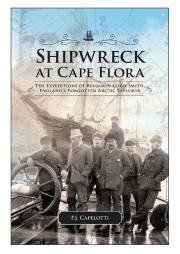


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SHIPWRECK AT CAPE FLORA: THE EXPEDITIONS OF BENJAMIN LEIGH SMITH. ENGLAND'S FORGOTTEN ARCTIC EXPLORER P.J. Capelotti

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EXPEDITION THREE: SVALBARD, 1873

The General noted Leigh Smith's return to Hull and dutifully records that "Ben got a small whale, 2 Bears, 103 seals, 32 reindeer. He discovered an Intinct [*sic*] Volcano and fell in with the Swedish expedition."¹ Leigh Smith himself paid a visit to Ludlow a few weeks later, badly hung over from a celebration the previous evening at the Oxford and Cambridge Club "where he entertained Mr Lamont the Arctic voyager who wrote *A Season with the Seahorses.*"²

It was perhaps at this meeting that Leigh Smith broached the subject of chartering Lamont's steamship *Diana* for a third voyage to the Arctic, or perhaps Lamont made the offer himself. In either case, Leigh Smith spent the winter of 1872–73 readying for another expedition. A note in the General's diary in April of 1873 records that Leigh Smith "is going to Hastings to be present at some barometrical experiment."³ While it did not rank high on the General's list of interests, it was clearly important to Leigh Smith.

For 1873, Leigh Smith planned to conclude the private oceanographic and geographical explorations in the seas around Svalbard that he had begun in 1871 and continued in 1872. The logistics of the 1873 expedition, however, were far more complicated than those of the first two voyages.

Rather than using a single ship as he had done with the sailing vessel *Sampson* the previous summers, Leigh Smith chartered the *Diana* and employed *Sampson* as a reserve supply tender. With the added supplies he could carry on board *Sampson*, Leigh Smith planned once and for all to round the northeast limit of Svalbard at Kapp Leigh Smith and conduct a survey of Kong Karls Land.

Among those invited to join to expedition was a twenty-three-yearold Royal Engineer, Lieutenant Herbert Charles Chermside, who would visit the Arctic for the first and last time in a long life of military service. It was to Chermside that Leigh Smith entrusted the keeping of the expedition's logbooks. These three unpublished journals, along with a log kept by *Sampson*'s captain, William Walker, detail an expedition that, while it failed in its primary objective to round Nordaustlandet, did succeed in relieving Nordenskiöld's expedition beset near Mosselbukta and maintained an array of contacts with whalers and sealers – for example the Peterhead whaler David Gray and the Norwegian skipper Frederick Christian Mack – regarding local conditions around Svalbard.

The patriotic motivation to pick up where the government had abandoned the field was still strong in 1873. As Chermside wrote after the expedition, it had been "nearly fifty years since attempts at reaching the highest latitudes [was] abandoned by British public enterprise and all such exploration [was being] carried on by foreign nations," especially Germany and Sweden.⁴

For Chermside (1850–1929), the 1873 expedition marked his first major field experience, one in which he would act as surveyor, hunter, photographer, and chronicler. An Etonian, he had received the Pollock Prize as the top graduate of the Royal Military Academy at Woolwich in 1870.⁵ This earned distinction set him far apart from the typical line officer of his day, most of whom paid for their commissions through the purchase system until it was abolished the year after Chermside's graduation.⁶

Chermside's surveying and photographic skills would have naturally drawn Leigh Smith to him. But it is in his journal entries, written in a large, flowing hand, that he reveals himself as a humorous, adaptable companion, a good shot, and a man curious about the world around him; in other words, the perfect individual to record the adventure with wit and insight. These same traits apparently served him well throughout his life. Thirty years later, as a colonial governor in Australia, he would be described as someone with a "readiness to share sacrifice, [an] approachable personality, wide range of interests, clear and forthright public speeches and [a] willingness to learn by travel...."⁷

By the summer of 1873, the results of Leigh Smith's first voyage to Svalbard in 1871 had appeared in two articles and two charts in *Petermann's* *Mittheilungen.*⁸ The much more meager results of the 1872 expedition appeared in rather disjointed fashion in a popular account written by Wells.⁹ For his third voyage, Leigh Smith seems to have chosen Chermside not only for his abilities mentioned above but also so that he could combine the results of all three of Leigh Smith's expeditions into a comprehensive article that Chermside would later deliver before a meeting of the British Association for the Advancement of Science in August of 1874.¹⁰ These, of course, were meetings that Leigh Smith himself avoided almost on pain of torture.

