

JOHANSEN'S JOURNEY ACROSS THE INLAND ICE

(Based upon the diary of A. SCHWARCK).

Introduction.

In the spring of 1932 JOHANSEN planned to make a journey on the inland ice with an ascent of Wordies Gl., whence the journey was to go northwards towards Dronning Louises Land, and the descent was to take place somewhere near the head of Bessels Fjord, with ensuing travel along the coast back to Eskimonæs.

The purpose of this journey was to find out whether some nunataks extended southward from Dronning Louises Land towards the districts north of Petermanns Bjerg. As will be known, WORDIE in 1929 discovered some very high nunataks and land areas free of ice north of Petermanns Bjerg west of the head of Kejser Franz Josephs Fjord. In 1929 and 1930 BACKLUND and SEIDENFADEN discovered some new land west and northwest of Wordies Gl., and in 1931 MEHREN and HØYGAARD during their crossing of the inland ice from West Greenland to the coast near Waltherhausen Gl. discovered many unknown nunataks north of Andrées Land. Thus the purpose of JOHANSEN'S travel was in the first place to investigate whether these nunatak systems west and north of Kejser Franz Josephs Fjord extended up towards Dronning Louises Land, the southern limit of which was unknown.

JOHANSEN resolved to lay out a depot near the innermost nunataks known north of Wordies Gl., viz. Mariannes Nunatakker, and this depot was laid out in the month of March. JOHANSEN took part in the travel as cartographer and leader, TEICHERT as geologist, A. SCHWARK and the Greenlander JOHAN as dog drivers. The expedition travelled with two so-called Nansen sledges and eleven dogs in all.

Laying out of the Depot.

March 11th.—Started at noon in fine weather, temperature 21° C. below zero. Covered a distance of 20 km with course towards Jordanhill.

March 12th.—Fine weather, temperature 21° C. below zero. At first the going was good, and after having reached Jordanhill the party



Fig. 252. Dog-team at Eskimonæs.

travelled into Hansens Havn. Here the going was very heavy. After a stay lasting for a couple of hours, which were used for topographical observations, they had to pass areas of sand and gravel completely free of snow before reaching the glacier proper. They had to drive in several turns, and all dogs were harnessed to one sledge. In the evening they camped near the front of the glacier.

March 13th.—Cloudy, temperature 17° C. below zero. The surface of the glacier was very rough and they only proceeded slowly, the surface being free of snow and the sledges therefore being often overturned. They succeeded in covering seven kilometres in seven hours. Camped at an altitude of 115 m near Scotstounhill.

March 14th.—Cloudy, calm weather, temperature 15° C. below zero. While TEICHERT made geological investigations near Scotstounhill the others drove down into the valley to the north in order to shoot two musk-oxen. Several flocks of these animals were seen. Also TEICHERT had seen tracks of musk-oxen on Scotstounhill. Returned in the evening to the camp with fresh meat.

March 15th.—Calm cloudy weather, temperature 23° C. below zero. In the course of the day the camp was moved westwards, however only 2 km, since all the luggage had to be conveyed across a large moraine on the glacier. The surface of the glacier was extremely rough here.

After having driven some distance they had to return, since there was no passage, and in the evening they camped at the foot of an ice wall which was so high that they did not expect to get over it.

March 16th.—Calm clear weather, temperature 27° C. below zero. It appeared that the only way which could be used was the border river between the glacier and the western mountain of Manley Land. After a very hard day they only succeeded in proceeding 2 km as they had to climb a very high snowdrift on which they could only drive by one sledge with very small luggage. They could only proceed with iron studs on the boots.

March 17th.—Calm and almost clear weather, temperature 23° C. below zero. The camp was moved 3 km to the west. They had now reached an altitude of 250 m and again travelled on the glacier which was now more smooth. On the border river two ptarmigans were seen.

March 18th.—Calm, almost clear weather, temperature 17° C. below zero. At first they made good progress and succeeded in covering a distance of 10 km. The going was on the whole good, but when they approached C. H. Ostenfelds Nunatak, the surface of the glacier again became very rough, for which reason they had again to drive with small loads in several turns. JOHANSEN and TEICHERT tried to make reconnaissances; the glacier looked very impassable ahead.

March 19th.—Clear and calm weather, temperature 15° C. below zero. The camp was removed. JOHANSEN made topographical observations, and TEICHERT geological investigations on C. H. Ostenfelds Nunatak. SCHWARCK went towards Manley Land in order to reconnoitre. Tracks of musk-ox, hare, and fox were seen on C. H. Ostenfelds Nunatak.

March 20th.—Clear, rather windy, temperature 10° C. below zero. They succeeded in finding a road and the camp was removed 9 km. There was a gradual rise of the ice inland, but owing to the rough surface of the glacier the outlook was limited and the maps were very defective.

