable feature might be introduced into Arctic travel. It seemed to me, for example, that if Dr. Kane had endeavoured to pass the Great Humboldt Glacier by travelling *over* it, instead of toiling through the hummocks at its base, he would have succeeded in his object with comparative ease, instead of failing, as he did, after putting forth great exertions. There is the authority of Sir Roderick Murchison for saying that the idea of travelling in this way had not occurred to anyone else,* and certainly as far as I am concerned it was entirely original.

After a somewhat protracted voyage, I arrived at the colony of Jakobshavn, in Disko Bay, on June 16, 1867. This place was selected as the base of operations by the advice of the Director of the Greenland trade, as there were several fiords in its neighbourhood which approached the 'inland-ice' very closely. No one at the colony, however, was able to say at what spot the glacier-covered interior was most accessible, and to discover this point I first made a four days' boat journey in a north-easterly direction, and subsequently another four days' journey in a south-easterly direction. The place first visited proved to be the best, and I returned to Jakobshavn to prepare sledges, and to get together men and dogs, and dogs' food.

During the time in which these preliminary journeys were being made, a severe outbreak of pneumonia occurred in Disko Bay, which attacked almost the entire population, and eventually carried off four per cent. of the whole. Those who were not prostrated by the epidemic were naturally much occupied in tending the sick, and for some time it was impossible to procure even a single man, or indeed to obtain the slightest assistance. At length the Inspector of the northern districts induced a son of the trader at Jakobshavn to accompany me. In young Mr. Fleischer I gained an excellent dog-driver and a very useful and willing assistant. I had already a second driver in the person of my interpreter, Mr. Tegner, and we obtained a third one, a native Greenlander, from the neighbouring colony of Claushavn. To accompany the three sledges which it was proposed to take, it was necessary to have two other persons besides myself. One of these was supplied by a collector whom I brought from England, and a sixth man was at last procured from the colony of Christianshaab.

Dogs were almost as difficult to obtain as men, for they had their epidemic as well as the natives. At last, after a great

* *Journal Royal Geog. Soc.* p. cxc. 1866.

deal of negotiation, I obtained the loan of three teams (amounting to twenty dogs) from Claushavn, upon the condition that they were not to be landed in the infected districts; or, if circumstances forced us to land them, they were to be slain at my cost. Much time was also lost in obtaining the necessary quantity of dogs' food—for Greenlanders are extremely careful *not* to lay in a stock of meat beforehand. Five or six hundred pounds of dried seals' flesh were required for the contemplated journey, and these were bought by handfuls at a time from perhaps a hundred natives. The worst remains to be told. By the advice of my interpreter, wood was brought out to be made up into sledges in Greenland, instead of sledges ready fitted up. I now found that the only persons in the country who were capable of making sledges had their time fully occupied by the manufacture of coffins; so I was forced to content myself with the sledges ordinarily used in Greenland, which were made of very indifferent wood, were very weak, and were not fitted for the rough work to which they were afterwards put.

With the five persons already enumerated, twenty dogs, and three sledges, I started from Jakobshavn on July 20, 1867—in two boats, rowed by ten additional Greenlanders—to make an attempt to travel into the interior. In two days we arrived at the end of the fiord which approached nearest to the 'inland-ice,' and were occupied for two days more in transporting our baggage over the few miles of land which intervened between the fiord and the glacier. The ten additional natives then departed in one of the boats, and the other one was left moored in the fiord to await our return. For three days more we remained encamped at the edge of the glacier, waiting for a favourable change in the weather—the sledges, laden with provisions for thirty days, standing all ready upon the ice. The dogs, as is their nature, did all they knew to vex us, and gnawed incessantly through the lines with which they were fastened, and made rushes at portable property, or bit us, and fought each other on every possible occasion. If they could have been seized with a unanimous desire to escape in one direction, we should have been left without a single brute; but fortunately each one wanted to go a different route, and so they neutralised each other's efforts.

During this time I ascended a mountain, upon the outskirts of the ice, which commanded a view of the interior. To the north, east, and south, as far as the eye could see, *all* was ice. The land was completely, absolutely covered by glacier. There was not a peak rising above it, nor even a stray rock upon the surface. In the middle of June, when we first came

to this spot, the whole of this immense expanse of ice was covered by snow, and the surface of the snow had a frozen crust which was easy to traverse. The men who then accompanied me, all of them men of experience, said that with the snow in that state we should be able to travel 35 to 40 miles per day. Anyhow, we could easily walk upon it at the rate of three miles per hour, and actually did walk eastwards upon it for a distance of six English miles in an hour and a half, and rose in that time to the height of 1,400 feet above the sea. But at the end of July, when we returned, and were ready to start, almost the whole of the snow was removed and the underlying ice exposed. Instead of seeing, as at first, only a few large crevasses, which, on account of their size, were perceived at a long distance, and hence easily avoided, we now saw thousands and tens of thousands which we should be obliged to cross over. The entire mass of the ice was rent by chasms more or less profound. Now to men unencumbered with baggage the existence of the chasms would have been a matter of little importance, and to properly constructed sledges drawn by *men* they would not have opposed insuperable obstacles. But to sledges such as ours, heavily laden, and drawn by those perverse brutes Eskimo dogs, they presented the most formidable obstacles, and directly I saw the prospect I knew that we could not succeed.