This British Association paper is divided into two sections, the first twenty-five pages consisting of a recap of the three expeditions and the final forty pages given over to a general discussion of the oceanographic conditions around Svalbard and its presumed value as a route to the North Pole. For the day-to-day details of the 1873 expedition, one must refer to Chermside's rather massive, three-volume log kept on board *Diana* from May 10 to September 26, 1873, and now stored at the Scott Polar Research Institute at Cambridge University.¹¹ Additional details come from the logbook of *Sampson*, kept by its captain, William Walker, during its voyage that summer from Hull to Svalbard and back and also now stored at the Scott Polar Research Institute, as well as copies of half a dozen letters sent home by expedition member Richard Potter (1855–1947).¹²

Leigh Smith's first two Arctic experiences – in particular the difficult ice conditions of 1872 – led him to reconsider the use of a single sailing vessel in the Arctic. Searching for a more durable vessel for his 1873 expedition, he decided to charter James Lamont's steamer *Diana*, which had been especially constructed in 1869 for Arctic cruising and hunting. Lamont's subsequent expedition to Svalbard had even left the ship's name behind in the place of Diana Bay (Dianabukta), an open bay on the southwest coast of Edgeøya where the vessel briefly anchored that summer.¹³ The screw steam yacht was powered by 30 hp compound steam engines and its hull strengthened below the waterline with double layers of Australian bark and the bow clad with iron plates.¹⁴

With *Diana*, Leigh Smith thought that he would for the first time possess an ice-strengthened vessel with the power necessary to attempt to round Svalbard and survey Kong Karls Land. He was also committed to finding the whereabouts of Nordenskiöld. The addition of *Sampson* as a reserve tender allowed Leigh Smith to carry a larger load of supplies, many of which would come to Nordenskiöld's aid early in the Arctic summer of 1873.

On May 10th, 1873, Chermside came on board *Diana* at Dundee, where he was given, as he writes, "a spacious chamber $5'6'' \times 3'6''$ which the steward was pleased to call my 'state room."¹⁵ *Diana* had a crew of seventeen, including a harpooner. Chermside was joined by a fellow Etonian, seventeen-year-old Richard Potter (1855–1947), and the naturalist and Reverend Alfred Edwin Eaton (1845–1929) as guests of Leigh Smith.

Another thirteen sailed on board *Sampson*, which had already departed Hull on April 30 and arrived at Lerwick on May 7th. On May 10th, the reserve vessel began laboring her way through heavy seas to Svalbard.

The two vessels, outfitted with a year's worth of provisions, planned to sail for Svalbard and rendezvous on July 1st at Kobbefjorden on the west coast of Danskøya. Replenished from the stores on *Sampson, Diana* would then sail east along the north coast of Svalbard as far as Gilles Land, "should such exist."¹⁶ If the mythical Gilles Land did in fact appear, they would course along its western coast, using the land as a barrier to any pack ice flowing from the east, and sail as far north as possible. The extra provisions were also crucial to Leigh Smith's other stated objective: to bring relief to Nordenskiöld's expedition that was now assumed to be in trouble.

