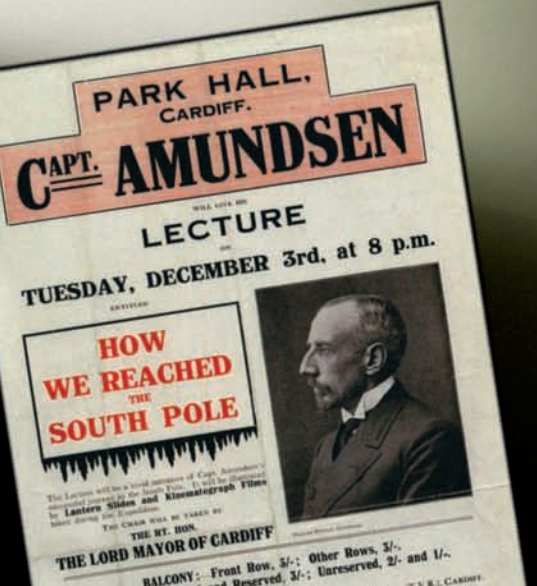
COLD RECALL

- REFLECTIONS OF A POLAR EXPLORER



A Fram Museum Exhibition

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COLD RECALL

-REFLECTIONS OF A POLAR EXPLORER

Edited by Geir O. Kløver

The Fram Museum
Oslo – Norway
2009

The Amundsen lantern slides. Photo NB

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Introduction

When preparing for *Cold Recall - Reflections of a Polar Explorer* at the Fram Museum, our main objective was to show visitors images from the lantern slides that Amundsen used in public lectures about his expeditions through the Northwest Passage and to the South Pole. The texts in the exhibition are primarily abridged versions of Amundsen's own manuscripts from these lectures.

When planning the accompanying book to the exhibition, we had the opportunity to expand the exhibition and share some of the many interesting sources we encountered in our research. First of all, this book includes the complete manuscripts from the lectures, as they were held in Great Britain and the USA. We have also included background information on many of the episodes that Roald Amundsen describes, all too briefly, in his lectures. Further background information is given about some of the contents of many of the lantern slides printed in the book, but not specifically mentioned in the manuscripts.

The book includes a large appendix covering many of the letters, articles, brochures and pamphlets related to Amundsen's lecture tours. These are rare brochures, published in connection with the actual lectures, along with letters from the Royal Geographical Society in London, the Lecture Agency in London and the Lee Keddick Lecture Agency in New York. The letters illustrate the time-consuming and thorough preparation of the lecture tours that, in the USA alone, included more than 150 lectures. It is especially interesting to follow the discussion about the fate of Robert F. Scott who, at the time, had not been heard from. Had he reached the South Pole? What would the interest in England be for Amundsen's lectures when Scott was heard from, even though Amundsen undoubtedly had been the first to the pole? The uncertainty regarding Robert F. Scott also explains the different promotion of the lecture tours in England and the USA. In England, the lecture tour was called: "How we reached the South Pole", while Roald Amundsen in America was marketed as: "Discoverer of the South Pole and Winner in the International Race for the Southern Extremity of the Earth".

As many will know, the Norwegian Antarctic Expedition was originally planned and promoted as an expedition to the Arctic. We have used this opportunity to include in the appendix, Roald Amundsen's original lecture on the proposed North Pole expedition to the Royal Geographical Society in 1909. We have also included and translated Roald Amundsen's account on why he changed the destination of the expedition, along with his very personal letter to Fridtjof Nansen on why he kept his new destination a secret.

Roald Amundsen's own collection of lantern slides printed in this book, have a history of their own. They were all used by Amundsen for his lecture tours, and are mostly made from the same negatives he used to illustrate his books. The lantern slides used for his lectures, however, were coloured by hand to increase the entertainment value for the audience. Even though most of the photographs exist in Amundsen's books and in public archives like the National Library of Norway, these slides are the greatest collection of lantern slides in existence actually used by Roald Amundsen. They present a unique glimpse into how Roald Amundsen presented his expeditions, face to face with an international audience, and also the first pictorial account of his successful unlocking of the Northwest Passage and the expedition to the South Pole.

Other explorers very often brought professional artists and photographers on their expeditions. This was not the case for any of Amundsen's expeditions. He and the regular crew members took all the photos themselves. While Godfred Hansen took most of the photos during the Gjøa expedition, Olav Bjaaland is credited with most of the photos from the sledge journey to the South Pole. Many of Roald Amundsen's own photographs proved to be damaged when they were developed in Hobart, making Bjaaland's pocket camera the only source of photos from this historic journey.

In letters regarding the Northwest Passage lecture in 1907, the Royal Geographical Society in London asked Amundsen to reduce his number of lantern slides from 150 to 80 or 90. This collection included only 24 slides from the Gjøa expedition, making it far from complete. A number of other photos and some lantern slides exist in different public archives, but the majority of these are not hand-coloured. Some of these are included in this book.

The lantern slides from the South Pole, as they are presented in this book, must be very close to how the expedition was presented to Amundsen's audience. As the slides were not numbered, we have used the manuscript of the lecture and Roald Amundsen's published account "The South Pole" to guide the order in which they are now printed.

The majority of the slides from the South Pole expedition were developed by J.W. Beattie in Hobart, Tasmania and coloured by TW Cameron. They were the first made from the expedition negatives. Roald Amundsen stayed in Hobart for only 13 days, thus showing the importance of developing the films and making the lantern slides for the imminent lecture tours and the image-hungry newspapers worldwide.

The lecture tours were an important source of revenue for Amundsen and needed immediate attention on his return to guarantee as many bookings as possible while the story was fresh.

This collection of lantern slides was thought lost, before they were discovered in the attic of a member of the Amundsen family in 1986. The interest in the collection resulted in Roland Huntford's book "The Amundsen Photographs", published in 1987. "The Amundsen Photographs" contained 150 of the 250 lantern slides in the collection, including 44 photographs from the Maud expedition not included in this book. These will be the focus of another exhibition at the Fram Museum together with lantern slides from Roald Amundsen's *N24/N25* and *Norge* expeditions from the museum's own collection.

In 2006, the owners of the *Amundsen lantern slides* offered the collection for sale at an auction house in London. The collection was bought by a private Norwegian collector. Immediately after the auction in London, the buyer contacted the Fram Museum to inform staff about the future whereabouts of the collection. This contact led to an agreement whereby all publishing rights to the collection would be donated to the Fram Museum, while the original photos would be restored and kept at the National Library of Norway.

Due to this cooperation between a private collector, a polar history museum and a national library with its restoration and long-term storage expertise, this collection of unique lantern slides can be made available to the general public whilst being kept in the best storage facilities available. Through the generosity of the collector, we have avoided that such important material ended in a private vault with no access for the public, for technical research or for historians.

This exhibition and the associated book would not have been possible without the cooperation of the National Library of Norway and their friendly and knowledgeable staff: Kristin Bakken, Anne Melgård, Arthur Tennoe, Guro Tangvald, Wlodek Witek and Tom Erik Ruud. They have restored and digitized the *Amundsen lantern slides* and provided many of the additional illustrations in the exhibition and the appendix of the book.

The Norwegian Geographical Society has donated its historical archive to the Fram Museum. This has given us, amongst many other topics, detailed accounts from the preparation of the South Pole Expedition and information on the restoration of the Fram.

My colleagues Anne Rief and Charlotte Westereng Syversen have provided valuable contributions to the exhibition and book, while Edwin Pasco and Josefino Caraig made sure that the exhibition was mounted in time.

Our designer Marcus Thomassen of Psycho Penguin Productions agreed to work night and day to get the expanded version of the book and the exhibition ready for the printer's deadline.

- Geir O. Kløver
Director of the Fram Museum

A photo from the Amundsen lantern slides collection.

An additional photo added to give further illustrations to Roald Amundsen's text.

Editor's note:

"At 8 a.m. my watch was finished and I turned in. When I had been asleep some time, I became conscious of a rushing to and fro on deck. Clearly there was something the matter, and I felt a bit annoyed that they should go on like that for the matter of a bear or a seal.

Editor's comments or additional texts added to give more details on topics mentioned in Amundsen's text or to describe some of the motives in the lantern slides in further depth.

The Gjøa undergoing her reconstruction before the expedition to the Northwest Passage.

AMUNDSEN LANTERN SLIDE 001: FM/JFO

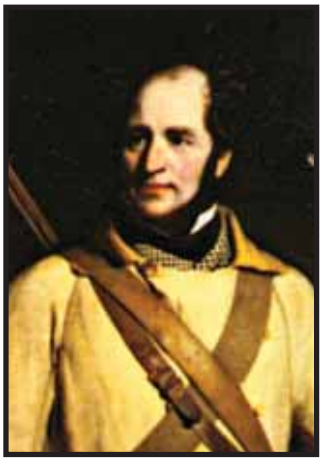
To the North Magnetic Pole and through the Northwest Passage

Read at the Royal Geographical Society, February 11, 1907

Roald Amundsen(1872-1928). Photo: Fram Museum (FM)

To Sir John Franklin must be given the honour of having discovered the North-West Passage, and to Admiral Sir Robert McClure that of being the first to pass through it, partly in his vessel the Investigator and partly on foot. On the foundations laid by the splendid work done and the rich fund experience gained by English navigators in these regions, I succeeded - in the track of Sir James Ross, Dr. John Rae, Admiral Sir Leopold M'Clintock, Sir Allen Young, and many others – in making my way in the Gjøa to the region around the Earth's north magnetic pole, and, furthermore, in sailing through the North-West Passage in its entirety. If I have thus been the first to sail through the North-West Passage, it is with pleasure that I share the honour with those brave English seamen – the seamen who here, as in most of the other parts of the world, have taken the lead and shown us the way.

John Franklin (1786-1847). Photo: FM



Robert McClure (1807-1873). Photo: FM

Fridtjof Nansen (1861-1930). Photo: FM

It was the Norwegian minister to England, Dr. Fridtjof Nansen, who, by his great experience and his many good counsels, made the Gjøa Expedition what it was: on in all respects well planned and excellently equipped. In order not to tire my hearers, I will give in as few words as possible the earlier history of the expedition.

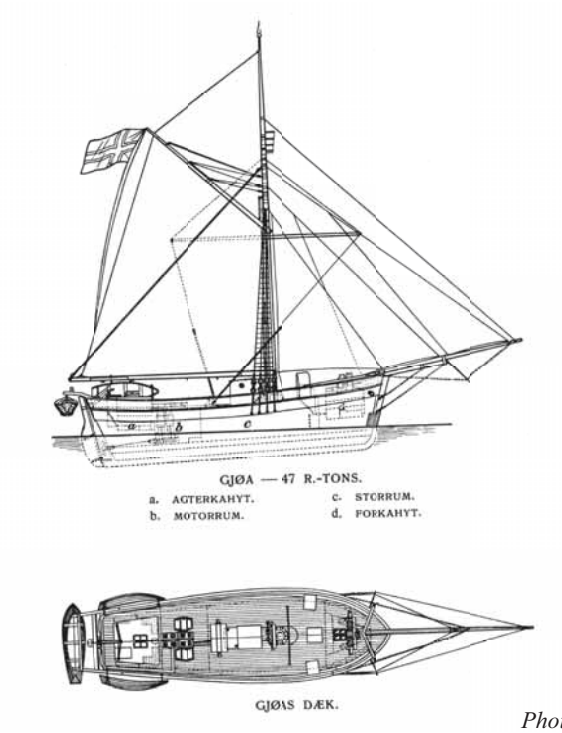
The scheme of the Gjøa Expedition I had welcome opportunity of laying before the Norwegian Geographical Society on November 25, 1901. It was briefly as follows: With a small vessel and a few companions, to penetrate into the regions around the Earth's north magnetic pole, and by a series of accurate observations, extending over a period of two years, to relocate the pole observed by Sir James Ross in 1831, and also to make investigations in its immediate vicinity. This was the chief object of the expedition.

The condition of the ice still farther west allowing of it, it was furthermore my intention to attempt to sail through the North-West Passage in its entire extent, this being a problem which for centuries had defied the most persistent efforts. I chose a small vessel, with the view to be better able to pass through the sounds of these regions, which are narrow, shallow and generally packed with ice. In preferring a small number of members to a larger one, it was – apart from want of space – because, in the event of such a misfortune occurring to us as the loss of our vessel, it would be easier to find means of subsistence for a small than for a greater number of men.

Drawing from James Clark Ross' account of locating the North Magnetic Pole. Photo FM

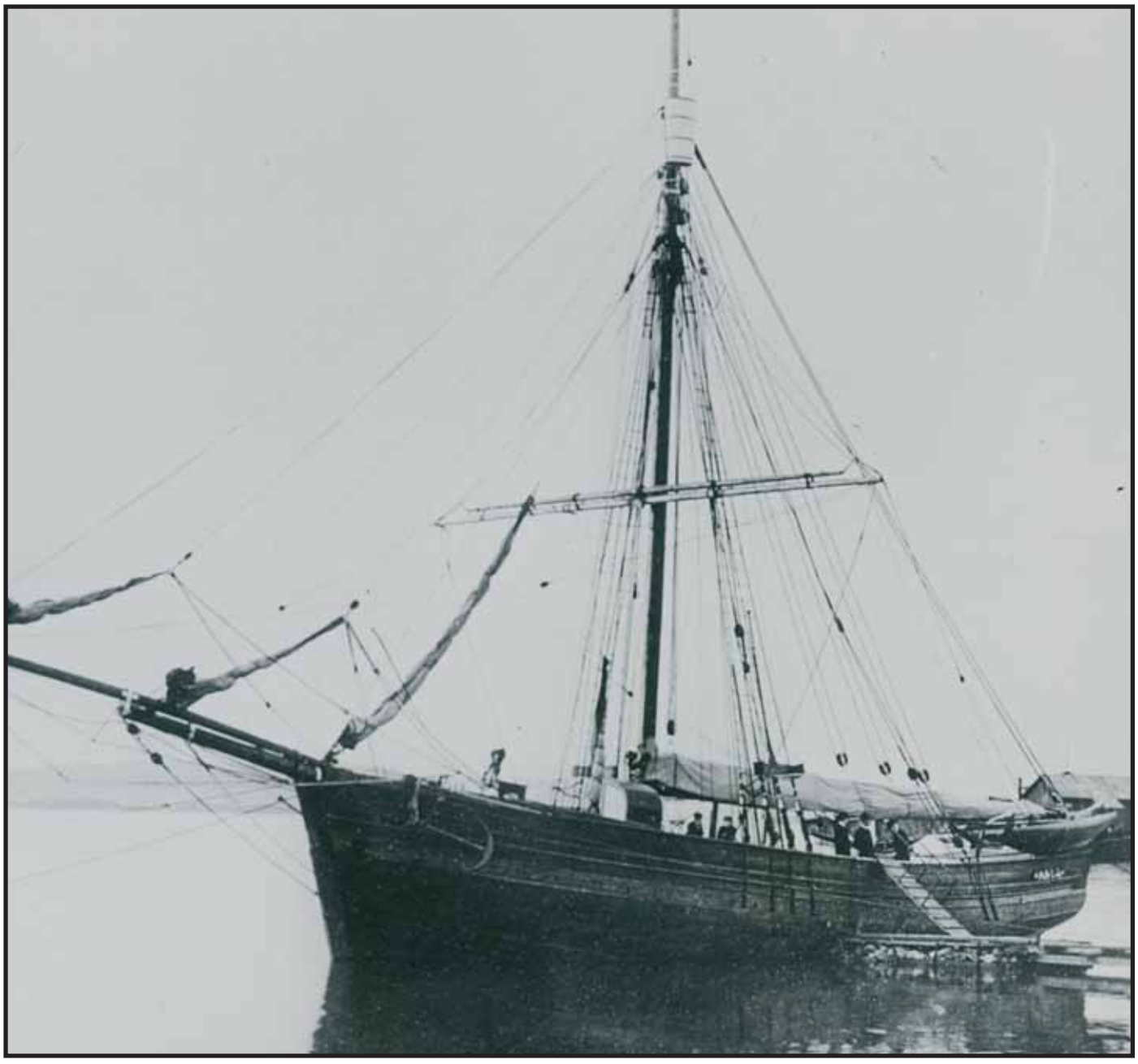
My undertaking, as soon as it became known, awakened great interest in very wide circles, and several wealthy men came forward and supported the enterprise with donations. It would take too long to name all the persons who gave the expedition pecuniary support, but I must in respectful gratitude mention the names of their Majesties King Haakon and King Oscar II.

The vessel of the Gjøa Expedition was built in Hardanger in 1872 and was my only contemporary on the trip. She had originally been used in the herring fisheries along the Norwegian coast; later she was sold to Tromsø, whence she sailed for many years in the Arctic sealing trade. She had weathered many a storm, through not always scathless. After my purchase of her, I had a small petroleum motor, of 39 indicated horse-power, put into her, to help us along in calm weather. The ice-sheathing, which before only reached a couple of planks under the water-line, I had lengthened right down to the keel; stout cross-beams were put into the hold and connected with massive joints to the deck and keelson, and the old hempen rigging was replaced by wire rigging.



The Gjøa at Frognerkilen before departure, 1903.
Photo: National Library of Norway (NB)

Photo: FM



AMUNDSEN LANTERN SLIDE 005: FM/JFO

AMUNDSEN LANTERN SLIDE 004: FM/JFO

Photo: NB

AMUNDSEN LANTERN SLIDE 003: FM/JFO

AMUNDSEN LANTERN SLIDE 002: FM/JFO

Photo: NB

I had chosen my companions by degrees. First in order I must mention the man who sacrificed his life in the service of the expedition, Gustav Juel Wiik. He was born in 1878, at Horten, and thus lived to be somewhat over twenty-seven years of age. From six weeks' study shortly before the departure of the expedition, at the Magnetic Observatory at Potsdam, where he particularly studied the use of self-registering magnetic instruments, he returned with the most excellent testimonials for industry and thoroughness. I had a good opportunity of seeing, during our three years of work together, that these testimonials were not exaggerated, and the magnetic data we brought back with us I owe, in the first instance, to this young man's painstaking and accurate labour. In addition to his position as assistant in the meteorological observations, he was also second engineer.

The second in command of the expedition was Lieut. Godfred Hansen, of the Danish navy, born in Copenhagen in 1875. His lighthearted disposition was of absolute benefit to us, and during the three years – more than three years – that he and I spent together in the little cabin of the Gjøa, 6 x 9 feet, I became more and more attached to him. It was prophesied before our departure from Norway, that within a year we should not be able to bear the sight of one another; this prophecy, however, we thoroughly gave the lie to, and I almost think we could have managed three years more. He was the navigator of the expedition, the astronomer, geologist, surgeon, photographer, electrician, and an expert in dealing with our explosives. He also played star-parts as meteorologist and magnetician.

Sergeant Peder Ristvedt was born in Sandsvær in 1873. Besides being first engineer, he was also our meteorologist, smith, clockmaker, copper and tinsmith, gunsmith, etc. I knew Ristvedt before I engaged him, as he had taken part as assistant in my first expedition in the Gjøa in 1901. I was thus aware of what I was doing when I secured the service of this capable man and pleasant companion.

Anton Lund was the first mate of the expedition. He had sailed from his earliest youth on our Norwegian sloops to the Arctic ocean, and was consequently an unusually experienced man in all matters connected with the condition of the ice and navigation through it.

Helmer Hansen was born in the Vesteraal islands in 1870. He had previously been a peasant, fisherman, and Arctic navigator. His position was that of second mate, and he was careful and conscientious in all that he did.

Last of all, then, comes the cook, Adolf Henrik Lindstrøm, born at Hammerfest in 1865. He took part in Sverdrup's expedition in the Fram, and had thus extensive experience as an Arctic cook. I will confine myself to informing you that, besides providing us for three years with excellently prepared food, served to the minute, he voluntarily filled the vacant posts of botanist and zoologist. His kitchen work ended, he was pretty sure to be seen abroad on arctic summer evenings with his botanical collecting-box, his shotgun, and his butterfly-net, and woe to the flower, bird, or insect which came his way! After this description of my comrades, I feel sure that none of my hearers will be surprised that we succeeded in accomplishing what we did.

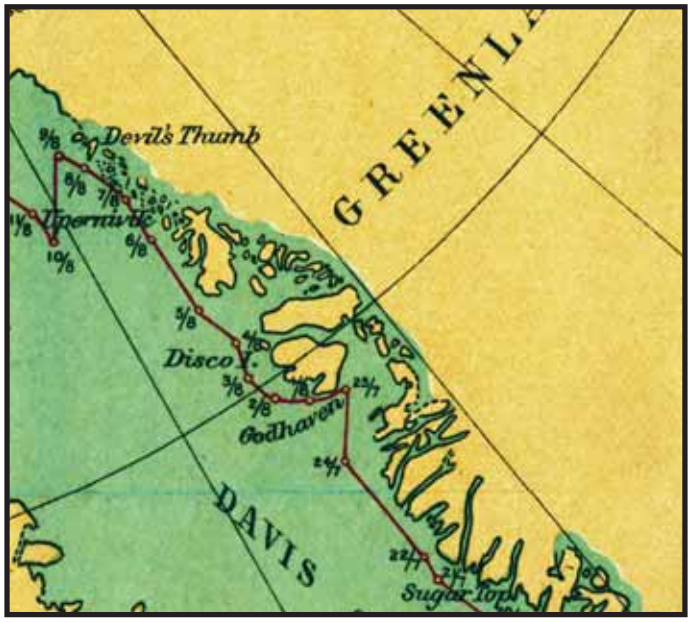
At twelve o'clock on the night between June 16 and 17, 1903, we cast off, and the Gjøa was towed down the Christiania fjord. It poured with rain, and was as dark as in a sack. Some of my friends tried to console me by saying that the weather was much the same when Nansen started in 1893, and that it was a good omen. However, I had never been a believer in omens, and I therefore felt myself, in spite of these auspicious torrents, very uncomfortable in my soaking clothes. At six in the morning we entered the harbour at Horten, where we took our explosives aboard. At eleven in the forenoon the last tie which bound us to home was broken, for the tow-rope snapped, and left the Gjøa to her own fate. We were then just outside Færder lighthouse. After the tug had given us the proper farewell civilities, it stood up the fjord again, and the Gjøa, by her own exertions, worked her way slowly forwards against a southerly breeze. The voyage across the Atlantic has been made countless times, and does not offer any particular interest. A great number of people had, indeed, designed this ocean as the Gjøa's last resting-place; but, in spite of many prophecies and many warnings, our good little Gjøa quietly and calmly worked her way onwards, giving not a moment's thought to all wiseacres. How glorious it was to have exchanged the narrow hot streets for the open sea - and not only we human beings enjoyed the change, but our dogs likewise. We had, I should explain, six dogs with us which had taken part in Sverdrup's expedition, and they seemed to enjoy the voyage exceedingly, running about and getting into as much mischief as was to be attained. Their spirits were particularly high on rough days, as then they had an agreeable change in their monotonous diet (consisting of a stockfish and a quart of water), in the shape of the delicious viands sacrificed to them by my seasick companions.

On July 9 we sighted the first ice, in the vicinity of Cape Farewell, the southern extremity of Greenland, and on the 11th the land round the cape itself appeared in sight. The wind, which had not been particularly favourable to us up to this, did not improve now, and our voyage up the whole of the west coast of Greenland was thus one single struggle against the ever-prevailing north wind. We had to console ourselves with the proverb that "it is an ill wind which blown nobody any good." Though the contrary wind from the north hindered our progress, it at any rate set the ice in motion southwards, and made a way for us.

The voyage, which had hitherto been somewhat monotonous, became more lively on the appearance of the ice. Icebergs of varying shape glided past us and took captive our attention. Now and then we made an excursion into the drift-ice, and shot some of the beautiful large bladder-nose seal that were lying about on the higher parts of the ice. Both men and dogs were longing for fresh meat, and this seal-flesh provided us with an agreeable change in our menu.

On July 24 we sighted Disco Island, and the day afterwards anchored at Godhavn, whither the Royal Danish Greenland Trading Company had been kind enough to bring some of our equipment in their ships. Here we spent five days, enjoying the great hospitality of the inspector and the governor of the colony. After having taken a series of magnetic and astronomical observations, and shipped all our things, we left the place on July 31.

Godhavn on Disko Island. Photo: NB



The Disko Island area. Photo: FM

On August 8 we reached Holm Island, which marks the beginning of the redoubtable Melville Bay. The ice was packed close, but, however, proved to be broken. We kept cruising backwards and forwards alongside the edge, watching for an opportunity to enter it, and at last, on the evening of the 10th, it so far slackened that we were able to slip in. In thick fog, we wound our way about through fairly practicable ice, a few icebergs now and then breaking up the dense masses of the fog with the strength of their flashes, calling to us their own warning. On August 13, at half-past two in the morning, we saw the last of this fog, the *Gjøa* quietly and calmly gliding out of the thick masses, which had surrounded us as in a nightmare for several days, into a new world, lighted up by the loveliest sunshine, and with a marvellous beautiful view. In the east we saw the head of Melville Bay filled with impenetrable icefields; in the north lay the fine mountain scenery around Cape York, beckoning

Inuit from Greenland aboard the Gjøa. Photo: NB

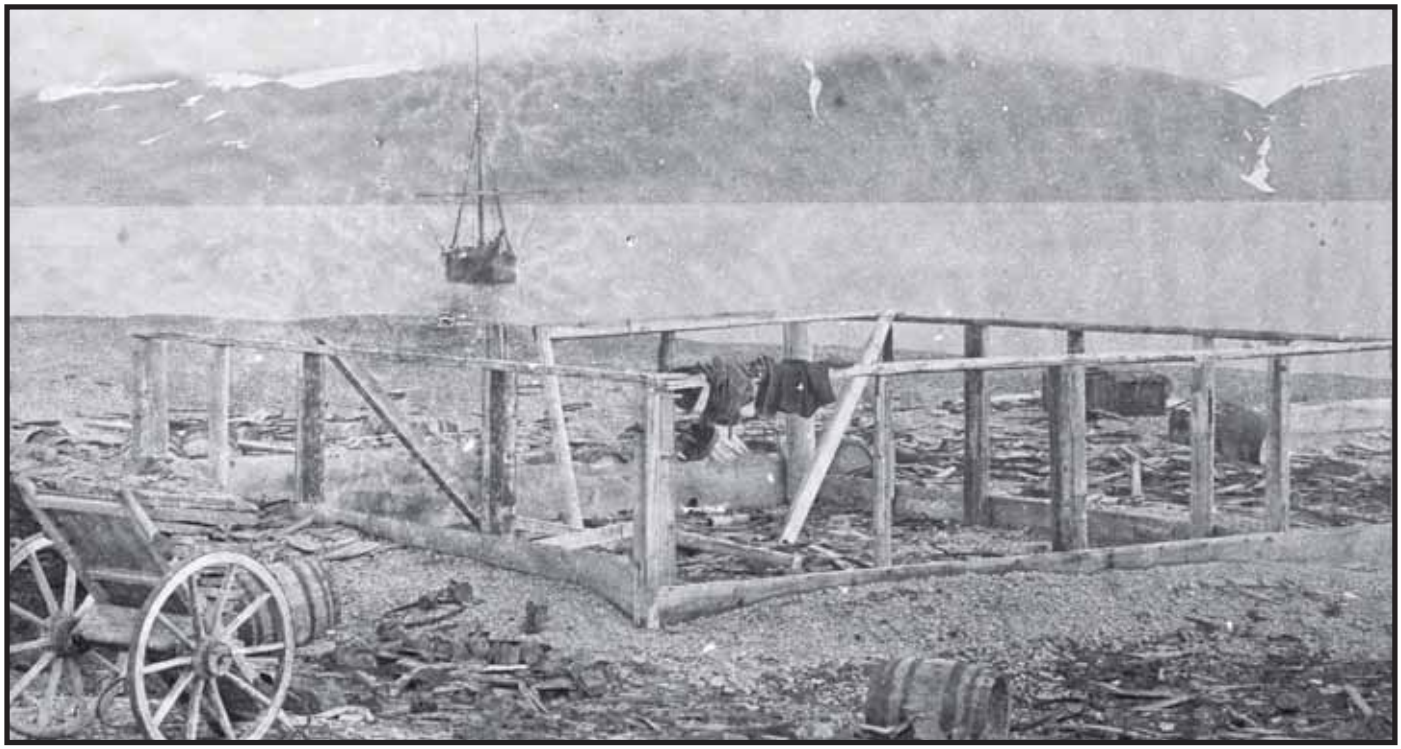
and calling to us in the sunshine – the feeling was overwhelming; before us, shining in the blue and white, lay the huge masses of drift-ice. There was not much open water to be seen from the masthead, but then we did not want very much. On August 15 we reached Dalrymple Rock, where two Scotch captains, Milne and Adams, had left a largish depot for us. Here we fell in with the Danish Literary Greenland Expedition, and spent a few lively and pleasant hours with the members of it. On August 17 we continued our voyage, and bore across Baffin Bay, in sight of the Carey Islands. It was lucky for us that we met with calm weather here, for with our deeply laden vessel a storm might have had serious consequences. Besides our sky-scraping deck cargo, there were on the top of it all our eighteen dogs, the greater number of which had been shipped at Godhavn. By way of making the time go quicker, they had divided themselves into two about equally strong sides, and from time to time made inroads on each other's territory. This game, needless to say, was hardly to the liking of the man who happened to have the watch, and many a round oath found its way out into the world. On August 20 we stood into Lancaster Sound; a few icebergs, which had collected round Cape Horsburgh, and some slack ice stretched straight across the sound. We kept in under the northern shore. The land made an exceedingly barren impression; there was no vegetation to be seen, and the mountains were high and table topped. It was, however, not often that we were able to see land, the fog for the most part being thick and heavy.

The members of the Danish Literary Greenland Expedition, Harald Moltke, Knud Rasmussen, Jørgen Brønlund and Ludvig Mylius-Erichsen, aboard the Gjøa at Dalrymple Rock on August 15, 1903.

Amundsen lantern slide 007: FM/JFO

On August 22 we reached Beechey Island, where I had arranged to stop and take a series of magnetic observations, which were to decide our future course. Before the departure of the expedition, several persons more interested than learned in terrestrial magnetism had written to me, pretending by a subtle method, which, however, they did not disclose, to have discovered that the magnetic pole had moved, with a speed of I don't know how many miles in the year, in a north-westerly direction, and was now on Prince Patrick's Land. They might as well have said in the moon for all they knew.

Beechey Island gives a barren and dismal impression; and particularly sad are the ruins of the house erected by the British Government for the succour of the Franklin Expedition. Five graves did not make it more cheerful. The memorial stone to Sir John Franklin was the only thing which in the least brightened all this sadness – a handsome marble tablet, put up to his memory by his faithful wife.



The ruins of the Franklin depot at Beechey Island left a sad impression on Amundsen. Photo: NB

Amundsen lantern slide 008: FM/jfo

The John Franklin memorial at Beechey Island.

The Beechey Island area Photo: FM

The magnetic observations indicated the pole as being in a southerly direction, and Prince Patrick Land was this time left in peace. We left Beechey Island on the 24th, and shaped the course for Peel Sound, entering those waters in dense fog. The ice was the whole time fairly practicable, and we met only loose streams which presented no hindrance. At Prescott Island the compass, which for some time had been somewhat sluggish, entirely refused to act, and we could as well have used a stick to steer by. Navigation, as we now practiced it, was at first a somewhat unfamiliar proceeding, and when one watch released the other, the fog lay close and compact, as it always did, strange remarks might have been heard. "What are you steering?" would ask the relieving watch, in a cross and sleepy tone. "Supposed to be steering south, but ain't sure we're not going north;" and as he handed the tiller to the other, one would hear, "Steady-so." So there one would be at two o'clock in the morning, just up from a comfortable warm berth, the fog pouring down over everything, and absolutely nothing to be seen in any direction, and one was to steer steady! This was certainly great fun; but custom is a remarkable thing. Within a short time we became quite at home even with this sort of navigation, and we made way. On August 28 we passed the spot where Sir Allen Young was stopped in his vessel the Pandora by impenetrable ice. Later in the forenoon the western entrance to Bellot Strait, where Sir Leopold M'Clintock in vain tried to get through, was passed. Now began our voyage along the west coast of Bootia Felix – a voyage that more than once looked dark for us. We were not hindered by ice to any great extent; the land lead was, as a rule, so wide that we could get along without difficulty; but that which was worse for us were the shoal water, the constant fog, and the pitch-dark nights. On August 31 we struck ground for the first time. The weather, however, was fine, and we got off without injury. In the evening we anchored off a low island to wait for daybreak, for I no longer dared to go on now that the nights were so dark, and in such foul waters. How peaceful everything was that evening! It was an unusually dark night and absolutely calm, and what greatly increased our already romantic position was the fact that we – I confess it openly and without shame – had no idea where we were! The land had been mapped in winter, and many of the small islands which we came across were not marked at all, the snow covering them at the time having rendered them invisible. All was so peaceful, quiet, and calm. We had all retired, and left the watch to one of the engineers whose turn it happened to be. I had just got out my log to enter the events of the day, when I was suddenly interrupted by the cry of fire. I knew what this meant on board a small vessel carrying 7000 gallons of petroleum, great quantities of gunpowder and explosives, and whose hull was, besides, saturated with tar. We were all up on deck in less time than it takes to tell it. The first thing that met our eyes was an enormous pillar of fire rising up through the engine room skylight. Things didn't look peaceful any longer. We all ran like mad for vessel and life! The engineer on watch had not left his post; he was holding out bravely down below in the suffocating smoke, trying to the best of his abilities to subdue the fire, which had arisen in some cotton permeated with petroleum. This was Wiik. We succeeded by united exertions in becoming master of the fire, and got off without much damage.

An artist's impression of the fire on the Gjøa. Photo: FM

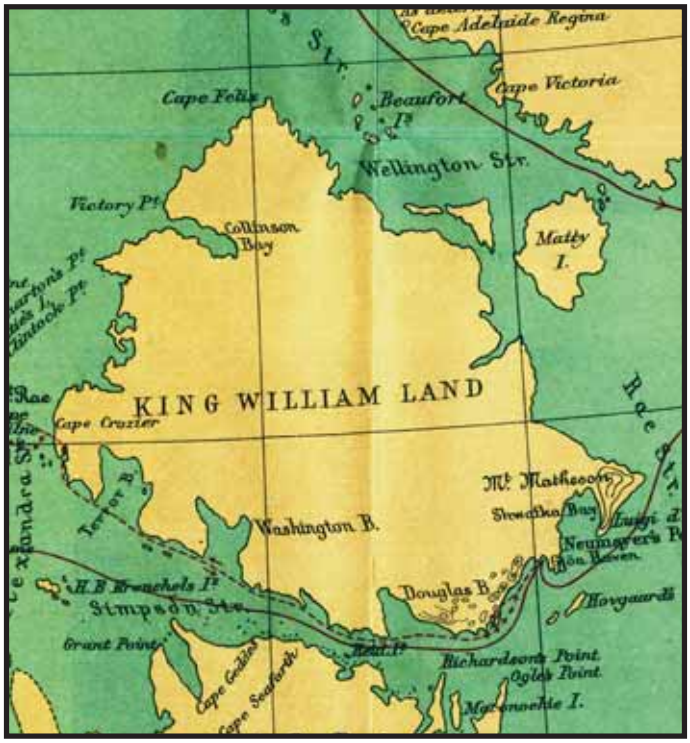
The evening of this same day we beat up under an islet and anchored there. We took this to be one of the small islands lying north of Malty Island. It was blowing hard and night coming on. At four the next morning we weighed, and continued our course. It was a fine morning, partially clear, and with a westerly breeze. I was at the tiller, and my two comrades were hoisting the sails. Suddenly there was a shock, and we struck three times. All expedients to get off were in vain, and there we were for thirty hours. A strong breeze blew up from the north, and came to our assistance, and under crowded sail we succeeded in forcing the Gjøa across a 200-yard-long bank, and out into comparatively deep water.

We only lost our false keel; but from that day to this it has been a matter of wonder to me that human handiwork could have withstood the treatment which the Gjøa underwent on that occasion. During this enforced delay we got a determination for position, and thus knew where we were. About midday we cast anchor of Cape Christian Frederik, on Boothia Felix, so as to get things a little in order after grounding. The wind was then slack and off shore. At eleven in the evening, it suddenly went over to the south-east, and blew hard. There was no question, in the darkness and the shoal and foul sea outside, of getting under way. There was only one thing to be done, and that was to pay out our cables to the bitter end and await results. The wind soon increased to a gale, the seas were high and short, shaking our chain cables violently. The land did not look as well now as when we came in and anchored into it leeward. All hands were on deck, and getting ready for the stranding which seemed inevitable. Each man had had his work allotted to him, and at the moment when the cables gave would be in readiness at his post.

The petroleum motor was going at full speed, and the vessel was kept well up to the wind and sea, by which means I hoped to ease a little the violent strain on the cables. We had anchored at midday on the 3rd, and it was not till four o'clock on the 8th that the wind dropped sufficiently for us to get out again. Then another drifting night in pitch darkness among shoals and rocks, and then at last release. It is impossible to describe the well-being, the feeling of calm and safety, which came over us after these ten days of ceaseless fighting, when we dropped anchor on September 9, at half-past three in the afternoon, at the head of Petersen Bay, in King William Land. There, approached by a narrow inlet, lay the harbour which was to be our place of sojourn for two years – "Gjøahavn," or Gjøa Harbour. A fresh land breeze prevented us from standing in, and it was not till the evening of the 12th that it fell sufficiently for us to beat up against it and drop anchor. Now we could breathe. We had done a good bit of work.

The Gjøa aground. Photo: NB

Detailed map of Gjøa Haven. Photo FM



Map of King William Land. Photo FM

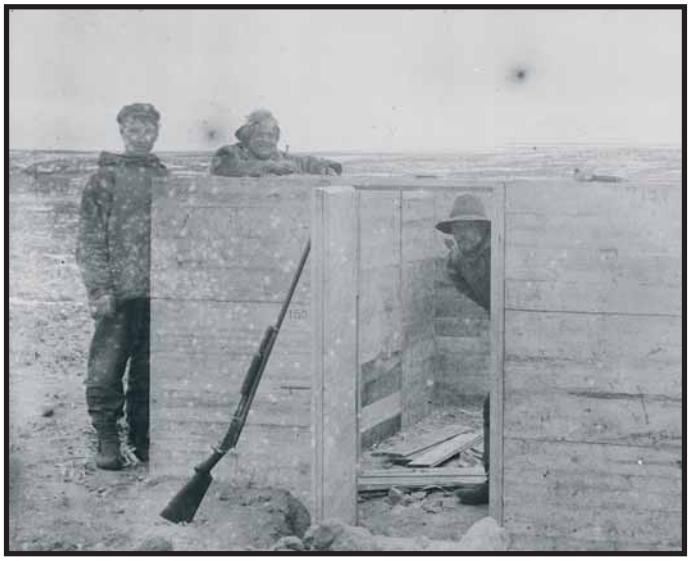
"Gjøahavn" was all that the heart could desire, small and landlocked. Low sandy land, covered with moss, rose gently upwards from all sides, until it reached a height of 150 feet, and thus formed a sheltered little basin where we could lie safe and snug. The day after our arrival here I rowed ashore with my instruments to ascertain the state of the magnetism in this area, and, strange as it may sound, we had found the very spot which, accordingly to my scheme, was the most suitable for a magnetic station – about 100 nautical miles from the magnetic polar area. There was no longer any doubt; this would be our home for the next two years. The time after this was very busy. The vessel was hauled close up to the shore, which fell abruptly away, a conveying rope rigged to the masthead, and all our provisions passed ashore by means of it. Everything was put in order, and the house which we built covered over with a sail.

The Gjøa at anchor in Gjøa Haven. Photo: NB

The Gjøa discharging by aerial ropeway. Photo: NB

Unloading the Gjøa at Gjøa Haven.

AMUNDSEN LANTERN SLIDE 020: FM/JFO



Gustav Juel Wiik, Godfred Hansen and Helmer Hansen building the magnetic variation house. Photo: NB

The magnetic variation house.

AMUNDSEN LANTERN SLIDE 247: FM/JFO

Uranienborg, the observatory for absolute magnetic observations. Photo: NB

Uranienborg in winter.

AMUNDSEN LANTERN SLIDE 021: FM/JFO

Building the store house. Photo: NB

Then came the observatories, and of them a mushroom growth sprang up. First the magnetic variation house, then a dwelling-house for the meteorologist and magnetician, the two latter being built of empty provision cases filled with sand. After that came the house for the absolute magnetic observations: the walls were built of blocks of snow, and the roof made out of thin transparent sailcloth. Finally, we built the astronomical observatory, which was known as "Uranienborg," this also being of snow, with a sailcloth roof. Besides all this building, we had done another good stroke of work in the shape of killing a hundred reindeer, and we had thus abundant provisions for ourselves and our dogs throughout the winter. The ice formed on October 1 and 2. The vessel was then covered with a winter awning, and everything got ready to receive the approaching winter.

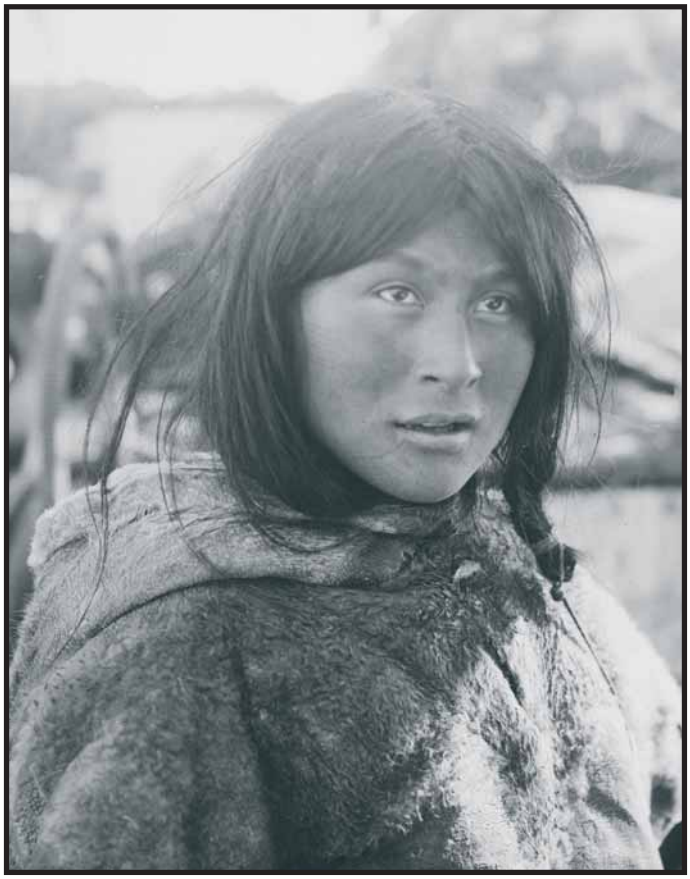
On October 29 the first Eskimo made their appearance. Expectation on this point had always run high, and we had talked daily about meeting with them. Sir John Ross, in his description of his voyage gives the word "Teima" as the usual salutation between white man and Eskimo; and we had therefore carefully laid this word to heart in order at once to check any warlike desires, should they be apparent. This first meeting was exceedingly ridiculous, and is one of our liveliest reminiscences.

With two companions, armed to the teeth – namely, Anton Lund and Helmer Hansen – I started off to meet the Eskimo, walking first myself, with two comrades following me at about three paces' distance. They had shouldered their guns, and had such a fierce expression on their faces that it alone would have been enough to put a warlike detachment to flight, to say nothing of the five unfortunate Eskimo who were approaching us. The step and set-up of my detachment were unexceptionable. Arrived at about a hundred paces from us, the Eskimo stopped, and we, not wishing to show less strategic ability, did likewise. Now, I thought, is the moment to set this matter at rest, and shouted "Teima" at the top of my voice. It did not seem to affect them in the least, and after a short parley among themselves, they recommenced their march on us. They were five in number, had formed in a sort of fighting line, and now advanced towards us smiling and humming. Two of them had their bows firmly secured to their backs, and the three others were apparently unarmed.

Netsilik Inuit carrying spears several meters long. Photo: NB

We on our side, of course, reassumed our advance, repeatedly shouting, "Teima, teima," and the Eskimo answered, but with quite another word, namely, "Manik-tu-mi." We now approached one another quickly, and finally ended by meeting. It was a remarkable encounter. The Eskimo stroked and patted us both in front and behind, all shouting "Manik-tu-mi" as hard as they could. We, true to our original plan of campaign, copied our adversaries, and shouted and howled, patted and slapped, to the best of our ability.