March 21st.—Clear and calm, temperature 15° C. below zero. In the course of the day they succeeded in proceeding 15 km with an ascent of altogether 500 m. Camped at an altitude of 940 m.

March 22nd.—Calm. In the evening a foehn storm with some clouds. Temperature 21° C. below zero. The party reached the place where the depot was to be laid out. As usual when approaching land the surface of the inland ice became very uneven. The depot was laid out at an altitude of 1060 m.

March 23rd.—Light wind, almost clear, temperature 9° C. below zero. The day was spent climbing the nunatak. JOHANSEN made a determination of the latitude during the ascent. The mountain which was climbed was called Keglebjerg and was 1450 m high. Extensive cartographical observations were made here. Everywhere on land they

found tracks and excrement of musk-ox, hare, and fox. Ptarmigans were also seen.

March 24th.—They now travelled down the glacier with light sledges. At first the going was heavy, but later on it was much better and they resolved to descend into Grantafjord instead of into Hansens Havn. The descent here proved to be much easier, and they drove to the trapper's hut in Grantafjord, where they camped. All the time the weather had been clear and calm. Next day the air was thick with snow, but they nevertheless made up their minds to go on and in the evening reached Eskimonæs, having thus made the journey back from Keglebjerg in only two days.

The Journey across the Inland Ice.

The party started on April 7th, in fine weather. The same four men who had laid out the depot participated in the journey. This time the Greenlander drove with a Greenlander's sledge with eight dogs, and SCHWARCK with a Nansen sledge with five dogs. In the evening they camped near Kap Oetker, having travelled 35 km.

April 8th.—Overcast, some wind. Temperature 7° C. below zero. Drove to the trapper's hut in Grantafjord; in the afternoon three musk-oxen were killed in the vicinity of the hut.

April 9th.—Partly overcast. Calm. Temperature 14° C. below zero. The ascent of Grantagletscher was easier than expected, and in the evening all the goods had been taken up there.

April 10th.—Clear, calm, temperature 20° C. below zero. They succeeded in covering 15 km on Grantagletscher, ascending 500 m, so that they camped at an altitude of 750 m.

April 11th.—Calm, clear, temperature 21° C. below zero. In the course of the day they reached a height of 980 m, and camped only 8 km from the depot.

April 12th.—Calm, clear, temperature 25° C. below zero. The surface of the glacier was now fairly even and they drove 6 km past the depot, which was fetched later.

April 13th.—Clear, light northwesterly wind, temperature 23° C. below zero. JOHANSEN and TEICHERT remained at the camp to make investigations. SCHWARCK and the Greenlander proceeded about 20 km and deposited most of the luggage west of Mariannes Nunatakker.

April 14th.—Overcast, temperature 17° C. below zero. The going was fine now with a slight rise, and they camped at an altitude of 1400 m after having proceeded 5 km ahead of the depot which was laid out the previous day. JOHANSEN and TEICHERT went to one of the small nunataks in order to make observations. In the evening snowy weather.



Fig. 253. A good dog-team.

April 15th.—Had to remain in camp owing to storm. Temperature 9° C. below zero.

April 16th.—Partly overcast. Northerly gale. Temperature 10° C. below zero. Remained in camp.

April 17th.—Almost clear. Light wind. Temperature 17° C. below zero. In the course of the day they proceeded 15 km. The camp lay at an altitude of 1740 m.

April 18th.—Fairly stiff, cold northerly wind with drifting snow. They succeeded in proceeding 8 km. The ice now rose rather steeply; camped at an altitude of 1990 m.

April 19th.—Gale. Had to remain in camp.

April 20th.—Overcast. Almost calm with snow. Temperature 25° C. below zero. JOHANSEN walked in front of the sledges with the compass; since much of the food for the dogs had now been eaten up, it was sufficient to drive in one turn only as they could have all the goods on the sledge. The territory declined somewhat, and down in the depression, which seemed to be the inner part of a glacier which, however, could not be overlooked on account of the snowy weather, there was a good deal of soft snow.

April 21st.—Almost clear. Rather stiff northerly wind, temperature 27° C. below zero. It appeared that they had camped on the innermost

part of Pasterze glacier. From the camping place they could look down into the innermost part of Tyrolerfjord. Northwards in the distance they could see the mountains round the head of Ardencape Fjord. Right north of the camp there was a nunatak which they called "Formanden". While JOHANSEN remained near the camp in order to make observations the others started towards "Formanden". They encountered smooth ice, which sloped a good deal. Camped in the vicinity of this nunatak.

April 22nd.—Calm. Clear. Temperature 20° C. below zero. Unfortunately, a gale arose in the evening. At noon JOHANSEN took a latitude observation and then they started from the camp, which was lying at an altitude of 1440 m. They continued northwards and camped at a small nunatak, which was called "Vejrhøj", at an altitude of 1659 m. There was a good view here across the plateaus round Grandjeans Fjord, but the fjord itself could not be seen.