Chermside was grateful to Leigh Smith for giving him the chance to take part "in an expedition in these regions, the exploration of which has always had a strange fascination in my mind."¹⁷ He was perhaps less grateful as *Diana* left the Firth of Tay and began to roll in the open sea and the soldier found himself absent from dinner for the first time in his life. Potter shared a cabin with Eaton and recorded "a good, long, rolling swell on which finished Eaton off at once as on getting up he was very ill & had to go to bed again instead of performing divine service (much to my sorrow).... Towards the evening Chermside got seedy and the steward was so bad that he could not make our beds. This morning the wind was blowing much stronger against us so that we were only going 2 knots. Ben Smith was ill & has not been able to eat anything all day, so that I, much to my surprise am the only one who has not been sick."¹⁸ Rather than fight a north wind, *Diana* put in to Lerwick in the Shetlands, where Chermside found himself "astonished at the absence of beggars," which is perhaps more a comment on 1873 London than the prevailing economy of the Shetlands.¹⁹ Delayed in the islands for a week, Chermside met an old man who recalled to him the arrival of Parry's polar expedition in Lerwick in 1827. It was the very absence of the British government from the polar field since Parry that had provided much of the impetus for Leigh Smith's private efforts.

The expedition departed the Shetland Islands under steam on the 18th, and Chermside was re-introduced to the sea. When the winds turned favorable, the ship's steam was run down and the sails hauled up. Just as this was completed, the winds died and the ship wallowed, making Chermside sick once again until steam could be got up again and the ship propelled northwards. Not until the 20th did they get a strong SSW wind that sped *Diana* along towards Svalbard.

Diana met the ice at 72° N, 1°6′ W on the 23rd, and just as it had with Leigh Smith two years earlier the new experience gave Chermside a chance to exercise his pen. "The ice floats about in white snow-covered detached blocks never much above 5′ from the surface & of every shape & form, the pieces being eaten into most fantastic shapes by the action of the water, the sides are a beautiful green & if only a bright sun were upon it, the effect would be lovely. Bump there we go as I write bang against a block, as far as the eye can see the sea is covered with these floating blocks ... bump, bump.... We are now in the long wished-for Polar regions...."²⁰

They met their first Arctic ships three days later. The first was the Swedish vessel *Vega*, which had been in the north hunting seals and was "evidently surprised at our flying the 'blue ensign' & at once asks if we are an 'expedition."²¹ A few hours later, they met a Peterhead whaler called *Active*, which relayed the news that fast ice lay just to the north.

Five days later, a much longer information exchange took place when *Diana* came alongside another Peterhead whaler, David Gray's steam-powered *Eclipse*. An avocational scientist, Gray was first and foremost a deep-ocean hunter. He shared with Leigh Smith the news that *Eclipse* was returning from its spring hunt with 250 tons of oil from a catch of two whales and 48,000 seals. So much oil was processed that they had been forced to throw some of the steamer's coal overboard to make room for more blubber.

Leigh Smith was carrying papers, letters and news for Gray, who had not been ashore since March. In the mist, *Eclipse* was rafted alongside *Diana* for a day as the officers and guests shared lunch on board *Diana* and then "a capital dinner ... with a long conversation & numerous yarns."²² Gray explained how he could use the remains of the blubber extraction process to drive the ship if his coal stocks became low. Using this method, he told his dinner guests that *Eclipse* had once "steamed over 100 miles on the tail of a whale...."²³

When Chermside mentioned that he was surprised at the absence of blubber smells on board *Eclipse*, Gray explained that it was cold enough that none of the seal or whale products putrefied at these latitudes. Gray then gave a tour of his cabinet of natural history curiosities, which included parasites collected from whales, narwhals, and the stomachs of bearded seals.

By June 6th, impatient with the slow progress north, Leigh Smith ordered *Diana* east towards Prins Karls Forland in Svalbard. When the mountains and glaciers came into view the following day, Chermside had his first views of Svalbard and busied himself mixing chemicals for his photographic gear.