Nevertheless, as soon as the wind moderated, we made a start. I went ahead for a short distance, fixed a stick in the ice to indicate the direction which the sledges were to take, and then ran on, looking right and left, to select the best route. It was also frequently necessary to run *back*, to break a dog's head, or to kick all the breath out of its refractory body, or to give aid to a sledge which had taken a header into a crevasse because half its dogs had made up their minds to return home; and to extricate the moaning driver from underneath a mass of bags of pemmican, biscuit, and travelling baggage of every description. In spite of these little drawbacks, we got along pretty rapidly for an hour or two, but every moment the crevasses became more labyrinthine and the sledge-runners weaker. The sledges looked picturesque as they came over the ice-pinnacles, rearing up like ships running before a gale of wind. The dogs, for a moment still as statues, in the next instant would rush away down the opposite slope with ungovernable speed and clear the crevasse at its foot with a bound, but the sledge would be jammed fast between the walls of the chasm. Then the dogs, feeling themselves checked, would tug away for a few moments to the right and to the left, and, finding their

efforts vain, ceased to pull, and invariably commenced to fight amongst themselves. By the time that the sledge was righted, the lines with which the dogs were fastened to it had become almost inextricably tangled and knotted. These proceedings were repeated over and over again during three or four hours. Then one of the runners of the largest sledge broke in half. Another runner belonging to one of the smaller sledges was also split along its entire length, and all of the remainder were more or less weakened by the battering they had received. As a matter of form, I sent three of the party ahead for a mile or two to report whether the ice became better, knowing, however, very well that it was all alike for many miles. When they came back, reporting truly that it was worse rather than better, I ordered a retreat, it being perfectly evident that to persevere would be only to render our return more and more difficult, and that under any circumstances we should at the most be able to proceed only a few miles further towards the interior. We could only take one of the dogs back in our boat. Eight more were recovered by a boat which I sent for them, three were found dead, one was not discovered, and the seven others came in overland one after another to Jakobshavn, and were killed by order of the Inspector.

Although we failed completely in the immediate object of the journey (the penetration of the interior), I demonstrated to my own satisfaction that it was possible to travel over the glacier-clad lands of the north with sledges. My poverty obliged me to employ dogs instead of men; but I will not do so again for similar work, as I am well convinced that in the long run it will pay better to use the biped instead of the quadruped. Our failure chiefly arose from starting too late in the season. It was my wish and expectation that we should commence the journey upon the 'inland-ice' at the beginning of June. A rather protracted voyage from Copenhagen, and the subsequent delays, prevented our departure until the end of July. During this period of eight weeks there was perpetual daylight and an almost cloudless sky. The temperature never descended to the freezing point, and frequently ranged as high as 65° to 70° F. Even upon the 'inland-ice' itself it was never lower than 37° to 38° F. The snow upon which I expected to travel, which bridged the chasms and levelled the inequalities on the surface of the ice, was completely swept away; and further, owing to the lamentable sickness which prevailed in 1867, we are unable to fit up sledges out of the superb wood which was brought from Europe. With the experience which has been gained the result will, I think, be

different upon another occasion; for the project, although novel, was perfectly feasible, and its execution, although adjourned, is not abandoned.

The remainder of my time in 1867 I chiefly devoted to the pursuit of a very different object. I had seen in Sir Leopold McClintock's well-known book, 'The Voyage of the *Fox*,' a casual reference to a so-called 'fossil forest,' at a place called Atanakerdluk. This place is on the mainland of Greenland, facing the strait called the Waigat. Sir Leopold McClintock did not visit it, and only brought home a few specimens which had been picked up as curiosities and were presented to him. It seemed to me, from the little I could learn about it, that a careful examination of this locality would probably yield results of high scientific interest. This indeed proved to be the case, for at Atanakerdluk, and at some other localities on the opposite shores of Disco Island, I obtained no less than 80 species of fossil trees and shrubs, out of which (according to the determinations of Professor Heer, to whom the collections were submitted on my return) 32 species were new, whilst all were unknown to the present *flora* of Greenland. I will say no more on this subject just now, beyond that those who take an interest in such matters cannot do better than consult the paper by Professor Heer, which appeared recently in the 'Transactions of the Royal Society,' to which is also joined a detailed account of my own proceedings.*

Had I been aware in 1867 how much of the mere coast-line of North Greenland remained to be discovered, I should probably, in the first instance, have contented myself with a less ambitious programme. Upon the strength of the English Admiralty Chart, sheet 1 (chart exhibited), I supposed that the coast-line of North Greenland was well known, but when landed in the country I found that the state of the case was very different. If I enquired at a settlement what was the nature of the coast between that place and the next, the traders and other Danes were frequently able to say that *our* map and *their* maps were very wrong, without being able to say what was right. And touching some portions of the coast they would not pretend to any knowledge whatever, saying that no Europeans or native Greenlanders had ever been known to traverse them. Such, for example, is the case in regard to the west and north-west shores of the great island of Disco.