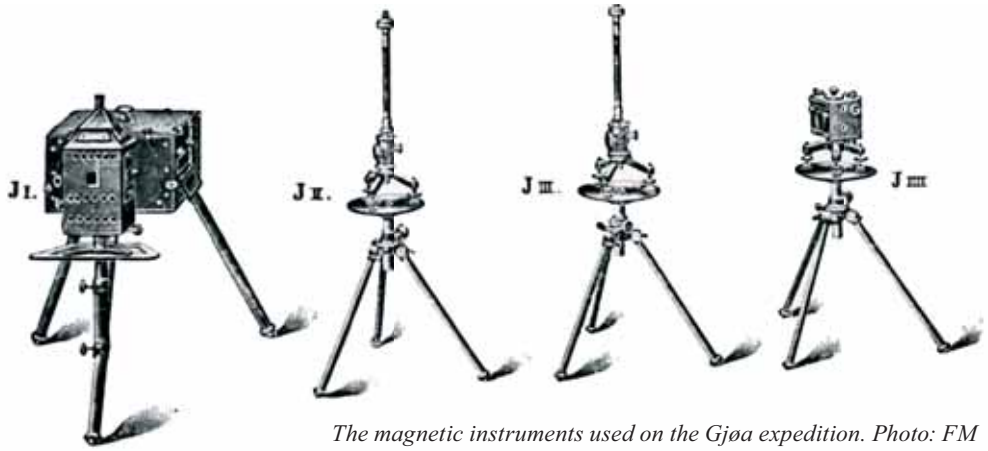
They were fine men, these Eskimo, tall and strongly built, and in their appearance reminded me more of Indians than of Eskimo, having their redskin type of complexion; they were, moreover, slim, and, as I said before, tall. The ordinary broad and fleshy Eskimo nose was exchanged for one better in shape, somewhat hooked; their hair was cut short, with the exception of a small crest of long hair which stretched from one temple round the nape of the neck to the other temple. We now proceeded, laughing the whole time, to the vessel. These Eskimo called themselves "Ogluli Eskimo," and looked upon the North American coast from Back River westwards to Adelaide Peninsula as their hunting fields. We made many good friends among this race, but it was not till later, when we met with the "Nechjilli Eskimo," that we made inseparable allies.



Magito, a woman frequently mentioned in Amundsen's book from the expedition. Photo: NB

Netsilik women and children on a fishing expedition. "Netsilik" means "the seal people". They hunted seal and reindeer, and fished for salmon, trout and cod. Photo: NB

On November 2 the permanent station began its work. I will try, in as few words as possible, to explain terrestrial magnetism and the use of our magnetic instruments.



The magnetic instruments used on the Gjøa expedition. Photo: FM

Instrument for astronomical research.

AMUNDSEN LANTERN SLIDE 010: FM/JFO

Terrestrial magnetic power is, with regard to direction and force, different on every point of the surface of the Earth, nor is it always the same in one and the same place. It is subject to regular daily and yearly changes, and, similarly, there often occur irregular more or less violent disturbances. Finally, small displacements show themselves from year to year, which continue in the same manner for a long series of years. All this has been discovered through observations undertaken during the course of time at various parts of the surface of the globe, partly during travels, and partly by permanent stations. A careful study of all the available material which had been acquired by observation caused the great German mathematician and physicist, Gauss, in the thirties of last century, to form a theory as to the sequence and varied appearance of the phenomena of terrestrial magnetism at a certain moment of time according to the geographical latitude and longitude. It thus became possible to construct three different maps, of which two show the direction of the force, and the third its strength. The reason why two maps are necessary for direction is because the direction must be given both in relation to the north and to a south geographical line, and in proportion to the horizontal plane of a place. The direction of the terrestrial magnetic force in relation to the north-to-south line can be observed by the help of the compass, which, as we know, generally points somewhat east or west of this same north. This divergence is called the variation of the declination. On a magnetic map lines are drawn which show the direction of the magnetic needle at every point of the Earth's surface.

The magnetic dip needle used on the sledge journey to the North Magnetic Pole.

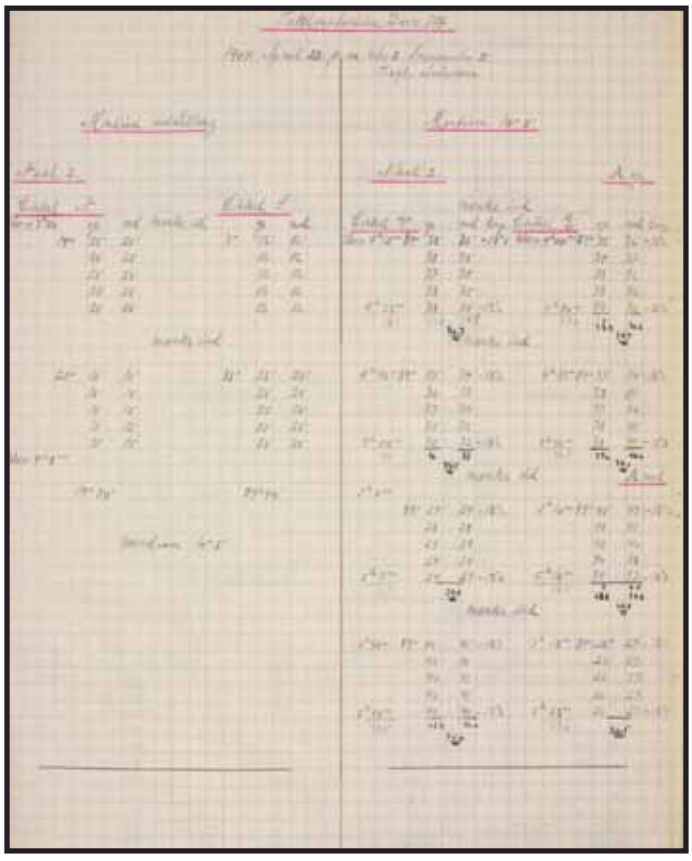
AMUNDSEN LANTERN SLIDE 014: FM/JFO

These lines, which are called magnetic meridians, converge at two points – the north magnetic pole, on the Arctic coast of North America, and the south magnetic pole, in the interior of the Antarctic continent. Each of the lines indicates, as will be understood, the direction one would go if he followed exactly the direction indicated by the north or south end of the magnetic needle. In the first case, one would at length arrive at the north magnetic pole; in the other, at the south magnetic pole.

If a magnetic needle be placed so that it can turn on an axis through its centre of gravity – exactly like a grindstone – the needle will of itself adopt a diagonal position when the plane of revolution is identical with the direction which the needle of a compass indicates. An instrument of the kind is called an "inclitorium," and the angle which the dipping-needle forms with the horizontal plane is called the magnetic inclination of a place. Here, in our parts, the north end of the needle points down towards the earth; in Australia, on the contrary, it is the southern end which dips. At the north magnetic pole the dipping-needle assumes a vertical position with its north end down; at the south magnetic pole it assumes a vertical position with its south end down. The inclination, then, at both their points in 90°, and decreases according as the distance becomes greater from them. On a series of points within the tropical zone the inclination is 0°; that is to say, the dipping-needle places itself exactly horizontally, and that line which we may imagine as drawn through all these points is called the "magnetic equator". It is situated partly above, partly beneath, the Earth's geographical equator.

The force of terrestrial magnetism works, as will be understood, with its whole strength in the direction given by the dipping-needle, and it may be asked, how great is this force in the different places? In order to discover this we must imagine the force dissolved into two parts, one part working horizontally, and one part working vertically. It is evident that it is the horizontal art of the force which causes the needle to take a set position, and if we know all about this force – "horizontal intensity," as it is called – and at the same time know the inclination, it is easy, by a simple calculation, to find the collective strength, the total intensity. For the determination of horizontal intensity two methods are adopted, either each one alone or preferably, for the sake of comparison, simultaneously. One method consists in placing a magnetic bar by the side of a needle at a given distance from it, and observing how many degrees the needle moves away from its original position. It is clear that the weaker of the horizontal intensity the greater the oscillation of the needle, and when the strength of the magnetic bar is known, it is possible, by the aid of the angle of oscillation and the distance, to calculate the horizontal intensity.

Inclination readings on April 28, 1904. Photo: NB



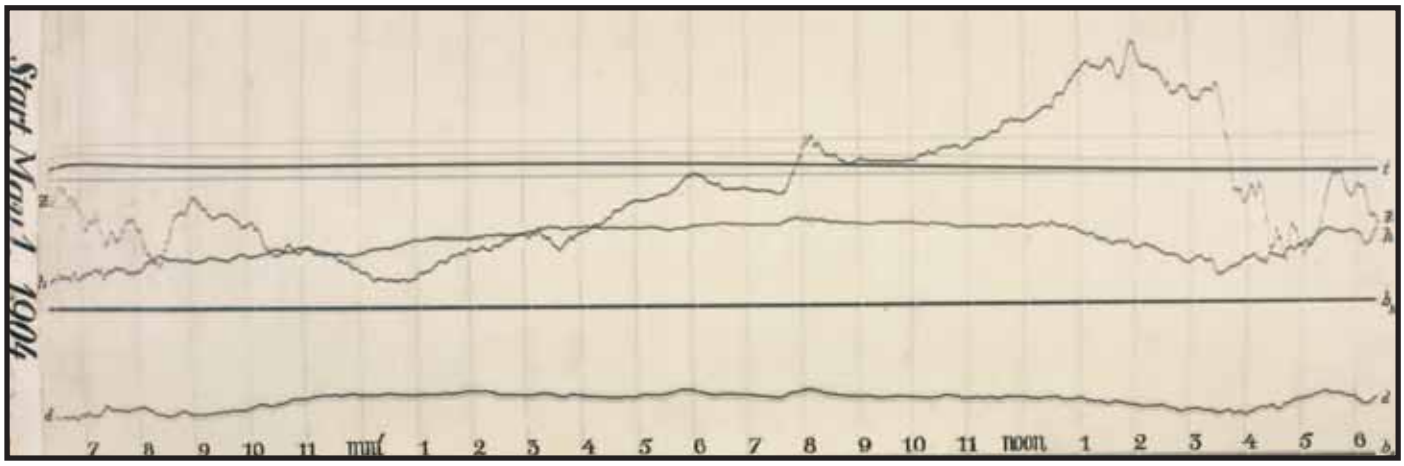
The magnetic instruments in use in winter. Photo NB

The other method is to note the time of oscillation of a magnetic bar suspended by a thread in such a manner that it can revolve in the horizontal plane. When the magnet is allowed to be at rest, it sets, under the influence of horizontal intensity, in the direction of the needle. Brought out of equilibrium by a little push, it will swing backwards and forwards, and the stronger the horizontal intensity, the sooner it will come to rest again, or, in other words, the shorter will be the time of each individual oscillation. When the strength of the oscillatory magnet is known, and observation is made of how many seconds are necessary for an oscillation, the horizontal can be calculated.

Maps are constructed to give an idea of the value of horizontal intensity, expressed in so-called electric units, on the different parts of the Earth. A line passes through all the places where the horizontal intensity is the same. The horizontal intensity decreases towards the magnetic poles. It is, therefore, matter of consequence that terrestrial magnetism here, where the inclination is 90°, acts with its whole strength vertically downwards, and thus cannot have any effect in a horizontal direction.

Although the magnetic maps are very dissimilar, they are alike in one respect, namely, that the magnetic poles are the points of mark on the surface of the Earth, and it is obvious that magnetic investigations just at these points, or in their immediate vicinity, must be of the greatest interest to science of terrestrial magnetism. The Gauss theory by no means solves all the riddles presented by the phenomena of terrestrial magnetism, but continual efforts are being made to complete these riddles by the collection of as reliable and comprehensive observations as it is possible to procure.

The magnetic work of the Gjøa Expedition is intended to be a contribution to this object. But the difficulties were not small. The very fact that horizontal intensity, as we have heard, becomes, in the vicinity of the magnetic poles, so infinitesimally small, renders necessary extraordinary precautions for the determination of this itself, as well as of the variation. The Gjøa Expedition's equipment of instruments was calculated for this purpose. The magnets, fourteen in number, were chosen with great care in Potsdam just before our departure. The inclination we were able to determine by the help of three inclinatoria of varying construction, and for the determination of the declination we had two different instruments.



Automatic magnet readings from the Gjøa expedition. Photo NB

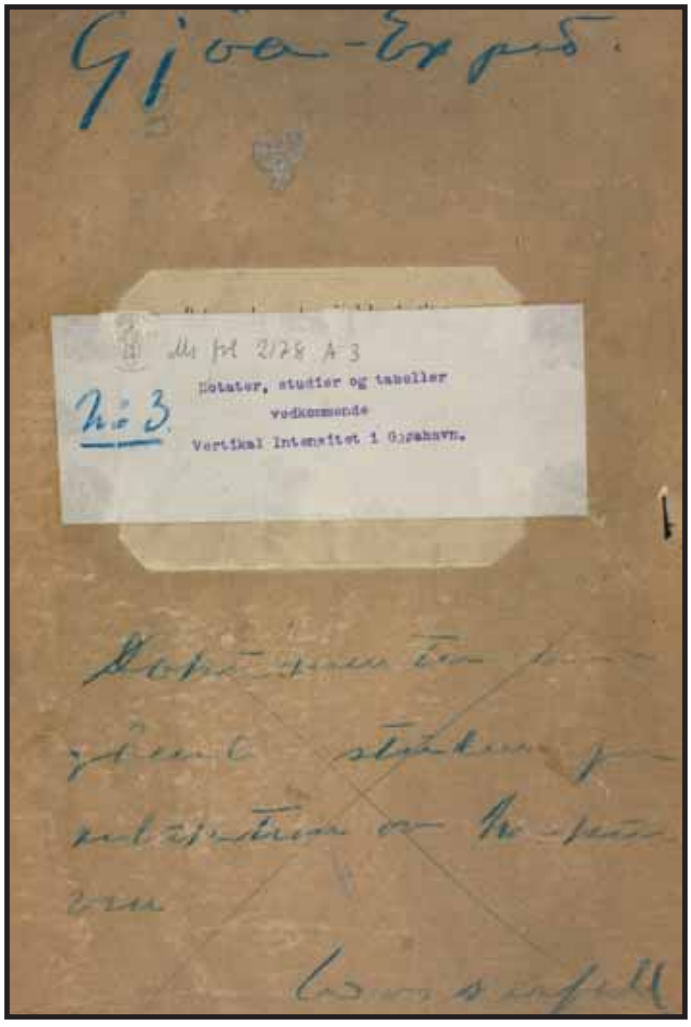
The "Villa Magnet" – the magnetic observatory - in summer time. Photo NB

Added to these were a set of self-registering variation apparatus; that is to say, three instruments permanently erected in a dark room, each instrument containing a small magnetic needle, two of the latter being suspended by a fine quartz thread, the third oscillating on a fine bearing in such a manner that the needle with its movement followed the declination, the second the horizontal intensity, and the third the inclination, even its minutest changes. Each needle was provided with a looking-glass, which reflected the light from a lamp on to a drum covered with photographic paper, which, by means of clockwork, made one revolution during the course of twenty-four hours. It was arranged so that the reflection from each of the three needles struck the drum at different heights, and caused a little dark spot; but when the drum with its paper revolved, each of these spots was continued, forming a consecutive dark line. There were thus three dark lines across each other on the paper, when after the lapse of twenty-four hours it was taken off.

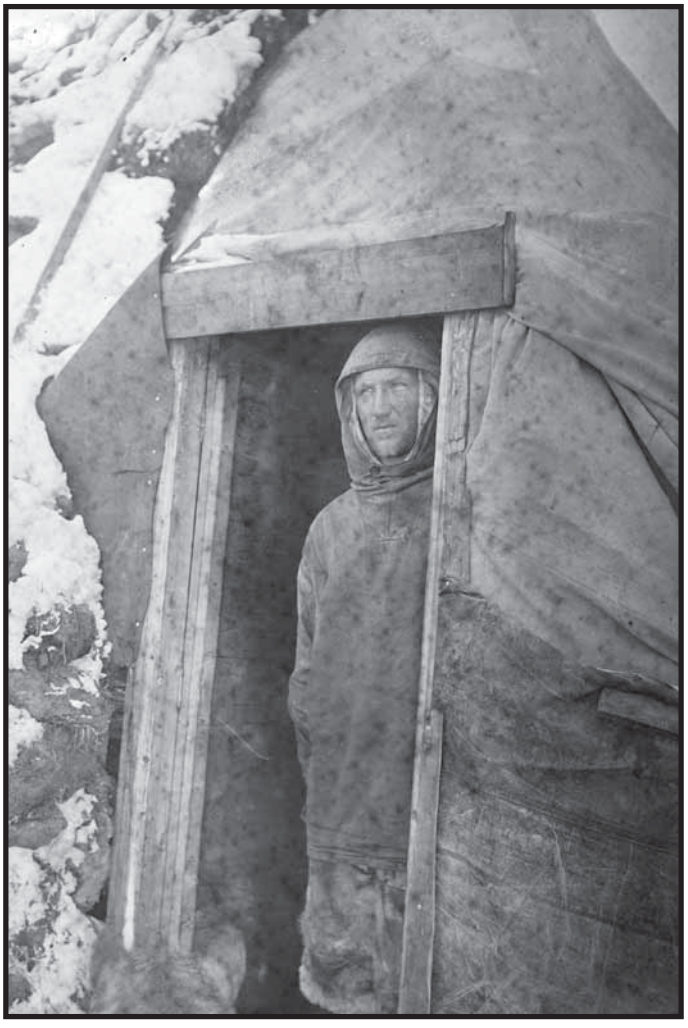
After what we have heard, it will easily be understood that it would not have done to select the pole itself for a permanent observation station, even had we known beforehand its exact situation, and could have foreseen that it would keep immovable on one of the same spor. Advised by Prof. Adolf Schmidt, I therefore decided to make the base station, where the instruments for variation were to be erected, at such a distance from the pole that the inclination would be about 89°. This requirement was fulfilled by Gjøahavn, which accordingly became our headquarters. We constantly made excursions hence to adjacent part of the country, and right in to Boothia Felix, where I succeeded by the help of declination in absolutely proving what of late had been assumed on theoretic grounds, namely, that the magnetic pole has not an immovable and stationary situation, but, in all probability, is in continual movement. In what manner this movement take place our considerable amount of material acquired by observation will, when it has been worked out, give instructive information.

The magnetic observations were kept going day and night, without interruption for nineteen months. Meteorological observations were also taken the whole time. Prof. Mohn had equipped the expedition with a complete set of meteorological instruments, and made it his business that the meteorologist of the expedition should receive the best instruction. The meteorologist, Dr. Aksel Steen, was my magnetic counsellor at home in Norway, before the departure of the expedition, and many a good bit of advice did he give me. The astronomical equipment was for the greater part due to Prof. Geelmuyden.

Amundsens protocol for studies in vertical intensity in Gjøa Haven. Photo NB



Gustav Juel Wiik in the entrance to the magnetic variation house. Photo: NB



The Eskimo came and went now as often as they liked, and in a short time became quite at home with us. Towards Christmas they all disappeared, with the exception of an old man, Teraiu, with his wife, Kaijoggolo, and little son, Nutara. They came and lived with us during the whole of the coldest part of the winter, the rest of the tribe having gone westward to capture seal.

Christmas was now approaching with rapid steps, and countless preparations were made. The days had begun to be shorter and the cold sharper. Then came Christmas Eve, the first on board the Gjøa. The weather was splendid, absolutely still, and sparklingly bright. The thermometer -40° Fahr. (-40°C). And what a Christmas Eve it was out here!

Was not heaven itself sending us a greeting? The most glorious aurora we had yet seen lighted up the entire sky, in chasing rays from the horizon towards the zenith. The rays seemed to be racing on another, racing to see which would be the first in the wild chase. Then they all suddenly unite, as if at a given signal, and change into the shape of a sort, delicately-formed ribbon, twisting in light and graceful movements. It is as if the unquiet beams had now sought rest. Are they, perhaps, thinking of something new? Then suddenly the beautiful ribbon is, as it were, torn in many pieces. Again begins the chase, again the wild flight. It is difficult to imagine what the next step will be. It seems as if the zenith would now be chosen as the central point for the whole movement. And so it is. Suddenly, as if by magic, the most glorious corona streams forth from it.

The first Christmas in Gjøa Haven. From the left Helmer Hansen, Roald Amundsen, Peder Ristvedt, Adolf Lindstrøm, Gustav Juel Wiik and Anton Lund. Photo: NB

Christmas goes, the New Year comes. The many holidays have already begun to tire us, and we take up our work again with pleasure. The first item on our programme is the equipment for my approaching sledge journey to the immediate area of the magnetic pole. The original plan was that I should make this expedition with one companion and provisions for three months, supported by a relieving expedition under Lieut. Hansen with one man. There were consequently four of us who were obliged to have their things in order by a certain date. In one thing there was a general consensus of opinion, namely, that Eskimo fur garments were the most suitable for the climate. We had, therefore, taken time by the forelock and bartered with the Eskimo for the lightest and finest reindeer-skin clothing we could get. After many small trials, too, we all agreed that snow huts were far superior to tents when the temperature was below -22° Fahr. (-30°C).

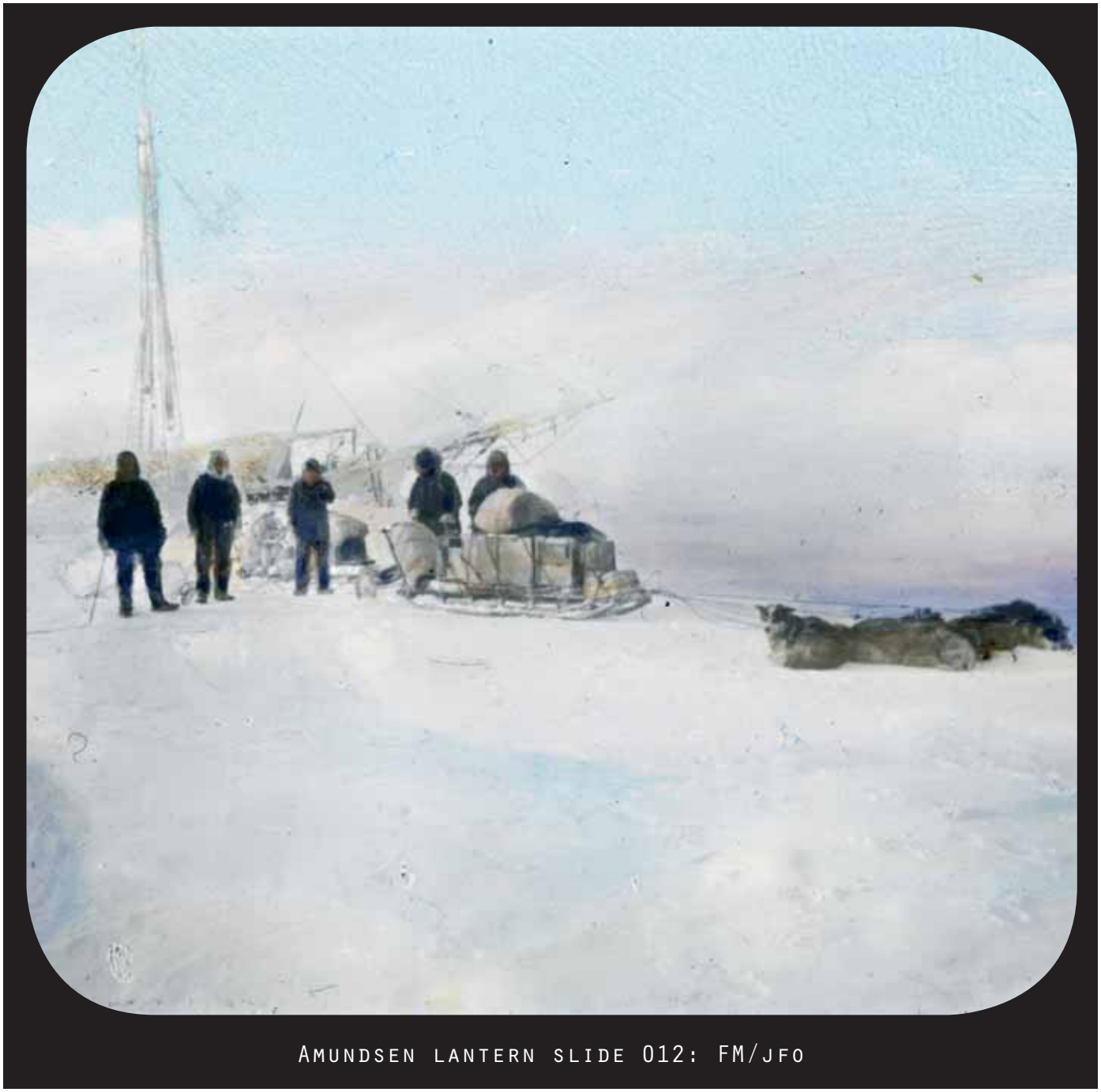
I therefore started a class, with old Teraiu – the Eskimo who stayed with us, with his family – as teacher. We all four joined, and now built a snow hut regularly every forenoon. Sometimes one of us was master builder and the other masons, sometimes the other. Old Teraiu, who could not understand what we were building all these huts for, shook his head pensively, evidently in the conviction that we had taken leave of our senses. Sometimes he would throw out his arms to indicate the overwhelming number of houses, and exclaim, "Iglu amichjui – amichjui – amichjui!" Which means, "This is a dreadful lot of houses." But in this, too, we arrived at what we wanted: we became at last good snow builders.

Lindstrøm learning how to build an igloo. Photo: NB

On February 29 we took our sledges up on to the heights in order to be ready for a start the next morning. The day for beginning of our sledge-journey broke clear and still. The temperature was not exactly summer, the thermometer reading nearly -64°Fahr. (-53°C.).

Photo: NB

The first departure for the North Magnetic Pole on March 1, 1904. The attempt lasted only four days due to cold weather and lack of experience in handling dogs and sledges.



AMUNDSEN LANTERN SLIDE 012: FM/JFO

One sledge had a team of seven, mostly young dogs, for we had lost the others during the course of the winter from one or other mysterious disease: the other sledge was hauled by three men. We found it difficult to make any way; the sledges ran badly. The snow in this severe cold was like sand, and advance very heavy. After terrible labour we made 4 miles the first day. Before we could go to rest we had to build our house. Thanks to the many huts we had built before that winter, we did this fairly quickly – in about an hour and a half. The temperature, which had sunk to about -70°Fahr. (-57°C.), did not tempt us to be out longer than was absolutely necessary. As soon, therefore, as we had finished the hut, we went in and walled up the entrance with a large block of snow. The cooking apparatus was set going, and it was soon warm and cosy in our little snow-house. In spite of the low temperature – about -77°Fahr. (-62°C.) – the lowest we observed, we spent in all respects a comfortable night. The next day, after ceaseless toil from morning to evening, we managed to cover 3.5 miles. I realized now that this sort of thing was not good enough, and decided to make the depot where we were, return to the vessel, and wait for warmer weather.

On March 16 I again made another attempt to move this depot somewhat farther out. It was on this trip that we first met with the Nechjilli Eskimo, and accompanied them home to their snow-huts, which lay among the pressure ridges in Rae strait. Our first meeting with this tribe was thoroughly friendly and hearty. Their camps consisted of sixteen snow-huts, inhabited by about a hundred people. In appearance and dress, they were exactly like our former friends the Ogluli Eskimo.

When my companions and I were about to begin to build our house of snow, they all came and gave us to understand that they wished to help us. We gladly left the work to them, and after the lapse of half an hour our hut was completely finished. The following morning occurred a scene which very clearly shows in what respect the whites are held among these savages. From our earlier Eskimo friends, the Ogluli Eskimo, we had learned that the word “miki” meant a dog. As all our new dogs were young and not up to much work, I asked one of our new friends – a man called Attikleura, who appeared to be the chief of the tribe – to lend me his dogs the next day. He thought a good deal when I asked him to do this, looked at me, and smiled faintly, but made no answer. I, however, did not give in, but repeated my request. He nodded his head, and we did not mention the matter again, as I now considered it settled. When I came out of the hut in the morning, Attikleura’s little son was standing near the door. I did not take much notice of him, but went to his father’s hut to ask what had become of the dogs. I naturally used the word “miki” which I had learned.

He looked at me in astonishment, and made me understand that I had got his “miki”. As I persistently denied this, he made signs to me that we should go out. He went straight over to his little boy, pointed to him, and said, “Ona mikaga,” which to say, “Here is my boy.” Now everything was clear to me. “Miki” did not mean with this tribe “dog,” but “child.” So great was then their fear of us that he had without demur given his son away. I let him understand that I had made a mistake; the whole thing ended by hearty laughter on both sides.

Hunting party consisting of Talurnakto, the Owl and Peder Ristvedt. Photo: NB

Winter in Gjøa Haven. Photo: NB

After two days' march we came across, at Matty Island, a small camp, consisting of six huts. These belonged to some Ischuachtorvik Eskimo, as they called themselves, who were from the east coast of Boothia Felix, near the place where Ross wintered in the Victory. These people made a very bad impression on me, and I said to my companion in the evening that we had better lash everything securely on the sledges, and let the dogs sleep near them. In the morning when it was time to start we missed a saw, and axe, and a knife. I made the Eskimo understand that they must return the stolen articles, but they pretended that they had no knowledge of the matter. After addressing myself to them two or three times in vain, I grew tired of it, and got out one of our carbines. I then explained to them as well as I could that I knew who the thieves were, and that I would shoot them if the articles were not given back. This worked. The things were returned in a hurry. I did not dare to make any depot in the neighbourhood of these thieves, but retraced my steps, and confided everything to the care of our new friends, the Nechjilli Eskimo. I was never disappointed in the confidence I placed in these people; they were what they appeared to be from the first moment – thoroughly honest. Quite a crowd of them joined company with us, and returned to the Gjøa, staying with us for a few days.

The camp at the North Magnetic Pole.

AMUNDSEN LANTERN SLIDE 016: FM/JFO

On April 6 I started off with Sergeant Peder Ristvedt to make magnetic investigations in the vicinity of the pole. We were equipped for three months, but our nine dogs were not equal to drawing the heavily loaded sledges. We had a couple of Eskimo with us who were going out to capture seal. It was a lovely day, and curious as it may sound, felt quite summer-like with a temperature of -22°Fahr. (-30°C.). We had, of course, been used to a much lower temperature during the two preceding months, February giving an average of about -45°Fahr. (-43°C.). This was the reason why we perspired as if we were in the tropics that day with its -22°. We had to throw off garment after garment, and only stopped when modesty demanded it of us.

This sledge trip was not very successful. An injury to my leg, which I incurred, kept me lying in my bag for a week. I had, however, the satisfaction of getting close to the pole as was necessary. We had been obliged on our way to cache one of our sledges, and provisions for a month, in order to hasten our advance. This was, unluckily, in the neighbourhood of the Ichjuachtorvik Eskimo hunting grounds. When we came back to fetch our things, everything, with the exception of 10 lbs. of pemmican, had been stolen. We were thus obliged to return home after only two months' absence.

Roald Amundsen and Peder Ristvedt arrived at the North Magnetic Pole on May 17, 2004. The Norwegian National Day was celebrated with a festive meal, cakes and cigars.

AMUNDSEN LANTERN SLIDE 013: FM/JFO

The North Magnetic Pole area. Photo FM

Godfred Hansen aboard the Gjøa.

Amundsen or Ristvedt at the North Magnetic Pole.

In the beginning of June, large numbers of Eskimo appeared at the ship with blubber and skins of seals for sale which they had caught during the course of the winter months. We paid them in wood and iron. In the middle of July most of them left us again, to hunt reindeer and catch salmon in different directions. In the summer of 1904, Lieut. Hansen went a rowing expedition with one man to Cape Crozier, about 100 miles distant, to put down a large depot. The latter was for use in his sledge-journey to the east coast of Victoria Land, planned for the spring of 1905. Gustav Wiik had all this time had sole charge of the magnetic observations of the station, and had done excellent work. The summer was short and cheerless.

The vessel slipped the ice on July 22. Of birds of passage we saw swans, geese, loons, ducks, eiders, and many small birds. The ptarmigan came in March and went in November, the only stationary animals were the Arctic fox, the stoat, and the lemming. The vegetation was rich, and large tracts were to be seen quite covered with flowers. There were butterflies, flies, and some other insects, not to omit several milliards of gnats. The winter set in somewhat earlier this year than the preceding one, and the ice formed a week sooner. The reindeer, of which there had been great numbers the previous autumn, were this year very seldom to be seen.

A group of Netsilik Inuit visits the Gjøa to trade.

Amundsen lantern slide 017: FM/JFO

The crew in Inuit clothing. Photo: FM

The crew in Inuit clothing from the behind. Photo: FM

Gustav Juel Wiik in Inuit clothing. Photo: FM

AMUNDSEN LANTERN SLIDE 019: FM/JFO

The whole of our winter provision thus consisted in 1904 of only twenty deer, and these had been shot inland, whereas, in 1903, we could have killed as many as we liked quite close to the vessel. However, the Eskimo, who had spent the summer reindeer-hunting in Northern America, brought us a quantity of venison, and from other quarters we procured salmon, cod, and trout, so that we were well provided for the next winter too.

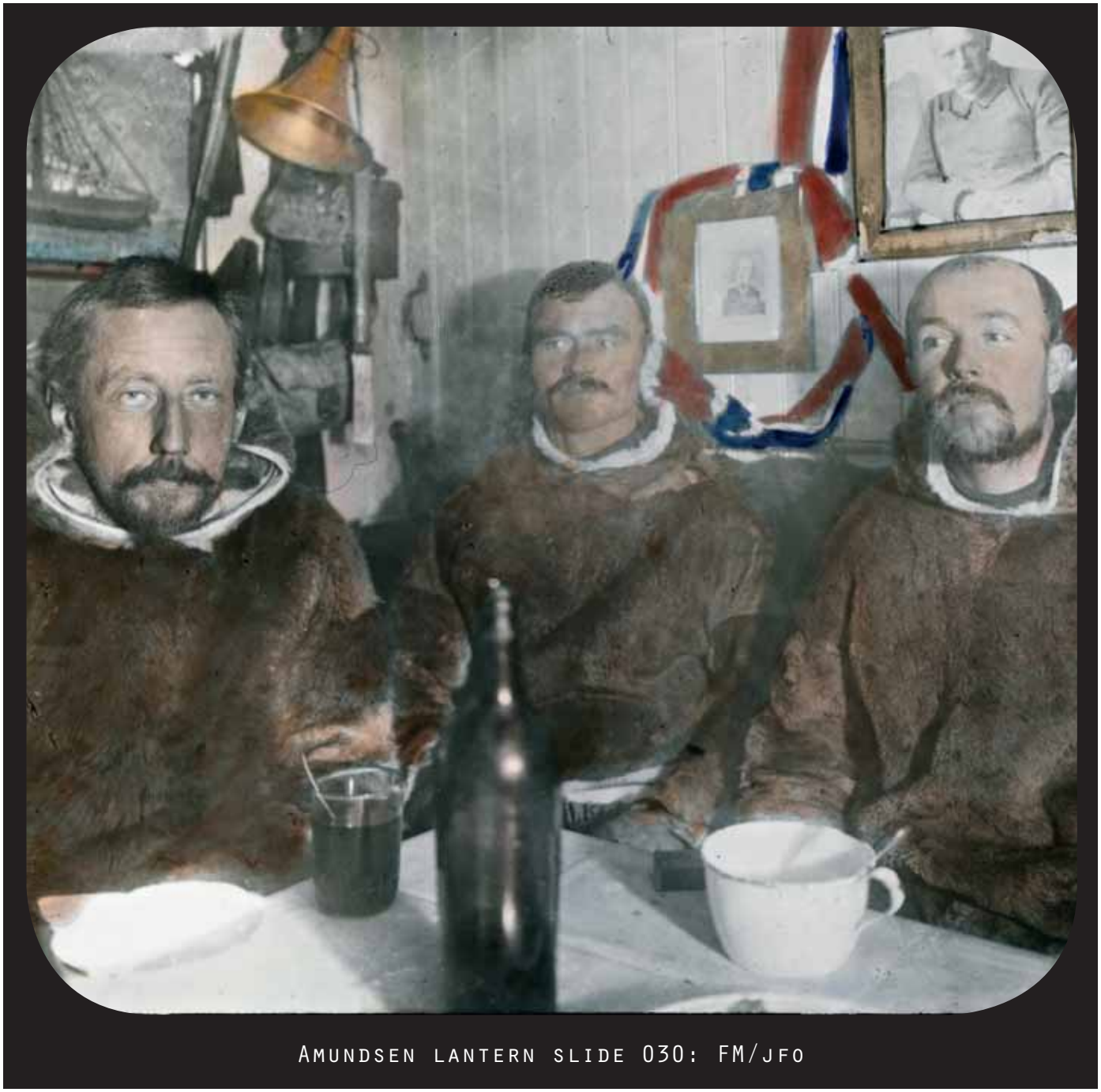
In the middle of October the Eskimo returned from their summer excursions, and then visited us in great numbers, but went off again to fish before the darkest part of the winter set in. Towards Christmas they returned to the vessel, and we had the pleasure of their company for nearly two months.

A Netsillik Inuit with his salmon spear.

AMUNDSEN LANTERN SLIDE 022: FM/JFO

Godfred Hansen, Gustav Juel Wiik and Anton Lund.
Photo: NB

Roald Amundsen, Helmer Hansen and Peder Ristvedt in the aft saloon of the Gjøa.
Photos of John Franklin and Fridtjof Nansen in the background.



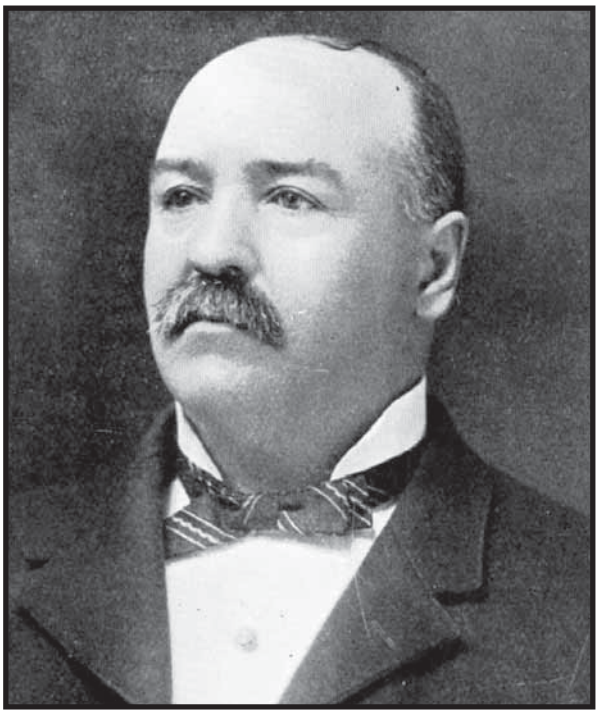
AMUNDSEN LANTERN SLIDE 030: FM/JFO

On November 20 we had a visit from an Eskimo family of a quite strange tribe. They proved to be Kinepatu Eskimo from Chestefield Inlet, near Hudson Bay. The man's name was Atagala. He knew English sufficiently to explain that near where he lived two large vessels were lying. For an old Mauser rifle and four hundred cartridges he undertook to take a mail down to them and return with an answer, about 1500 miles. On May 20, the next year, a sledge-team of ten dogs swung into our harbour. It was Atagala. He brought us a mail from the Arctic, as ship belonging to the Canadian government, which was wintering at Cape Fullerton, in Hudson Bay. She had originally been the Gauss, and was built by the German South Polar Expedition, but was now out to inspect and choose suitable spots for small garrisons. Major Moodie was in chief command, and Captain Bernier in command of the ship. An American whaler, the Era, was also wintering at the same place. Captain Comer, of the Era, and Major Moodie sent me ten sledge-dogs, as I had written to the former, telling them that the greater number of our dogs had died in the course of the first winter.

Atagala (Artung-e-lar) and friends. Photo: FM

Captain George Comer (1858-1937). Photo: FM

Captain Joseph Bernier (1852-1934). Photo: FM



Editor's note:

Captain Comer, of the *Era*, describes the communication with Roald Amundsen in his diary:

March 18: "This evening a sled arrived from Chesterfield Inlet to trade. They brought a letter from a ship which is making the Northwest Passage. Gjoa is the way her name is spelt, Captain R. Amundsen. This letter leaves them all well, a crew of seven men, and they were in lat 68'38 north, long 96' west, frozen in. They have accomplished their work and expect next summer to push on towards Bering Strait. The man is to return with an answer." March 20: "I received a note from Major Moodie regarding the Norwegian ship from which he had a letter saying that her captain would like very much to have eight dogs sent to him. I wrote back saying I would send the dogs but there should be no pay for them". March 21: "I received a note from Major Moodie, declining my offer to take the dogs as a gift to the Norwegian captain. It looks as though Major Moodie wants the honor or glory of furnishing the dogs but I do not intend to have it said that I had to be paid in order to help a person in need – that is not American." March 23: "I have written a letter to Captain Amundsen of the exploring vessel Gjoa which the native Artung-e-lar will take with him when he returns." March 24: "Have made arrangements with Major Moodie to the effect that he can buy five dogs of my natives and send to the Norwegian captain and that I would send five, so in this way we may both share in the pleasure of helping him." March 26: "Artung-e-lar the native and his party got away to go to Baker Lake and from there to the Norwegian vessel. The major sent over here for the ten dogs, five of which he will pay my natives for and the other five which I have sent as a gift to the Captain of the expedition for his vessel's use. The man expects to reach there the first of June."

The Captain of the *Arctic*, Joseph Bernier, wrote the following in his memoirs about the long distance communication with Roald Amundsen:

"It is with great pleasure to me to recall many hours spent with that remarkable man Roald Amundsen, who has to his credit greater achievements in polar work than anyone else. We met on numerous occasions and paced the deck many hours discussing arctic problems.

While he was wintering in Gjoa Harbor, King William's Land, and I was in command of the D.G.S. Arctic at Fullerton, in Hudson Bay in 1905, I sent letters to him on March 26th, by the Eskimo Ahteegila and all the latest world news, especially news relating to exploring expeditions of which there was a large budget at that time. Later I received the following reply written on a sheet of squared paper.

Amundsen's reference to R.M. Donaldson's who was with me at Fullerton was due to my inclosing Donaldson's report to him, which is given below. Donaldson had been on the Neptune with Commander A.P. Low in 1904, and had incidentally called at Beechey Island and Port Leopold.

"The Neptune arrived at Beechey Island August 15th, 1904. We there secured a record attached to the Franklin Memorial Monument. Our Commander A.P. Low, took this record back to Canada with him to be forwarded to your people, leaving a record of our visit attached to the same place. Your record was tied first above the small Marble tablet, and had an inventory, not being touched previous to our visit. … "

Capt. J.E. Bernier
Master of the D.G.S.
Arctic,
Fullerton,

Gjoa Harbor,
King William's Land
22 May, 1905,

Dear Sir,
Your kind letter of the 26th March dispatched by the native "Atangala" – came me in hand – together with a lot of photos and news – the 19th inst. I received it – as you can imagine you – with the outmost pleasure. I did not know any of these news you send. All my comrades here are of course also in high state of delight. I send you my most hearty thanks for your kindness. Your information about the American Whalers to the westward are very important for me as I did not know it before. The report of R.M. Donaldson of the R.N.W.M.P. was of high interest to me. I am very glad to hear that our news from that time already have reached our relations. The depot of Port Leopold was put in a very good position, but I hope we shall get away without it. Will you please thank Mr. Ben Kuilird of Skien for his good wishes. – Both my comrades and myself send you our best compliments and wishes for your fortune in the Arctic.

I am, Dear Sir, Yours Very Sincerely,

Roald Amundsen,
Commanding the Norwegian Gjoa Expedition.

Son of the Vikings Navigates the Northwest Passage.

Capt. Roald Amundsen Achieves Undying Fame---Success Crowns His Efforts Where Sir John Franklin and Others Have Failed---Location of Magnetic Pole Determined.

ALL who know the story of the search for the Northwest Passage will have no doubt that Capt. Roald Amundsen and his little vessel, the Gjöa, have earned a conspicuous place in the last chapter of the book. It is not that Amundsen has made an original discovery or accomplished one of the most wonderful feats of navigation.. In fact, the time has been ripe for years to do just what he has accomplished.

His feat is, none the less, very remarkable. He had the boldness to conceive, the courage to attempt, and the good luck to achieve the first voyage by a single vessel through the Northwest Passage; and it is a very notable fact that after 300 years of the most strenuous effort to find the Passage and to make the journey—persistent effort that ended practically with the Franklin search expeditions about a half century ago—it was left at last for a sloop of 47 tons, 70 feet long, 20 feet beam, manned by eight men, and propelled by a small petroleum engine to make the passage. The Gjöa is now in Winter quarters near the delta of the Mackenzie River, which is visited by whalers every Summer. Amundsen reports that his men are well, his ship is all right, and there is no doubt that by the time the whaling season opens, next Summer, the little vessel will be on her way to Bering Sea and the Pacific Ocean.