April 23rd.—Storm and cold. Remained in camp.

April 24th.—Storm the whole day. Remained in camp.

April 25th.—Clear. Subsiding wind, temperature 25° C. below zero. They had to travel nearly due west in order to get round a large creek, which extended far into the inland ice. There was a good view down across large plateaus free of ice, but the altitude was not sufficient for looking down into the fjords and valleys, if any, extending into this land of plateaus. In the evening wind with drifting snow.

April 26th.—Clear, but northwesterly gale, temperature 26° C. below zero. In spite of the gale they succeeded, however, in moving the camp 10 km onwards.

April 27th.—Almost clear. Moderating wind. Temperature 25° C. below zero. After the storm the going had become unusually fine, and they covered 20 km. They succeeded in getting round the large creeks which extended into the inland ice so that they could again set the course northwards.

April 28th.—Overcast with storm. Temperature 26° C. below zero. Remained in camp.

April 29th.—Almost clear. The storm abated somewhat in the course of the day. Temperature 21° C. below zero. It was nevertheless decided to start, and towards the evening the weather gradually became fine. The latitude observation showed $75^{\circ}20'$, so they had now only 40 km left before reaching the latitude of the mouth of Bessels Fjord. Some few mountain peaks were seen in a northwesterly direction, presumably = Carlsbergfondets Land. To the east Ardencape Fjord was seen. The distance covered that day was 25 km. The midnight sun was seen for the first time.

April 30th.—Calm. Clear. Temperature 21° C. below zero. Longitude



Fig. 254. Sledge runners covered with ice, on the inland ice.

and latitude observations were made (lat. $75^{\circ}20'$). Did not start until the afternoon. The inland ice was rising somewhat; the going was bad with soft snow. In the evening they reached the greatest height during the journey, and to the northwest had a view of Dronning Louises Land and to the east of Kong Williams Land. The course was set towards a glacier valley to the northeast which was believed to lead into Bessels Fjord. They proceeded at a good speed, as the ice now sloped much downwards, and about midnight they camped 1100 m lower than the day before.

May 1st.—Clear. Calm. Temperature -15° C. JOHANSEN made observations. SCHWARCK and the Greenlander drove down the glacier in order to reconnoitre as they did not know which way the glacier took.

It appeared that it went down into Ardencape Fjord, but farther down there were many crevasses and it was very rough, so that it was quite impossible to descend here. The last part of the reconnaissance was made on foot, and a transverse glacier, which was later on called Ejnar Mikselsens Gl., was discovered. There was nothing to do but to drive up on to the inland ice again and continue northwards in order to find a glacier leading down into Bessels Fjord or to drive down the Soraner Gl.

May 2nd.—Gale from the northwest. Temperature 9° C. below zero. Remained in camp.

May 3rd.—Almost clear. Abating wind. Temperature 11° C. below zero. Now again they travelled upwards, advancing 30 km on good going. They saw again distinctly Carlsbergfondets Land and Dronning Louises Land; they only had to ascend to a height of 900 m when the ice again declined gradually to the north.

May 4th.—Calm. Clear. Temperature 6° C. below zero. Observations at noon showed $75^{\circ}55'$. Travelled down an even slope. There was, however, a good deal of soft snow. In the evening they had a view of the whole of Soraner Gl. and some of the skerries in Dove Bugt. The course was set due east towards a depression in order to find a place for the descent into Bessels Fjord.

A little farther ahead it was found that a short and very steep glacier led down into a big lake in the valley below. The dogs were unharnessed, and the sledges were taken down the glacier with caution until they reached the lowermost part of it. The glacier ended in an ice wall 15 m high. On the side of the glacier they succeeded in finding a snow fan along which they came down on to the lake which was situated at an altitude of 400 m. The lake proper was completely free of ice and the going therefore excellent. They did not know, however, whether the lake led down towards Bessels Fjord. On the eastern shore of the lake two musk-oxen were killed and the tent was pitched here at midnight. The musk-oxen were shot on a small hill and from here they got an outlook across Bessels Fjord. It appeared that a still bigger lake draining into Bessels Fjord was found 50 m below the lake which had just been passed.

May 5th.—Calm. Clear. Temperature 1.5° C. Remained in camp in order to let the dogs rest. There was a rich animal life around the lake. Great numbers of musk-oxen, hares, ptarmigans, foxes, and snow buntings were seen.

May 6th.—Fine weather. Reached lake No. 2 with some difficulty, and the going being excellent here they passed this lake and travelled a good distance down the river bed. At last, however, they were stopped by a narrow and deep ravine, and had to carry all the goods through this along a stretch of several kilometres, which was difficult, as the

bottom of the ravine was covered with large stones among which there was thawy snow and the river had begun to flow.