* *Contributions to the Fossil Flora of North Greenland, being a Description of the Plants collected by Mr. EDWARD WHYMPER during the Summer of 1867. By Professor OSWALD HEER.*

No Europeans or natives have ever been known to land upon those shores, although they have been seen at a distance by perhaps thousands of persons; and although it is said, traditionally, that they were inhabited some centuries ago by Eskimo, it is certain that at the present time not an individual can be found from the mouth of Disco Fiord, right round the northern part of the island, and so down the Waigat, to the small settlement of Ujarasusuk, a distance of about 150 miles. If you look, however, at the English Admiralty Chart, you will see that this portion of the coast, like almost all the rest of North Greenland (lat. 68° to $72\frac{1}{2}^{\circ}$), is laid down with a firm line, such as would lead anyone to suppose that the coast had been surveyed. But the fact is that the greater part of the coast of North Greenland has never been surveyed in any sense whatever, and as laid down in the English chart is scarcely a closer approximation to the reality than the rude map which accompanies the book by the missionary Egede.* (Map exhibited.)

Passing over the early maps of Greenland (such as that just exhibited), which were based upon the original discoveries of Frobisher, Davis, Baffin and others, the first map which has a claim to be considered is that by Lieutenant Graah, an officer of the Danish army. Graah was sent out by his Government in the years 1823-4 to investigate the land, and in those years accumulated the material from which this map was afterwards made.† (Map exhibited.) It does not, as you will see, pretend to much; it is only a rough outline; but it is nevertheless the map used until this day by the Danish ships engaged in the Greenland trade.

In the years 1848-51, Dr. Rink (who has recently been made Director of the Greenland trade at Copenhagen) was sent out to the northern districts, and in 1852 produced the map which accompanied his book, '*Grönland geographisk og statistisk beskrevet.*' Dr. Rink executed a rough triangulation of a few miles in the neighbourhood of the settlements of Godhavn and Umenak, and his small special maps of these localities (which were made exclusively from his own work) I have found very fairly accurate. In his general map, however, besides embodying his own observations, he drew freely from Graah's, and also inserted a good deal from reports. A num-

* *Det gamle Grönlands nye Perlustration, etc.*, af Hans Egede, Kjöbenhavn, 1741.

† Graah also published a work entitled *Den vestlige Kyst af Grönland*, Kjöbenhavn, 1825.

ber of altitudes are introduced; but these, I learn from Dr. Rink himself, are only eye-estimates, unless they are specified as having been obtained by barometric means, and I have found they are almost always greatly under-estimated.

We now come again to the English Admiralty Chart, sheet 1, which is the map used by our whalers. In this Dr. Rink's map has been copied outright. Even his altitudes, which on his own map are given in Danish feet, are transferred exactly to the English chart, our authorities apparently being unaware that the English foot is not equal to the Danish one. The details, too, are so much reduced, that the coast-line looks, as I have already said, as if it had been delineated with great minuteness, instead of looking, as it should do, like unexplored land.

There are therefore three maps in existence of North Greenland. The first (Graah's) is to be relied upon to a certain extent; the second (Rink's) is not always equally valuable, because it is not possible to separate in it that which is founded upon observation from that which is merely conjectural; whilst the third, notwithstanding its pretensions, is the least useful and reliable of all.—(*To be continued.*)

EXCURSIONS FROM COURMAYEUR, IN THE RANGE OF MONT BLANC. By T. S. KENNEDY. Read before the Alpine Club, December 16, 1872.

ON Saturday, June 29, Johann Fischer and I walked from Courmayeur to the Miage glacier, to see if we could find any route up Mont Blanc from the lower part of that glacier. The best point of view for this purpose would have been one of the Trélatête Aiguilles, but bad weather had prevented our going thither from the Trélatête pavilion, as well as from seeing anything during a walk to the top of the Glacier de la Frasse.

After spending the day in climbing past the Aiguille Grise, examining the Glacier du Dôme and frightening numerous chamois, we returned to Courmayeur and telegraphed to Val Tournanche for J. A. Carrel. Carrel arrived on Sunday evening; we engaged Julien Grange as a porter, and set out again on Monday up the Miage glacier.

When opposite to the ice-fall of its most southern tributary (called by Mr. Reilly the Glacier du Mont Blanc, but without a name in the French Ordnance Map) and almost exactly between the summits of Mont Blanc and of the Trélatête Aiguilles, we turned to the right hand and ascended the glacier