We knew before Amundsen sailed from Christiania, on June 16, 1903, that, after he completed his magnetic work in the neighborhood of the north magnetic pole, he intended to try to make the Northwest Passage and come home by way of Bering Strait. We knew the exact route by which he expected to make this journey, and the route has been known to every student of polar exploration since the records of the ill-fated Franklin expedition were recovered.

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While Sir John Franklin was dying on his ship a small party of his men discovered this route and linked it with the land explorations of Simpson and other famous discoverers who made the maps of the northern edge of our continent in the early part of the last century.

These land explorers had followed the coast hundreds of miles to the west as far as Cape Barrow, the most northern point of the continent. Mr. Elson had traced the northwestern coast of Alaska from Bering Strait to Cape Barrow, so that the whole northern coast of America was outlined. The explorers, looking northward, had seen islands here and there out in the Arctic Ocean, and they found that the floe ice moved off the land in Summer, leaving channels of open water along the mainland.

What the Franklin party discovered was a way to reach these channels along the mainland. How they found the Northwest Passage that Amundsen has now triumphantly followed may be briefly told.

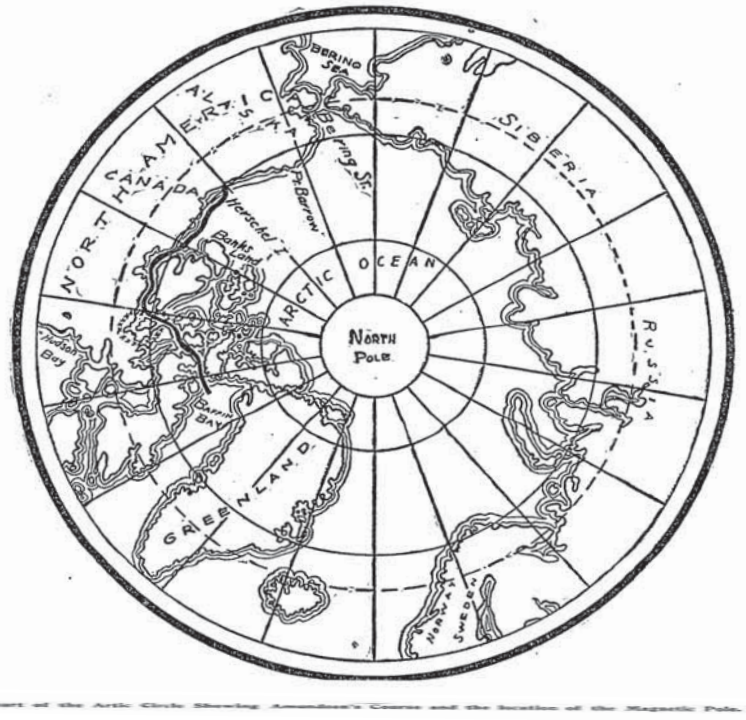
On May 24, 1847, Graham Gore, First Lieutenant of the Erebus, with another officer and six men left their ships and started southward. They reached Point Victory, on King William Land, and went onward till they came to Cape Herschel. A little beyond it they saw the coast of North America, the charts of which were in their hands. The Franklin expedition had been sent from England for no other purpose than to find the Northwest Passage.

The little party realized that the long-sought-for passage had been discovered, and could actually be accomplished, if they might only force their ships through the short ice barrier that intervened between them and the open water. They deposited a record of their discovery, and then hurried back to their ships to impart the joyful tidings to their comrades. They found the expedition plunged in the deepest grief, for, during their absence, Sir John Franklin had passed away. He was spared the misery of sharing with his men the starvation that befell

The Gjoa, with which Amundsen Made the Passage.

England he declared that "there is no Northwest Passage."

A most remarkable fact that persisted for 150 years after the discovery of America was the faith of Europe that America was merely a geographical dependency or "Tartary," and at any rate, whatever



gator, through Bering Strait into the Arctic O and finally reached the northeast coast of Land, where he was frozen in for two years his supplies were nearly exhausted. Aband their vessel, the party finally reached the Res further east, were transferred later to the Pho and taken through Lancaster Sound to Eng They had the satisfaction of being the first m cross between the Pacific and Atlantic Ocea the north of America. They had found conti sea all the way and had discovered a Northwest sage; but it took three ships as well as some sledging to get them across. They had proved i sible to pass from sea to sea, but by exposure to dangers that from that day no other navigato attempted to follow this route.

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Amundsen is the second to make the North Passage, but he has taken his ship through him, and his success is far more brilliant and able. He has proved that a single ship may between the Atlantic and Pacific by a route from King William Land to Bering Strait is ably available nearly every Summer. It is dou however, that, save in very exceptional seas vessel could make the entire journey between Bay and Bering Strait in a single season.

It is well known that the main purpose Amundsen expedition was to make a magnetic s of the region surrounding the North Magnetic and to relocate the pole if, as is probable, changed its position since it was located by Ross. The information about his magnetic thus far received is too meagre to be discussed profit, but from the two letters he sent to H Bay it appears to have been very successful. surveys he had in view are of great importance scheme of worldwide investigation now unfoldi is safe to say that the achievements of this wegian explorer and his seven comrades wil the small expedition a unique and a very pron place among successful polar enterprises.

CYRUS C. ADA

Editor's note:

The letter Roald Amundsen wrote to Captain Comer and a photo of "Atangala" were printed in a large article in the New York Times on December 10, 1905 – more than eight months before the *Gjøa* arrived in Nome.

them all when they finally abandoned their ships and sought the mainland.

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It is this Summer channel along the coast that Amundsen has followed westward; and the Franklin party not only pointed out the short cut to the channel, but the fate of its ships gave a warning to Amundsen which he fully improved. From the two letters he sent by messenger to the Canadian Government party in the north of Hudson Bay, a while ago, it is evident that he kept the Gjöa's Winter quarters away from the shores, where she would likely be crushed or imprisoned by heaped-up ice. When his magnetic work was done and the water channels opened along the coast, the Gjöa, as well as her commander, was ready to go on.

Our map shows the track of the Gjöa as she entered Lancaster Sound from Baffin Bay and threaded the channels leading westward till she reached the region where Amundsen made his magnetic surveys. This region is roughly inclosed with a circle of X's. In this area Amundsen spent nearly two years. His last magnetic work was done on King William Island, not far from where Lieut. Gore solved the question of the Northwest Passage; and it was here that the Gjöa started on the journey which, next Summer, will be acclaimed as the first voyage by one ship between the Atlantic and the Pacific to the north of this continent. The map also shows Herschel Island, just a little west of the present Winter quarters of the Gjöa, whence Amundsen made his sledge journey south to Eagle City, one of our settlements in Alaska.

+ + +

Those will best appreciate his success who have read of the prodigious effort and the enormous treasure that were expended for three centuries to find the Northwest Passage. The literature of the voyages for the discovery of the North Pole is scarcely more voluminous. The writer has just counted in the library of the American Geographical Society eighteen books on various expeditions that were fitted out solely for the search for the Northwest Passage; but many of the seekers for this elusive channel never wrote a book, and among them was Henry Hudson, perhaps the most illustrious of them all, who was set adrift in a small boat to perish in Hudson Bay while he was seeking the passage.

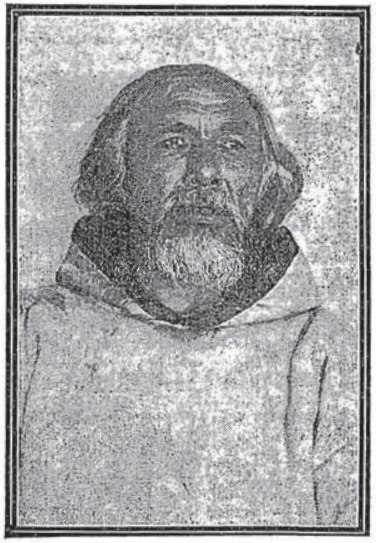
For many generations the purpose of these voyages was to find a navigable short cut from Europe to the lands of Asia, that were fabled to be enormously rich. Sebastian Cabot sailed up the Canadian coast in the hope of finding the famous China passage. He reached 67 degrees 30 minutes north latitude, and seeing open water to the northwest he firmly believed in the possibility of taking his vessel right through to China by this polar route, which would have been only about a third as long as a route to Asia by way of a Panama Canal. But his faint-hearted companions compelled him to return.

The only purpose William Baffin had in view when he sailed up the west coast of Greenland to Smith Sound was to find the Northwest Passage. He discovered two broad openings extending west—Jones Sound, obstructed by ice, and Lancaster Sound, which he cautiously penetrated. On his return to

Group of Eskimo Women at Cape Fullerton. (From a Photograph Given by Amundsen to Capt. Comer.)

America was, it was an impediment in the path to China and must be circumvented if there was any way to do it.

But the hunt for the Northwest Passage was not given up for a century after all hope was abandoned that, if found, it would provide a new route to China. The quest for a commercial short cut to Asia was over, but there remained the spirit of daring adventure and the determination to see if there was such a thing as the Northwest Passage. It was England that renewed the search in 1818, with the far nobler purpose of completing the geographical survey of the western hemisphere and adding to the sum of human knowledge. No explorations ever called for a higher degree of courage, devotion, and physical stamina than those in the archipelago north of our



Eskimo Messenger Who Brought Amundsen's Letter to Captain Comer.

continent which began with John Ross in 1818 and ended with the Franklin search expeditions about 1857.

It is a curious fact that John Ross, who spent four Winters in those frozen seas, persisted in the idea that there was no Northwest Passage. He asserted that the Province of Boothia connected America with the north pole, and even declared, as proof of his contention, that he had found a difference of thirteen feet between the levels of the seas to the east and west of Boothia.

+ + +

The loss of the Franklin expedition of 219 men and the efforts to clear up the mysterious tragedy ended for nearly fifty years the exploration of the great archipelago north of our continent. It was not revived till Sverdrup recently added some large islands to the Parry group and Amundsen went to Boothia to make his surveys in the region of the North Magnetic Pole. Only one result of the great work of the Franklin search expeditions need be mentioned here. This was the discovery of another Northwest Passage, first known to the world, though the more southern passage of the Franklin party was found several years earlier

McClure, in 1850, pushed his ship, the Investi-

Gjöa Harbour. King William Land.
22nd. May 1905

Captain George Comer
Master of the American Whaling Schooner Era.
Fullerton.

Dear Sir,

Your kind letter of the 22nd. March reached me on the 14th. inst. I thank you very much for it. - It is kind of you, to offer to take message with you from Repulse Bay. In case some natives leave for that place you shall hear from me. Your informations about the American whalers to the westward are very interesting and I hope to meet with them. - I thanks you most heartily for the 5 dogs you have send me, but - as the sledge party, which was to use them, already started on the 2nd. April - I can not keep them as I have very nearly no dogfood left. I reclaim one as a good souvenir of your kindness and turn the others back with "Atangala" - the native with many thanks for the assistance. - I am very glad to hear, that you are successfull on taking whales and I wish you still much be so. Both my comrades and I are with good health and send you our wishes for your future success and our best compliments. Believe me, Dear Sir.

Yours very sincerely Roald Amundsen
Com. the Norwegian Gjöa expedition.

Letter from Captain Amundsen to Captain George Comer of the American Whaler "Era" of New Bedford, Mass.

During our seventeen months' intercourse with the Nechjilli Eskimo we became by degrees so intimate with some of them that they little by little lost the mistrust they usually have for strangers, and showed us complete confidence. We, however, never really acquired their language, and, consequently, could not thoroughly understand their life.

What I have to tell about them, however, is based partly on careful observation, and partly on information from the Eskimo themselves, and this being the case, I venture to think that my information regarding one of the most interesting and least-known races of the world is correct. What adds greatly to the value of these searches in the series of splendid photographs taken by Lieut. Hansen during our sojourn in those parts.

"Kabloka was too much of a Mongolian to be handsome but she captivated everyone with her child-like innocent ways"
– R.Amundsen. Photo: NB

Inside an igloo. On the left is a blubber lamp, cooking equipment and a drying rack for clothes. Photo: NB

"The Owl" has captured a trout. Photo: NB

Praederik and his wife Draga in their igloo. The blubber lamp on the left is drying the clothing on the rack. Photo: NB

Nechjilli, which the Nechjilli Eskimo looks upon as their home, are the banks of the great Willersted lake on Boothia isthmus, and of the little bit of river which flows from the lake into the sea. Unfortunately, we never had the time to pay them a visit, but from the Eskimo's often repeated descriptions I know what the country looks like, and what their life is there. From the time the ice breaks up in June or July to January or February the next year, it is here that they live – in summer in their tents, and, when the snow falls, in their snow-houses. Often in transition periods, from winter to summer and summer to winter, when the snow – as it is in the month of June – is too waterlogged to be used for the building of entire snow-huts, they are obliged to use a construction the walls of which consist of snow and the roof of skins, a combination of snow-hut and tent; or, as often happens in September, when the cold strikes in and the lakes freeze before the snow comes, they are obliged to construct a building of ice with a skin roof.

Inuk woman. Photo: NB

Two young Netsilik archers. Photo: NB

Inside an igloo. Photo: NB

A Netsilik family. The father is carrying a snow shovel. Photo: NB

When an Eskimo is about to build a snow house, he is always careful first to consult his "hervond." This is simply a stick of straightened horn taken from the antlers of the reindeer. At the lower end it has a ferrule of musk-ox bone, and at the upper a handle of reindeer bone. It is about a yard long. With his keen glance he now scans the country, and at the place which pleases him best thrusts his "hervond" into the snow. He does this in order to find out its quality, for it is as important for an Eskimo to find good snow for his building as it is for a bricklayer to have lime for his stone. A very long experience is required in order to test the snow in this manner, and, when several Eskimo are together, it is a task generally left to the oldest ones. The most suitable snow is that of a solid and compact kind, with a superincumbent layer of loose snow, about a foot in depth. Nor must the underlying snow be too hard, or it will be difficult to cut out the blocks. The site once chosen, the upper loose snow is shovelled away, and is laid round the spot where the house is to be. When the underlying hard layer is laid bare, the builder begins with his knife – which is usually long-bladed and long-handled – to cut out and build up the blocks. The house is constructed from inside, and the blocks are cut exclusively from the building site: it is seldom that an Eskimo has resort to the snow outside. The blocks are cut out of snow with a high edge, and that is the reason why the site can contain sufficient material. The hut is built spirally, in such a way that the succeeding block is always supported on a preceding one, and in shape much resembled a large beehive. Our greatest difficulty was always when we had to decrease and build the roof. The blocks are then placed in a very inclined position, one may almost say rocking. But the Eskimo are born to this way of building. Where one of them puts the block there it stays, even if it forms an angle of 45° with the horizontal plane. The structure is completed by a little, dexterously placed, plug of snow in the apex of the roof. After the house is up, there will be a mass of refuse snow lying inside it. With this the sleeping-bench and fireplace are made. Meanwhile, the lady of the house has not been without occupation outside. The loose snow, which was shovelled away at the beginning, she uses to caulk all the holes and cracks with, and if she has any to spare she throws it over the entire house, which helps a very great deal in making it warm and draughtless. When all is finished inside, an aperture is cut in the wall of the same height as the bench. The man comes out and the woman takes his place. First of all, the large watertight kayak-skin is handed in and is spread over the entire bench; then comes the turn of all the reindeer-skins – soft, large, and warm; then the rest of the effects, such as coking-utensils, a drying-grill, blubber for the lamp, and a number of other things which the Eskimo find indispensable. When all this is done, the housewife is called in. It will be asked, what was this immured lady doing inside the hut? Perhaps it will not be indiscreet of me to poke a little hole in the wall and peep in. In the name of knowledge everything is permissible, so with a "ski" staff, which I happened to have with me, I made a hole in the wall and opened a way into the sight of this mysterious interior.

The first thing she does is to put the lamp in place and make a fire. After that she fills the cooking-pot with snow, and hangs it over the flames to melt into water for her thirsty husband. As soon as she is satisfied that the lamp-flame is burning to its greatest extent, she turns her attention to arranging other things, the sleeping-bench is levelled and flattened, reindeer-skins placed in order on it, and everything made as comfortable and cosy as possible. All being arranged, she seats herself before the fireplace and seems to be particularly anxious to make the fire burn as brightly and give out as much heat as possible. Now I understand why it is she is walled up in this house – in order to warm it and make the blocks of snow sink, so that the whole will form a close and compact wall. But she will certainly not succeed in this is if I continued at my peeping, so I fill it up again and take myself off. Meanwhile, the man has built the passage, 9 to 12 feet in length, which leads into the house. But he will certainly not dare to make a hole in the wall and put it in communication with the interior of the house before he receives higher orders from his better half. He amuses himself meanwhile with his friends, who are in a similar situation, and whiles away the time in joking and conversations. They are a fine group of men who are standing there, ranging tall, from 5 feet 9 inches to 6 feet, though there are some short ones among them. They are powerfully built, the life they lead inducing all-round development. The ladies' pellucid voices are now heard, and the expectant husbands can complete their structures by knocking a hole through the wall from the passage to the hut.

Let us now pay a visit to one of these camps, and see what Eskimo life is here in these burrows of snow immediately after their construction. The huts are of different sizes. Some people like them high, some low. The circumference is from 30 to 45 feet, according to the size of the family. It is the month of January, and the cold is severe. They, therefore, live two families together, so as to be warmer. The members of the family have just assembled after the building operations and a long day's sledging. The housewife sits in her accustomed place and croons her monotonous chant, consisting of four words and as many notes, which are repeated in varying forms. These sounds, when they are repeated often enough, we found unendurably monotonous. Politely to request them to be quiet was of no use; but we found another most effective means, namely, to give a vocal performance of our own at the same time. Then we had peace, for our many tones, no doubt, sounded as awful to Eskimo ears as their four did to ours. Well, this was not very polite on a first call, but, anyhow, they were not offended.

The first thing an Eskimo does when he enters his hut is to take off his outer coat and beat all his clothes quite free from snow. This he does so that the latter shall not have time to melt and wet his clothes. If he intends to be in the whole evening, he takes off his other outer garments. If any of them have become wet during the course of the day, they are thrown to the lady of the establishment, who puts them up on the grill to dry. His hunger has now to be ap-

peased, and the most tempting pieces of meat and fish are brought out – of course frozen stiff. But this does not affect the Eskimo in the least; once down it melts soon enough, and enormous quantities disappear. Their knives are their only eating implement, but these they handle with dexterity. They hold the piece of meat fast with their teeth and the left hand, and with lightning rapidity pass the knife right under the noses, and cut off a piece of meat so close in to their lips that one is astonished that the latter do not go too. One large bit of blubber after the other goes the same way.

The family having thus finished this important business, a nap will possibly be to their taste, and the entrance is carefully bricked in from the inside. They now proceed to undress till they are quite naked, and then sleep the sleep of the just under large coverings of reindeer-skin shared in common, possibly till late the next day. This, however, depends upon whether they have enough food. If the man intends to live here for any length of time, he chops himself a window the following day out of the ice on the nearest fresh-water pool, and inserts in the wall immediately above the entrance. His dame can then see to do her homework by daylight. She has plenty to look after. She sits by the fire, which is her accustomed place, with her legs tucked up under her, and watches the flames and her offspring, who are running in and out playing. She smiles and looks absolutely happy. Probably it is the two small physiognomies, encrusted with soot and train-oil, which call these pleasant thoughts. It is not so long since the youngest left her hood, where children are carried till they are about two years old. Their play grows less by degrees, and the youngest one goes up to his mother and looks inquiringly in her face. She knows her boy, she does. The children here are not weaned so quickly, and mother's milk is to their taste long after they begin to walk. I have even seen boys ten years of age lay their arrows aside and take part in the repast.

But see, here comes a friend, of the same sex, of course. She has come to pass the time of day; is bored, perhaps, in her own hut. It is Alo-Alo, a young and attractive woman. The sharp cold has given her a fresh colour, and the pretty brown eyes with the blue whites look very much as if they could hide something behind them. Out of her hood sticks up a little wondering face; it is her year-old son "Akla," or the brown bear. Conversation is soon in full swing, and the two women seem to have a great deal that is amusing to tell one another. Suddenly the baby in the hood begins to move, and with incredible rapidity and quite unparalleled adroitness changes place from the hood to his mother's lap. He has his wishes complied with, and is going to be put back in his warm, cosy place, when his mother discovers that he is more than usually dirty to-day. The washing process which then takes place must be very practical when water is scarce. She licks the child clean, and then puts him back. If it has been a fine day, the men have been out on the ice to capture seal, and are now coming back in the dusk. They seldom return home empty-handed, but have a seal or two with them, which are then handed over to the housewife, who has to see to their partition. The entrails, which are the greatest delicacy they know, go to the one who has caught

Roald Amundsen and the Inuit Talurnakto and the Owl. Photo: NB

the seal; the rest is divided among all. After supper they often require a little diversion in the long winter evenings. They then assemble in the largest hut, and spend a few hours together, singing and dancing. These huts are often quite handsome structures, and I have seen them 14 feet high and 25 feet in diameter. On these occasions the women all sit round in a circle and begin their monotonous chanting, the men entering the circle one by one to perform a kind of solo dance, beat a frame covered with thin tanned reindeer-hide, and scream something perfectly dreadful. What astonished me most at these festivities was the singing of the women. I had always thought that all their tunes – or rather variations on the five notes – were impromptu, but here I had certain proof that they really were songs, for I heard as many as twenty women singing together at these gatherings for a whole hour at a time, without any of them falling out of the melody. In my opinion this almost points to musical gifts.

The next evening the magician of the tribe will perhaps give a representation in the same hut. This is a very serious affair – the only performance we never had an official invitation to. We tricked them all the same, and found out what went on. The hut is made almost dark, only quite a little flame being allowed to burn, which, of course, made things the more mysterious – complete darkness would be to dull. The magician and his assistant (usually his wife) take their places on the bench, and the company sit at the other end of the hut. Absolute darkness broods over the performers. The two now begin to utter loud howls, and, on the whole, lead one to suppose they are killing one another. After this farce has been going on for half an hour the noise grows less, and by degrees everything becomes quiet. The light is made stronger, and, to the apparent surprise of everybody, the magician now exhibits two holes in his coat, which, before the light had been subdued, was quite whole – one hole in his chest and the other in his back, and they go to prove, of course, that during this turbulent scene he has run himself through with his spear. Judging by appearances, the Eskimo all take this very seriously; but when later I joked with them about it they laughed and said that the whole thing was nonsense.

Any real sign of astonishment these people seldom show. One of the few times that I can remember seeing any trace of this was when I sent a messenger to the ship – I was then in camp about 10 miles away taking magnetic observations – with a letter in which I asked for a certain quantity of ammunition. When he returned the next day and I told him before he gave me the consignments that I knew how many cartridges he had with him of each kind, and that he might count them himself, he was astonished to see that I was right, and much impressed by the use we put our writing to. They often amused themselves later by scribbling some strokes on a bit of paper and giving it to us. We always pretended to be highly astonished, and read it out loud; this greatly amused them. Family life gave us the impression, as a rule, of being happy, though I know of cases where the husband ill-treated his wife. The male sex being so much more numerous than the female, it was not unusual to find marriages where the wife had two husbands. The reverse relationship I never met with. In general, the husband was spokesman and the wife obeyed blindly, but elderly widows were sometimes personages of great influence.

Umiktuallu kills his foster-son. Photo: FM

The religious opinions of the Eskimo were like our own in that they had an understanding of a good and an evil being, of punishment and reward. If a man had behaved as he should in this life, then he would go to the hunting-fields in the moon; and had he been a bad man he must go under the earth. During the whole of our stay among them there only occurred, as far as I know, four births and two deaths. The latter, in both cases, being suicide. It is not considered to be wrong; but is, however, only resorted to when the pain in an illness is to great to be borne. The way in which they do it is, I think, peculiar to them alone. A sealskin thong is stretched across the hut 2 feet above the floor. The sick person is left alone in the hut and the others go outside; they however, have peepholes in the wall, through which they follow events. The sick person now kneels down and endeavours to suffocate himself by pressing his throat against the strained thong. If the unfortunate person is unable to do the business for himself, or it seems to be taking too long, one of those outside comes in and expedite matters by pressing his head down on the thong. Fighting with closed fists occurs now and then, and murder is not unknown. It thus happened in the summer of 1904, at the station, that a boy twelve years of age accidentally shot another boy of seven in a tent. The father of the boy who was killed immediately seized the other, who, for that matter was his adopted son, and dragged him out of the tent and stabbed him to death. Their dead they sew up in a reindeer-skin, and lay them on the ground. A few articles, such as a bow, spear, arrows, and other things, are placed beside them. We found many an interesting object in this manner.

A Netsilik burial.

Amundsen lantern slide 024: FM/JFO

On April 2, Lieut. Hansen and Sergeant Ristvedt started on their sledge-journey to chart the east coast of Victoria Land. They had two sledges, twelve dogs, and equipment for seventy days. The provisions were measured as shortly as possible so as to reduce weight. All the same, it is very necessary on a long journey of the kind that everything should be carefully planned so as really to hold out the requisite time. The depot, which had been made the year before, had been entirely spoiled by bears, but Lieut. Hansen and his companion shot bears, seals, and reindeer, and thus spun the journey out for eighty-four days. Excellent work was done. The east coast of Victoria Land was charted right up to the 72nd parallel. The land, formerly seen by Dr. Rae, at the south end of Victoria Strait, proved to be a group of over a hundred small low islands. These were charted on the way back. An interesting event from this journey was the meeting with another unknown Eskimo tribe, the "Kiilnermium Eskimo," whose hunting-fields extend from the Coppermine River eastwards. These Eskimo, like the others mentioned, have no connection with civilization. We, of course, received our bold companions with flags waving on their return, and a feast to commemorate it.

On June 1 we dismantled the observatory containing the magnetic self-registering instruments. For nineteen full months Wiik had kept this going, and had done work which will, without doubt, be rich in results.

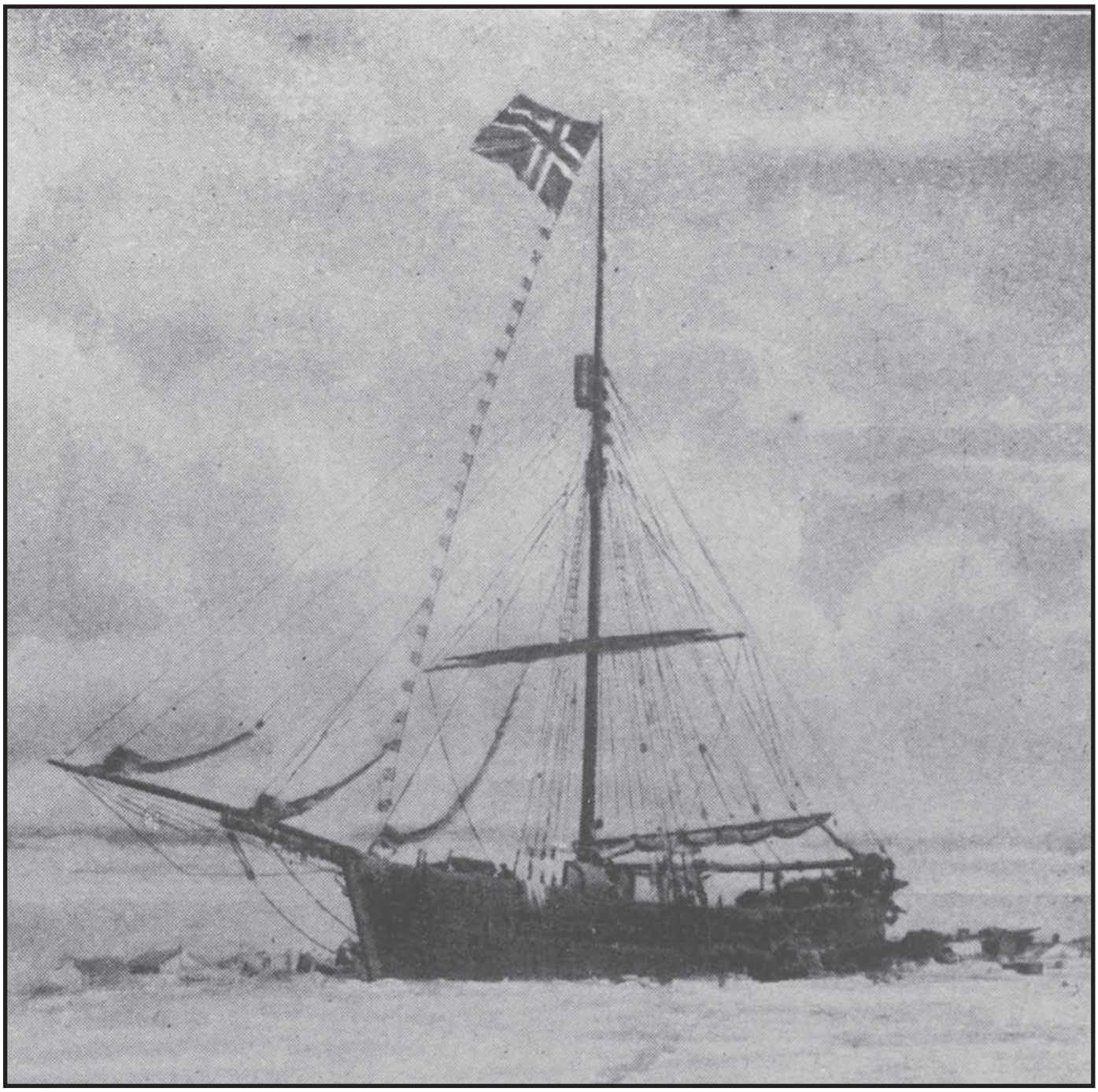
Peder Ristvedt at their furthest point during Ristvedt and Godfred Hansen's sledge journey along the coast of Victoria Land.

AMUNDSEN LANTERN SLIDE 015: FM/JFO

On August 13, at three o'clock in the morning, we continued our way westwards, and I am not sure that the little brown-eyed people in there on the beach were quite cheerful that morning. Hardly, for they were losing several rich and great friends. They waved long to us – probably a farewell for life; and if some traveller, many years later, pays this place a visit, the numerous tent-rings will remind him of the many happy days the Gjøa Expedition spent here with their friends the Nechjilli Eskimo. The day afterwards we stopped at a place called by the Eskimo, Kamiglu. Here we took an Eskimo boy named Manni on board.

He won us one and all by his openness and honesty; and even the cook, who hated Eskimo, had I think a warm feeling somewhere at the bottom of his heart for him. It was my intention to bring him home and show him a little of the world he could never have imagined, and to send him back again, in the event of his wishing it; but he was accidentally drowned at Herschel Island. After passing through narrow and shallow waters we came out, on August 21, in Dolphin and Union Straits. Now we could breathe! On the forenoon of August 28, we sighted a sailing-ship. It was a proud moment for us all when we hoisted our flag and bore down on the American.

The Gjøa decorated with flags to celebrate the return of Hansen and Ristvedt. Photo: NB



Editor's note:

"At 8 a.m. my watch was finished and I turned in. When I had been asleep some time, I became conscious of a rushing to and fro on deck. Clearly there was something the matter, and I felt a bit annoyed that they should go on like that for the matter of a bear or a seal. It must be something of that kind, surely. But then Lieutenant Hansen came rushing down into the cabin and called out the every memorable words: "Vessel in sight, sir!" He bolted again immediately, and I was alone.

The Northwest Passage was done. My boyhood dream - at that moment it was accomplished. A strange feeling welled up in my throat; I was somewhat overstrained and worn - it was weakness in me - but I felt tears in my eyes.

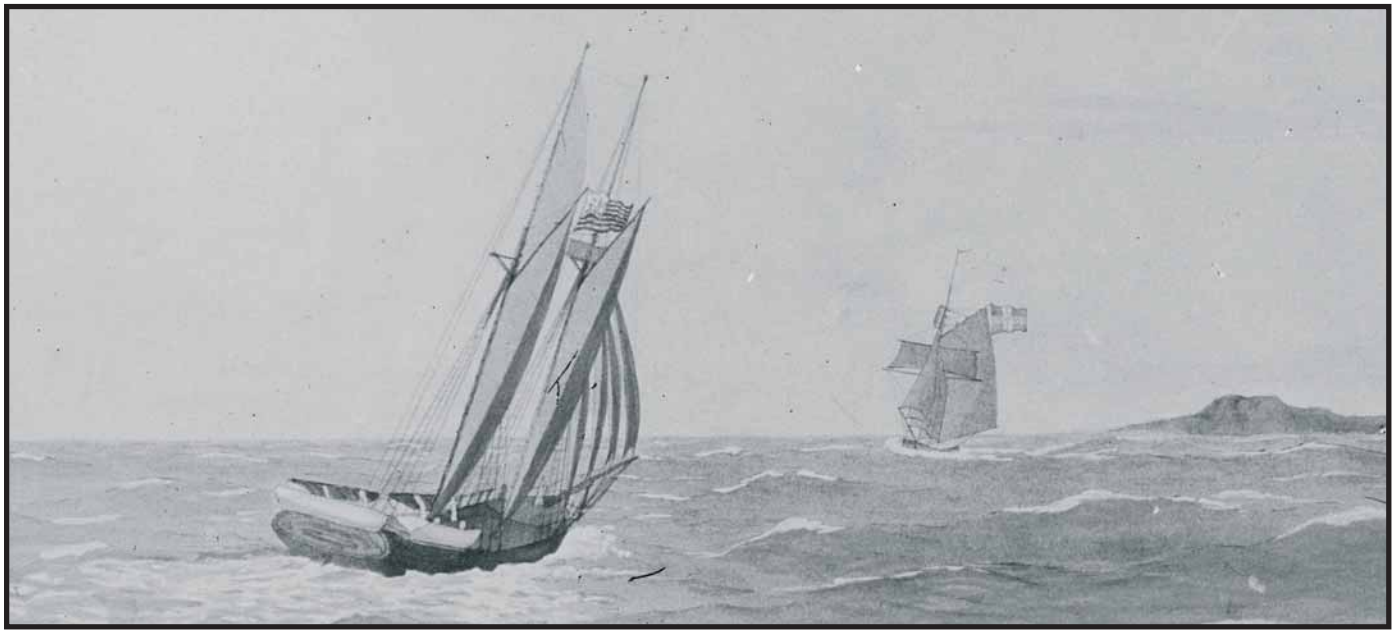
The words were magical. My home and those dear to me there at once appeared to me as if stretching out their hands – "Vessel in sight!".

I dressed myself in no time. When ready, I stopped a moment before Nansen's portrait on the wall. It seemed as if the picture had come to life, as if he winked at me, nodding, "Just what I thought, my boy!" I nodded back, smiling and happy, and went on deck.

'Vessel in sight' ... Vessel in sight."

- From Roald Amundsen's diary

The Gjøa meet the first ship, the Charles Hanson of San Fransisco, after having sailed through the Northwest Passage. Photo: NB



The Gjøa's route from Gjøa Haven to King Point. Photo FM

On September 3 we were stopped by the ice at King Point, and soon after that were beset for a third winter. However, we were in high feather all the same; on the shore lay the finest driftwood that could be desired, the sea was full of fish, and not far off there were hares in thousands. On the shore, some fathoms in past us, lay the nipped whaler the Bonanza. The first thing we did was to build ourselves a house of drift timber, and after that the observatories were put up.

The Gjøa frozen in at King Point. In front the driftwood house built for most of the crew. The wrecked whaler, the Bonanza, to the left. Photo: NB

Settling in at King Point. The Gjøa, the wrecked whaler the Bonanza, and a group of Inuit around the bonfire. Photo: NB

The Inuit at King Point had guns and used machinewoven cloth in their tents, as opposed to the Inuit at Gjøa Haven. Photo: NB

From October 20 to March 12 I was out travelling with the Gjøa's mails, Lieut. Hansen having command on board meanwhile. This winter was exceedingly severe and disagreeable. On my return everything was in the best order; but on March 26 Wiik became ill and had to take his berth. He died on the 26th. It was a hard blow to lose a comrade so near home. It was not until May 9 we were able to bury him, the ground up to then being too hard frozen. In the mean time his coffin stood in the dwelling house on shore, which we gave up to it, nailing up the door. Later on we put up a large cross with an inscription on it at the north end of his grave, and when the flowers came, decorated it with them. It is situated on a very prominent point, and will be a landmark for the numerous ships which pass by it.

Inuit graves on Herschel Island.

Jimmi, who escorted Amundsen on the postal expedition to Eagle City.

Kappa, Jimmy's wife.

The magnetic observatory at King Point was used as Gustav Juel Wiik's final resting place. Photo: NB

Editor's note:

When all was ready for the winter, the next step was to get the news to the Times of London which was willing to pay good money for the exclusive story. The nearest telegraph office was in Fort Egbert outside Eagle City, Alaska which was a 500 mile sledge trip away over the Brooks range of coastal mountains.

From Eagle City, Amundsen sent a long telegram to Nansen costing over $700, but he had to send it collect, as the conquerer of the Northwest Passage had no money. As a result, a Major Glassford of the US signal corps decided it was his right to divulge the contents of the telegram to the local press in in Seattle. The scoop was lost, and the Times refused to pay the much needed fee for the story. Nansen also refused to pay the telegraph fee on account of Glassford's violation of trust. While in Eagle City, Amundsen boarded with the Frank Smith family, who lived in the Northern Commercial CO. mess house. He gave speeches to the residents and waited for mail from home, before returning to the *Gjøa*. The main street in Eagle City is now named Amundsen Avenue.

On March 12 1906 he arrived back at Herschel Island, having traveled over 1000 miles by ski and dog sled.

He brought news to the men of Norway's new found independence and adopted King. At this point Wiik was seriously ill, apparently with pleurisy (or appendicitis), and died a few days later.

The spring was a cheerful time. The continual passage of Eskimo and whites made the time pass quickly. On July 2 we got out of the ice, and brought up under the Bonanza, so as to avoid the ice which was drifting backwards and forwards in the land lead.

On July 11 two of the American whalers came to our place to collect driftwood, and the same evening we stood out. We took a last farewell of our comrade whom we were leaving behind us out there, and dipped our flag as a last mark of honour to him as we passed under his grave. Already at Herschel Island we were stopped by the ice, and were kept there a whole month. After many narrow passages and abrupt turns, we stood down Behring Strait on August 30. The day afterwards we went into Nome, a gold-digging town in Alaska. The reception we received and the enthusiasm our enterprise had aroused there we shall never forget.

On September 5 the Gjøa set sail southward under Lieut. Hansen's command for San Francisco, and on the 7th I left with the magnetic instruments for Sitka, in order to conclude our work. On October 19 we met again in San Francisco, where we confided the vessel to the hands of the American navy. There rests the old Gjøa, and greatly does she need it.

The Gjøa on arrival at Nome on August 31, 1906. Photo: NB

The citizens of Nome's honorary breakfast for Roald Amundsen and Godfred Hansen. Photo: NB

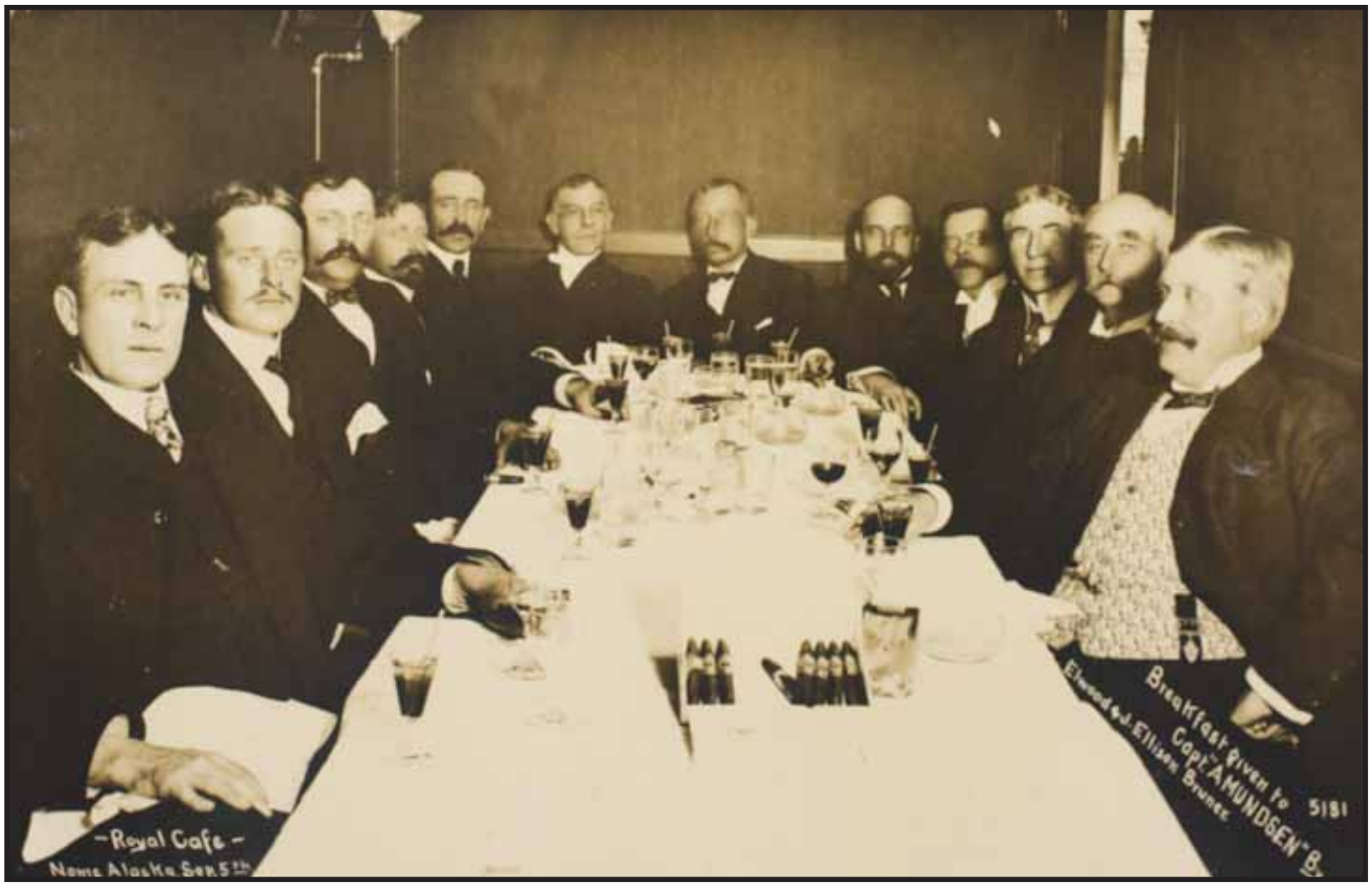


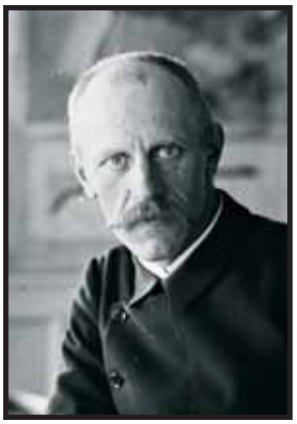
Photo of the crew of the Gjøa on the arrival at Nome includes the extra crewmembers Ole Foss and Beauvais hired at Herschel Island. Photo: FM

The Gjøa is pulled on shore in San Fransisco. Photo: FM

Before Roald Amundsen's lecture, the President of Royal Geographical Society, made the following introduction:

I shall say little on the subject of Captain Amundsen's very remarkable explorations, as the paper will speak for itself, and you will hear what highly competent experts think of these explorations when we come to the discussion, which, I am glad to say, will be joined in by his Excellency Dr. Nansen, by Admiral Sir Vesey Hamilton, by Sir Allen Young, and a number of other well-known Arctic authorities. But it strikes me as extraordinary that only seven men should start away in a very small vessel and live a number of years in the Arctic Regions, and do the remarkable work they have done. I must say a few words about Captain Amundsen's preparation for this work, and the foresight he displayed. Many years ago he went on a sealing expedition into the Arctic Regions for no other purpose that to prepare himself for his recent work. Later on, as he advanced in his ideas and felt that examinations into the conditions around the magnetic pole was to be the main object of his explorations, he went to Hamburg, where he put himself under the tuition of Dr. von Neumayer, one of the greatest living authorities on magnetism, and he devoted a long period to studying the subject, and it is typical of Captain Amundsen's character that his first step in the present expedition was to purchase and select his magnetic instruments. As another means of preparation for Polar work, he went as first officer in the Belgica to the Antarctic Regions, and remained there for two years. In conclusion I must point out that, as an incident in his recent explorations, Captain Amundsen passed through the Northwest Passage in the first vessel that has ever sailed through it. I wonder what would have been the effect a century ago if it had been announced that someone was going to address a meeting describing his voyage through the Northwest Passage? I do not think the Albert Hall would have sufficed if it has existed in those days. I now call upon Captain Amundsen to read his paper.