May 7th.—Owing to the heat they now resolved to travel by night. The ravine was steep, and small stones and gravel continued to fall down from both sides so that they could walk with small loads and had to jump aside quickly if a large stone or piece of rock fell down in the vicinity. During the night this “downfall” of stones and gravel was, however, less considerable, for which reason the ravine could only be passed at this time.

May 8th.—The party continued to carry the goods down the ravine. There was now much more water in the river, for which reason the ravine was more difficult to pass.

May 9th.—They succeeded in removing the camp 600 m ahead to a snowdrift which, however, proved to be comparatively short, so that they could only use the sledges along a short way. The camp now lay at an altitude of 150 m.

May 10th.—Early in the morning three musk-oxen were killed. Musk-oxen were abundant here. Then they drove the goods in three turns down onto the fjord ice along a snow drift, which, it is true, consisted of deep soft thawy snow, but when they had reached the fjord ice, all four men could ride on the sledge; covered 50 km in all. The weather was not especially good. Towards the morning the party had passed the whole of Bessels Fjord and camped after having been in busy activity for 24 hours.

May 11th.—Remained in camp.

May 12th.—It snowed all day but towards the evening it cleared, and JOHANSEN went up the mountains to make observations. Started at noon. The going was not good, especially not for the Nansen sledge, for which reason they proceeded only slowly. Saw a bear in the course of the day. Camped in the evening near the ruin of the trapper's hut at Søndre Elv. The weather was fine again with a temperature of 17° C. below zero and good going.

May 13th.—Remained in camp.

May 14th.—Temperature 20° C. below zero. Shortly before midnight the party left the camp at Søndre Elv and reached Haystack at 6 o'clock in the morning after having covered 15 km; JOHANSEN was to make some observations there. He took bearings from the top of Haystack the whole afternoon.

May 15th.—Fine weather. Covered 25 km and camped near Kap Oswald Heer, where TEICHERT was to make geological investigations. The trappers' hut was also all in ruins.

May 16th.—The party followed the coast and camped about 5 km from the main hunting station on Hochstetters Forland. A single musk-ox was killed and many were seen.

May 17th.—Drove to the hunting station and stayed there for the rest of the day.

May 18th.—Drove out in order to procure food for the dogs, shot three musk-oxen.

May 19th—20th.—Remained at the station.

May 21st.—JOHANSEN made observations in the vicinity of the station. The weather was fine, and spring was in active progress. The first geese and gulls appeared.

May 22nd.—In the evening they travelled down into Fligelys Fjord, and camped in the morning at the Danish hut situated here.

May 23rd.—At midnight the party drove with empty sledges some distance into the unknown fjord northwest of Kuhn Ø (Grandjeans Fjord). After a short reconnaissance, which showed that the outer part of the fjord ran in a southwesterly direction, they returned to the camp.

May 24th.—During the night they drove 20 km to the next Danish hut in Fligelys Fjord. The going was not good and much water began to form on the ice. TEICHERT made geological investigations.

May 25th.—Remained at the trapper's hut (Blaabærhytten), among other things in order to shoot two musk-oxen.

May 26th.—During the night the party travelled 16 km to the trapper's hut in Lindemans Fjord. It was almost completely buried in snow.

May 27th.—Stayed here the whole day. JOHANSEN made a small trip in order to make observations.

May 28th.—In the morning they travelled towards Kap Hamburg, where they arrived at midnight.

May 29th.—In the middle of the day they drove to Kap Berlin (20 km). The going was bad here with deep, soft snow. Then they continued to Germania Havn through Claveringstrædet, which was difficult to pass, since there were many pools of thaw water on the ice.

May 30th.—In the afternoon they reached Germania Havn. The sledges had, however, to be left back some distance from the house, there being open water right in front of it.

May 31st.—Remained here. JOHANSEN made various observations.

June 1st to 6th.—Stayed in Germania Havn on account of continuous fog.

June 4th.—A bear was killed.

June 6th.—The spring had advanced considerably, and all that could possibly be left back remained in the hut in Germania Havn, whereupon they started southwards. Against expectation it appeared that there was ice along the coast to a little south of Kap Borlase Warren. Here they could drive some distance on a snow drift but were then stopped by a large river across which they had to carry all the goods.

June 7th.—Had to carry all the goods from this place, but reached the Norwegian hunting station at Kap Herschell after a hard job.

June 8th—12th.—Had to stay here for some days, and not until

June 13th was there so much open water that the Norwegian trappers could take the party to Kap Mary by motorboat. From here they had to drive the one sledge 8 km on land without snow. Then there was again some sea ice to drive on.

June 14th.—Early in the morning they reached the camp of the archæologist HELGE LARSEN in Dødemandsbugten. From here JOHANSEN and SCHWARCK continued on foot over land and in the afternoon arrived at Eskimonæs.