After the lecture there was a list of speakers:



Fridtjof Nansen (1861-1930). Photo: FM

His Excellency Dr. Nansen: The way in which you have received my compatriot, Captain Amundsen, shows a hearty appreciation of the deed he has done and the most interesting lecture he has given us here tonight. As Captain Amundsen has already pointed out himself, the fact that it has been possible for him to accomplish that great deed is due entirely to the work of British seamen. It is due to the enormous amount of work already done in that region by many British expeditions sent out in search of a Northwest Passage. But a Norwegian has been the lucky man to finish this quest for the Northwest Passage, and has been the first to pass through it with a vessel. It shows us a good example of the way in which British and Norse sailors work together. When we look back upon the centuries that have passed, it is in fact, a remarkable thing how the one has always succeeded the other. The first step in this direction is very long back. The first step in that exploration to the west was, in fact, the discovery of Iceland. That was made by people from this country, by Irish monks, in the beginning of the eight century; but not long after that came the Norse Vikings. They also discovered Iceland by an accident more or less, and I am afraid that they did not treat the Irish monks very well, because they all disappeared; but the Norsemen kept the ground, and from Iceland they discovered Greenland, and formed settlements there for several centuries, and from Greenland they were the first to discover America, Newfoundland and Labrador – that was about the year 1000. And on leaving those regions they sailed through Davis Strait, and sailed far north into Baffin Bay, and their settlements disappeared altogether. Then again come the English, who opened a new campaign in the year 1497 with Cabot's first famous expedition. And you go on westward always in quest for the same goal – the Northwest Passage – until the great search of the Franklin Expedition. Then come the Norsemen again, and they finish; and it is a strange thing to remember that both these great quests if this seafaring nation, the Northeast Passage and the Northwest Passage, have been made by two Scandinavians – the Northeast by a Nordenskiöld, and the Northwest by an Amundsen. But the fine thing is the way you are able to appreciate what little we have done, and I think we may say we belong to the same race; and of these series of gallant achievements we may say with Tennyson

–"On equal temper of heroic hearts
Made weak by time and fate, but strong in will
To strive, to seek, to find, and not to yield."

We have here to-night the last representative of man, and a very good representative indeed. I knew Amundsen before he started, and I have seen preparing for his expeditions. He mentioned my name in his paper, but he said far too much about me, because what little I was able to do was only of slight importance. He was the man who planned the expedition, and he has learnt the secret of success in Arctic expeditions – that is, in the planning first and then in the preparation. The way in which he prepared the expedition is very characteristic of the man. As our President has already pointed out, the first thing he did was to learn to make his scientific observations, and the next thing was to buy scientific instruments, and the third thing was to buy the ship. It is generally the opposite way with explorers; they go first for the ship, and when they get that they try and get as little scientific training before they start. He has carried out his expedition with the same thoroughness that he prepared for it. He could have done the Northwest Passage long before he did, and for many a man it would have been too tempting to make the Northwest Passage, knowing it would be appreciated by the public, instead of making scientific observations, which, I am afraid, very few of the public and of you appreciate as they ought to be appreciated. Amundsen came on his voyage to the Harbour, where he stayed for two years. The sea to the west was open, the Northwest Passage was open to him, but he stopped for two years and did what he had come to do – make his magnetic observations in the neighbourhood of the magnetic north pole; and then, when he had finished this part, he was fortunate enough to take the Northwest Passage. In my opinion, when we want to send out a man to an unknown region where new explorations is to be done, he is the sort of man we should send; he knows what is of importance and what is not; he knows not to do sensational things when he has good work to do, but he can appreciate sensational things at the same time, as he has shown us. And we may see him start again on a new exploration, and I feel certain, next to his own country, he will have many wellwishers in this country, and I believe we shall all of us join in the words of Browning, and say –

"Greet the unseen with a cheer!
Bid him forward, breast and back as either should be,
'Strive and thrive'! cry 'Speed – fight on, fare ever
There as here!'"

Sir Richard Vesey Hamilton (1829-1912). Photo: FM

Admiral Sir Vesey Hamilton: I am sorry it has not fallen to the lot of someone more capable than myself to give expression to the very high opinion we have of the wonderful work done by Captain Amundsen and his seven followers. I do not think an Arctic expedition did so much with such small means, and the character he gives his men is something admirable. One of the reasons of the success of the expedition was that every man had his heart thoroughly in it; therefore, instead of seven men we may say there were fourteen or twenty-one. With regard to the magnetic observations, I see somebody here who knows a great deal more than I do about them, and so I shall skip the greater part of them. The vessel was probably the smallest vessel that has ever navigated the Arctic ice, even in the days of Baffin. I am perfectly sure none of them had so few men. One thing particularly striking is the contrast between the Eskimo of the north coast of America and the Eskimo of the Labrador Coast and of Greenland. That in itself would form an interesting subject of inquiry. It was very interesting to me to hear the lecturer's observations about Beechey Island, because your late President and I went ashore there. I have had the experience of three Arctic winters and five Arctic summers, and I can say that nothing I have heard of surpasses the work of Captain Amundsen. In every way "Tis not in mortals to command success, but we'll deserve it." And Captain Amundsen has deserved it. It is great thing when a general not only looks ahead, but looks astern. With regard to the dogs, all I can say is, I have had 2000 miles' travelling with dogs, and I am sure if Job had been there his patience would have been exhausted. I think I need to say no more. The enthusiastic manner in which you have received Captain Amundsen's lecture shows the great interest you felt in it, and I am sure I am not taking too much upon myself when I assert that everyone here present will look forward to the full results of the voyage with great interest.

Sir Allen Wiliam Young (1830-1915). Photo: FM

Sir Allen Young: I think we cannot be too grateful to Captain Amundsen for the most interesting narrative he has given us tonight, and especially when we consider the results of the expedition. One point which Dr. Nansen made was greatly to the credit of Captain Amundsen – that when he arrived at the point of the hemisphere at which the Passage was open to him, with every prospect of going through in one season if he had intended to do so, he abandoned all idea of that, and determined, in the cause of science, to remain for eighteen months in the neighbourhood of the magnetic pole in order to make further observations on the inclination and horizontal force, with the object of determining any variations in the position of the pole itself. No doubt the scientific results will be very valuable when they have been carefully worked out, especially, we hope, they will indicate if there is any variation in the position of the north magnetic pole. It was suggested by Ross in 1831 that those poles supposed to have an area of about 50 miles in diameter, for which there is no apparent horizontal force. The most marvellous part of this journey was that it was completely without check. In 1858 I was navigating with Sir Leopold McClintock, and our object was to get round to King Williams Land, but we were checked about 25 miles down by a solid barrier of ice. Then we tried the alternative way of going round by Port Leopold, and after several attempts we succeeded in getting there; but we were again faced with ice, so we had to go back and find our winter quarters on the east side.

Now, it seems to me that Captain Amundsen went straight down, and I think the way in which he escaped and got through was most marvellous. Captain Amundsen, however, did not neglect the opportunity of making geographical discovery, for he sent a travelling party under Lieut. Hansen to Victoria Land, which successfully filled in the gap between Collinson's furthest up, Gateshead Island in 1853, and the discoveries of McClure in 1853, and added to our knowledge of the western shore of McClintock Strait, which can now be mapped out on both shores. I should like to ask Captain Amundsen if he was able to gather knowledge, retained by tradition among the Eskimo or from information by some of the older natives, of the ultimate fate of the crews of Sir John Franklin's ships, or if he found any relics or papers which could throw additional light upon the disastrous return of those gallant men, or the actual position of either of Franklin's ships in which they ultimately sank or were driven on shore after being abandoned. Well may all, and especially those who have had experience of Arctic seas, offer their heartiest congratulations to Captain Amundsen.

Captain Ettrick W. Creak (1835-1920) Photo: FM

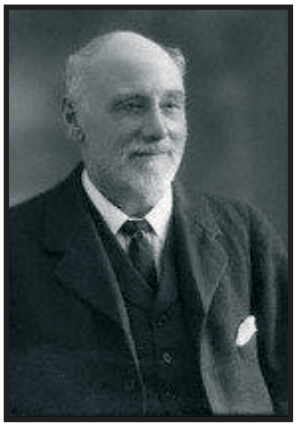
Captain Creak: I think I will begin by saying that I entirely endorse everything that has been said about the gallant and sailor-like conduct which characterized the work carried out by the expedition. It seems perfectly marvellous to me that a vessel of this size should have been taken across the Atlantic, up Davis Strait, through Behring Strait, and then on to San Francisco. I think it is a sort of passage that will stand as a record. The chief object of the expedition was to make a magnetic survey of the region of the north magnetic pole, which had been approximately found by Ross in 1831, for there had been a controversy going on upon the question of its movements for years past. Some people, who thought they knew something about the matter, depicted the magnetic pole as a sort of wandering Jew going about the Earth and not knowing where to stop. Great mathematicians had been at work, but they never gave a fairly satisfactory solution. This expedition was therefore planned to determine existing conditions during two years. Nothing but observations would do it. Captain Amundsen, having arrived at Beechey Island – a position where there came the parting of the ways – had a momentous question to decide, to turn northward or southward. Fortunately he had an excellent sign-post which came to his assistance in his magnetic instruments. Theorists said go north, but the magnetic instruments said go south.

Amundsen obeyed his excellent mentor and went south down Peel Sound. Off Prescott Island his compass became useless. Nowadays we hear of a mass of 18,000 tons of steel and iron, namely, the Dreadnought, being steered across the Atlantic, guided by the compass; why should not this wooden ship be guided by the compass? You must remember this – that the Gjøa had fittings of iron. If she had one degree of error to start with, by the time she reached Beechey Island she would probably have twenty-five or thirty, which would be quite enough to entirely destroy the action of the compass. The Dreadnought was taken over her ground with certainty, because as she proceeded the Earth's directive force on her compass grew stronger; with the Gjøa the directive force became less and less, and she lost it entirely close to the pole. But supposing the Gjøa had been entirely free from iron, it may be of interest to follow the behaviour of the compass when she was being steered geographically due south. In Peel Sound the compass would indicate a course about N. 30°W.; off Cape Colville, S. 40°W.; at Gjøahavn, south. Consequently in that short distance the compass north would – geographically – point in nearly an opposite direction, and be of little practical use as a navigational instrument.

Thus I have tried to explain why the compass is practically useless after we come to a certain point, due partly to the iron in the ship and partly to there being no force. Now, Captain Amundsen arrives and gets his ship moored, and he mounts his magnetic instruments. From what he has described, I gather he had a most splendid set. There were differential instruments which were going for nineteen months, which tell us for every moment of the day what the direction of the needle was and the changes in the force driving it. Probably the declination of the needle was changing 10° either way – 10° to the left and 10° to the right of magnetic north, and at about 7 o'clock in the morning, and at 1 or 2 o'clock in the afternoon respectively. Still more important were the excursions he made, so that he could give a most valuable account of all the magnetic conditions surrounding him. He certainly, so far as I can see, found out where the pole is for one epoch, but there is still some doubt as to whether it is a fixed point or not. That remains to be proved.

It will require years to get the observations into form, but I think we have every hope that eventually we shall be able to find out what magneticians have been wishing for for many years. We shall have found out where the magnetic pole is, and also what is going on there. I am also happy to learn that they made a series of meteorological observations. It will be interesting to know, also, what work has been done in connection with geology – I think Captain Amundsen had a geologist among his party. I should like to know whether he made any inquiry into the local magnetic disturbance of the region. The only other remark I can make now is, that I think it is very sad that Wiik has not lived to return to his native land after watching those instruments all those months, and witness the fruits of his labours. I will conclude by saying that Captain Amundsen and his comrades have accomplished the task they set out to perform, and that the whole of the expedition may be described as having been conducted with the highest enterprise, judgment, and courage.

May I add one more remark, and that is that this expedition was sent out entirely for magnetic purposes, but in addition to those magnetic purposes it has done good work for geography; cannot geographers do something for magnetic?

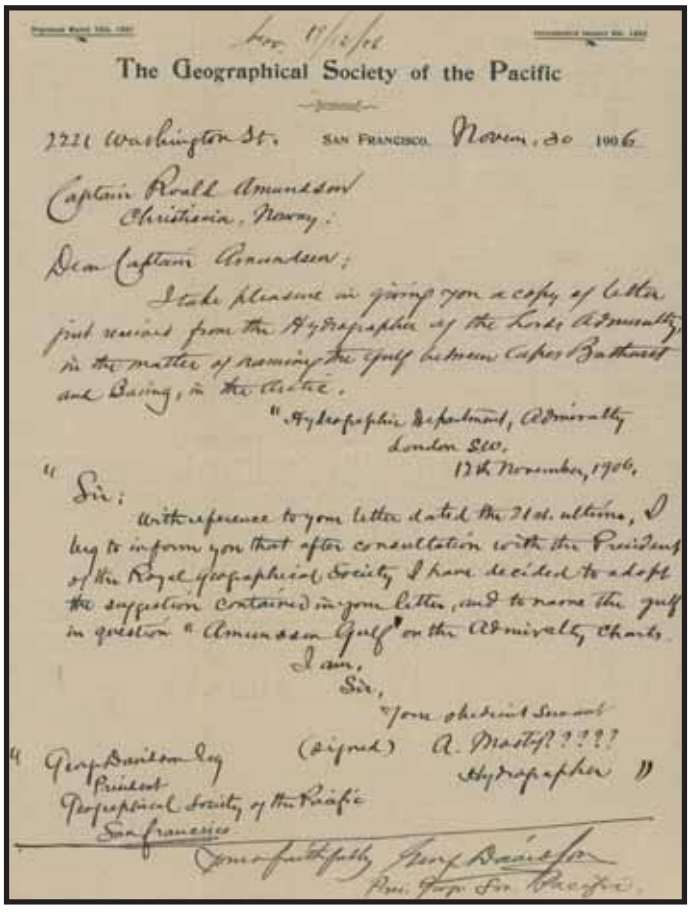


Admiral Sir Arthur Mostyn Field (1855-1950) Photo: FM

Admiral Field: Captain Creak has gone so very thoroughly into the question of the magnetic part of the observations, that really I am afraid that there is very little for me to say in the matter. I am sure the observations of Captain Amundsen, when they are worked out thoroughly, will be of the greatest service in improving our magnetic charts. We are sadly in want of those observations. It is only within the last year that we have had the south magnetic pole fixed satisfactorily. That is a very great advance, and I may say that the Admiralty are paying great attention at the present time to the question of magnetism. The officers are being specially instructed in the subject, and we are taking advantage of recent long cruises by a squadron going across the North Pacific, down the coast of North and South America, making continuous observations the whole of the way; also from Newfoundland and across the South Atlantic Ocean. So that we are making great progress, I am glad to say, in magnetic work, and these observations with regard to the poles, both north and south, will assist us very materially, and I am sure all magneticians will be very grateful indeed to Captain Amundsen for his labours. I can only say, with regard to Captain Creak's last remark, I quite second that, and I hope the explorers that the Geographical Society send out will bear in mind the needs of magnetism.

I will conclude by saying that, at the suggestion of the president of the Geographical Society of the Pacific, and with the concurrence of the President of the Royal Geographical Society, the name of "Amundsen Gulf" has been given in the Admiralty Charts to that part lying to the south of Banks Island, in commemoration of the voyage which has just come to such a successful conclusion.

The letter from the Geographical Society of the Pacific naming the Amundsen Gulf in the honor of Roald Amundsen. Photo: NB



The Geographical Society of the Pacific

2221 Washington St. San Francisco. Novem. 30 1906

Captain Roald Amundsen
Christiania, Norway.

Dear Captain Amundsen;

I take pleasure in giving you a copy of letter just received from the Hydrographer of the Lords Admiralty in the matter of naming the gulf between Capes Bathurst and Baring, in the Arctic.

"Hydrographic Department, Admiralty
London S.W.
13th November, 1906.

"Sir;

With reference to your letter dated the 31st. ultimo, I beg to inform you that after consultation with the President of the Royal Geographical Society I have decided to adopt the suggestion contained in your letter, and to name the gulf in question "Amundsen Gulf" on the Admiralty Charts.

I am,
Sir,
Your obedient Servant
(signed) A. Mostyn Field
Hydrographer"

"Geo. Davidson Esq
President
Geographical Society of the Pacific
San Francisco"

Yours faithfully, Geo. Davidson
Pres. Geog. Soc. Pacific.

The President:

The hour is late, and I feel sure, after what his Excellency the Norwegian minister and the other speakers have said, it will be quite unnecessary for me to add one word to express the intense admiration we feel for Captain Amundsen and his exploits. I will only. Therefore, ask you to join in a hearty vote of thanks to him.

Captain Amundsen: I speak English so badly that I hope you will excuse me if I thank you in only a few words. First, I should like to answer a few questions put by Sir Allen Young. He asked if I had any information about the Franklin Expedition; but I have none. The Eskimo did not know anything about the members, but I got some information about one of the ships. Two of the tribes found the vessel in the winter-time when they were out seal-hunting, and they took as much of the iron and wood as they could get from the ship, and of course, when the spring and the summer came and the ice melted away, the ship went down. Captain Creak asked if I had any geologists on board. Yes, I had one, but he had nothing to do, the land consisting of sand all the way. I should like to take this opportunity of thanking the Royal Geographical Society for the invitation to lecture here tonight, and for the great honour they have shown me; I thank you for the kind sympathy you have shown me during the reading of my paper.

Editor's note:

Roald Amundsen started to organize his lecture tour immediately after the arrival in Nome.

1520 Chestnut Street
Philadelphia

October 6, 1906

Ans. Oct 12

Captain Ronald Amundsen
c/o Norwegian Consul
San Francisco, Cal.

Dear Sir;

Confirming the telegram which I have just sent, I wish to invite you to address the Geographical Society of Philadelphia. The officers of the Society are hoping that you will sail for Europe from New York or Philadelphia and that you will arrange to address our Society when you come East.

You will have an audience of at least twelve hundred people and will have an excellent hall to speak in. The Society would like to give you a reception at the close of the address and I think you would enjoy meeting the active workers in geography who are members of our Society.

Although the funds of the Society are limited we will be pleased to pay your hotel expenses in Philadelphia and such travelling expenses as you may incur in accepting the invitation to address the Society.

Hoping that my telegram and this letter may reach you and that your answer may be favorable, and bespeaking an early reply as you can conveniently make, I am

Very truly yours,

Emory R. Johnson
President

POSTAL TELEGRAPH COMMERCIAL CABLES

CLARENCE H. MACKAY, PRESIDENT.

TELEGRAM 208

REGISTERED TRADE-MARK. DESIGN PATENT No. 36265.

The Postal Telegraph-Cable Company (Incorporated) transmits and delivers this message subject to the terms and conditions printed on the back of this blank.

Received at Main Office, First Ave., (foot of Cherry St.), Seattle, Washington. TELEPHONES: {"Sunset" Main 128 and 234. Independent 128 and 234.

165-oa.ws. 40, paid, x. 9 exa. 1:46p.m.

San Fran.Cala.Oct.8.06

Capt. Roald Amundsen,
Rainier Club, Seattle,Wn.

Kindly wire time you leave Seattle train you will leave on and time you expect to arrive in SanFrancisco.Citizens of SanFrancisco and California preparing for your reception including Naval demonstration.

O .A.Tveitmore, Prest. Norwegian Club,Fram & Chairman Program Citizens Committee

PARK HALL,
CARDIFF.

CAPT. AMUNDSEN

WILL GIVE HIS

LECTURE

ON

TUESDAY, DECEMBER 3rd, at 8 p.m.

ENTITLED

HOW WE REACHED THE SOUTH POLE

The Lecture will be a vivid narrative of Capt. Amundsen's successful journey to the South Pole. It will be illustrated by **Lantern Slides and Kinematograph Films** taken during the Expedition.

THE CHAIR WILL BE TAKEN BY

THE RT. HON.

THE LORD MAYOR OF CARDIFF

Capt. Amundsen's Tour

NOVEMBER, 1912.

Nov.	15	Royal Geographical Soc.
,,	19	LONDON: First Public Lecture
,,	20	GLASGOW
,,	21	EDINBURGH
,,	22	EDINBURGH
,,	23	INVERNESS
,,	25	LIVERPOOL
,,	26	NEWCASTLE
,,	27	HARROGATE
,,	28	SHEFFIELD
,,	29	MANCHESTER
,,	30	CHELTENHAM, 3 and 8

Capt. Amundsen's Tour

DECEMBER, 1912.

Dec.	2	LEICESTER
,,	3	CARDIFF
,,	4	BATH and BRISTOL
,,	5	NEWPORT
,,	6	LONDON
,,	7	TUNBRIDGE WELLS
,,	9	SOUTHPORT
,,	10	BOLTON
,,	11	BELFAST
,,	12	DUBLIN
,,	13	CHESTER
,,	14	TORQUAY
,,	16	PARIS

Photos: FM

The Norwegian South Polar expedition

Presentation at the Royal Geographical Society,

London, November 15, 1912

While the struggle for the North Pole covers hundreds of years, the struggle for the South Pole is of comparatively recent date. About 1900 we find several expeditions – English, German, French, Belgian, Scottish, and Swedish – working hand-in-hand in order to withdraw the veil and lay open the great mysteries of the Antarctic. The object of several of these expeditions was of course scientific, but I believe I may say that the pole itself loomed behind as the ultimate goal.

My time to-night does not permit me to review all the expeditions that have contributed to increase our knowledge of the great unexplored section of the Antarctic continent. I shall mention only the expeditions which earlier have done work in the region, where we had to look for our starting-point. Our goal being to reach the South Pole, we first of all had to push forward with the ship as far south as possible, and there build our station. The sledge journey would be long enough, anyway. I knew that the English would go to their old winter quarters in McMurdo Sound, South Victoria land. The newspapers had stated that the Japanese had reserved King Edward VII. Land. Thus there was nothing else for us to do, but to build our hut on the barrier itself, as far from these two expeditions as possible, in order not to be in their way.

The great Antarctic barrier or the Ross barrier as it's called, between South Victoria Land and King Edward VII. Land, has an extent of about 450 geographical miles. The first who met with this enormous glacial formation was Sir James Clark Ross in 1841. He, naturally enough, did not take the risk of running his to sailing vessels, Erebus and Terror, close under the mighty 100-feet high icewall, which barred his progress towards the south. But he examined it as well as circumstances would permit at as reasonable distance. These observations made it clear, that the barrier was not a straight, steep icewall, but was broken at intervals by bights and small inlets. In the chart of Ross we shall notice an imposing bay-formation in 164° W. and 78° 30′ S.

The next expedition sailed down to these regions was the Southern Cross expedition in 1900. It is interesting that this expedition found this bay in the same place, where Ross saw it in 1841 – sixty years earlier. As interesting is it, that this expedition succeeded in landing in a little bay – Balloon bight–some miles to the eastward of the big one, and from there climbed up on the barrier, which up to this time had been considered inaccessible and invincible hindrance for an advance towards the south.

The Southern Cross Expedition (British Antarctic Expedition, 1898-1900) was lead by the Norwegian Carsten Borchgrevink (1864-1934). The expedition was the first to winter on the Antarctic mainland. Photo: FM

The Erebus after the collision with the Terror on March 13, 1842.

AMUNDSEN LANTERN SLIDE 043: FM/JFO

In 1901 the Discovery steamed along the barrier and confirmed in every respect what the Southern Cross expedition had observed. The expedition also succeeded in discovering land in the direction mentioned by Ross – King Edward VII. Land. Scott also landed in Balloon bight and observed, like his predecessors, the big bay formation to the west.

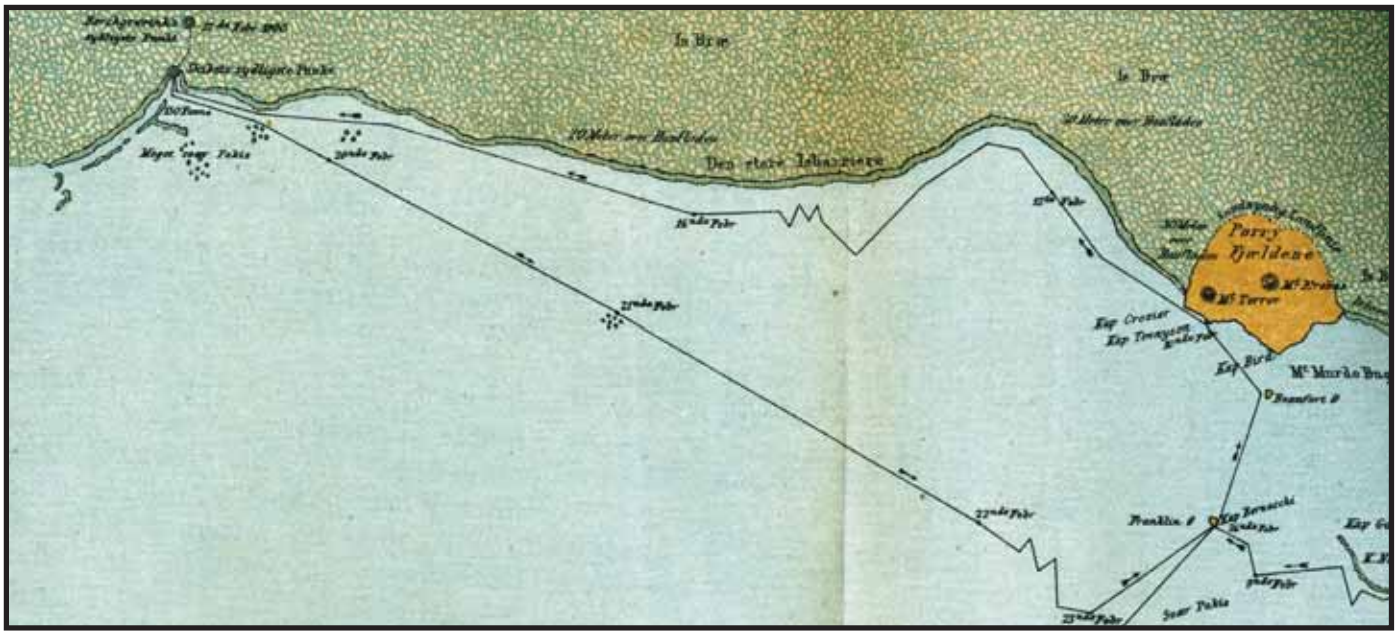
In 1908 Shackleton in the Nimrod followed, like his predecessors, the barrier and arrived at the conclusion that disturbances in the barrier had broken away the shore-line of Balloon bight, merging that indentation into the bay to the west. To the big newly formed bay he gave the name "Bay of the Whales." But his original plan of landing here was abandoned – the barrier in this place looking to dangerous as a foundation for winter quarters.

When the two charts are compared, it was not difficult to decide that the bay put down on the chart by Ross and the Bay of Whales was one and the same. Though some few pieces had broken off here and there, this bay had remained constant for about seventy years. It was an obvious conclusion that the bay was no casual formation, but owned its existence to subjacent land, banks, etc. This bay we selected as our basis of operation.

Robert Falcon Scott (1868-1912). British Royal Navy Officer and expedition leader of the Discovery Expedition (British National Antarctic Expedtion, 1901-04). Photo: FM

Ernest H. Shackleton (1874-1922) on the Nimrod Expedition reached their farthest south at 9 am on January 9, 1909: 88°23'S, longitude 162°- just 97 miles from the South Pole. Photo: FM

Borchgrevink's chart from the Southern Cross Expedition shows the Bay of Whales. Photo: FM



AMUNDSEN LANTERN SLIDE 037: FM/JFO

Roald Amundsen participated as first mate in the Belgica Expedition, 1897-99, the first expedition to winter in the Antarctic.

It is 350 nautical miles (650 kiloms.) from the English station in McMurdo Sound, and 100 nautical miles (185 kiloms.) from King Edwards VII. Land. It therefore seemed to us that we were at sufficient distance from the English sphere, and need not to fear that we should come in their way. The reports of the Japanese on King Edward's Land were rather vague, and it seemed to us that a distance of 100 miles was more than enough.

On board of Nansen's old well-known vessel, the Fram, we left Norway on August 9, 1910. We carried on board ninety-seven fine Eskimo dogs from Greenland, and provisions for to years. The first port we touched was Madeira, where we finally made everything ready for the long voyage to the Ross barrier.

It was no short distance we had to cover – about 16,000 nautical miles (29,600 kiloms.) – from Norway to the Bay of Whales.

We had calculated that it would take us five mounts to make the trip. The Fram, which with good reason is said to be the solid polar ship in the world, proved to be exceedingly seaworthy on this long voyage over pretty nearly all oceans. Thus we sailed through the north-east and south-east trades, the roaring forties, the foggy fifties, and the icy sixties without any mishap, and arrived at our sphere of work at the barrier on January 14, 1911. Everything had gone unusually well.

Editor's note:

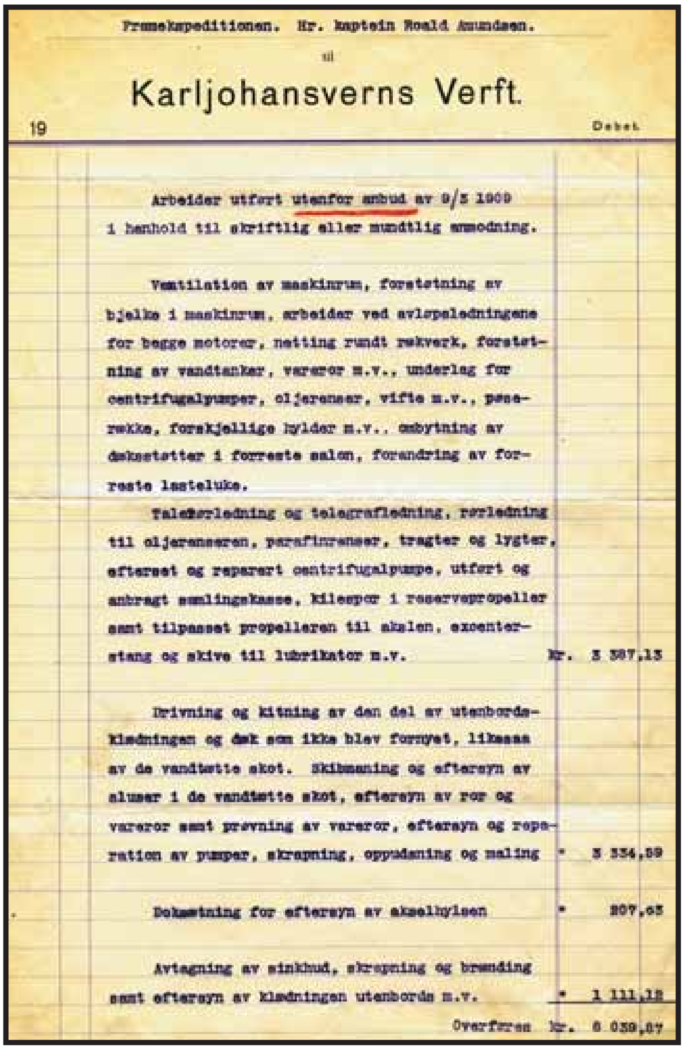
INVOICE TO ROALD AMUNDSEN FROM THE SHIPYARD IN HORTEN, THE KARLJOHANSVERNS VERFT

The Norwegian Navy's main base used to be located at Karljohansvern in Horten, 100 km south of Oslo. One of Norway's major shipyards was also to be found here, namely the Karljohansverns Verft. Before Roald Amundsen left for Antarctica in 1910, some adjustments and technical changes had to be carried out on the *Fram*. All this work was done at the shipyard in Horten. This invoice shows the detailed expenses for some of the upgrades on the *Fram* in the spring of 1910. The invoice adds up to NOK 27,656.10 (equivalent to NOK 1,431,178,- in today's currency). Roald Amundsen has certified the invoice with his own signature. Some of the items in the invoice include: adjustments related to the replacement of the steam engine by a diesel engine; a better ventilation system for the engine room; insulation of beams in the engine room; adjustment of the propeller to the shaft; installation of foundations for pumps and other equipment; additional piping for fuel, cooling water and bilge water; installation of an emergency inlet for the cooling water to the main engine; docking of the vessel for replacement of the stern tube; inspection of the outer layer of the hull; installation of a new windlass and motor for the anchors; panelling of the galley with zinc plating, and a new floor in the galley made of a coating of lead with ceramic tiles on top.Some of the acquisitions include: four tents, kites made for the trip, adjustments to compasses, two sets of signal flags, eight (expedition) telegraph flags and semaphore flags, six national flags, one jack, 100 dog harnesses, 60 tent pegs and four tent poles.

All the upgrades and adjustments to the *Fram* added up to a total of approximately NOK 100,000,- in 1910 (today's equivalent: NOK 5,000,000,-).

The Fram at the naval dockyard in Horten..

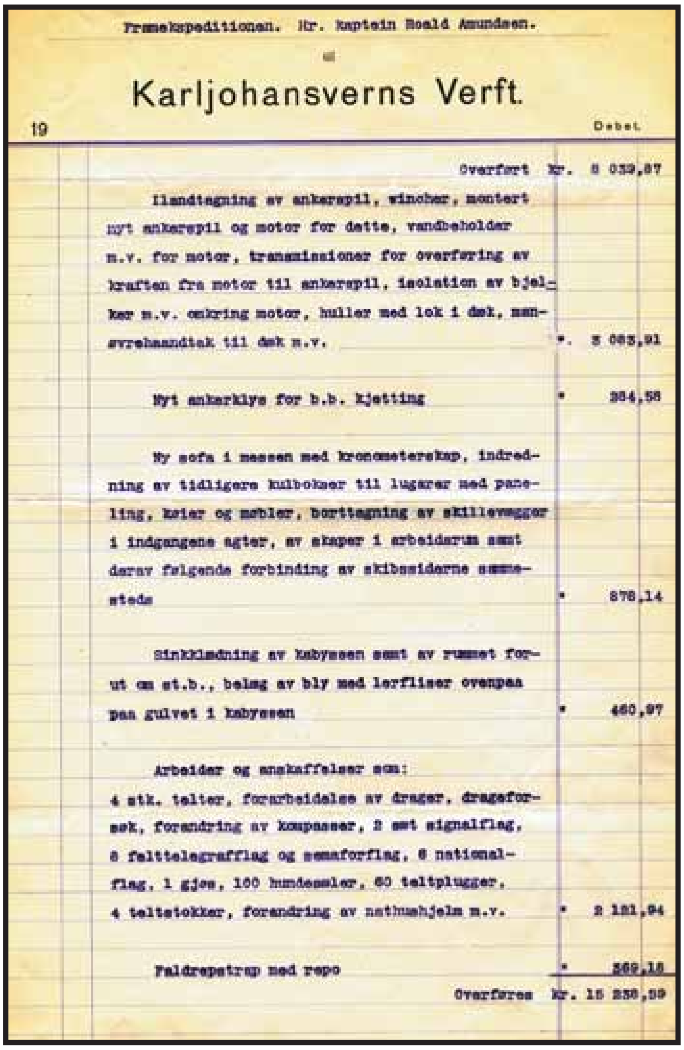
AMUNDSEN LANTERN SLIDE 155: FM/JFO



Frameekspeditionen. Hr. kaptein Roald Amundsen.
til
Karljohansverns Verft.
19 Debet.

Arbeider utført utenfor anbud av 9/3 1909 i henhold til skriftlig eller mundtlig anmodning.

Ventilation av maskinrum, forstøtning av bjelke i maskinrum, arbeider ved avløpsledningene for begge motorer, netting rundt rekverk, forstøtning av vandtanker, vareror m.v., underlag for centrifugalpumper, oljerenser, vifte m.v., passrekke, forskjellige hylder m.v., ombytning av dækstøtter i forreste salon, forandring av forreste lasteluke. Talerørledning og telegrafledning, rørledning til oljerenseren, parafinrenser, tragter og lygter, efterset og reparert centrifugalpumpe, utført og anbragt samlingskasse, kilespor i reservepropeller samt tilpasset propelleren til akslen, exenterstang og skive til lubrikator m.v.	Kr. 3 387,13
Drivning og kitning av den del av utenbordsklædningen og dæk som ikke blev fornyet, likesaa av de vandtætte skot. Skibmaning og efterseyn av aluser i de vandtætte skot, efterseyn av ror og vareror samt prøvning av vareror, efterseyn og reparation av pumper, skrapning, oppudsning og maling	» 3 334,59
Dokmætning for efterseyn av akselhylsen	» 207,63
Avtagning av sinkhud, skrapning og brænding samt efterseyn av klædningen utenbords m.v.	» 1 111,12
Overføres	Kr. 8 039,87



Frameekspeditionen. Hr. kaptein Roald Amundsen.
til
Karljohansverns Verft.
19 Debet.

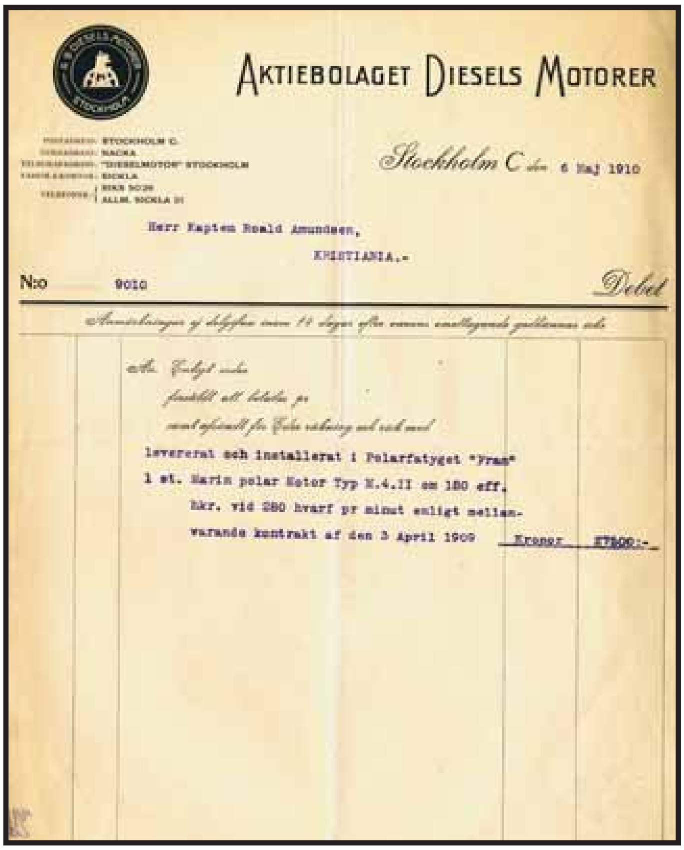
Overført	Kr. 8 039,87
Ilandtagning av ankerspil, wincher, montert nyt ankerspil og motor for dette, vandbeholder m.v. for motor, transmissioner for overføring av kraften fra motor til ankerspil, isolation av bjelker m.v. omkring motor, huller med lok i dæk, mannevrehaandtak til dæk m.v.	» 3 083,91
Nyt ankerklys for b.b. kjetting	» 384,58
Ny sofa i messen med kronometerskap, indredning av tidligere kulbokser til lugarer med panelling, køier og møbler, borttagning av skillevægger i indgangene agter, av skaper i arbeidsrum samt derav følgende forbinding av skibssiderne sammesteds	» 878,14
Sinkklædning av kabyssen samt av rummet forut om st.b., belæg av bly med lerfliser ovenpaa paa gulvet i kabyssen	» 460,97
Arbeider og anskaffelser som: 4 stk. telter, forarbeidelse av drager, dragefor-søk, forandring av kompasser, 2 sæt signalflag, 8 felttelegrafflag og semaforflag, 6 nationalflag, 1 gjøs, 100 hundeseler, 60 teltplugger, 4 teltstokker, forandring av nathuehjelm m.v.	» 2 181,94
Faldrepstrap med repe	» 369,18
Overføres	Kr. 15 238,59

The receipts for the reconstruction of the Fram and the purchase of the diesel engine. Photos: FM

Frameekspeditionen. Hr. kaptein Roald Amundsen.
til
Karljohansverns Verft.
19 Debet.

Overført	Kr. 15 238,59
Forskjellige anskaffelser, hvoriblandt ankerkjetting og pram	» 1 868,60
Forskjellige arbeider vedrørende maskineri, rørledninger o.l. som: trustlager, trustaksel, lense- og avløperør, nedindtak for kjølvand til hovedmotoren, ledninger til Downtons-pumpe, drift av pumper og vifte, dørk i maskinrum, uttagning av gammel samt forarbeidelse og indsætning av ny akselhylse, rørledninger for petroleumsovnene m.v.	» 8 385,46
Transport- og ekviperingsarbeider	» 2 163,45
	Kr. 27 656,10
	S. E. & O.

Riktigheten herav attesteres.
Horten 7 juni 1910
Roald Amundsen



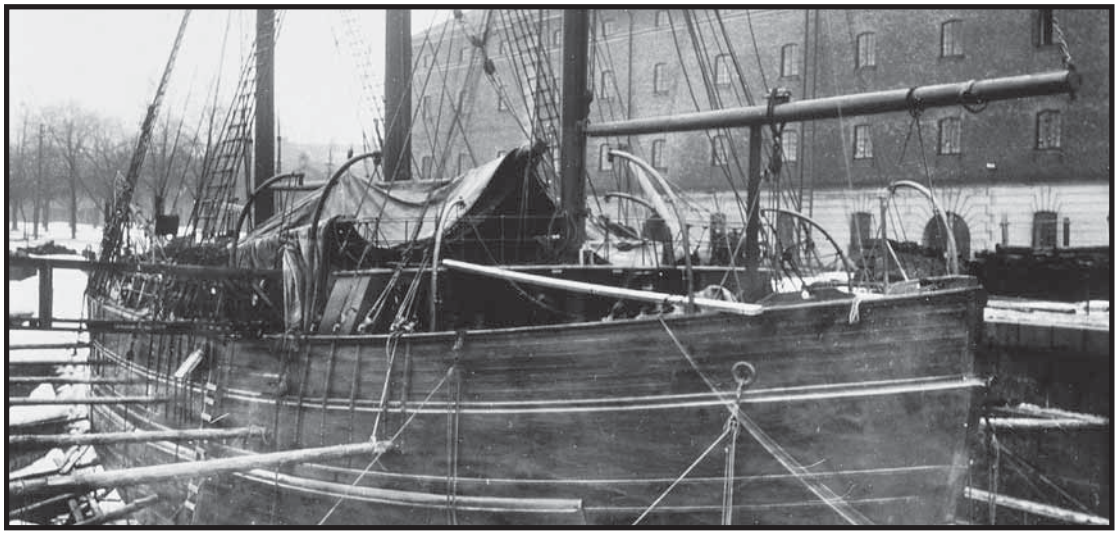
AKTIEBOLAGET DIESELS MOTORER

Stockholm C den 6 Maj 1910

Herr Kapten Roald Amundsen,
KRISTIANIA.-

N:o 9010 Debet

levererat och installerat i Polarfartyget "Fram"
1 st. Marin polar Motor Typ M.4.II om 180 eff. hkr. vid 280 hvarf pr minut enligt mellanvarande kontrakt af den 3 April 1909 Kronor 27500:-



The Fram in dry dock at Horten. Photo: FM

King Haakon VII and Queen Maud of Norway visits the Fram on June 2, 1910. The expedition received from their Majesties the gift of a beautiful silver jug, which afterwards formed the most handsome ornament of the Fram's table on every festive occasion.

AMUNDSEN LANTERN SLIDE 153: FM/JFO

The King and Queen leave the Fram after a wishing Amundsen and the crew a successful journey.

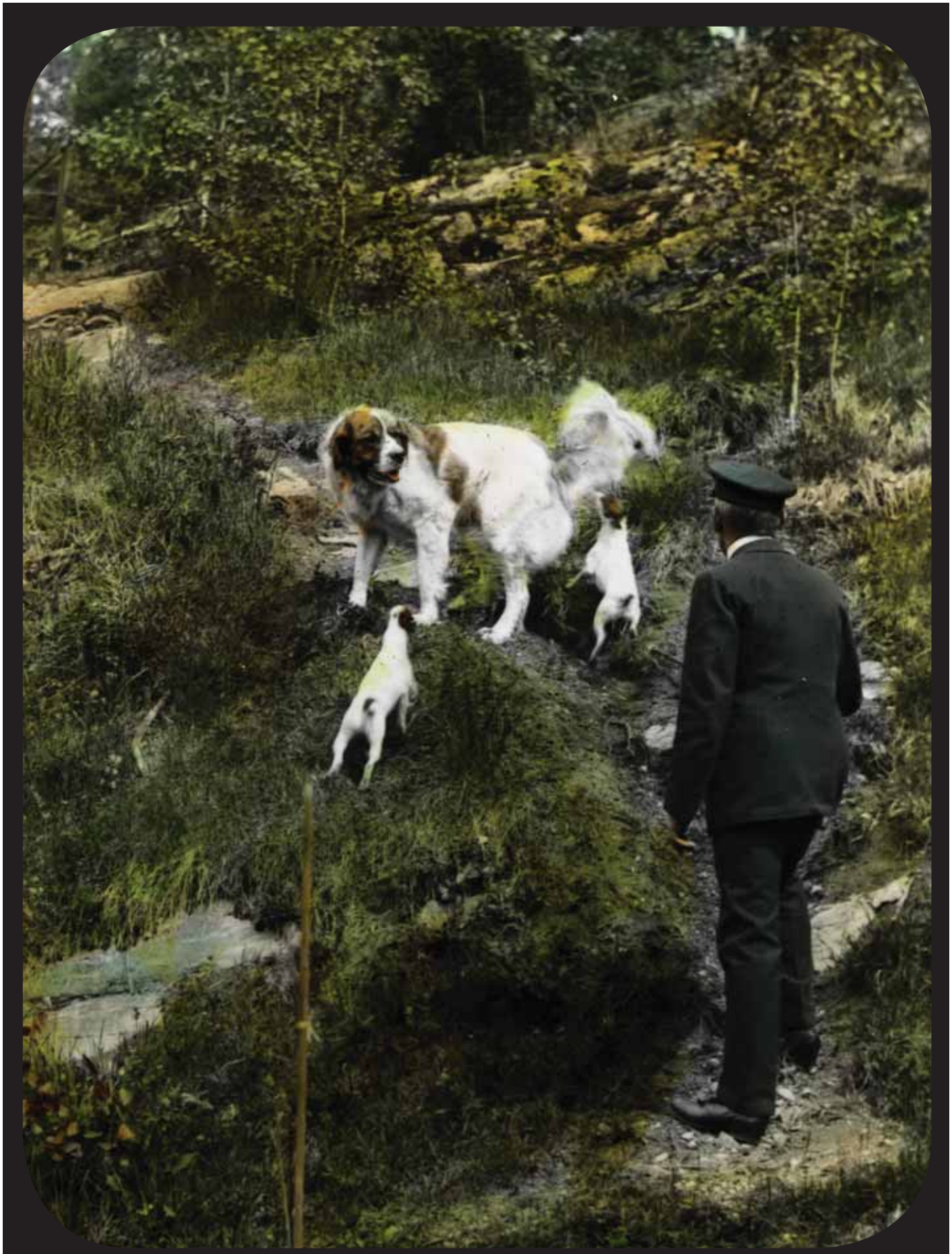
AMUNDSEN LANTERN SLIDE 154: FM/JFO

The Fram outside the Uranienborg, Roald Amundsen's home in the Bundefjord, south of Christiania. Photo: FM

On June 3, before noon, the Fram left Christiania (Oslo), bound at first for Amundsen's home in the Bundefjord to take on board the house for the winter station, which stood ready built in the garden.

AMUNDSEN LANTERN SLIDE 150: FM/JFO

Roald Amundsen's dog Pan in the hill behind Roald Amundsen's home.



AMUNDSEN LANTERN SLIDE 152: FM/JFO

The dog house at Uranienborg.

AMUNDSEN LANTERN SLIDE 168: FM/JFO

June 6, 1910: Roald Amundsen and Pan in front of the Fram on the eve of the departure.

AMUNDSEN LANTERN SLIDE 151: FM/JFO

Editor's note:

From Roald Amundsen's The South Pole:

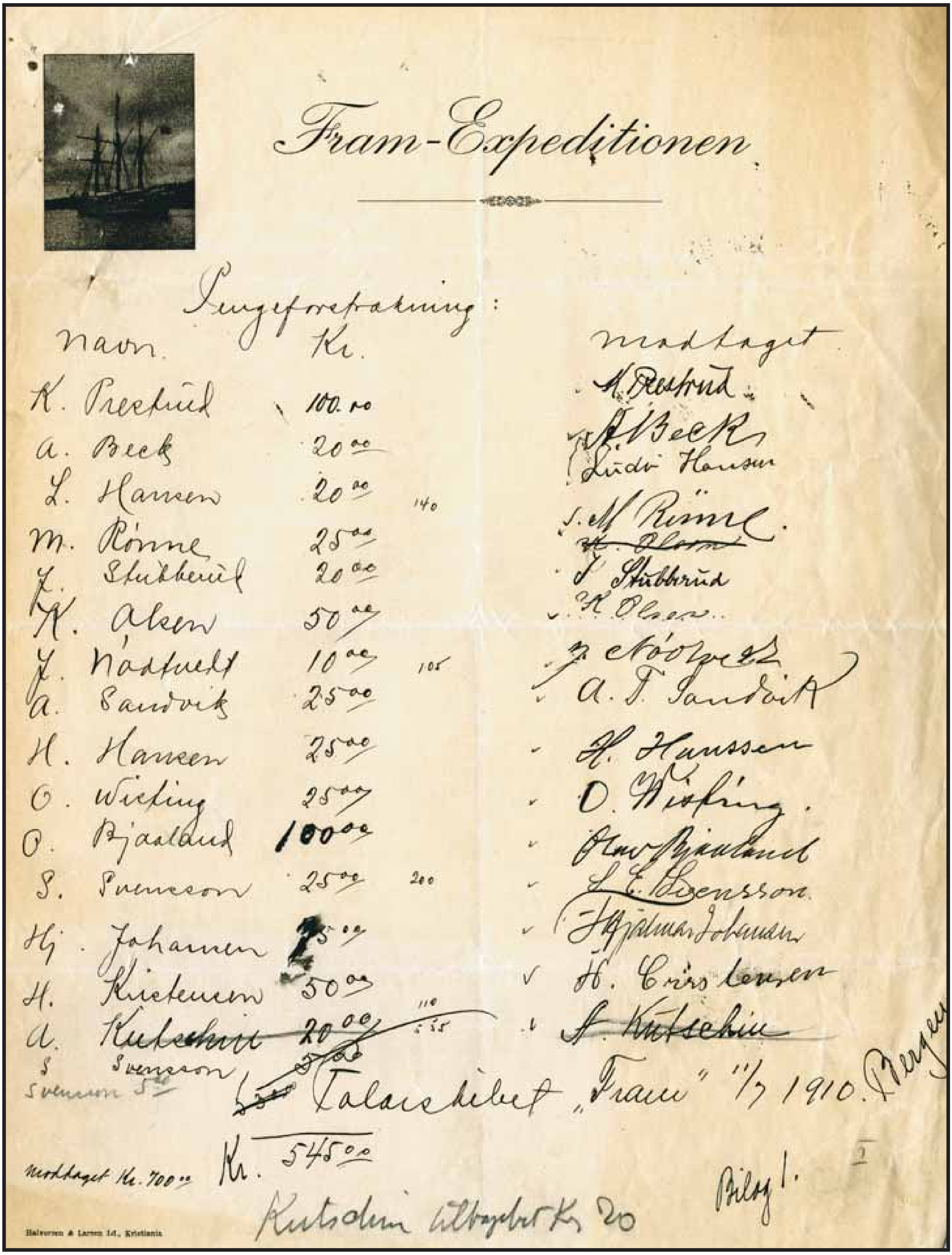
On the afternoon of June 6 it was announced that everything was ready, and in the evening we all assembled at a simple farewell supper in the garden. I took the opportunity of wishing good luck to every man in turn, and finally we united in a "God preserve the King and Fatherland!" Then we broke up. The last man to get into the boat was the second in command; he arrived armed with a horseshoe. In his opinion it is quite incredible what luck an old horseshoe will bring. Possibly he is right. Anyhow, the horseshoe was firmly nailed to the mast in the Frams saloon, and there it still hangs.

When on board, we promptly set to work to get up the anchor. The Bolinder motor hummed, and the heavy cable rattled in through the hawse-hole. Precisely at midnight the anchor let go of the bottom, and just as the Seventh of June rolled in over us, the Fram stood out of Christiania Fjord for the third time.

Twice already had a band of stout-hearted men brought this ship back with honour after years of service. Would it be vouchsafed to us to uphold this honourable tradition?

Such were, no doubt, the thoughts with which most of us were occupied as our vessel glided over the motionless fjord in the light summer night. The start was made under the sign of the Seventh of June, and this was taken as a promising omen; but among our bright and confident hopes there crept a shadow of melancholy. The hillsides, the woods, the fjord all were so bewitchingly fair and so dear to us. They called to us with their allurement, but the Diesel motor knew no pity. Its tuff-tuff went on brutally through the stillness. A little boat, in which were some of my nearest relations, dropped gradually astern. There was a glimpse of white handkerchiefs in the twilight, and then farewell!

The crew of the Norwegian South Polar Expedition before departure. Standing from the left: Wisting, Rønne, Sandvig (left at Funchal), Schröer (left at Bergen), Kristensen, Bjaaland, Hanssen, Hansen, Johansen, Beck, Stubberud & Olsen.
Sitting in the middle: Nilsen, Amundsen & Prestrud. Front row: Nødtvedt, Gjertsen & Kutchin.
Photo: FM



Fram-Expeditionen

Pengeforretning:

Navn.	Kr.		modtaget.
K. Prestrud	100.00		K. Prestrud
A. Beck	20.00		A. Beck
L. Hansen	20.00	140	Ludv. Hansen
M. Rönne	25.00		M. Rönne
			~~H. Olsen~~
J. Stubberud	20.00		J. Stubberud
K. Olsen	50.00		K. Olsen
J. Nödtvedt	10.00	105	J. Nödtvedt
A. Sandvik	25.00		A. J. Sandvik
H. Hansen	25.00		H. Hanssen
O. Wisting	25.00		O. Wisting
O. Bjaaland	100.00		Olav Bjaaland
S. Svensson	25.00	200	S. E. Svensson
Hj. Johansen	25.00		Hjalmar Johansen
H. Kristensen	50.00	110	H. Kristensen
~~A. Kutschin~~	~~20.00~~	535	~~A. Kutschin~~
S. Svensson	5.00		
Svensson 5.00	5.00		

Polarskibet „Fram" 11/7 1910. Bergen

Kr. 545.00

modtaget Kr. 700.00

Bilag 1.

Kutschin tilbagebet. Kr. 20

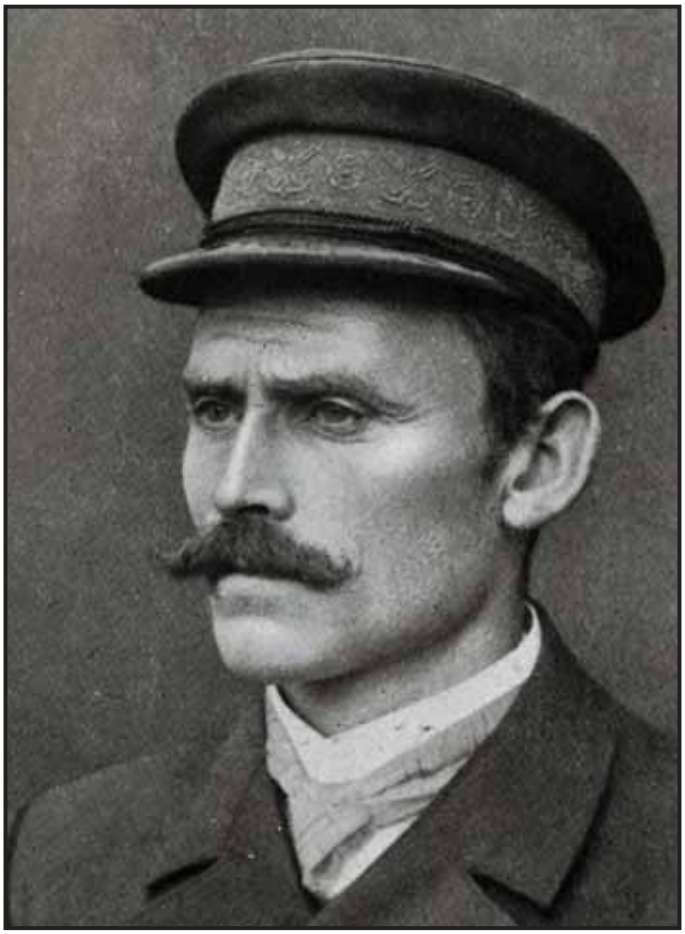
Halvorsen & Larsen Ltd., Kristiania.

A payment to the crew was made on July 11, 1910 in Bergen. All crew members have signed the document. Photo: FM

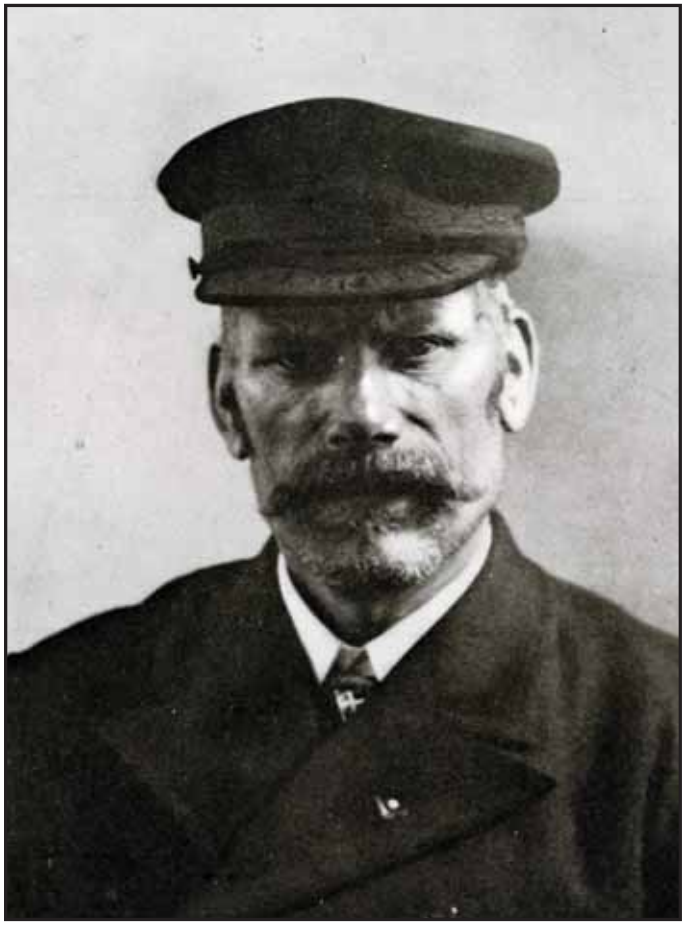
Hjalmar Fredrik Gjertsen, first mate (1885-1958).
Amundsen lantern slide 234: FM/jfo

Knut Sundbeck, engineer (?-1967).
Amundsen lantern slide 235: FM/jfo

Alexander Kutchin, oceanographer (1888-1912). Photo: FM



Helmer Hanssen, ice pilot, member of the polar party (1870-1956). Photo: FM

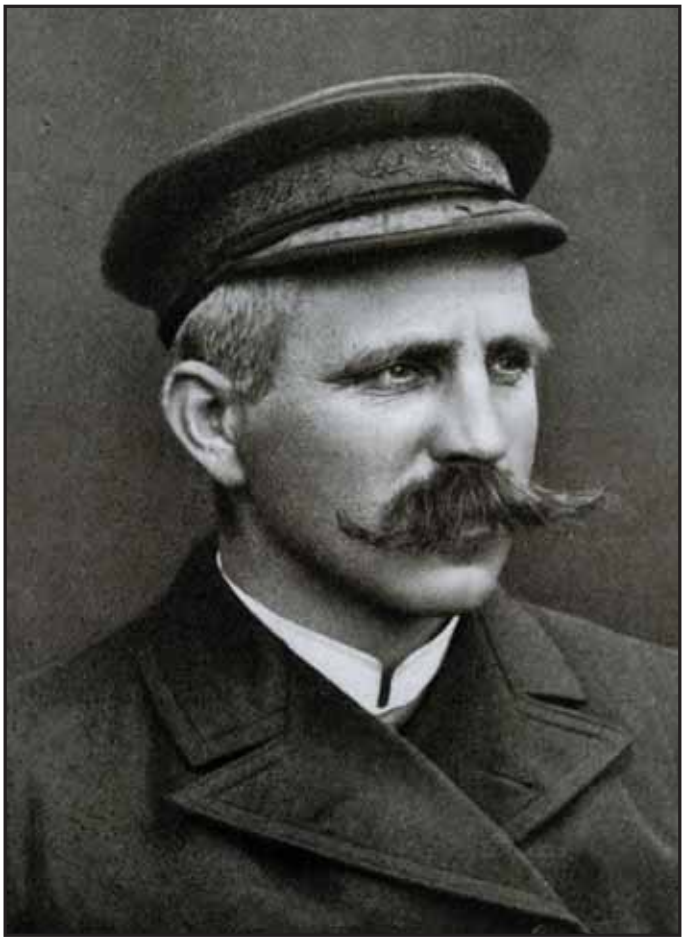


Jacob Nødtvedt, second engineer (1857-?). Photo: FM

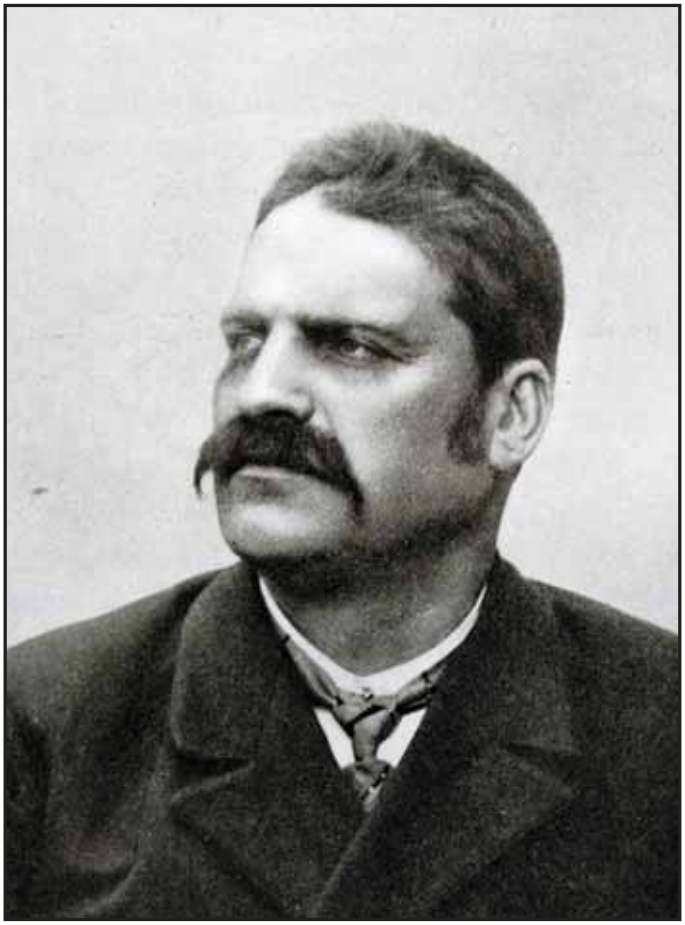
Sverre Hassel, member of the polar party (1876-1928). Photo: FM

Olav Bjaaland, skimaker, member of the polar party (1873-1961). Photo: FM

Oscar Wisting, member of the polar party (1871-1936). Photo: FM



Hjalmar Johansen, member of the Edward VII Land party (1867-1913).
Photo: FM



Andreas Beck, ice pilot (1864-1914).
Photo: FM

Halvardus Kristensen, third engineer (1879-1919).
Photo: FM

Karenius Olsen, cook (?-?).
Photo: FM

Ludvik Hansen, ice pilot (1871-1955). Photo: FM

Adolf Henrik Lindstrøm, cook (1866-1939). Photo: FM

Kristian Prestrud, second officer, leader of the Edward VII Land party (1881-1927). Photo: FM

Thorvald Nilsen, Captain of the Fram, second in command (1881-1940). Photo: FM

Jørgen Stubberud, carpenter, member of the Edward VII Land party (1883-1980). Photo: FM

Martin Rønne, sailmaker (1861-1932). Photo: FM

The saloon of the Fram.

AMUNDSEN LANTERN SLIDE 157: FM/JFO

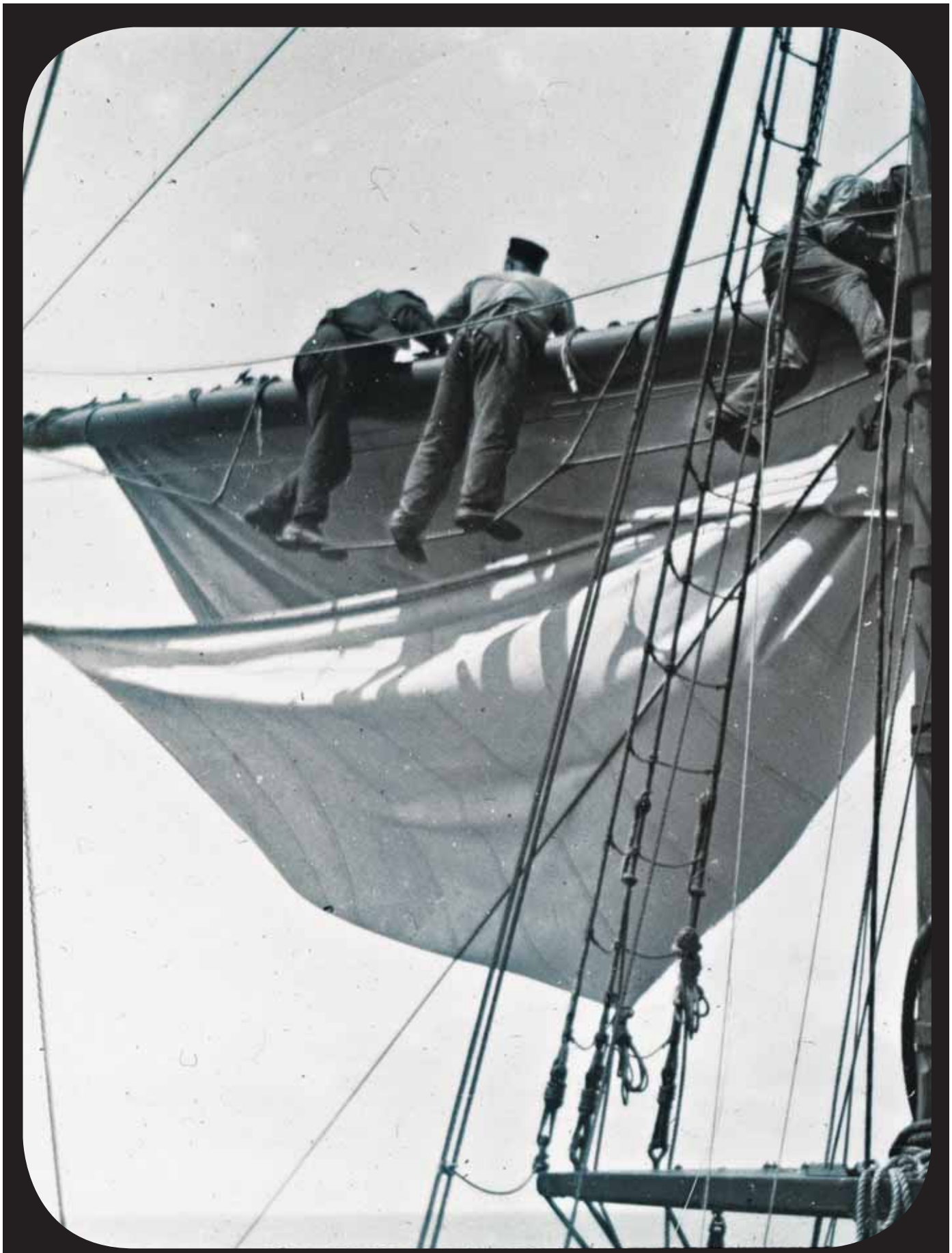
AMUNDSEN LANTERN SLIDE 162: FM/JFO

Thorvald Nilsen gathered a small audience in the harbour of Funchal.

Kristian Prestrud adjusting the chronometers in Funchal, Madeira.

AMUNDSEN LANTERN SLIDE 161: FM/JFO

In the rigging.

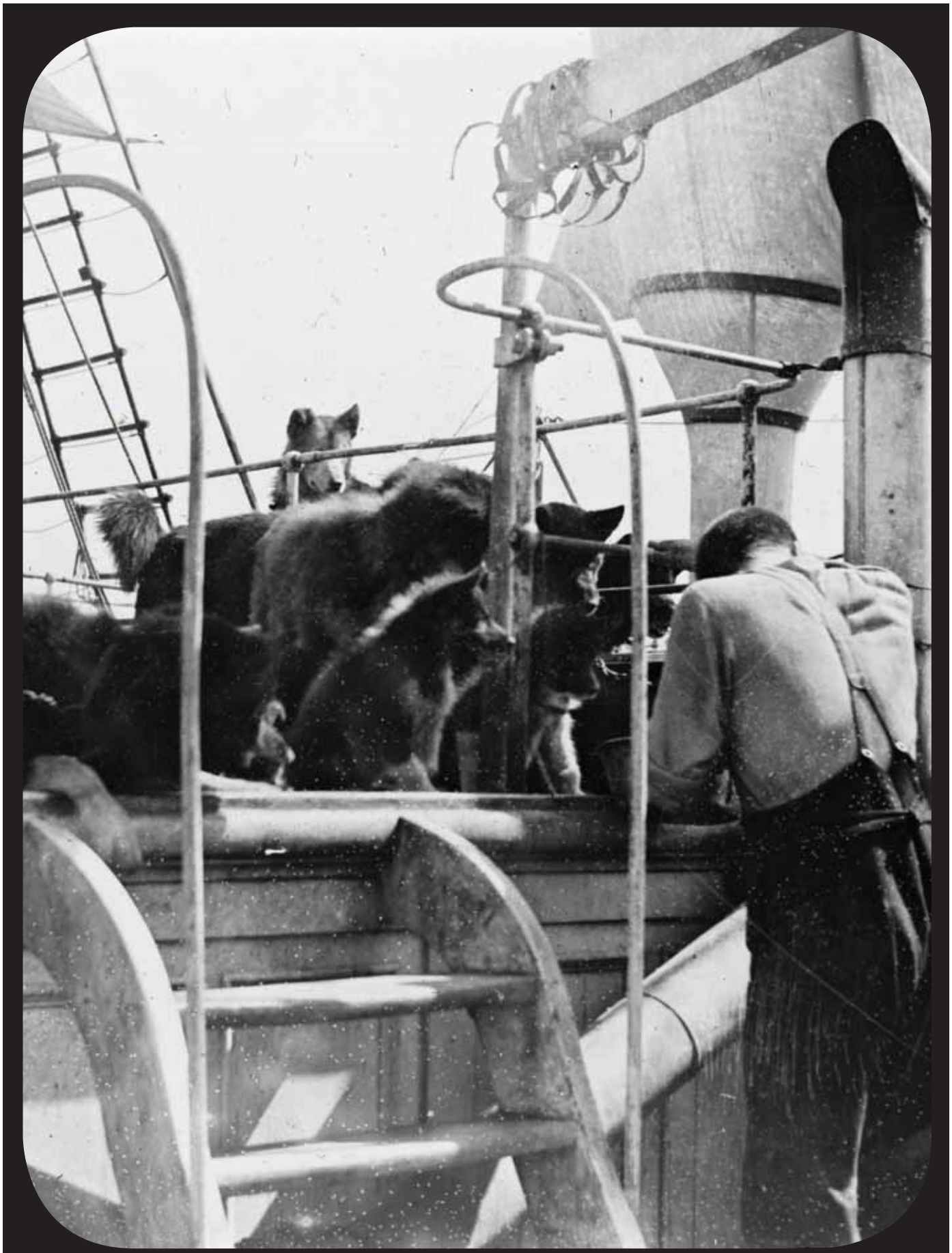


AMUNDSEN LANTERN SLIDE 160: FM/JFO

The foredeck of the Fram.

AMUNDSEN LANTERN SLIDE 170: FM/JFO

There are dogs everywhere, also on the bridge.



AMUNDSEN LANTERN SLIDE 174: FM/JFO

Editor's note:

From Roald Amundsen's The South Pole:

Fredriksholm, out on Flekkero, we had found room for perhaps the most important of all the passengers, the ninety-seven Eskimo dogs, which had arrived from Greenland in the middle of July on the steamer Hans Egede. The ship had had a rather long and rough passage, and the dogs were not in very good condition on their arrival, but they had not been many days on the island under the supervision of Hassel and Lindstrom before they were again in full vigour. A plentiful supply of fresh meat worked wonders. The usually peaceful island, with the remains of the old fortress, resounded day by day, and sometimes at night, with the most glorious concerts of howling.

These musical performances attracted a number of inquisitive visitors, who were anxious to submit the members of the chorus to a closer examination, and therefore, at certain times, the public were admitted to see the animals. It soon turned out that the majority of the dogs, far from being ferocious or shy, were, on the contrary, very appreciative of these visits. They sometimes came in for an extra tit-bit in the form of a sandwich or something of the sort. Besides which, it was a little diversion in their life of captivity, so uncongenial to an Arctic dog ; for every one of them was securely chained up. This was necessary, especially to prevent fighting among themselves.

Sverre Hassel and Adolf Henrik Lindstrøm's receipt for their taxi boat fare to Flekkero – the island of the dogs. Photo: FM

After the Frams arrival Wisting took over the position of dog-keeper in Hassel's place. He and Lindstrom stayed close to the island where the dogs were. Wisting had a way of his own with his four-footed subjects, and was soon on a confidential footing with them. He also showed himself to be possessed of considerable veterinary skill an exceedingly useful qualification in this case, where there was often some injury or other to be attended to.

The Fram was anchored off Fredriksholm, and the necessary preparations were immediately made for receiving our four-footed friends. Under the expert direction of Bjaaland and Stubberud, as many as possible of the crew were set to work with axe and saw and in the course of a few hours the Fram had got a new deck. This consisted of loose pieces of decking, which could easily be raised and removed for flushing and cleaning. This false deck rested on three-inch planks nailed to the ship's deck; between the latter and the loose deck there was therefore a considerable space, the object of which was a double one namely, to let the water, which would unavoidably be shipped on such a voyage, run off rapidly, and to allow air to circulate, and thus keep the space below the animals as cool as possible. The arrangement afterwards proved very successful. The bulwarks on the fore-part of the Frams deck consisted of an iron railing covered with wire-netting. In order to provide both shade and shelter from the wind, a lining of boards was now put up along the inside of the railing, and chains were fastened in all possible and impossible places to tie the dogs up to.

There could be no question of letting them go loose to begin with, at any rate; possibly, we might hope to be able to set them free later on, when they knew their masters better and were more familiar with their surroundings generally. Late in the afternoon of August 9 we were ready to receive our new shipmates, and they were conveyed across from the island in a big lighter, twenty at a time.

Wisting and Lindstrom superintended the work of transport, and maintained order capitally. They had succeeded in gaining the dogs' confidence, and at the same time their complete respect just what was wanted, in fact. At the Fram's gangway the dogs came in for an active and determined

reception, and before they had recovered from their surprise and fright, they were securely fastened on deck and given to understand with all politeness that the best thing they could do for the time being was to accept the situation with calmness. The whole proceeding went so rapidly that in the course of a couple of hours we had all the ninety-seven dogs on board and had found room for them ; but it must be added that the Frams deck was utilized to the utmost. We had thought we should be able to keep the bridge free, but this could not be done if we were to take them all with us. The last boat-load, fourteen in number, had to be accommodated there. All that was left was a little free space for the man at the wheel. As for the officer of the watch, it looked as if he would be badly off for elbow-room; there was reason to fear that he would be compelled to kill time by standing stock-still in one spot through the whole watch ; but just then there was no time for small troubles of this sort. No sooner was the last dog on board than we set about putting all visitors ashore, and then the motor began working the windlass under the forecastle. "The anchor's up!" Full speed ahead, and the voyage towards our goal, 16,000 miles away, was begun.

Before we sailed there was no lack of all kinds of prophecies of the evil that would befall us with our dogs. We heard a number of these predictions; presumably a great many more were whispered about, but did not reach our ears. The unfortunate beasts were to fare terribly badly. The heat of the tropics would make short work of the greater part of them. If any were left, they would have but a miserable respite before being washed overboard or drowned in the seas that would come on deck in the west wind belt. To keep them alive with a few bits of dried fish was an impossibility, etc. As everyone knows, all these predictions were very far from being fulfilled; the exact opposite happened. From the very first I tried in every way to insist upon the paramount importance to our whole enterprise of getting our draught animals successfully conveyed to our destination.

If we had any watchword at this time it was: "Dogs first, and dogs all the time." The result speaks best for the way in which this watchword was followed. The following was the arrangement we made: The dogs, who at first were always tied up on the same spot, were divided into parties of ten; to each party one or two keepers were assigned, with full responsibility for their animals and their treatment. For my own share I took the fourteen that lived on the bridge.

Feeding the animals was a manoeuvre that required the presence of all hands on deck; it therefore took place when the watch was changed. The Arctic dog's greatest enjoyment in life is putting away his food; it may be safely asserted that the way to his heart lies through his dish of meat. We acted on this principle, and the result did not disappoint us.

After the lapse of a few days the different squads were the best of friends with their respective keepers. As may be supposed, it was not altogether to the taste of the dogs to stand chained up all the time; their temperament is far too lively for that. We would gladly have allowed them the pleasure of running about and thus getting healthy exercise, but for the present we dared not run the risk of letting the whole pack loose. A little more education was required first. It was easy enough to win their affection; to provide them with a good education was of course a more difficult matter. It was quite touching to see their joy and gratitude when one gave up a little time to their entertainment. One's first meeting with them in the morning was specially cordial. Their feelings were then apt to find vent in a chorus of joyful howls; this was called forth by the very sight of their masters, but they asked more than that. They were not satisfied until we had gone round, patting and talking to everyone.

If by chance one was so careless as to miss a dog, he at once showed the most unmistakable signs of disappointment. There can hardly be an animal that is capable of expressing its feelings to the same extent as the dog. Joy, sorrow, gratitude, scruples of conscience, are all reflected as plainly as could be desired in his behaviour, and above all in his eyes. We human beings are apt to cherish the conviction that we have a monopoly of what is called a living soul; the eyes, it is said, are the mirror of this soul.

That is all right enough; but now take a look at a dog's eyes, study them attentively. How often do we see something "human" in their expression, the same variations that we meet with in human eyes. This, at all events, is something that strikingly resembles "soul." We will leave the question open for those who are interested in its solution, and will here only mention another point, which seems to show that a dog is something more than a mere machine of flesh and blood his pronounced individuality. There were about a hundred dogs on board the Fram.

Gradually, as we got to know each one of them by daily intercourse, they each revealed some characteristic trait, some peculiarity. Hardly two of them were alike, either in disposition or in appearance. To an observant eye there was here ample opportunity for the most amusing exercise. If now and then one grew a little tired of one's fellow-men which, I must admit, seldom happened there was, as a rule, diversion to be found in the society of the animals.

I say, as a rule; there were, of course, exceptions. It was not an unmixed pleasure having the whole deck full of dogs for all those months; our patience was severely tested many a time. But in spite of all the trouble and inconvenience to which the transport of the dogs necessarily gave rise, I am certainly right in saying that these months of sea voyage would have seemed far more monotonous and tedious if we had been without our passengers.

Dogs in the sun on the foredeck.

AMUNDSEN LANTERN SLIDE 172: FM/JFO

Jørgen Stubberud and his favourite dogs.

AMUNDSEN LANTERN SLIDE 163: FM/JFO

A puppy is fed while the mother is watching.

AMUNDSEN LANTERN SLIDE 173: FM/JFO

AMUNDSEN LANTERN SLIDE 167: FM/JFO

Lt. Kristian Prestrud and Karenius Olsen feed the puppies.

Martin Rønne felt more safe when the dogs were wearing a muzzle.

AMUNDSEN LANTERN SLIDE 164: FM/JFO

Isak is having his broken leg mended by the "vets" Oscar Wisting and Hjalmar Fredrik Gjertsen.

AMUNDSEN LANTERN SLIDE 175: FM/JFO

Fram's deck in the trade wind region.

AMUNDSEN LANTERN SLIDE 169: FM/JFO

Editor's note:

From Roald Amundsen's The South Pole:

We had expected to reach the Equator by October 1, but the unfavourable conditions of wind that we met with to the north of it caused us to be a little behind our reckoning, though not much. On the afternoon of October 4 the Fram crossed the line. Thus an important stage of the voyage was concluded: the feeling that we had now reached southern latitudes was enough to put us all in holiday humour, and we felt we must get up a modest entertainment. According to ancient custom, crossing the line should be celebrated by a visit from Father Neptune himself, whose part is taken for the occasion by someone chosen from among the ship's company. If in the course of his inspection this august personage comes upon anyone who is unable to prove that he has already crossed the famous circle, he is handed over at once to the attendants, to be "shaved and baptized." This process, which is not always carried out with exaggerated gentleness, causes much amusement, and forms a welcome variety in the monotonous life of a long sea voyage, and probably many on board the Fram looked forward with eagerness to Neptune's visit, but he did not come. There simply was no room for him on our already well-occupied deck. We contented ourselves with a special dinner, followed by coffee, liqueurs, and cigars. Coffee was served on

October 4, 1910: The crew is celebrating the crossing of the equator.

AMUNDSEN LANTERN SLIDE 171: FM/JFO

the fore-deck, where by moving a number of the dogs we had contrived to get a few square yards of space. There was no lack of entertainment. A violin and mandolin orchestra, composed of Prestrud, SundBeck, and Beck contributed several pieces, and our excellent gramophone was heard for the first time. Just as it started the waltz from "The Count of Luxembourg," there appeared in the companion-way a real ballet-girl, masked, and in very short skirts. This unexpected apparition from a better world was greeted with warm applause, which was no less vigorous when the fair one had given proof of her skill in the art of dancing.Behind the mask could be detected Gjertsen's face, but both costume and dance were in the highest degree feminine. Rønne was not satisfied until he had the lady on his knees hurrah for illusion. The gramophone now changed to a swinging American v/cake-walk, and at the same moment there opportunely appeared on the scene a negro in a tail-coat, a silk hat, and a pair of wooden shoes. Black as he was, we saw at once that it was the second in command who had thus disguised himself. The mere sight of him was enough to set us all shrieking with laughter, but he made his great success when he began to dance. He was intensely amusing. It did us a great deal of good to have a little amusement just then, for this part of the voyage was a trial of patience more than anything else.

Through the big waves in the "howling forties".

AMUNDSEN LANTERN SLIDE 159: FM/JFO

AMUNDSEN LANTERN SLIDE 158: FM/JFO

The Fram sailed well,
in spite of her rounded hull.

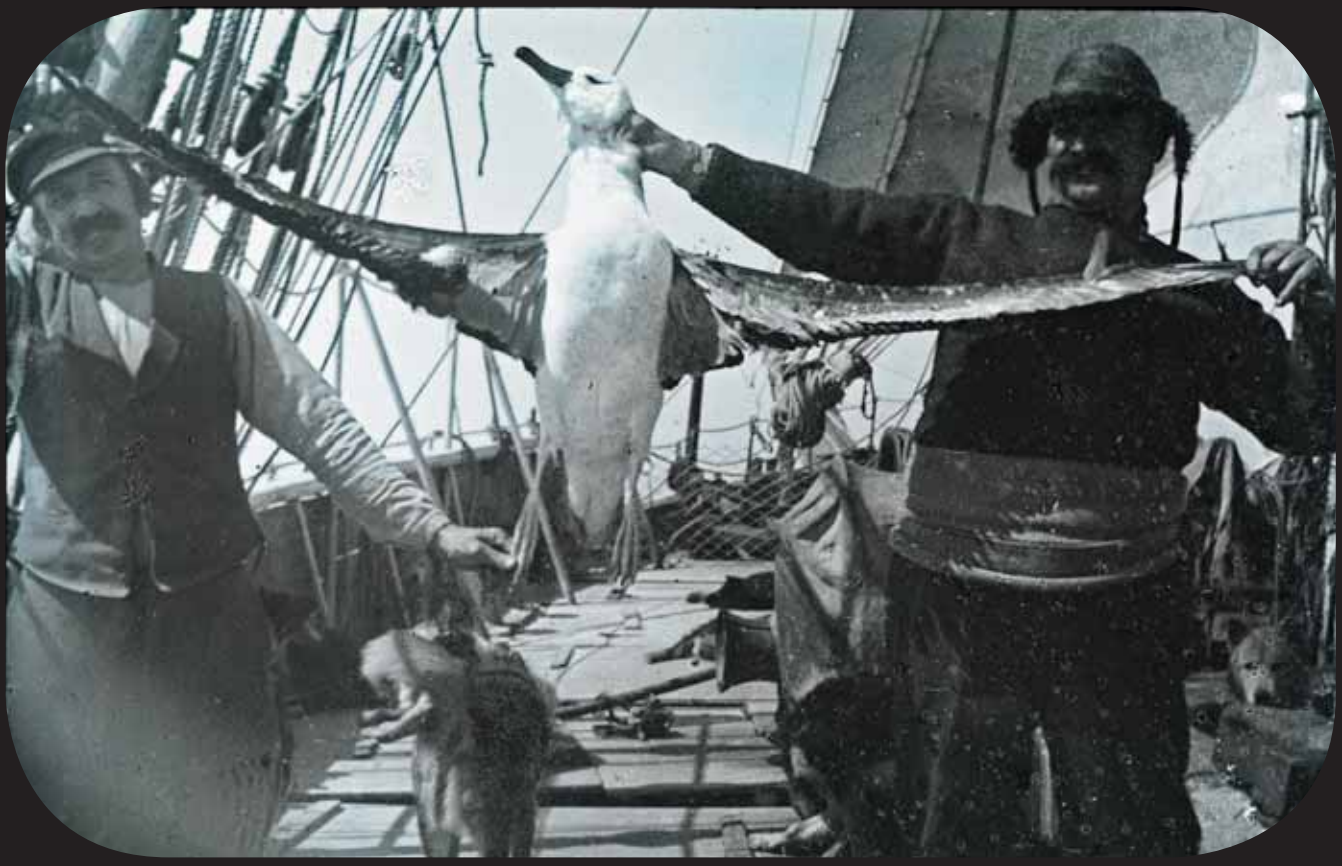
Top right:
Fredrik Hjalmar Gjertsen, Thorvald Nilsen
and Kristian Prestrud taking an observation.

Bottom right:
Martin Rønne and Andreas Beck
after a successful albatross hunt.

The saloon of the Fram decorated for Christmas Eve.

AMUNDSEN LANTERN SLIDE 178: FM/JFO

AMUNDSEN LANTERN SLIDE 178: FM/JFO



AMUNDSEN LANTERN SLIDE 176: FM/JFO

Editor's note:

From Roald Amundsen's The South Pole:

At nine in the morning of the next day we had our first opportunity of seal-hunting; a big Weddell seal was observed on a floe right ahead. It took our approach with the utmost calmness, not thinking it worth while to budge an inch until a couple of rifle-bullets had convinced it of the seriousness of the situation. It then made an attempt to reach the water, but it was too late. Two men were already on the floe, and the valuable spoil was secured. In the course of a quarter of an hour the beast lay on our deck, flayed and cut up by practised hands; this gave us at one stroke at least four hundredweight of dog food, as well as a good many rations for men. We made the same coup three times more in the course of the day, and thus had over a ton of fresh meat and blubber. The dogs did their utmost to avail themselves of the opportunity; they simply ate till their legs would no longer carry them, and we could grant them this gratification with a good conscience. As to ourselves, it may doubtless be taken for granted that we observed some degree of moderation, but dinner was polished off very quickly. Seal steak had many ardent adherents already, and it very soon gained more. Seal soup, in which our excellent vegetables showed to advantage, was perhaps even more favourably received.

Hunting for seal.

AMUNDSEN LANTERN SLIDE 189: FM/JFO

Hunting for seal in the Ross Sea.

AMUNDSEN LANTERN SLIDE 188: FM/JFO

The Fram in drift-ice.

AMUNDSEN LANTERN SLIDE 177: FM/JFO

The ice in the Bay of Whales had just broken up, and to such an extent that we succeeded in sailing quite a distance further south than any of our predecessors, and found a little cozy corner behind a projecting icecap, from which we, in comparative safety, could bring our outfit on to the barrier. Another great advantage was that the barrier here sloped very gently down too the sea ice, and this gave us the best ground for sledging. The first thing we did on our arrival was to climb the barrier for to examine the nearest surroundings and find a convenient place for the house we had brought from home. The supposition that this part of the barrier rested on subjacent land the surroundings at once seemed to confirm. Instead of the plain, smooth surface that the outer barrier wall shows, we found the surface here greatly disturbed.

Steep hills and crests, with intervening dales, filled with huge hummocks and pressure ridges, were seen everywhere. And these formations were not of recent date. It was easy to notice that they dated from a time far beyond the days of old father Ross. Our original plan was to build our station several miles from the barrier edge in order to guard us against unwished-for sea-trip, in case the part of the barrier, on which our house was built, should break off. But that was not necessary. The formations we met on our first examination were warrant enough for the barrier's stability in this region. In a little valley 2 nautical miles (3 ½ kiloms.) from the spot where we had made fast the ship, we sheltered against all winds, we selected the place for our winter quarters.

The Fram arrived at the Bay of Whales on January 14, 1911. They called the harbour "Cape Man's Head".

AMUNDSEN LANTERN SLIDE 183: FM/JFO

Editor's note:

From Roald Amundsen's The South Pole:

We had thus arrived on January 14 a day earlier than we had reckoned at this vast, mysterious, natural phenomenon, the Barrier. One of the most difficult problems of the expedition was solved that of conveying our draught animals in sound condition to the field of operations. We had taken 97 dogs on board at Christiansand; the number had now increased to 116, and practically all of these would be fit to serve in the final march to the South.

AMUNDSEN LANTERN SLIDE 190: FM/JFO

Cape Man's Head.

Cape Man's Head seen from the north.

AMUNDSEN LANTERN SLIDE 185: FM/JFO

AMUNDSEN LANTERN SLIDE 186: FM/JFO

A group of Adele penguins.

Flensing a seal

AMUNDSEN LANTERN SLIDE 184: FM/JFO

The first camp from another angle. Amundsen's film camera on the left side of the tent.

AMUNDSEN LANTERN SLIDE 210: FM/JFO

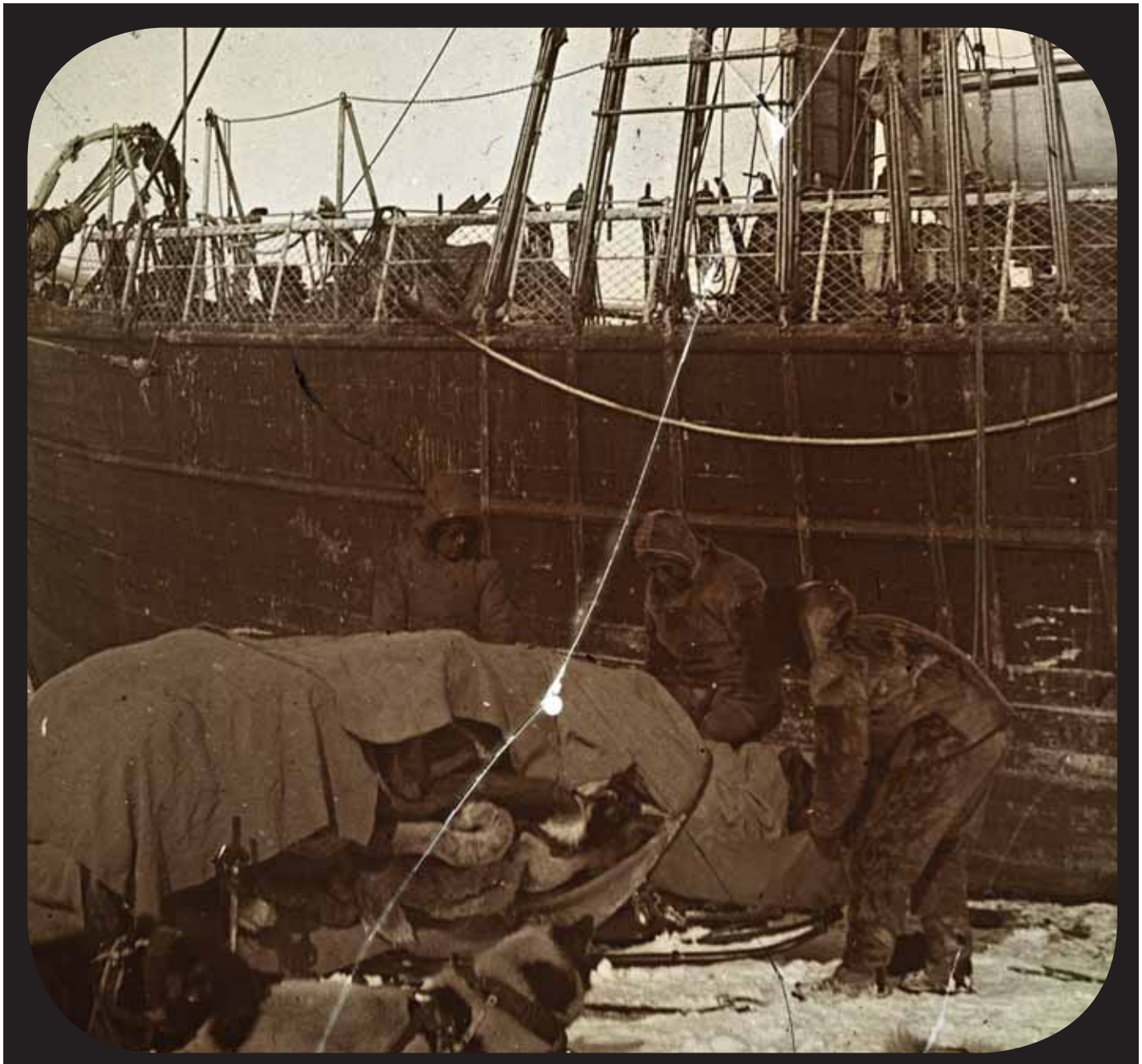
The first camp on the barrier.

AMUNDSEN LANTERN SLIDE 203: FM/JFO

On the following day we commenced to discharge the ship: - materials for house building, outfit and provisions for nine men for several years. We were divided into two parties, the ship and the shore party. The first consisted of the master of the ship, captain Nilsen, and the nine men, who would stay on board to navigate the Fram out of the ice and up to Buenos Aires.

The other party consisted of those of us who would go into winter quarters and march towards the south. It was the duty of the ship's party to unload everything from the ship on to the ice. There the shore party took it and drove it to the spot we had selected for our house. In the begging we were a little unaccustomed to this work, untrained as we were after a long voyage. But it didn't take long before all of us were well trained, and then everything went along at a dizzy speed between the ship and our future home,

Unloading the Fram.



AMUNDSEN LANTERN SLIDE 195: FM/JFO

Framheim, which daily increased in size. As soon as all the materials for the hut had been driven up, our experienced carpenters, Olav Bjaaland and Jörgen Stubberud, commenced to erect the house. It was a ready-built house, and now there was nothing to do but to put together the different parts, all of which were marked. That the house might be able to withstand all the storms we were expected, the site was excavated to a depth of 4 feet below the barrier surface.

On January 28, fourteen days after our arrival, the home was ready and provisions ashore. A giant had been done and everything promised well for the future. But time was precious, and it was our duty to make the best of it. The shore party was again divided into two. One would go on driving up from the ship the rest of the stores, outfit, and the like, while the other would prepare for a trip southward for the purpose of exploring our immediate surroundings and establish a depôt.

The Fram in the Bay of Whales. A carcass of seal in the foreground.

AMUNDSEN LANTERN SLIDE 200: FM/JFO

Editor's note:
From Roald Amundsen's The South Pole:

On Monday, January 23, we began to carry up the provisions. In order to save time, we had decided not to bring the provisions right up to the hut, but to store them for the time being on an elevation that lay on the other side, to the south of Mount Nelson. This spot was not more than 600 yards from the hut, but as the surface was rather rough here, we should save a good deal in the long-run. Sledging up to this point offered some difficulties at first. The dogs, who were accustomed to take the road to the lower camp between Nelson and Ronniken could not understand why they might not do the same now. The journey with empty sledges down to the ship was often particularly troublesome. From this point the dogs could hear their companions on the other side of Nelson in the lower camp, and then it happened more than once that the dogs took command. If they once got in the humour for playing tricks of that sort, it was by no means easy to get them under control.As the provisions came up each driver took them off his sledge, and laid the cases in the order in which they should lie. This plan had the advantage that everything would be easy to find. The load was usually 660 pounds, or 6 cases to each sledge. We had about 900 cases to bring up, and reckoned that we should have them all in place in the course of a week. Everything went remarkably well according

Ready to move into Framheim.

AMUNDSEN LANTERN SLIDE 211: FM/JFO

to our reckoning. By noon on Saturday, January 28, the hut was ready, and all the 900 cases were in place. Great rows of cases stood in the snow, all with their numbers outward, so that we could find what we wanted at once. And there was the house, all finished, exactly as it had stood in its native place on the Bundefjord. But it would be difficult to imagine more different surroundings: there, green pinewoods and splashing water; here, ice, nothing but ice. But both scenes were beautiful; I stood thinking which I preferred. My thoughts travelled far thousands of miles in a second. It was the forest that gained the day. As I have already mentioned, we had everything with us for fastening the hut down to the Barrier, but the calm weather we had had all the time led us to suppose that the conditions would not be so bad as we had expected. We were therefore satisfied with the foundation dug in the Barrier. The outside of the hut was tarred, and the roof covered with tarred paper, so that it was very visible against the white surroundings. That afternoon we broke up both camps, and moved into our home, "Framheim." What a snug, cosy, and cleanly impression it gave us when we entered the door! Bright, new linoleum everywhere in the kitchen as well as in our living-room. Another important point had been got over, and in much shorter time than I had ever hoped. Our path to the goal was opening up; we began to have a glimpse of the castle in the distance.

Constructing the living quarters at Framheim.

AMUNDSEN LANTERN SLIDE 197: FM/JFO

Editor's note:

From Roald Amundsen's The South Pole:

The Terra Nova had come in at midnight. Our watchman had just gone below for a cup of coffee. There was no harm in that and when he came up again, there was another ship lying off the foot of the Barrier. He rubbed his eyes, pinched his leg, and tried other means of convincing himself that he was asleep, but it was no good. The pinch especially, he told us afterwards, was horribly painful, and all this led him to the conclusion that there really was a second vessel there. Lieutenant Campbell, the leader of the eastern party, which was to explore King Edward VII. Land, came on board first, and paid Nilsen a visit. He brought the news that they had not been able to reach land, and were now on their way back to McMurdo Sound. From thence it was their intention to go to Cape North and explore the land there. Immediately after my arrival Lieutenant Campbell came on board again and gave me the news himself. We then loaded our sledges and drove home. At nine o'clock we had the great pleasure of receiving Lieutenant Pennell, the commander of the Terra Nova, Lieutenant Campbell, and the surgeon of the expedition, as the first guests in our new home. We spent a couple of very agreeable hours together.

The Fram and Robert Falcon Scott's expedition ship the Terra Nova in the Bay of Whales on February 4, 1911.

AMUNDSEN LANTERN SLIDE 182: FM/JFO

Later in the day three of us paid a visit to the Terra Nova, and stayed on board to lunch. Our hosts were extremely kind, and offered to take our mail to New Zealand. If I had had time, I should have been glad to avail myself of this friendly offer, but every hour was precious. It was no use to think of writing now. At two o'clock in the afternoon the Terra Nova cast off again, and left the Bay of Whales. We made a strange discovery after this visit. Nearly all of us had caught cold. It did not last long only a few hours and then it was over. The form it took was sneezing and cold in the head.

Adolf H. Lindstrøm on his way from the Fram to take command of the kitchen in Framheim. Lindstrøm was the first man to have sailed round the continent of America, participated in Otto Sverdrup's expedition on the Fram (1898-1902) and in Amundsen's expedition through the Northwest Passage (1903-06).

AMUNDSEN LANTERN SLIDE 237: FM/JFO

On February 10, the last named party was off. We were four men, eighteen dogs and three sledges, fully laden with provisions. How well I remember that morning, when we for the first time made our way towards the south! It was calm and slightly overcast. Ahead of us the vast, endless snowplain; behind us the Bay of Whales with the great prominent icecapes, and the further end of the bay our dear Fram. The flag was hoisted, a last farewell from our comrades on board. Nobody knew when we should see them again. Most likely they would be gone when we returned, and then a year would elapse before we should see them. Another look behind, another farewell, and then southward.

This first trip of our on the barrier was an exciting one. What would the region be like? How about the sledging? Did we have the proper outfit? Did we have the right traction power? If our task should solved, everything had to be the best. Our equipment was essentially different from that of our English competitors. We pinned all of our faith to our dogs and skies. We travelled fast on the smooth, flat snow-plain. On the 14th we reached 80° S., having travelled a distance of 85 nautical miles (160 kiloms.) and established a depot, consisting chiefly of provisions to be used on our main march towards the south, when spring came. The weight of the provisions was 1200lbs. The return trip was made into two days.

The Fram just before their departure on February 10.

Amundsen lantern slide 182: FM/JFO

The first day we travelled 46 nautical miles (75 kiloms.), and the second day 50 nautical miles (93 kiloms.). On our arrival at the station, the Fram had sailed. The bay looked dreary and desolate. Seals and penguins had taken possessions of the place. Our first trip southward, however short, was of great importance. We now knew to a certainty that our equipment and traction power was of the very best. No errors had been made in the selection of same. Now it was for us to use them in the best manner possible.

We did not stay long at home. On the 22nd we were once more ready to carry our depôt toward the south. The intention was to take them as far south as possible.

We were eight men, seven sledges, and forty-two dogs. The cook alone stayed at home. On the 27th we passed the depôt in 80° S., where everything was in first-class order. On March 4, we made 81° S., and deposited there 1050 lbs. of provisions. From here three men returned, while five men continued their way southward and on March 8 reached 82° S., where 1250 lbs. of provisions were left. We then returned, and were at home again on the 22nd. Once more before the winter set in we were in the field, and carried 2200 lbs. of fresh sealmeat and 400 lbs. pleted, and all the depôts work had to come to an end. Up to this time we had carried 7500 lbs. of provisions, distributing them at three depôts.

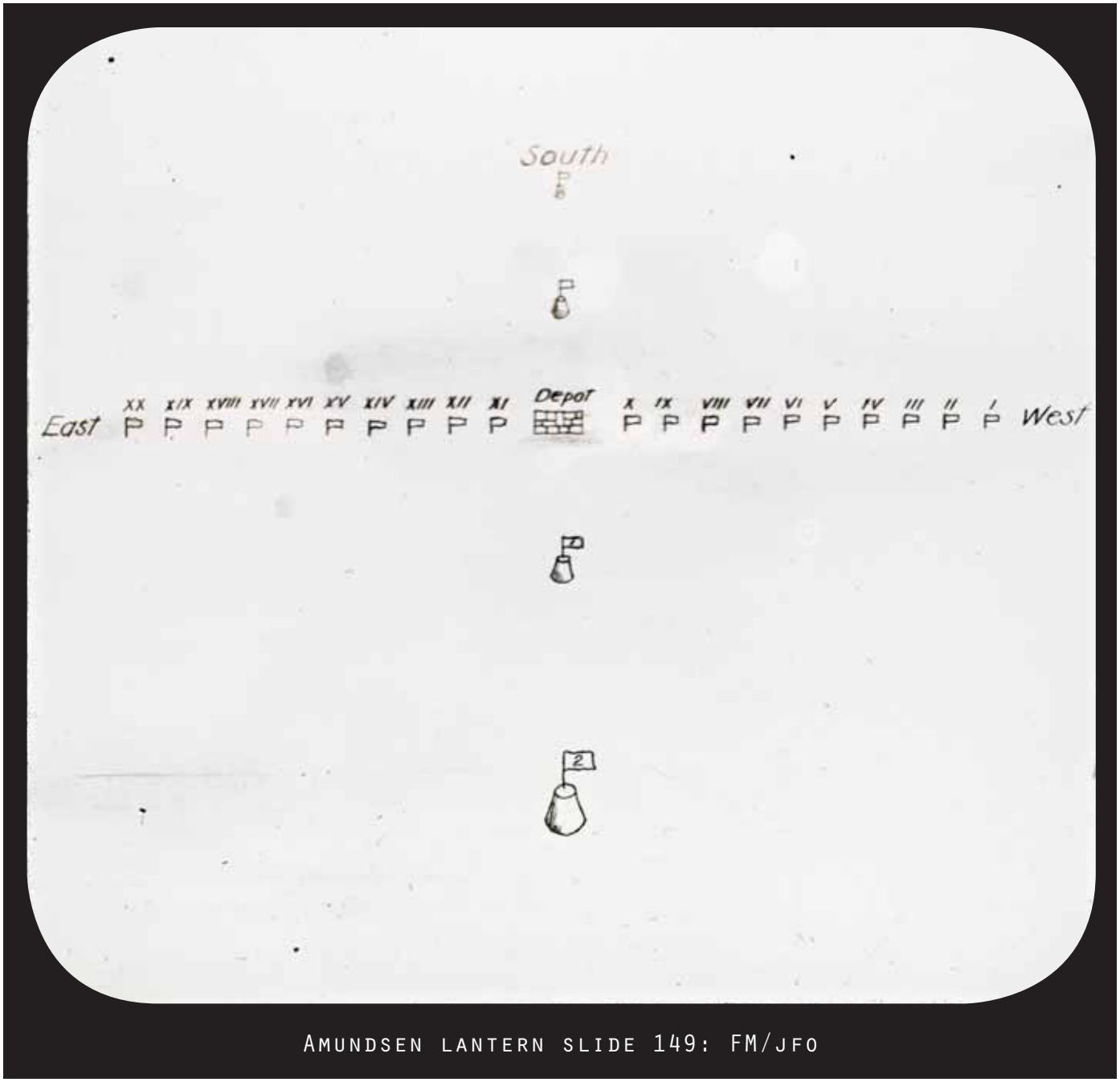
Some of the expedition members on the barrier. From the left: Alexander Kutchin, Thorvald Nilsen, Martin Rønne, Ludvig Hansen, Halvardus Kristensen, Adolf H. Lindstrøm, Fredrik Hjalmar Gjertsen, Karl Sundbeck, Karenius Olsen & Jacob Nødtvedt.

AMUNDSEN LANTERN SLIDE 180: FM/JFO

The part of the barrier over which we had travelled had an average height of about 150 feet, and looked like a smooth plain, rising in the great waves or undulations without characteristics marks of any kind. It has been the common opinion that depôts might not be laid out on such an endless plateau without an imminent probability of losing them. But if there should be any chance for us to reach our goal, we had to lay out depôts, and that even on a large scale. We talked much over the question, and arrived at the conclusion that we must use signals athwart our course instead of along it as commonly the case. Consequently, we put down a line of flags at right angles to our goal, that is, in an east-west direction, with the depôt as central point. Each of the three depôts was marked in this manner, 5 nautical miles (9 kiloms.) on each side of the depôt, and half a mile (1 kilom.) between each flag. Besides, all of the flags were marked, so that we, wherever we met them, were able to know in which direction lay the depôt and how far we were from it. This plan proved to be absolutely reliable, and even in the densest fog we succeeded in finding our depôts. Our compasses and distance meters were examined at the station, and we knew that we could depend upon them.

We had gained much on our depôt trips. Not only had we succeeded in carrying plenty of provisions southward, but we had acquired a lot of experience, which was possibly more important and came in handy on our perience???, which was possibly more important and came in handy on our final dash for the pole. The lowest temperature observed on these depôt trips was – 50 ° Fahr. Considering that it was still summer when this temperature was observed, it was a serious warning to us that we must have

Sketch of the depots and the signal flags placed on each side of the depot.



AMUNDSEN LANTERN SLIDE 149: FM/JFO

our equipment in good order. We had also seen that our solid, heavy sledges were too clumsy, and that without risk they could be lightened considerably. The same could be done with the greater part of our other outfit.

Some days more were spent on seal hunt, before the sun disappeared. The total weight of seals killed amounted to 120,000 Ibs. Thus we had provisions in plenty for ourselves as well as for our 115 dogs. The first thing we did was to give our dogs a shelter. We had brought with us ten very big tents, large enough to accommodate sixteen men. They were pitched on the barrier, after which the snow under each tent was dug out, 6 feet down, so the ultimate height of these dog houses became 18 feet. The diameter of the floor was 15 feet. Our intention in building these houses so large was to make them as airy as possible, in order to avoid the hoar frost so annoying to the dogs. We achieved our object. Even during the most severe period of the winter no frost could be noticed. The tents were always cozy and warm. Each tent had room for twelve dogs, and ever man had its own team to look after.

Having thus cared for our dogs, the turn came to ourselves. Mother nature had stretched out a helping hand, and we were not slow in catching it. In April the house was completely covered with snow. In this newly drifted snow were made excavations in direct communication with the hut. Thus we got large and spacious rooms without buying or fetching materials. There were workshops, forge, sewing room, packing room, a space for coal, wood and oil, ordinary bath and steam bath. However cold and stormy the winter might be, it would not annoy us at all.

Research on the ice-formation near Framheim.

AMUNDSEN LANTERN SLIDE 113: FM/JFO

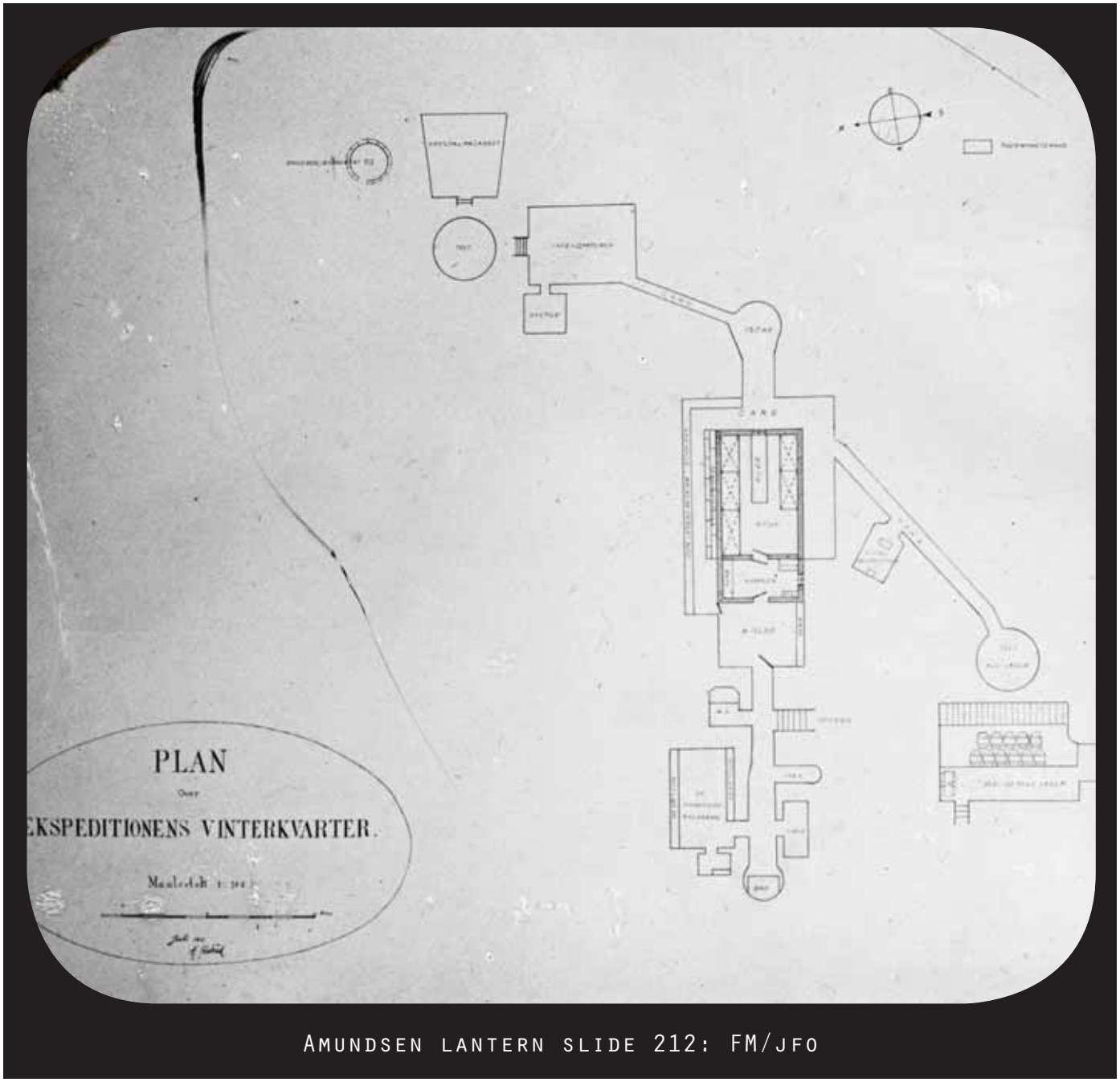
AMUNDSEN LANTERN SLIDE 187: FM/JFO

The village of Framheim.

AMUNDSEN LANTERN SLIDE 215: FM/JFO

AMUNDSEN LANTERN SLIDE 201: FM/JFO

The "city plan" for Framheim.



AMUNDSEN LANTERN SLIDE 212: FM/JFO

Amundsen lantern slide 217: FM/JFO

Amundsen lantern slide 216: FM/JFO

The passageway between the house and the coal tent.

AMUNDSEN LANTERN SLIDE 175: FM/JFO

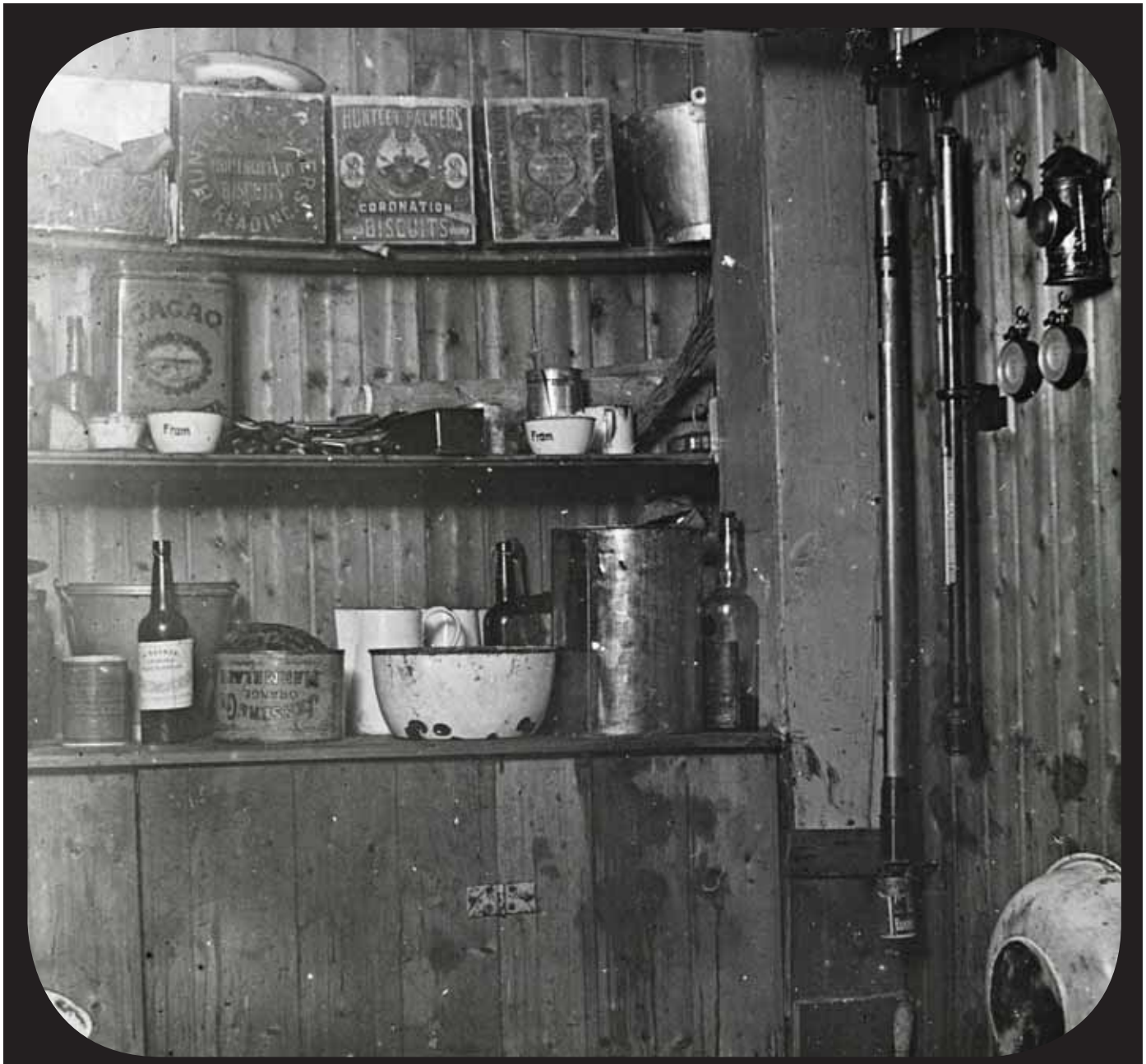
The entrance to the house.

AMUNDSEN LANTERN SLIDE 222: FM/JFO

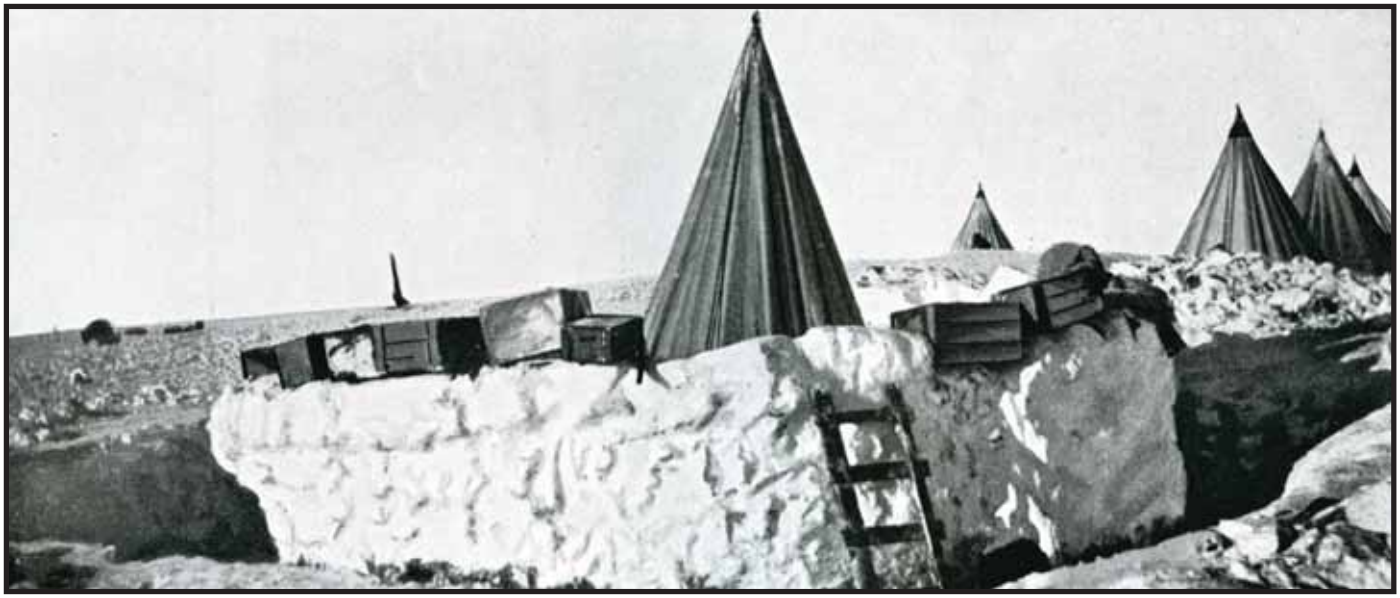
On April 21 the sun disappeared, and then began the longest night ever experienced by men in the Antarctic. We had no fear of meeting it. We had provisions enough for years, a cozy house well ventilated, well lighted, and well heated, with an excellent bath – a complete sanatorium, indeed. As soon as all these buildings were finished we began to make preparations for the final journey in the spring. Our business was to improve our equipment and reduce and reduce its weight. Thus we condemned all our sledges. They were too heavy and clumsy for the smooth surface of the barrier. The weight of such a sledge was 150 lbs. our skies and sledgemaker, Bjaaland, took care of the sledges and did all the necessary work concerning them, and when the spring came, a completely new sledge outfit was ready from his hand.

These sledges weighed only one-third of the original ones. In a like proportion we succeeded in reducing the weight of everything. Of the utmost importance was the packing of the provisions selected for the trip. It was the work of Captain Johansen during the winter. It had to be done with care and attention. Of the 42,000 biscuits that were packed, each and every one was turned in the hand, before the right place for it was found. In this manner the winter passed quickly and comfortably. Everyone had his hands full all the time; our house was warm and dry, light and airy; consequently, the health of everybody was excellent. We had no physician, and we didn't need one.

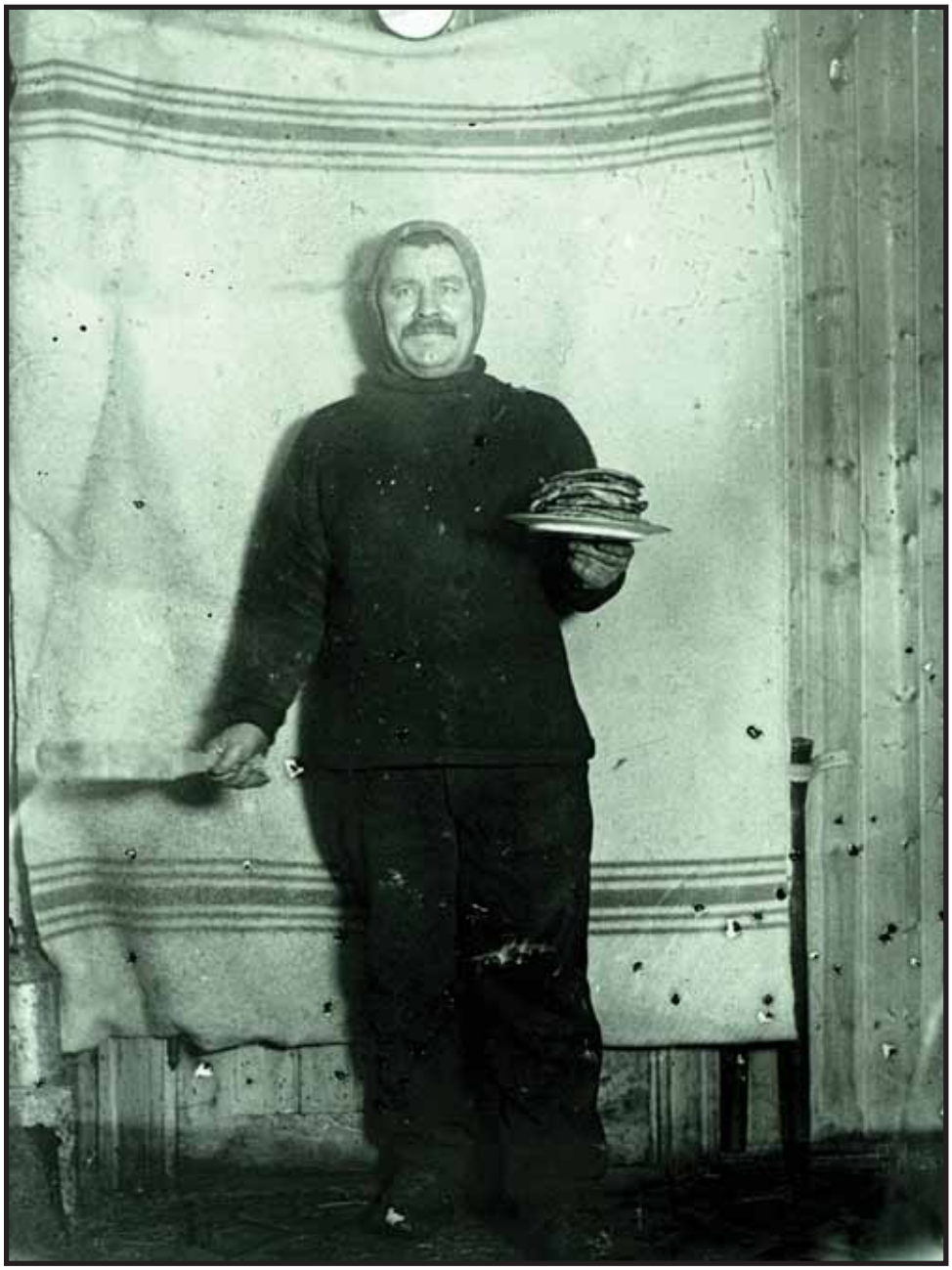
The kitchen in Framheim.



AMUNDSEN LANTERN SLIDE 119: FM/JFO



The meat storage tent. Photo FM



The polar chef, Adolf H. Lindstrøm, serving his speciality, hot cakes. Photo: FM

Amundsen lantern slide 199: FM/JFO

The crew testing their designer googles.

AMUNDSEN LANTERN SLIDE 218: FM/JFO

Framheim snowed in.

Waiting for Lindstrøm's latest culinary creation? Photo FM

Sverre Hassel in the oil storage.

AMUNDSEN LANTERN SLIDE 224: FM/JFO

Kristian Prestrud and Helmer Hanssen packing sledges in the "crystal palace".

AMUNDSEN LANTERN SLIDE 100: FM/JFO

Olav Bjaaland, Kristian Prestrud and Oscar Wisting strapping boxes to the sledges.
Photo: FM

Oscar Wisting at the sewing-machine.

AMUNDSEN LANTERN SLIDE 241: FM/JFO

Hjalmar Johansen boxes the biscuits and updates the inventory. Photo: FM

Hjalmar Johansen packing provisions in the "crystal palace".

AMUNDSEN LANTERN SLIDE 225: FM/JFO

Sverre Hassel assembles the steam bath. Photo: FM

Boot and binding were altered several times before the final sledging expedition.

AMUNDSEN LANTERN SLIDE 226: FM/JFO

Kristian Prestrud with the pendulum in his observatory Photo: FM

Olav Bjaaland shawing of weight from the South Pole sledges.

AMUNDSEN LANTERN SLIDE 223: FM/JFO

AMUNDSEN LANTERN SLIDE 121: FM/JFO

Olav Bjaaland .

Meteorological observations were taken all the time; the results were surprising. We believed that we should encounter unpleasant, stormy weather, but it proved to be contrary to expectations. During the whole year we stayed there we didn't have more than two moderate storms; for the rest calm and light breezes – mostly easterly. The atmospherical pressure was mostly very low, but steady.

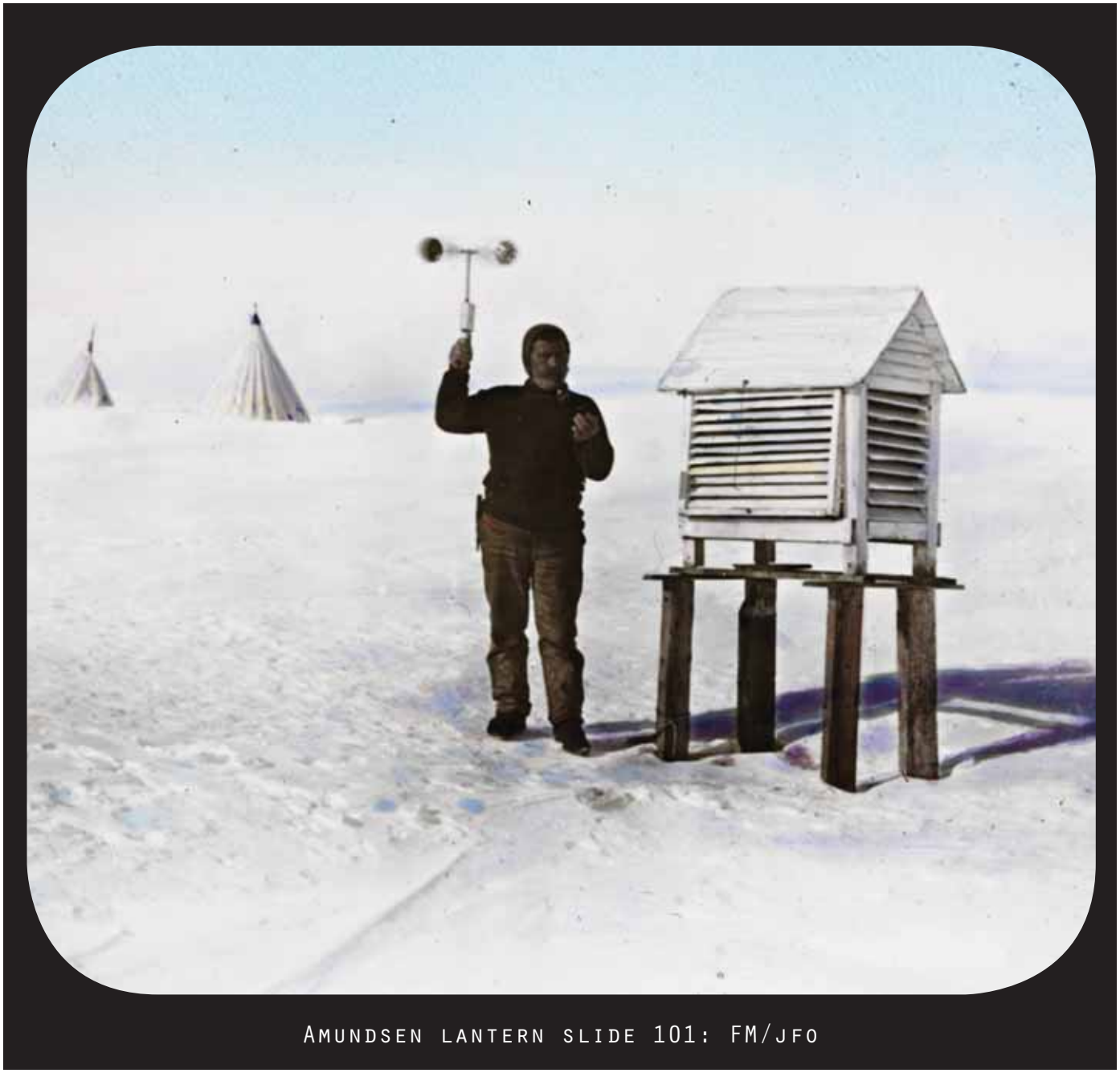
The meteorological screen.

AMUNDSEN LANTERN SLIDE 120: FM/JFO

The temperature became very low, and it is probable that the mean temperature for the year, - 14° Fahr. (-26° C.), which we observed, is the lowest mean temperature on record. In five mounts of the year we had temperatures below – 58° Fahr. (-50° C.). On August 13, we had the lowest temperature observed, - 74° Fahr. (-59° C.). The aurora australis was very frequent in all directions and shapes; it was extremely lively, but not very intense. There were, however, a few exceptions.

Inside one of the dog tents. Photo: FM

Adolf H. Lindstrøm, the meteorologist.



Amundsen lantern slide 101: FM/JFO

On August 24 the sun returned; the winter was over. Some days before we had all our things in full order, and when the sun peeped over the barrier everything was ready for a start. The dogs were in excellent condition, some of them to much so. From now we watched the temperatures daily. As long as the glass remained as low as -58° Fahr. – 50 ° C.), there could no question of starting. In the first day of September there was every sign that it would rise, and we therefore resolved to push off as soon as possible.

On September 8 we had a temperature of – 31 Fahr., and off we were. But this trip could not be one of long duration. On the following day the temperature began to go down rapidly, and within days we had – 72° Fahr. (- 58° C.). We human beings might have kept going for some time in this temperature, well clothed as we were, but our dogs could not stand it very long. We were therefore satisfied reach 80° south, and arriving there we laid all our provisions and outfit in the old depôt and returned to Framheim.

Now came a period of doubtful weather, the change from winter into spring, and we never knew what the next day would bring fourth.

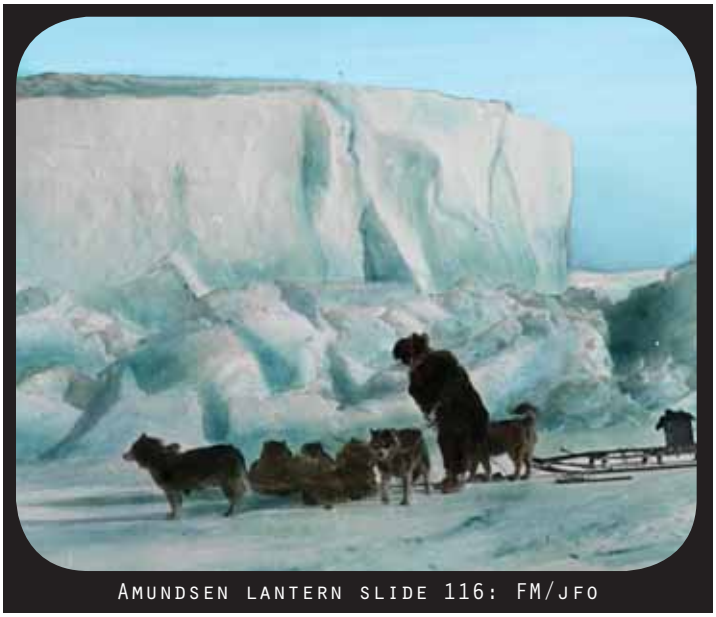
Some frost-bittens heels from the last trip forced us to wait until we knew for certain that the spring had come in earnest. On September 24 the first obvious signs of spring appeared – the seals began to go up on the ice. This sign was welcomed with rejoicing and not least the fresh seal meat, which Bjaaland brought in every day. The dogs also appreciated the sing of the spring. They were especially fond of fresh blubber. On the 29th appeared another and more obvious sign – a flight of Antarctic petrels; they were flying round the house, to the delight of the men as well as of the dogs.

The dogs were wild with joy and excitement ran after the birds and stupidly counted on a delicate bird for dinner; the hunt resulted in a wild fight. At last at October 20 the weather had settled so much that we were able to start. The original plan, that all of us should march southward, had to be changed during the interval. We understood that without risk we could divide into two parties, and in this manner do considerably more work. We had arrived at the decision, that three men should go east to King Edward VII's Land and examine it, while the other five should carry out the carry out the main plan – the dash for the pole.

Ready for the start of the polar journey

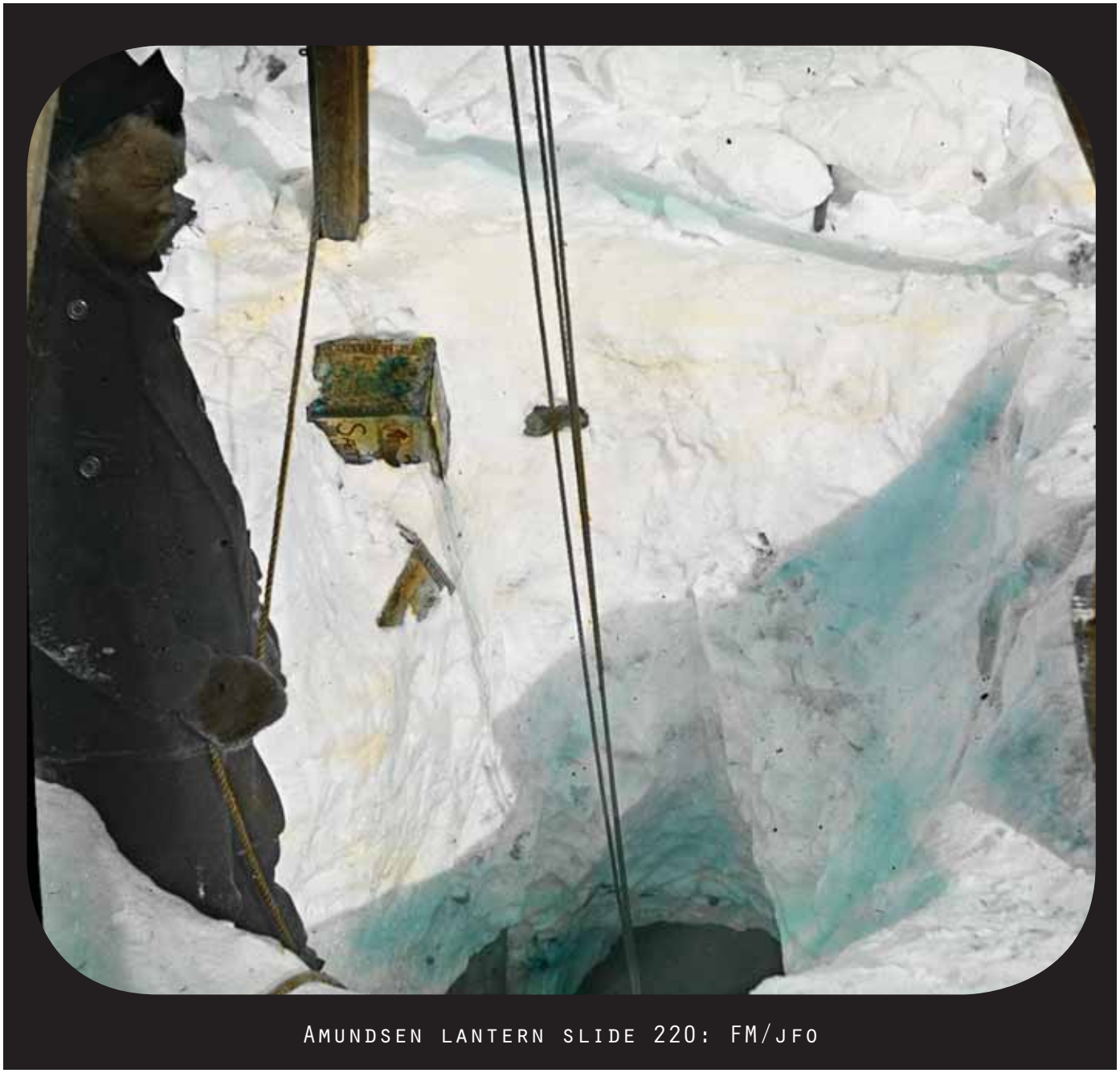
AMUNDSEN LANTERN SLIDE 221: FM/JFO

Hunting for seal close to the edge of the barrier.



AMUNDSEN LANTERN SLIDE 116: FM/JFO

Lifting the packed sledges up to the surface.



AMUNDSEN LANTERN SLIDE 220: FM/JFO

Editor's note:

From Roald Amundsen's The South Pole:

Hanssen's stands first, bow to the south; behind it come Wisting's, Bjaaland's and Hassel's. They all look pretty much alike, and as regards provisions their loads are precisely similar.

Case No. 1 contains about 5,300 biscuits, and weighs 111 pounds. Case No. 2: 112 rations of dogs' pemmican; 11 bags of dried milk, chocolate, and biscuits. Total gross weight, 177 pounds. Case No. 3: 124 rations of dogs' pemmican; 10 bags of dried milk and biscuits. Gross weight, 161 pounds. Case No. 4: 39 rations of dogs' pemmican; 86 rations of men's pemmican, 9 bags of dried milk and biscuits. Gross weight, 165 pounds.

Case No. 5: 96 rations of dogs' pemmican. Weight, 122 pounds. Total net weight of provisions per sledge, 668 pounds. With the outfit and the weight of the sledge itself, the total came to pretty nearly 880 pounds.

Hanssen's sledge differed from the others, in that it had aluminum fittings instead of steel and no sledgemeter, as it had to be free from iron on account of the steering-compass he carried. Each of the other three sledges had a sledgemeter and compass.

The depot at 80°S on October 23.

AMUNDSEN LANTERN SLIDE 135: FM/JFO

We were thus equipped with three sledge-meters and four compasses. The instruments we carried were two sextants and three artificial horizons, two glass and one mercury, a hypsometer for measuring heights, and one aneroid. For meteorological observations, four thermometers.

Also two pairs of binoculars. We took a little travelling case of medicines from Burroughs Wellcome and Co. Our surgical instruments were not many: a dental forceps and a beard-clipper. Our sewing outfit was extensive. We carried a small, very light tent in reserve; it would have to be used if any of us were obliged to turn back. We also carried two Primus lamps.

Of paraffin we had a good supply: twenty-two and a half gallons divided among three sledges. We kept it in the usual cans, but they proved too weak; not that we lost any paraffin, but Bjaaland had to be constantly soldering to keep them tight. We had a good soldering outfit. Every man carried his own personal bag, in which he kept reserve clothing, diaries and observation books. We took a quantity of loose straps for spare ski-bindings. We had double sleeping-bags for the first part of the time; that is to say, an inner and an outer one. There were five watches among us, of which three were chronometer watches.

Olav Bjaaland soldering a tank of paraffin.

AMUNDSEN LANTERN SLIDE 131: FM/JFO

October 20 was a fine day. Clear and mild; -1° Fahr. We were five men, fifty-two dogs, and four sledges. Our sledges were light, and the going was lively. It was not necessary to cheer the dogs, they were willing enough without. With our depôts in 80°, 81° and 82°, we had provisions enough for 120 days. Two days after our departure a series of accidents happened, Bjaaland's sledge falling down one of the many crevasses we had to pass over that day. He got assistance at the last moment, but it was in the nick of time, or his sledge with the thirteen dogs would have disappeared in the apparently bottomless pit.

On the fourth day we arrived at our depôt in 80° S. Here we rested two days and gave our dogs as much fresh seal meat as they could eat. Between 80° and 81° in the direction we went, the barrier is smooth and fine with the exception of a few low undulations, and there are no hidden dangers.

Quite different is it between 81° and 82°. On the first 15 miles we were in a perfect labyrinth of crevasses and pressure ridges, rendering the passage extremely dangerous. Big pieces of the surface have been broken off, and grinning abysses are met with everywhere. From these gulfs cracks are to be found in all directions, and the surface consequently is very unsafe.

We passed this bit of road four times. The three first times it was such a dense fog, that we could not see many yards ahead of us. Only the fourth time did we get clear weather, and we saw then what difficulties we had escaped. On November 5th we reached the depôts in 82°., and found everything all right. For the last time our dogs could get a good rest and plenty of food. And they got it thoroughly during a two-days' stay. In the 80° we commenced to build snow mounds, intended to serve as track marks on the homeward

The depot at 81°S on October 30.

AMUNDSEN LANTERN SLIDE 137: FM/JFO

trip. The mounds proved answer expectations, as by them we followed precisely the same route we had gone.

The barrier south of 82° was, if possible, still more smooth than the north of that latitude, and we were marching along at good speed. We agreed in laying down a depôt at each whole degree of latitude, on our way south. Undeniably we ran a risk in doing it, as there was no time for putting down cross-marks. But we had to be satisfied with the snow mounds and pin our faith to them. But, on the other hand, our sledges became so much lighter that they were never too heavy for our dogs. In 83° S., we sighted land in the south-westerly direction. It could be nothing else but South Victoria land, and probably a continuation of the mountain range, running in a south-easterly direction, as drawn by Shackleton in his chart. From day to day the land became more distinct, one peak more magnificent than the next one – being from 10,000 to 15,000 feet in height, sharp cones and sharp needle-like spurs. I have never seen a landscape more beautiful, more wild, and more imposing. Here a weathered summit – dark and cold – there snow and ice glaciers in a terrible chaos.

On November 11 we sighted land due south, and pretty soon ascertained that South Victoria Land in about 86°S. and 163°W. is met by a range trending east and north-east. This mountain range is considerably lower than South Victoria Land's mighty mountains. Summits from 2000 to 4000 feet were highest. We were able to see the range to 84°S., where it disappeared on the horizon. On the 17th we arrived at the spot where the ice barrier and the land are joined. We had all the time been steering due south from our winter quarters.

The depot at 82°S on November 4

AMUNDSEN LANTERN SLIDE 122: FM/JFO

The latitude was 85°, and the longitude was 165°W. the junction between barrier and land was not followed by any great disturbances. A few large undulations broken off at intervals by crevasses. Nothing there could impede our progress. Our plan was to go due south from Framheim to the pole, and not go out of the way unless natural obstacles should force us to do so. If we succeeded, we would be able to explore an absolutely unknown land, and to do good geographical work.

The nearest ascent due south was between the mighty peaks of South Victoria land. Obviously there were no serious difficulties in store for us. We might probably have found a less steep ascent if we had crossed over to the newly discovered range. But we had once taken the notion, that due south was the shortest way to the goal, and then we had to take the chances. On this spot we established our main depôt and left provisions here for thirty days. On our fourth sledges we carried provisions for sixty days. And up we went to the plateau. The first part of the ascent went over sloping, snow-covered mountain sides, in places rather steep, although not bad enough to prevent each team managing to haul up their own sledges. Further up we met with some short, but very steep glaciers, in fact, they were so steep that we had to harness twenty dogs to each sledge. But now they went lively enough in spite of precipices which were so steep that we had the greatest difficulty in climbing them on our skies. The first night we pitched camp at a height of 2000 feet. The second day we climbed mostly up some small glaciers, at camped at height at 4000 feet. The third day we unfortunately had to swallow the pill and descend about 2000 feet, being surprised by a large glacier running east-west, which divided the mountains we had climbed from the higher peaks further south.

AMUNDSEN LANTERN SLIDE 114: FM/JFO

Downhill the exhibition went again at a dizzy speed, and in a very little time we were down on the before-mentioned mighty glacier, Axel Heibergs glacier. That night our camp was about 3000 feet above sea-level. The following day began the longest part of our climb, we being obliged to follow Heibergs glacier. This glacier was in places filled with hummocky ice, the surface rising into hillocks and splitting into chasms, and we had to make detours in order to escape the broad chasms which open into great gullies.

The latter were of course mostly filled, the glacier apparently having stopped every movement long ago. But we had to be very careful, not knowing how thick was the layer that covered. Our camp that night lay in very picturesque surroundings, the altitude was 5000 feet above sae-level. The glacier here was in between the two 15,000-feet high mountains–Fridtjof Nansen and Don Pedro Christophersen mountains. To the west in the further end of the glacier rose mount Ole Engelstad to a height of 13,000 feet. The glacier was in this comparatively narrow passage very hummocky and broken by huge crevasses, so that our progress very often seemed to be impeded. On the following day we reached a light sloping plateau, what was supposed to be the plateau described by Shackleton. Our dogs performed that day a work so well that their superiority once for all must be admitted.

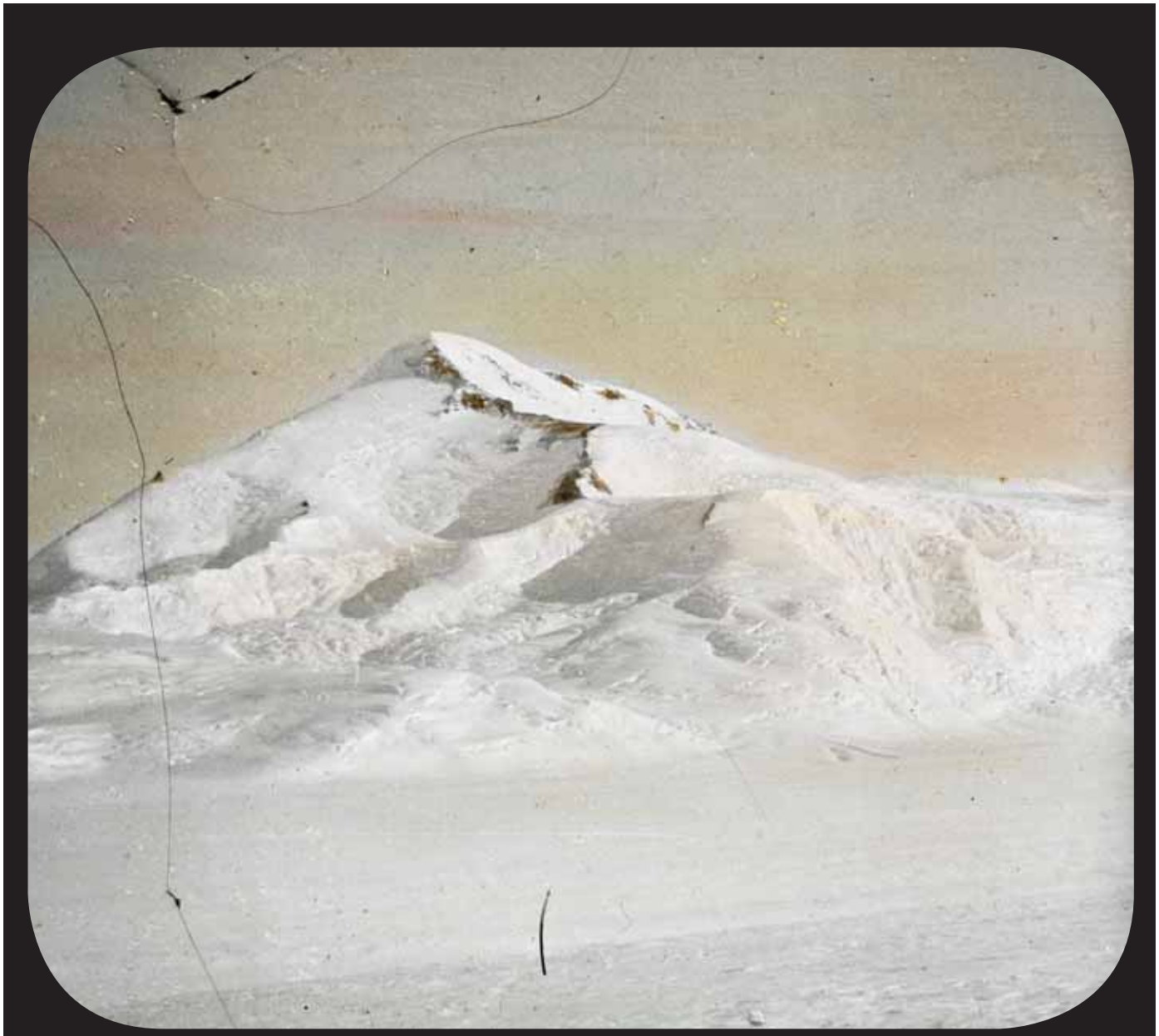
Added to the toil of the preceding weary days, they travelled this day 17 nautical miles (33 kiloms.), ascending 5600 feet. We camped that night in an altitude of 10,600 feet. Now the time had come when, unfortunately, we were obliged to kill some of our dogs. Twenty-four of our brave companions had to lay down their lives. We had to remain here for four days on account of bad weather.

Amundsen lantern slide 115: FM/JFO

When we at last broke up on November 26, we had only ten carcasses left, and these we laid in depôt. Some fresh provisions on our return trip would not do any harm. During the following days the weather was stormy and the snowdrift dense, so we were not able to see any of the surroundings. That much did we notice, that we were going downhill very fast. Once in a while when the drift lifted we saw high mountains due east.

In the dense snowdrift on November 28 we were close under two peculiar-looking crests of mountains, running north-south, the two only peaks we observed on our right side. Helland Hansens mountains were wholly snowclad and had a height of 900 feet. They became later on an excellent landmark. The gale slackened the next day and the sun shone through. Then it appeared to us as if we were transported to an absolutely new country. In the direction of our course trended a huge glacier. On its eastern boundary was a range running south-east-north-west. To the west the fog was dense over the glacier and hid even the nearest surroundings. The hypsometer gave 8000 feet above sea-level at the foot of "the Devil's Glacier," which means that we had descended 2600 feet from the Butchery. It was no pleasant discovery. Without doubt we would have the same climb again and probably more.

Ruth Gade's Mountain.



AMUNDSEN LANTERN SLIDE 229: FM/JFO

AMUNDSEN LANTERN SLIDE 123: FM/JFO

The Devil's Glacier.

The dogs Lussi, Karenius and Sauen (the Sheep).

AMUNDSEN LANTERN SLIDE 103: FM/JFO

We established a six-days' depôt and continued our march. From our camp that night we had a splendid view of the eastern mountain range. There was the most peculiar-looking peak I have seen. It was 12,000 feet high. The top of it was round in shape and was covered by a torn glacier. It looked as if nature in a fit of anger had showered sharp iceblocks on it. It was called Helmer Hansen Mountain, and became our best landmark. And there where Oscar Wisting, Olav Bjaaland, Sverre Hassel mountains, glittering dark and red, glaring white and blue in the rays of the midnight sun. In the distance appeared the romantic mountain-enormous to behold through the heavy masses of clouds and fog, which from time to time drifted over, now and then exposing to our view their mighty peaks and broken glaciers.

On December 1 we had left behind us this crevassed glacier, so full of hulls and bottomless chasms. Our altitude was 9100 feet. Ahead of us, and looking as a frozen sea in the fog and snowdrift, was a sloping ice-plateau studded with hummocks. The march over "The Devil's Dancing-room" was not entirely pleasant. Gales from south-east, followed by snowdrift, were of daily occurrence.

We saw nothing, absolutely nothing. The ground below us was hollow, and it sounded as if we were walking on the bottom of empty barrels. We crossed this unpleasant and ugly place as quick and as light of foot as possible, all the time with the unpleasant possibility of being engulfed.

On December 6 we reached the greatest height – 10,750 feet above sea-level, according to hypsometer and aneroid. From here the main inland plateau didn't rice anymore, but ran into an absolutely flat plain. The height was constant as far as 88° 25′, from where it began to slope down to the other side. In 88° 23` we had reached Shackleton's furthest south, and camped at 88° 25′. Here we established our last depôt-depôt No.10, and deposited 200 lbs. of provisions. Then it began to go very slow down-hill. The state of the ground was excellent, absolutely flat without undulation, hills and sastrugi. The sledging was ideal and the weather beautiful. We covered daily 15 nautical miles (30 kiloms.). There was nothing to prevent us from a good deal longer marches, but we had time and food enough, and considered it more prudent to save the dogs and not to overwork them. Without adventures of any kind we had latitude 89° on December 11.

Hoisting the Norwegian flag on Ernest H. Shackleton's Farthest South.

AMUNDSEN LANTERN SLIDE 124: FM/JFO

It seemed that we at a region with perpetually fine weather. The most obvious sign of constant, calm weather was the absolutely plain surface. We were able to thrust a tent-pole 6 feet down into the snow without being met with any resistance. It is a proof, clear enough, that the snow has fallen in the same kind of weather – calm or very light breeze. Varying weather conditions – calm and gale – would have formed layers of different compactness, wish soon have been felt, when one stuck the pole through the snow.

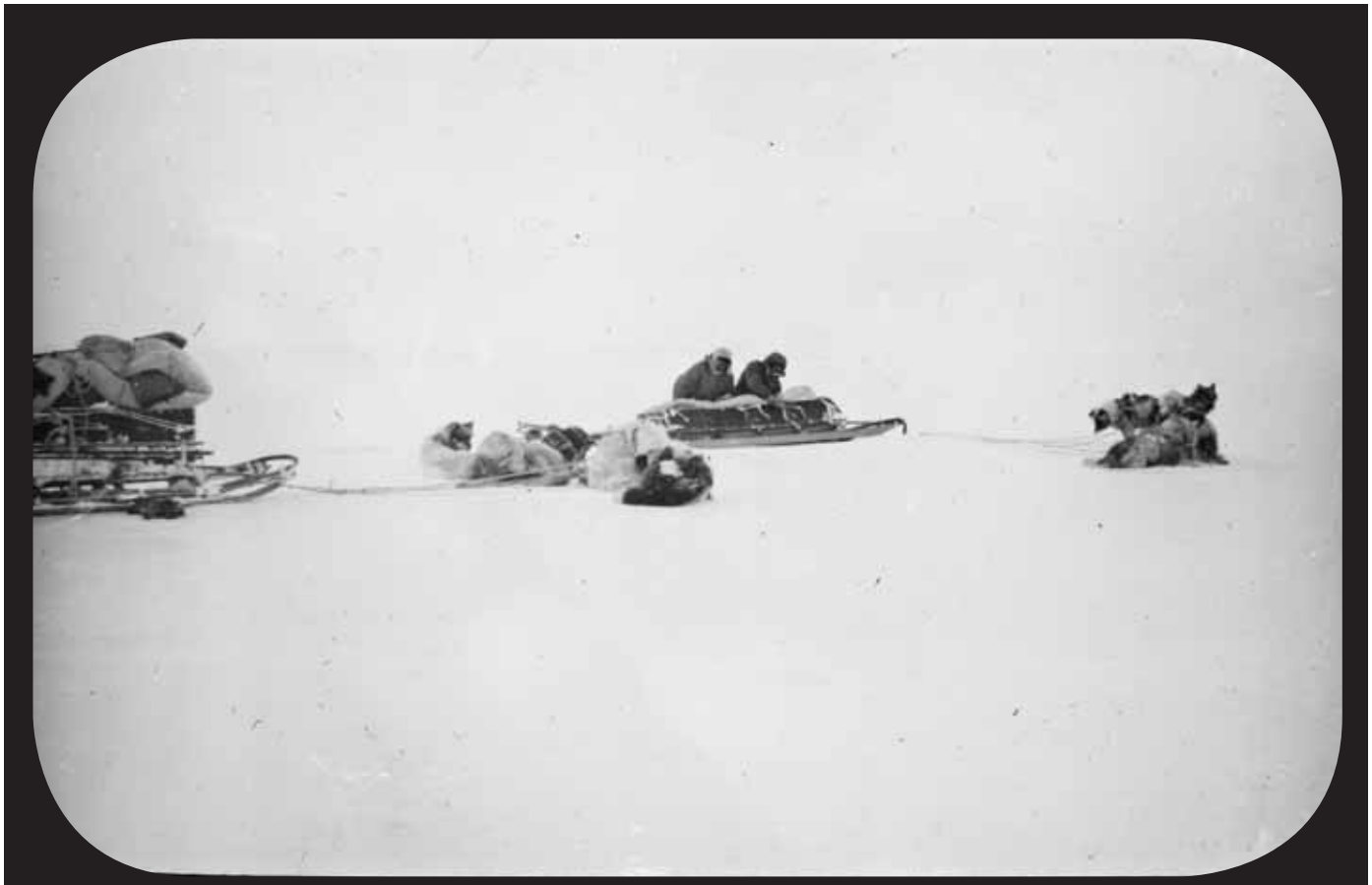
Dead reckoning and observations had always given like results. The last eight days of our outward march had sunshine all the time. Every day we stopped at noon to take a meridian latitude, and every day we took an azimuth observation. On December 13 the latitude gave 89° 37′ ; dead reckoning 89° 38′. In 88° 25′ we got the last good azimuth observations. Later on they were of no use. As the last observation gave pretty near the same result, the variation being almost constant, we used the observation taken in 88° 25′.

We made out, that we would reach the goal December 14. The 14th arrived. I have a feeling that we slept less, breakfasted at a greater speed and started earlier this morning than the previous days.

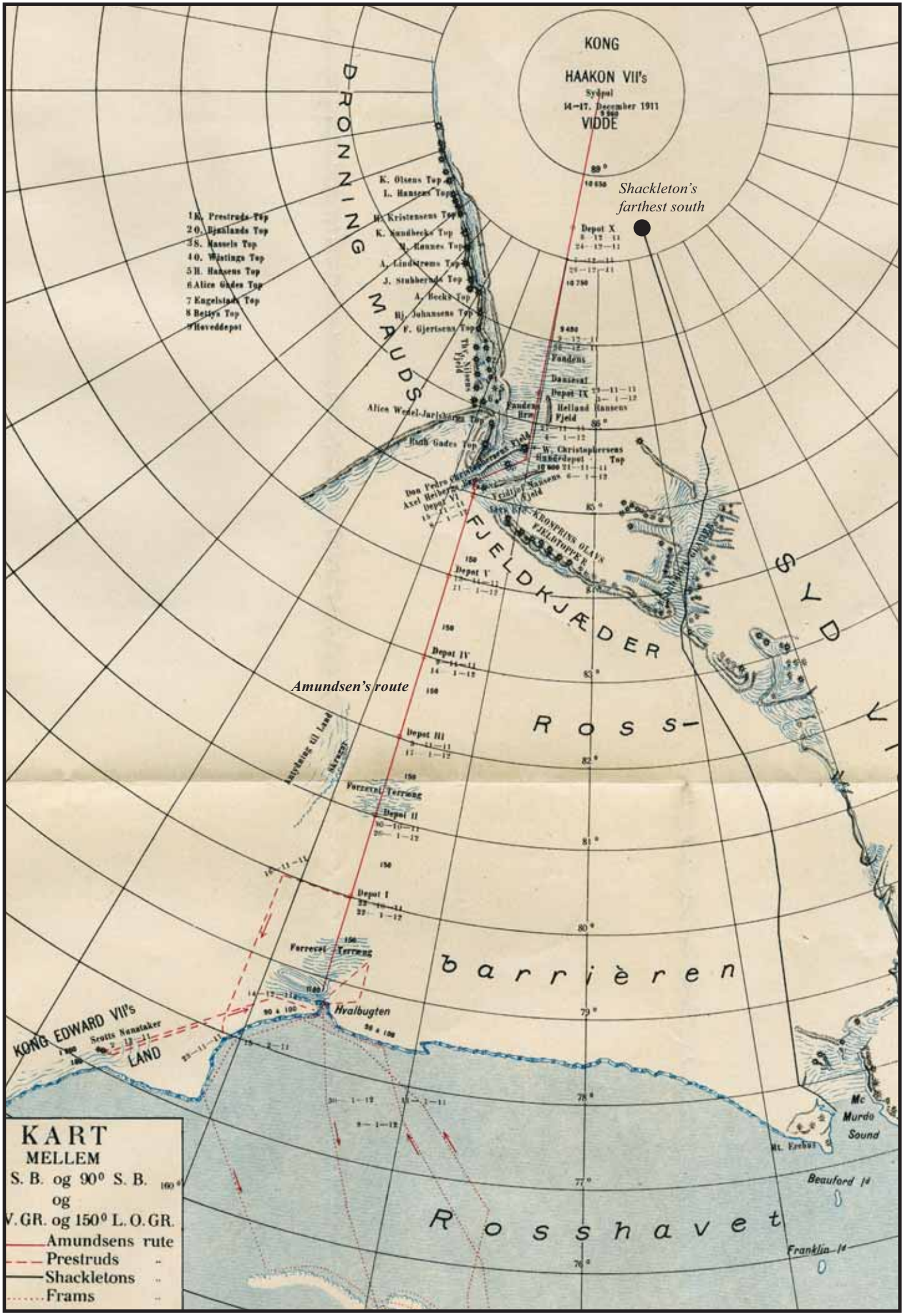
The day was fine as usual. Brilliant sunshine with a very gentle breeze. We made good headway. We didn't talk much. Everybody was occupied with his own thoughts, I think. Or had probably all of us the same thought? Which brought all of us to look and stare towards the south over the endless plateau. Were we the first or?

–Halt! It sounded like a sound of exultation. The distance was covered. The goal reached. Calm, so calm stretched the mighty plateau before us, unseen and untrod by the foot of man. No sign or mark in any direction. It was undeniably a moment of solemnity when all of us with our hand on the flag-staff planted the colours of colours of our country on the geographical south pole, on King Haakon the 7th plateau.

The critical moment over "The Devil's Ballroom".



AMUNDSEN LANTERN SLIDE 242: FM/JFO


KONG
HAAKON VII's
Sydpol
14–17. December 1911
VIDDE
Shackleton's
farthest south
Depot X
DRONNING MAUDS
FJELDKJÆDER
SYD
Amundsen's route
Depot V
Depot IV
Depot III
Depot II
Depot I
Fortsatt Terreng
Hvalbugten
KONG EDWARD VII's
LAND
barrièren
Rosshavet
Mc
Murdo
Sound
Beauford Is
Franklin Is
KART
MELLEM
S. B. og 90° S. B.
og
V. GR. og 150° L. O. GR.
Amundsens rute
Prestruds
Shackletons
Frams

During the night – according to our time – three men encircled our camp, the length of the semidiameter being 10 nautical miles (18 kiloms.), putting down marks, while the two others remained at the tent, taking hourly observations of the sun. these gave 89°55`. We might very well have been satisfied with the results, but we had plenty of time and the weather was so fine so why not try to observe the pole itself? On the 16th we therefore moved our tent the remaining 5 nautical miles (9 kiloms.) further south and camped there. We made everything as comfortable and snug as possible in order to take a series of observations throughout the twenty-four hours of the day. The altitudes were observed every hour by four men with sextant and artificial horizon.

The observations will be worked out at the Norwegian University. With this camp as centre we drew a circle with a radius of 4 ½ nautical miles (kiloms.) and marks were put down. From this camp we went out for 4 miles in different directions. A little tent we had carried with us in order to mark the spot was pitched here, and the Norwegian flag with the Fram pendant hoisted on the top of the tent. This Norwegian home got the name "Polheim" judging from the weather conditions, this tent may stay there for many years to come. In the tent we left a letter addressed to H.M. King Haakon the 7th, with information of what we had done. The next man will bring it home. Besides we left some clothing, a sextant, an artificial horizon and a hypsometer.

Roald Amundsen and Helmer Hanssen checking their position, using a sextant and an artificial horizon.

AMUNDSEN LANTERN SLIDE 126: FM/JFO

Editor's note:

Your Majesty, 15th December, 1911

Allow me to inform you that yesterday, on the 14th December, after a successful sledge journey from our winter quarters at Framheim, five men from the Fram expedition – myself included – arrived at the South Pole area. According to observations, the position was 89°57´30'' S. We left for the pole on 20th October with four sledges, 52 dogs and provisions for four months. We have ascertained the southernmost point of the Great Ross Ice Barrier [86°S], as well as the point where Victoria Land and King Edward VII Land meet. Victoria Land ends here, while King Edward VII Land continues southwards to 87°S, where we found an impressive chain of mountains with peaks up to 22,000 feet. I have taken the liberty – with your permission, I hope – of naming them the Queen Maud Range.

We have found that the great inland plateau begins to slope gently downwards from 89° S, with an altitude of approximately 10,750 feet.

Today we marked the geographical South Pole with a radius of 8 km and raised the Norwegian flag. We have called this gently sloping plain, on which we have succeeded in establishing the position of the geographic South Pole, King Haakon VII's Plateau, with, I hope, Your Majesty's permission.

We will start the journey back home tomorrow with two sledges and 16 dogs. We are well provided for with provisions.

Yours sincerely,

Roald Amundsen

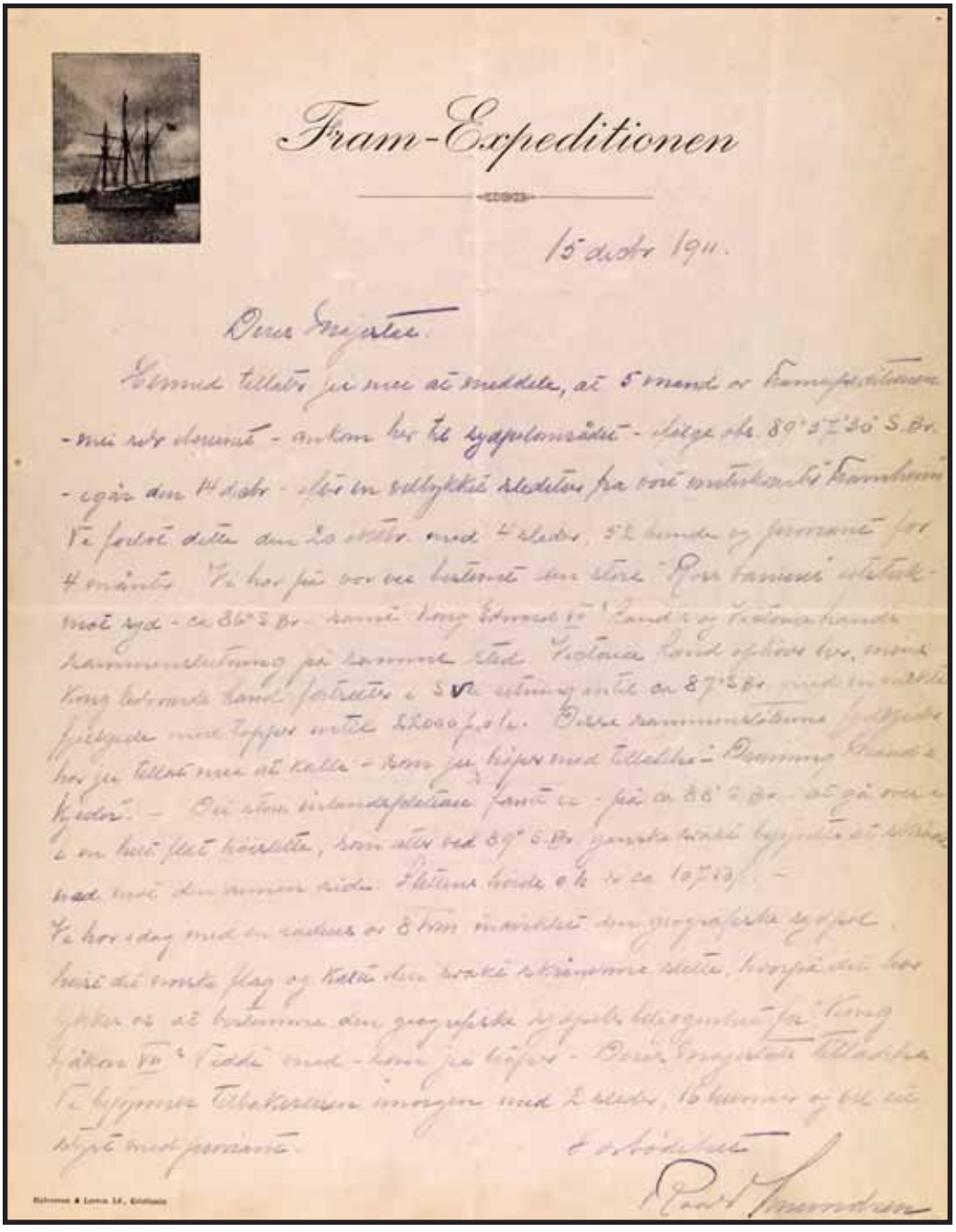


Photo: NB

On December 17 we were ready to start on the return journey. The outward journey had according to distance-meters a distance of 750 nautical miles (1400 kiloms.). the daily average speed had been 13 nautical miles (25 kiloms.). When we left the pole we had two sledges and seventeen dogs. Now we enjoyed the great triumph of being able to increase our daily rations, unlike earlier expeditions, all of which were obliged to go on short commons – already at a much earlier moment of time. The rations were also increased for the dogs, getting from time to time one of their comrades as an extra. The fresh meat had a recreating effect on the dogs and contributed, no doubt, to the good result.

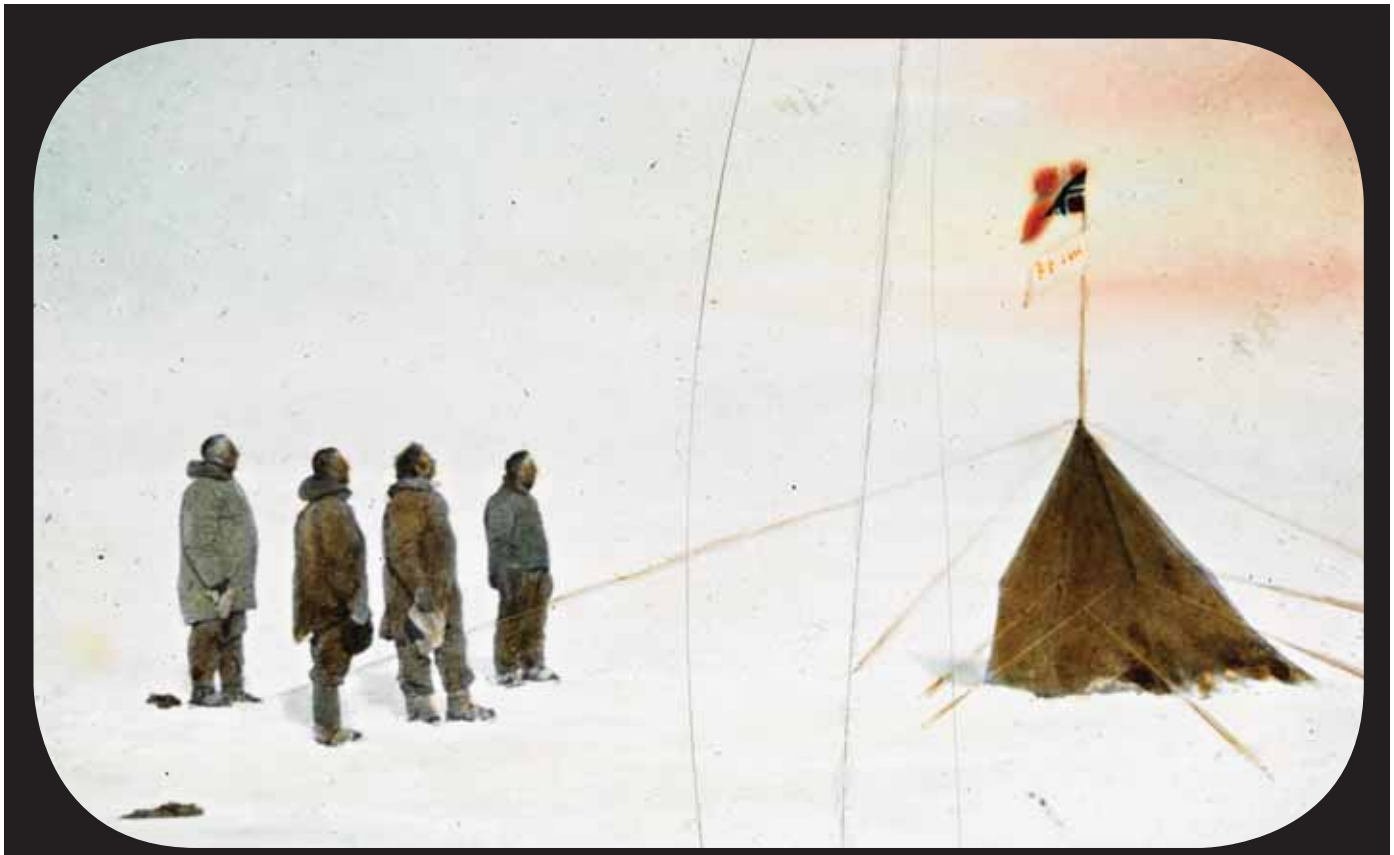
A last look and farewell to Polheim and then off. We see the flag yet. It was still waving at us. It is gradually diminishing. Then it disappears; a last good-bye from the little Norway on the South Pole. We left King Haakon's Plateau as we had found it, bathed in sunlight. The main temperature during our stay here was – 13 Fahr. (-25° C.). it felt much milder.

Oscar Wisting and his dogs.

AMUNDSEN LANTERN SLIDE 134: FM/JFO

Helmer Hanssen and his dogs at the South Pole.

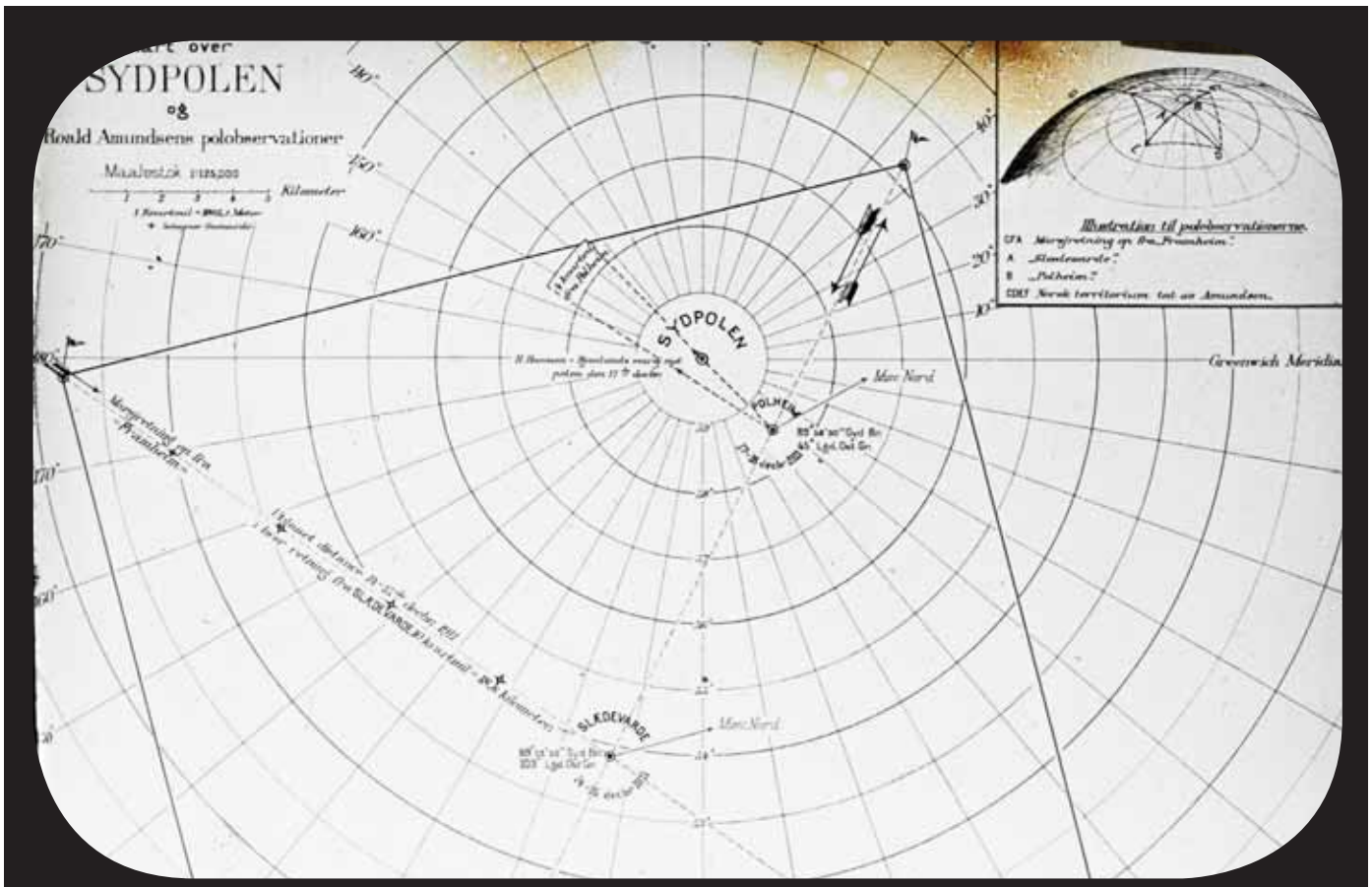
AMUNDSEN LANTERN SLIDE 132: FM/JFO



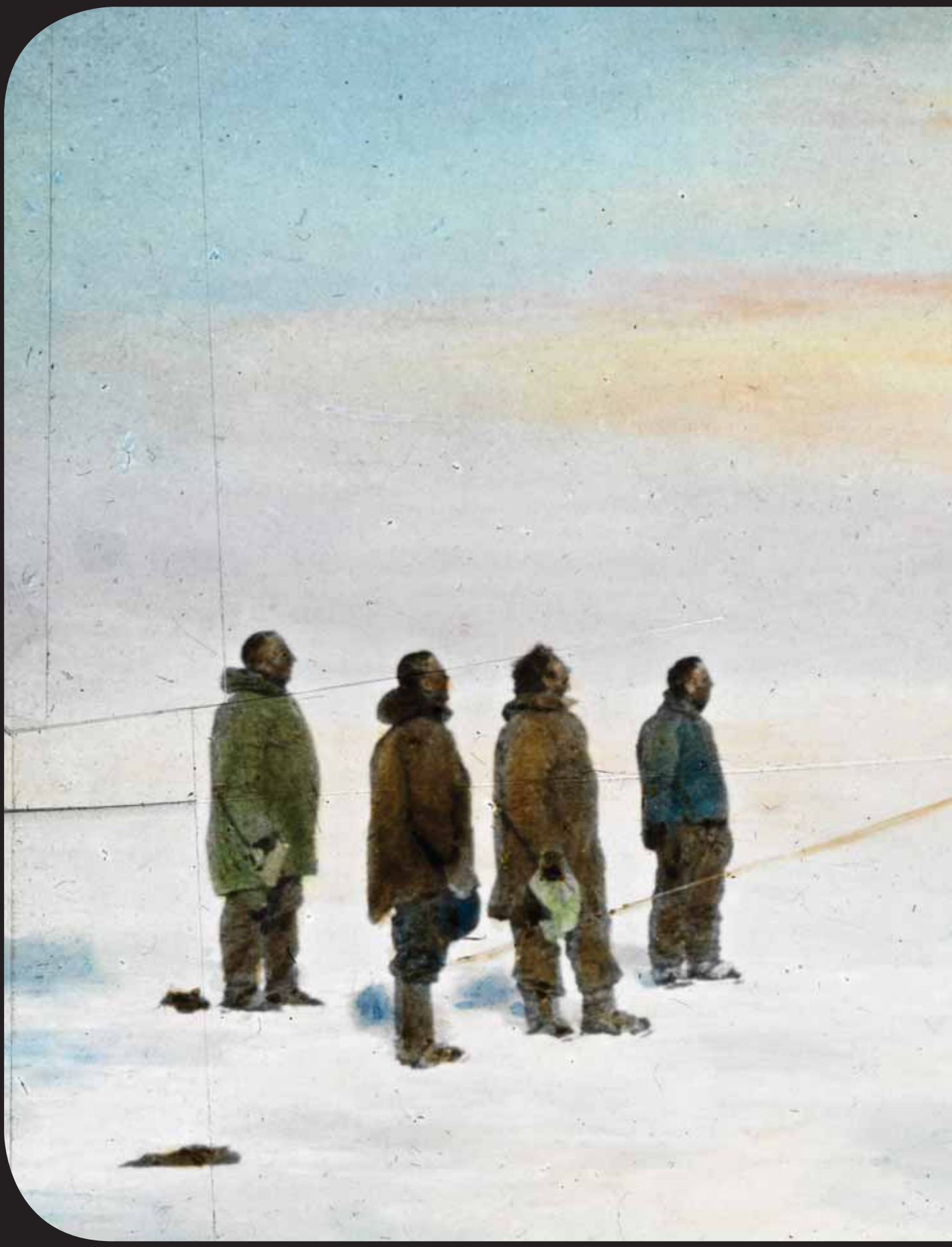
AMUNDSEN LANTERN SLIDE 231: FM/JFO

Roald Amundsen, Helmer Hanssen, Sverre Hassel and Oscar Wisting are ready to return to Framheim on December 17. Olav Bjaaland is taking the photo.

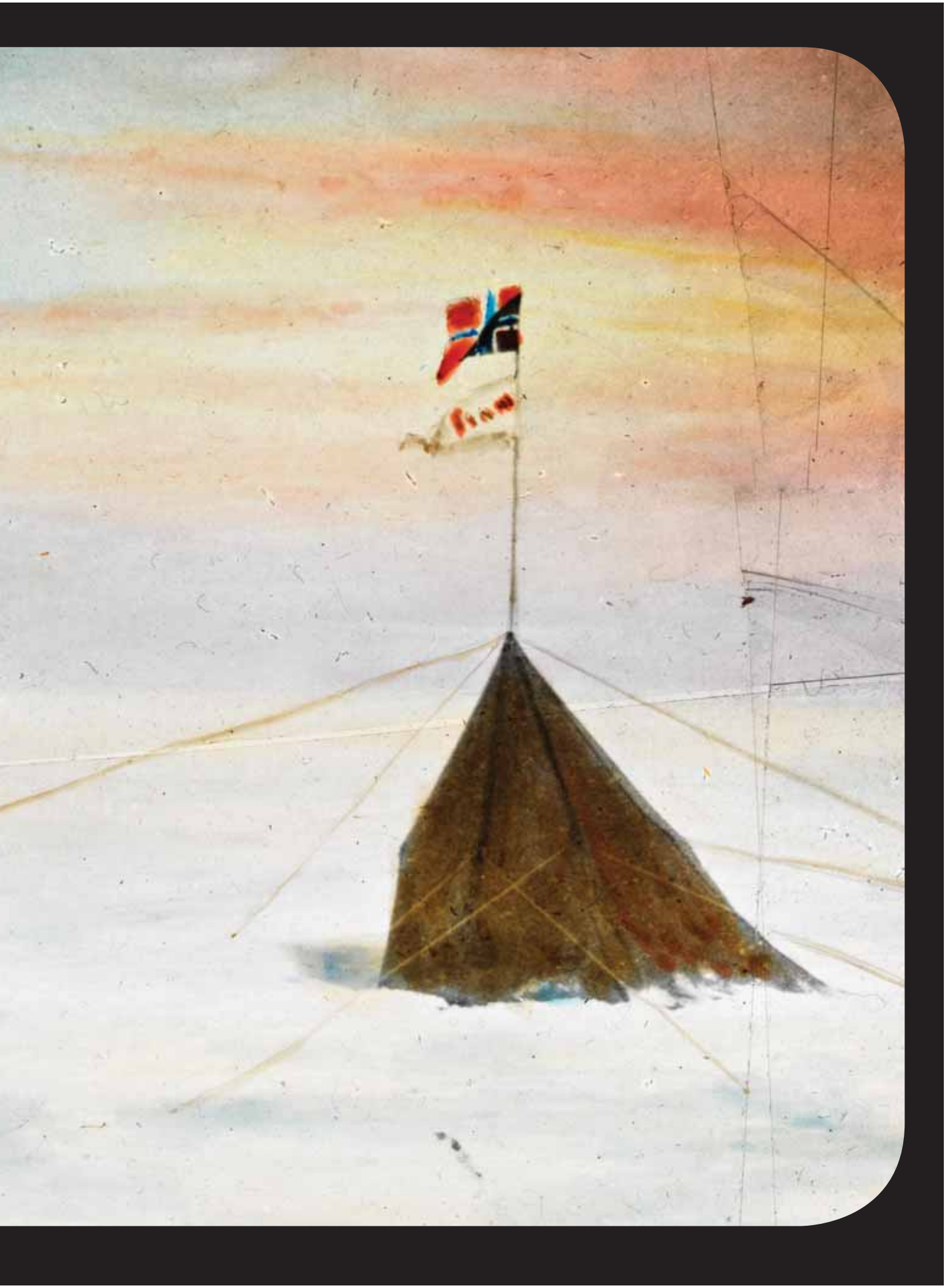
A chart showing the observations made at the South Pole.



AMUNDSEN LANTERN SLIDE 146: FM/JFO



Amundsen lantern slide 233: FM/JFO



Editor's note:

From Roald Amundsen's The South Pole:

Of course, there was a festivity in the tent that evening not that champagne corks were popping and wine flowing no, we contented ourselves with a little piece of seal meat each, and it tasted well and did us good. There was no other sign of festival indoors. Outside we heard the flag flapping in the breeze.

Conversation was lively in the tent that evening, and we talked of many things. Perhaps, too, our thoughts sent messages home of what we had done. Everything we had with us had now to be marked with the words "South Pole" and the date, to serve as souvenirs. Wisting proved to be a first class engraver, and many were the articles he had to mark. Tobacco in the form of smoke had hitherto never made its appearance in the tent. From time to time I had seen one or two of the others take a guid, but now these things were to be altered. I had brought with me an old briar pipe, which bore inscriptions from many places in the Arctic regions, and now I wanted it marked "South Pole." When I produced my pipe and was about to mark it, I received an unexpected gift: Wisting offered me tobacco for the rest of the journey. He had some cakes of plug in his kit-bag, which he would prefer to see me smoke. Can anyone grasp what such an offer meant at such a spot, made to a man who, to tell the truth, is very fond of a smoke after meals? There are not many who can understand it fully. I accepted the offer, jumping with joy, and on the way home I had a pipe of fresh, fine-cut plug every evening. Ah! that Wisting, he spoiled me entirely. Not only did he give me tobacco, but every evening and I must confess I yielded to the temptation after a while, and had a morning smoke as well he undertook the disagreeable work of cutting the plug and filling my pipe in all kinds of weather. The weather had brightened again, and it looked as if midnight would be a good time for the observation. We therefore crept into our bags to get a little nap in the intervening hours. In good time soon after 11 p.m. we were out again, and ready to catch the sun; the weather was of the best, and the opportunity excellent. We four navigators all had a share in it, as usual, and stood watching the course of the sun. This was a labour of patience, as the difference of altitude was now very slight. The result at which we finally arrived was of great interest, as it clearly shows how unreliable and valueless a single observation like this is in these regions. The arrangement now was that we should encircle this camp with a radius of about twelve and a half miles. By encircling I do not, of course, mean that we should go round in a circle with this radius ; that would have taken us days, and was not to be thought of. The encircling was accomplished in this way: Three men went out in three different directions, two at right angles to the course we had been steering, and one in continuation of that course. To carry out this work I had chosen Wisting, Hassel, and Bjaaland. Having concluded our observations, we put the kettle on to give ourselves a drop of chocolate; the pleasure of standing out there in rather light attire had not exactly put warmth into our bodies. On December 17 at noon we had completed our observations, and it is certain that we had done all that could be done. In order if possible to come a few inches nearer to the actual Pole, Hanssen and Bjaaland went out four geographical miles (seven kilometres) in the direction of the newly found meridian.

Bjaaland astonished me at dinner that day. Speeches had not hitherto been a feature of this journey, but now Bjaaland evidently thought the time had come, and surprised us all with a really fine oration. My amazement reached its culmination when, at the conclusion of his speech, he produced a cigar-case full of cigars and offered it round. A cigar at the Pole! What do you say to that? But it did not end there. When the cigars had gone round, there were still four left. I was quite touched when he handed the case and cigars to me with the words: "Keep this to remind you of the Pole." I have taken good care of the case, and shall preserve it as one of the many happy signs of my comrades' devotion on this journey. The cigars I shared out afterwards, on Christmas Eve, and they gave us a visible mark of that occasion. When this festival dinner at the Pole was ended, we began our preparations for departure. First we set up the little tent we had brought with us in case we should be compelled to divide into two parties. It had been made by our able sailmaker Rønne, and was of very thin windproof gabardine. Its drab colour made it easily visible against the white surface. Another pole was lashed to the tent-pole, making its total height about 13 feet. On the top of this a little Norwegian flag was lashed fast, and underneath it a pennant, on which "Fram" was painted.

Inside the tent, in a little bag, I left a letter, addressed to H.M. the King, giving information of what we had accomplished. The way home was a long one, and so many things might happen to make it impossible for us to give an

account of our expedition. Besides this letter, I wrote a short epistle to Captain Scott, who, I assumed, would be the first to find the tent. Other things we left there were a sextant with a glass horizon, a hypsometer case, three reindeerskin foot-bags, some kamiks and mits. When everything had been laid inside, we went into the tent, one by one, to write our names on a tablet we had fastened to the tent-pole. On this occasion we received the congratulations of our companions on the successful result, for the following messages were written on a couple of strips of leather, sewed to the tent "Good luck," and "Welcome to 90." These good wishes, which we suddenly discovered, put us in very good spirits. They were signed by Beck and Rønne. They had good faith in us. When we had finished this we came out, and the tent-door was securely laced together, so that there was no danger of the wind getting a hold on that side. And so goodbye to Polheim. It was a solemn moment when we bared our heads and bade farewell to our home and our flag. And then the travelling tent was taken down and the sledges packed. Now the homeward journey was to begin homeward, step by step, mile after mile, until the whole distance was accomplished. We drove at once into our old tracks and followed them. Many were the times we turned to send a last look to Polheim. The vaporous, white air set in again, and it was not long before the last of Polheim, our little flag, disappeared from view.

Kristian Prestrud ready for King Edward VII's Land.

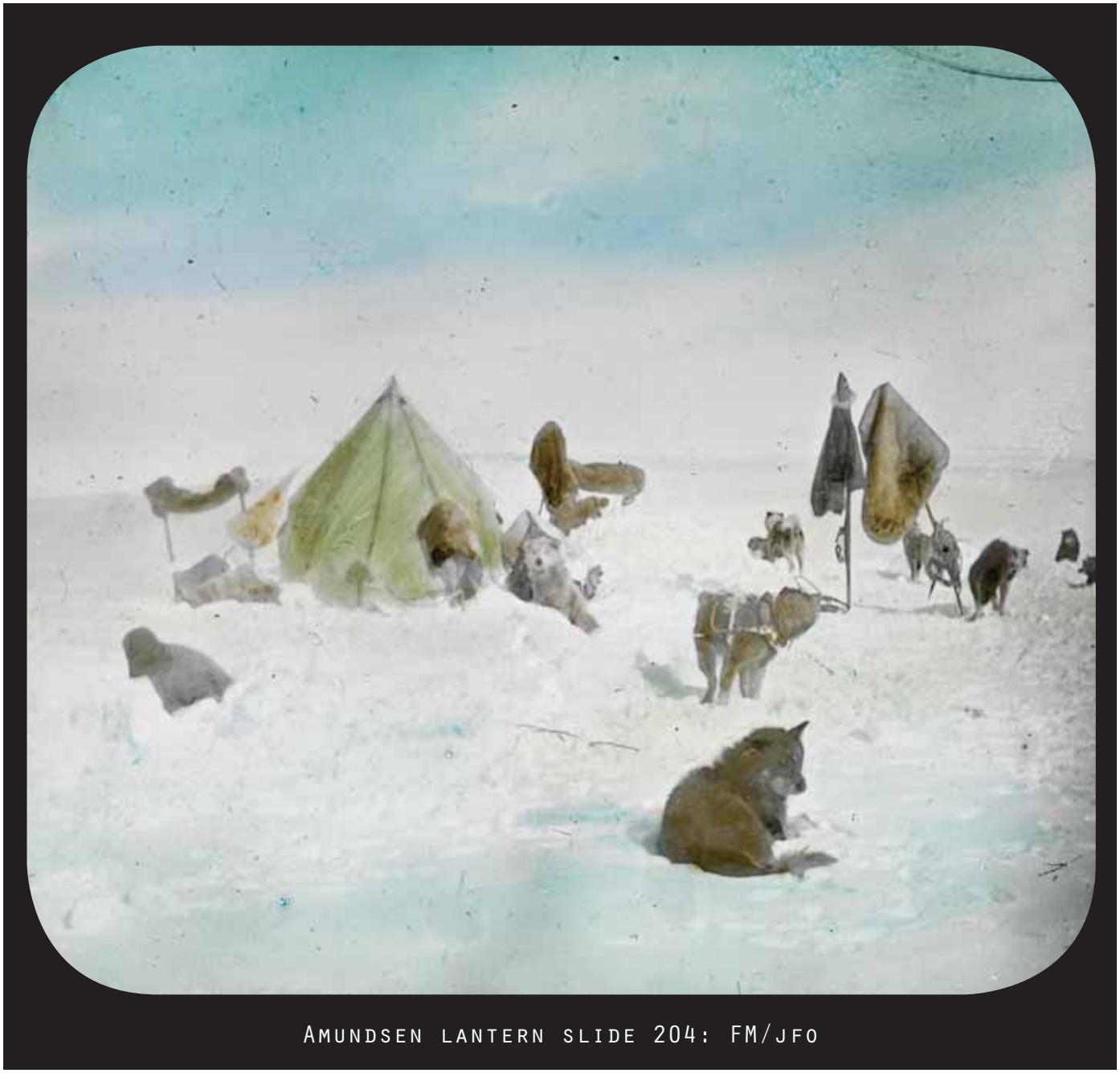
AMUNDSEN LANTERN SLIDE 105: FM/JFO

I am not going to weary the audience with detailed account of the return of the journey. I shall only mention a few incidents of interest. The beautiful weather we got on our homeward run exposed to our view the whole of the mighty mountain range, that is, the continuation of the two ranges joined n 86° S. the newly discovered range, trending in south easterly direction, was everywhere studded with peaks of height of from 10,000 to 15,000 feet. In 88° S. the range disappears on the horizon. The whole of the newly discovered mountain ranges – about 460 nautical miles (850 kiloms.)- has got the name "Queen Maud's range."

All the depots – ten in all – were found, and then abundant provisions, of which we at last had plenty, was taken along down to 80°, where they were deposited. From 86° we didn't go on rations, but everybody could eat as much as he liked. On January 25, we arrived at our winter quarters after an absence of ninety-nine days. The distance home, 750 nautical miles (1400 kiloms.) was thus covered in thirty-nine days without a single day of rest.

The daily average speed was 19,2 nautical miles (36 kiloms.). On our arrival we had two sledges and eleven dogs safe and sound. Not even a moment had we helped the dogs to pull the sledges. Our provision consisted of pemmican, biscuits, milk in powder and chocolate. Not much of a variation, but a healthy, nutritious food which invigorated the body, just what it needed. The best proof was, that we always felt well and were never raving about food, which has been so common in all longer sledge journeys and an infallible sign of deficient nourishment.

Prestrud, Stubberud and Johansen's camp on the barrier.



AMUNDSEN LANTERN SLIDE 204: FM/JFO

In the meantime Lieutenant Prestrud and his two companions had succeeded in doing excellent work to the east and in the neighbourhood in the Bay of Whales. They succeeded in reaching King Edward's land – discovered by Scott – and confirm what we had seen. Alexandra Mountains appeared to be a holly snow-covered crest – 1200 feet high – stretching in a south-easterly direction as far as the eye could see, the northern boundary being two bare peaks - Scott's Nanataks - 1700 feet high. This expedition's exploration of Framheim's surroundings is of great interest. It appears from their observation, that the Bay of Whales is formed by underlying land still snow-covered.

AMUNDSEN LANTERN SLIDE 127: FM/JFO

Johansen and Stubberud on the top of Scott's Nunatak in King Edward VII's Land.

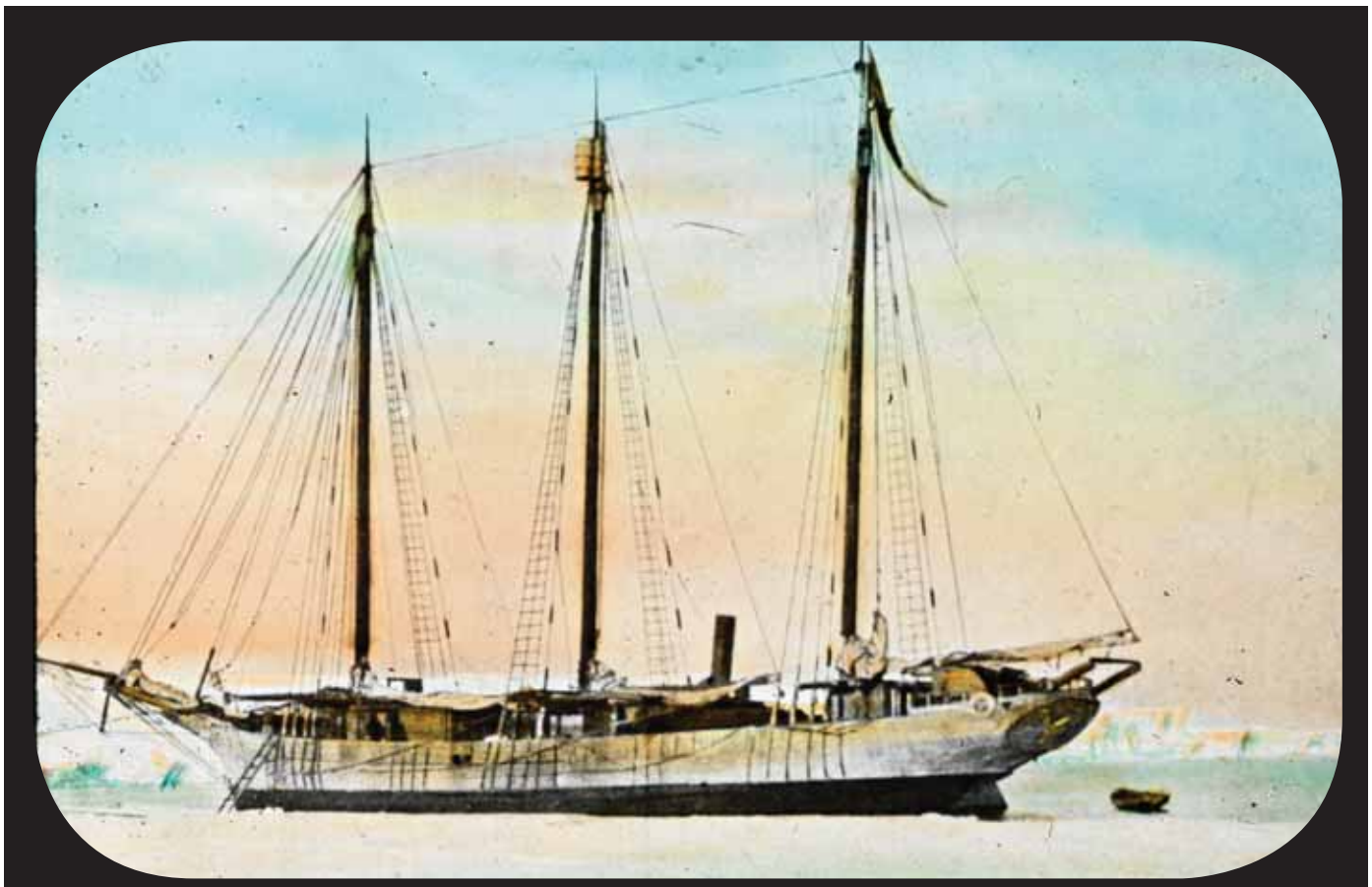
Stubberud and Johansen sounding through a crack in the ice using a hammer and a thin rope.

AMUNDSEN LANTERN SLIDE 128: FM/JFO

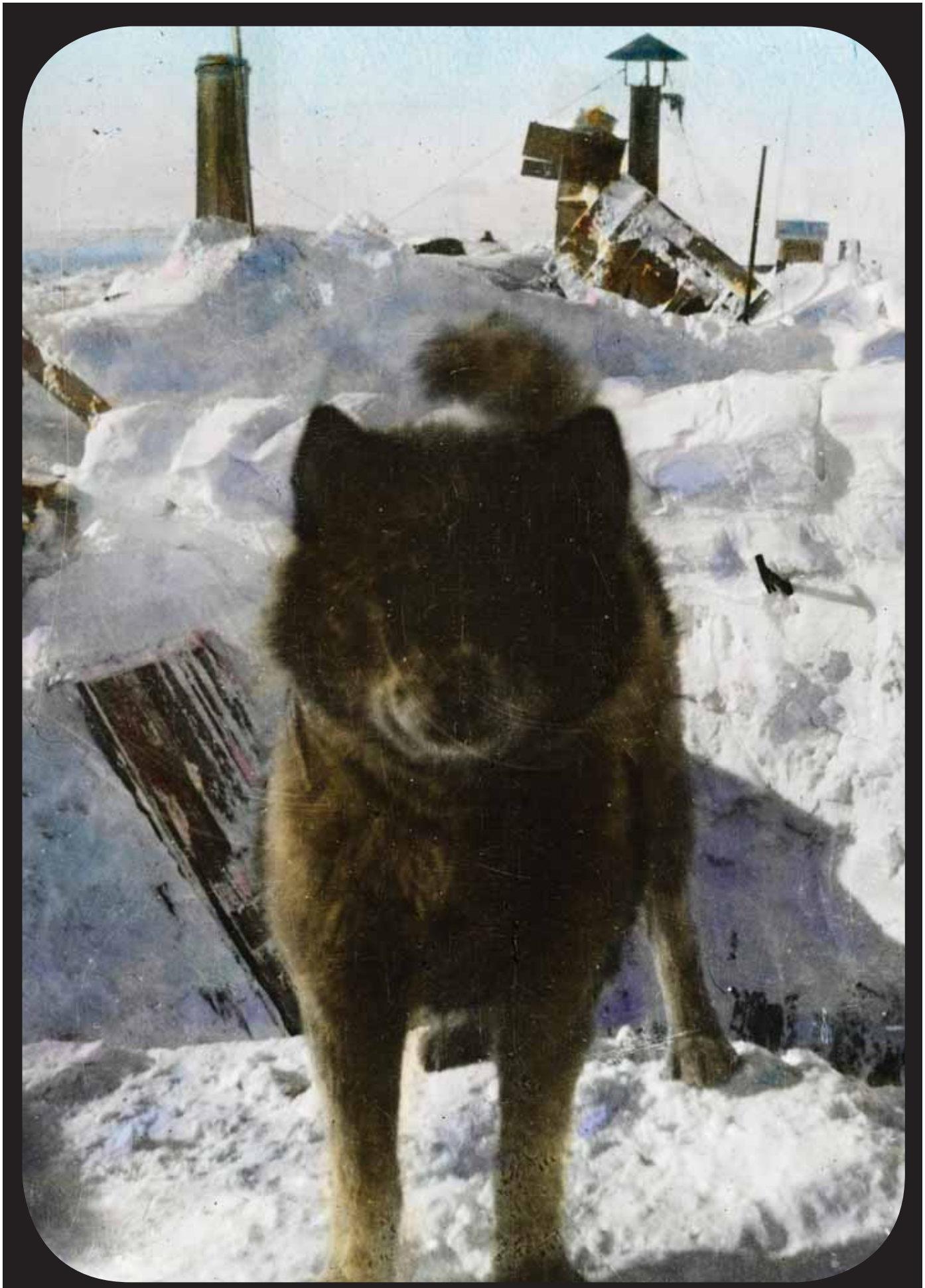
AMUNDSEN LANTERN SLIDE 219: FM/JFO

Framheim on the return of the South Pole party.

On January 16, 1912, the crew of the Fram met the Japanese expedition ship the Kainan Maru. It anchored near the Norwegian base.



AMUNDSEN LANTERN SLIDE 193: FM/JFO



Amundsen lantern slide 104: FM/JFO

Editor's note:

Nobu Shirase, the expedition leader of the Kainan Maru had originally intended to reach the South Pole but it was clear to him that he was now too far behind the other expeditions led by Roald Amundsen and Robert Scott. The second attempt at landfall on the Antarctic mainland began from Sydney Harbor on November 19, 1911. Now that the quest for the Pole was out of the question, attention was turned towards completion of scientific work and exploration at King Edward VII Land. They reached the Ross Ice Shelf on January 16, 1912. A party was sent ashore at a spot they named Kainan Bay but the ice was filled with so many crevasses that the safety of the men would be in constant jeopardy. Before long the men were startled to see another ship dead ahead.

At first they thought it might be a pirate but were subsequently reassured to learn that it was Amundsen's FRAM, which was waiting for Amundsen's return from the Pole. Visits were exchanged but language difficulties prevented any serious discussion.

A small party was sent ashore to investigate the ice and when they returned with encouraging reports Shirase decided to make it the starting point of his so-called Dash Patrol. On the first day blizzard conditions forced them to make camp after only eight miles. They struggled on, through terrible conditions, until January 28; they had covered 160 miles. The men stuck a Japanese flag, on a bamboo pole, into the ice and saluted the Empire with a threefold Banzai before burying a copper case containing a record of their journey. At this time Shirase made the wise decision to turn back for the ship.

The ship arrived Yokohama on June 20, 1912. The expedition had sailed over 30,000 miles since leaving Japan and despite not reaching the Pole, they had achieved all their other goals after departing from Australia. Their welcome in Yokohama was a tremendous reception. Source: Wikipedia.

Some of the members of the Japanese expedition on the barrier.

AMUNDSEN LANTERN SLIDE 205: FM/JFO

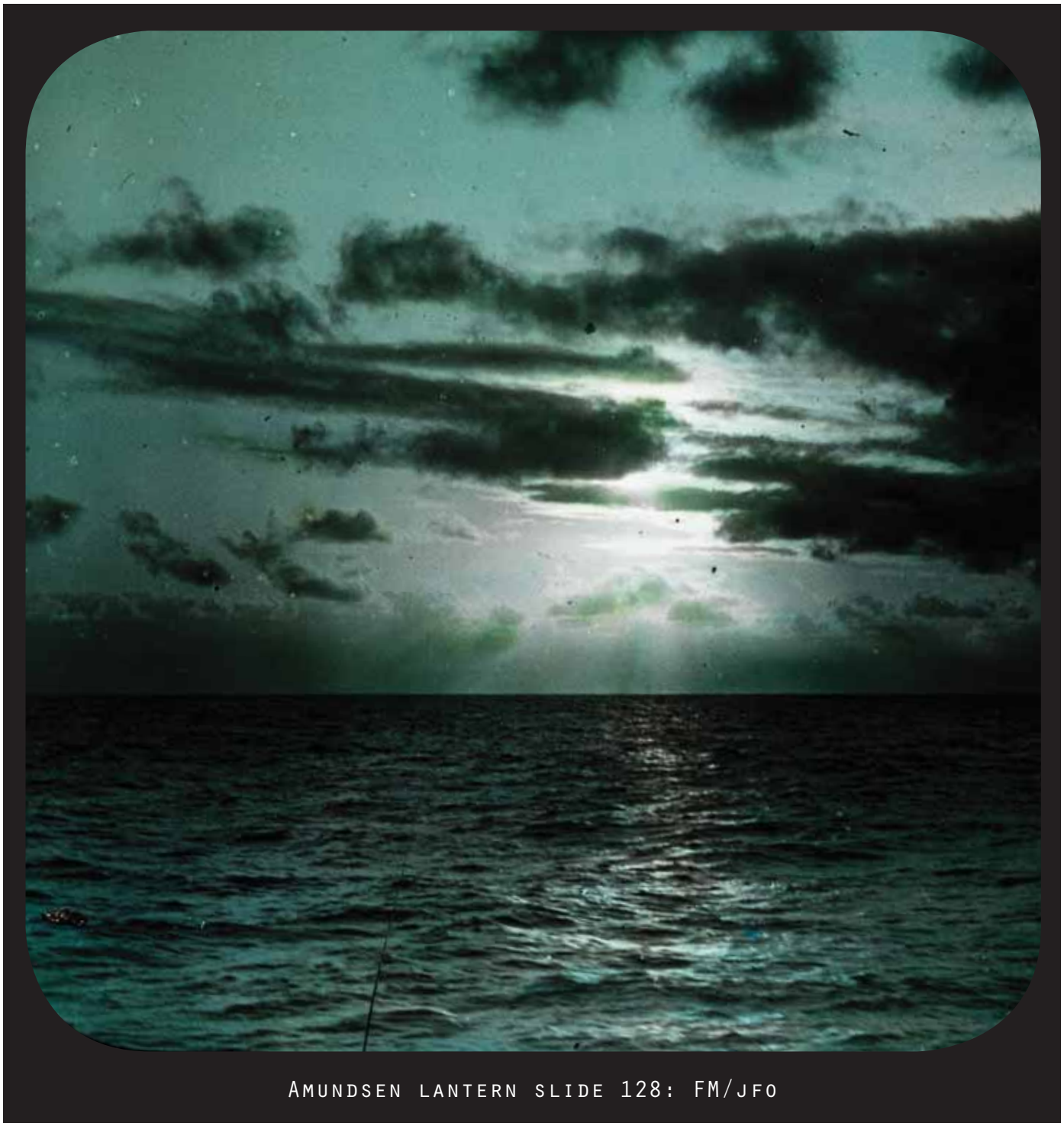
As the same time as our work inshore was going on, Captain Nilsen with his companions on the Fram succeeded in doing work with which, from a scientific point of view, probably will turn out to be the most valuable of the expedition. On an 8000 nautical miles' cruise from Buenos Aires to Africa and back, he took a series of oceanographic stations, sixty in all. Twice they circumnavigated the world, voyages full of dangers and toil. The voyage out of the ice in the autumn 1911 was a very serious character. They were ten men all told.

Through darkness and fog, cyclones and hurricanes, pack-ice and icebergs, it became their lot to beat their way out. Last but not least let me mention, that the same ten men, on February 15, 1911, hoisted the Norwegian flag further south than a ship has ever sailed before.

A fine record in the century of records:

- Farthest north, farthest south.

The open sea at last.



Amundsen lantern slide 128: FM/JFO

Amundsen lantern slide 140: FM/JFO

The crew of the Fram on the arrival in Hobart on March 7, 1912. Top row from the left: Sverre Hassel, Ludvik Hansen, Steller (signed on in Buenos Aires), Olav Bjaaland, Halvardus Kristensen, Martin Rønne, Andreas Beck, Oscar Wisting, Halvorsen (signed on in Buenos Aires), Knut Sundbeck. Middle row: Hjalmar Johansen, Kristian Prestrud, Roald Amundsen, Thorvald Nilsen, Hjalmar Fredrik Gjertsen, Helmer Hanssen. Bottom row: Adolf Henrik Lindstrøm, Jørgen Stubberud, Karenius Olsen, A. Olsen (signed on in Buenos Aires).

Before Roald Amundsen's lecture, the President of Royal Geographical Society, made the following introduction:

A year and an half ago, at our annual dinner in London, I said that I hoped it might fall to my lot during my term of office to offer the right hand and welcome to the discover of the South Pole; and that, whether he proved to be a Norwegian or an Englishman, or a Japanese – for all three countries had sent out expeditions to the Antarctic Region – it would be a proud day in history of geographical exploration and a happy day for myself. The occasion has arrived, and we are here to-night to welcome, and to receive an account from his journey from, Captain Roald Amundsen, the brave Norwegian who has carried off the prize.

Roald Amundsen is no stranger to us. Five years ago, in 1907, he received the highest honour that is in the power of our society to bestow, viz. our Gold Medal, for his splendid work in the North Polar region. He had just returned from devoting three years of arduous work with a small band of his compatriots to exploration in the neighbourhood of the North Magnetic Pole, which he relocated, and in a tiny vessel of less than fifty tons burden he had been the first to sail through the entire North-West passage from Atlantic to pacific – that passage which an Englishman, Sir Johan Franklin, had been the first to discover, which another Englishman, sir Robert McClure, had been the first to traverse, partly on the ice, from sea to sea.

The North Polar region has always been the special love of Captain Amundsen's life, and to it, I believe, he is still repaired to devote years of labour, drifting on that broad ocean current that has already carried his countryman and patron, Nansen so far; and thereby resuming the scientific work for which he has received such liberal support from his compatriots. In the interval, fired by the achievements of our countrymen, he diverged from his appointed path, and was suddenly heard of at the other end of the globe, camped on the Great Ice Barrier, with the famous Fram, Nansen's ship, which brought him, lying in the Bay of Whales. It was from this starting point that he had chosen band of his fellow-countrymen, five in number, finally started, on October 20, 1911, for that swift to the Pole, the incidents and the issue of which he is here to narrate to-night.

You will gain from his narrative and his slides a picture of that wonderful region; no frozen plain of snow and ice, except on the polar plateau itself – which is 10,000 feet above the level of the sea – but a land of mighty peaks 15,000 feet in height, of riven glaciers, and of formidable danger.

Our guest was attended throughout by a good fortune upon which we congratulate him: fine weather, sound health, a transport that never broke down, a commissariat that never failed. With these invaluable aids, he and his brave companions traversed the 750 miles that separated them from the South Pole and the same distance back with a speed that has never been equalled in the history of Polar exploration; and on December 14, 1911, he planted the flag of his country upon the Pole itself. I have seen the results of his scientific observations, which have been carefully worked out by the learned Prof. Alexander, of Christiania, and there can not be a doubt that, thought the Pole itself is not a spike or spot in the ground visible to the naked eye, Amundsen and his men crossed and recrossed the actual site.

But pray do not imagine that luck or good fortune is the sole or the main ingredient in such a success. Polar triumphs are not compassed without originality in conception, or without running great human risk; they are not achieved without a courage, a patience, and an endurance that dignify humanity; above all, their main justification lies in addiction that they make the sum total of human knowledge. The whole lifetime of Captain Amundsen has been a scientific preparation for successful accomplishment, in the laboratory, on the sea, and amid Polar ice and snow.

He will now himself tell us the tale of his adventures and their results. It is my agreeable task to say that as Englishmen we do not grudge to a Norseman the success wish is not inaptly won by the descendant of a race of born explores and traditional pioneers. We know no jealousy – though there is abundant emulation – in the field of exploration; and even while we are honouring Amundsen this evening, I am convinced that his thoughts no less than ours, are turning to our brave countryman; Captain Scott, still shrouded in the glimmering half-light of the Antarctica, whose footsteps reached the same Pole, doubtless only a few weeks later than Amundsen, and who with unostentatious persistence, and in the true spirit of scientific devotion, is gathering in, during an absence of three years, a harvest of scientific spoil, which when he returns will be found to render his expedition to the most notable of modern times.

The names of these two men will be perpetually linked, along with that of a third, Sir Ernest Shackleton, in the history of Antarctic exploration, and two of the three we shall have the pleasure of hearing to-night.

I will now call up Captain Amundsen to read his paper.

After the lecture there was a list of speakers:

Ernest H. Shackleton (1874-1922). Photo: FM

Sir Ernest Shacleton:

I will be very brief over this, because time is getting late. It is very easy to move a vote of thanks after hearing a lecture such as this, and all I can say is that I congratulate Captain Amundsen most heartily on the way he has told the story and one the way he has done the work. Lord Curzon, at the beginning of the lecture, said that a great point about it was organization and efficiency of equipment, at that seems to have been the keynote of the whole expedition, and it is by efficiency, not only by good luck, that such an expedition can come to a successful conclusion.

Of course, I say quite frankly that we all here no doubt wish it had been a British expedition that got there first, but non the less we are proud of Amundsen having got there, and we can all recognize that not only has he done the work well, but was supported by loyal comrades.

There is one thing – throughout the lecture to-night I never heard the word "I" mentioned; it was always "we". I think that that is the way which Amundsen got his men to work along him, and it brought the successful conclusion.

I have nothing more to add but to give a vote of thanks to Captain Amundsen for the splendid lecture and the work he has done so well, and which everyone in the world must be proud of.

The President:

I am going to ask Dr. W. S. Bruce, one of our most successful scientific explorers, who himself has been three times to the Antarctic Regions, besides being one of our Gold Medallists, to second the vote of thanks.

Wiliam Speirs Bruce (1867-1921). Photo: FM

Dr. W. S. Bruce:

It gives me very great pleasure indeed to second the vote of thanks which Sir Ernest Shackleton has so ably proposed. We have listed to Captain Amundsen's account of his work in the South Polar regions with intense interest, thought one feels that he has really told us very little in proportions to all he has done. Thinking of the fine record from the athletic point of view, one and all of us agree in giving all praise to Captain Amundsen for his successful efforts in that direction. But this Society must do something more than that, and it has done so this evening in recognizing the valuable scientific work Captain Amundsen has done in the South Pole regions. He has twice traversed a course of more than 900 miles ever land and ice, which no human being has ever traversed before; and has consequently brought back entirely new geographical information of an extensive unknown portion of the Earth's surface, thus adding to the sum of human knowledge in a most important manner.

The map he showed us and the pictures of the lands in those regions were of the greater interest. It is of special importance that I have heard from him to-day that he has succeeded in bringing back rock-specimens, not only from south of 85° S., but from king Edward Land, which may give us the clue to the whole geology of the Antarctic continent on that side of the pole. The most important is that he has found the mountain range that Shackleton discovered extending to the south-east as far as 80° S., and also that from a point in 86° s. he has found a range stretching to the north-east.

He also saw an "appearance of land" between that range and Edward Land to the east of his track in 83° S. That solves a very important problem; for there are two theories of the Antarctic continent which have advocated in recent years. The one is that there is one land-mass, and the other that there are two land-masses divided by a barrier running from the Ross Sea to the Weddell Sea. To my mind the researches of the Scotia condemned the idea that there could be such a barrier running across. Later Shackleton's discoveries condemned that suggestion, which was not founded on scientific fact, and now Amundsen has thoroughly cleared up the matter, for he found the great mountain range bounding the inland plateau to the north continuing north-east to Edward Land, thus shutting the Ross Barrier into a bight.

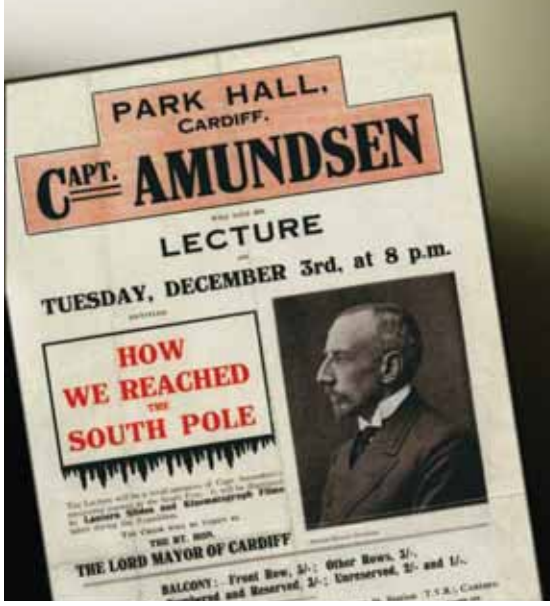
That is a scientific result of the greatest possible importance. Amundsen had also done much more which one cannot refer top this evening, in meteorological, oceanographical, and other lines of scientific research.

Great as have been my pleasure in listening to captain Amundsen to-night, still more am I glad to have been allowed to the privilege of seconding the vote of thanks to him.

The President:

I will now put the vote of thanks for one of the most absorbing and, as Sir Ernest Shackleton truly said, one of the most modest lectures to which we have ever listened, and almost I wish that in our tribute of admiration we could include those wonderful good-tempered, fascinating dogs, the true friends of man, without whom Captain Amundsen would never have got to the Pole. I ask you to signify your assent by your applause.

Appendices


PARK HALL,
CARDIFF.
CAPT. AMUNDSEN
LECTURE
TUESDAY, DECEMBER 3rd, at 8 p.m.
HOW WE REACHED THE SOUTH POLE
THE LORD MAYOR OF CARDIFF