After *Diana* anchored near the glacier at the head of Kongsfjorden, Chermside and Potter rowed to a near-shore lake whose surface was covered with birds. "I think I have never enjoyed an evening more," he writes as he took in the sight of the pyramid-like summits of the Tre Kroner. "There was a glorious Arctic sun still high in the heavens, that even at midnight shone in all its pride above the Northern Hills, casting on their covering of the purest snow a sheen of golden light, so dazzling as to seem unearthly."²⁴

The next day, Potter and Chermside ascended a nearby mountain to find a cairn already there. When they dismantled it, they discovered notes in French and Swedish proclaiming that the Swedes had reached the spot in 1861. In the meantime, the much slower *Sampson* on May 22nd had fallen in with the ice around lat. 70° N, and the crew began working north along the edge of the ice, sealing as they went. They sighted Prins Karls Forland on June 20th and the next day, as Captain Walker writes in his

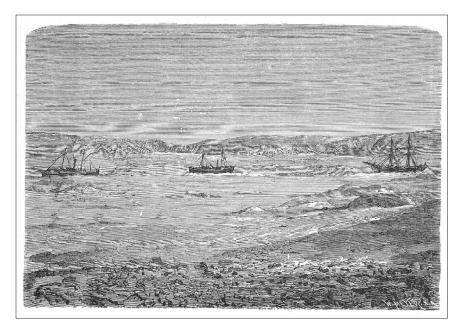


Fig. 22. Nordenskiöld's three ships lying beset in Mosselbukta (from Kjellman 1875).

log, "came to anchor in Magdalena Bay in 13 fathoms above the small island at the head of the bay; caught 3 seahorses."²⁵

Departing Kongsfjorden on June 9th, *Diana* rounded Hakluythovden in the evening of June 10th. After some exploring in this area and leaving word for *Sampson* in Kobbefjorden, they met up with a Norwegian fishing *jakt* early in the morning of June 13th. The captain, whom Chermside called "Charlie the Norseman," told Leigh Smith that Nordenskiöld and the rest of the Swedes were lying beset and starving in Mosselbukta.

"This is news indeed," writes Chermside, and Leigh Smith wasted no time in ordering full speed to the rescue.²⁶ Charlie the Norseman was given a bottle of rum and Leigh Smith's compliments and then rowed smartly back to his *jakt*.

Diana reached Mosselbukta, which Chermside described as a mere "unprotected indulation [*sic*] in the coast on the E side of Wiide Bay [Wijdefjorden]" in four hours.²⁷ There, the three Swedish vessels – the 200-ton, 108' iron steamship *Polhem* along with the steamer *Onkel Adam* and the brig *Gladan* – were frozen into the northeast corner of the bay, in ice that Chermside estimated at three to seven feet thick. More than three nautical miles of ice separated the ships from open ocean.

All the flags on *Diana* were run up. The ladder was put over forward but the "hardy Swedish sailors" ignored it, swinging themselves on board to be greeted with tinned meat and schnapps. "We smoke & chat & drink each other's health & talk & have quite a spirited party."²⁸

Leigh Smith and Nordenskiöld shared similar ages, social status, education, and wealth. If there was a difference between them it was that Nordenskiöld was willing to leave his ship and try to reach the pole over the ice, whereas Leigh Smith was the classic gentleman-adventurer who would go ashore for a long hike in search of his fill of game birds but seems never to have seriously contemplated a polar sledge expedition.

Nordenskiöld had planned to sail to Sjuøyane and construct a base camp on Parryøya with several prefabricated structures. From that point, Nordenskiöld hoped to lead an expedition to the pole in April, 1873, using boats and sledges pulled by reindeer which in turn would be driven along by four Lapps.

Soon after the two explorers had parted from one another on August 30th of the previous year, Nordenskiöld had sailed north and quickly discovered that he was not able to penetrate further than Mosselbukta. Worse, the two supply ships that should have dropped their cargoes and returned to Sweden were caught and frozen into Mosselbukta along with the *Polhem*. The huts and observatories meant for Parryøya were instead erected at Mosselbukta, and Nordenskiöld was forced to divide his limited rations amongst sixty-seven people from three ships. By April of 1873, the winter hardships notwithstanding, Nordenskiöld began his attempt on the North Pole with three teams, several sledges, boats, and a single surviving reindeer. The conditions were extremely difficult, with broken seas and fog. One crew member who left in search of driftwood was never seen again.

The expedition managed to reach Sjuøyane, where the view to the north brought home to the men the utter hopelessness of attempting to cross the vast fields of broken ice. However, rather than return directly to Mosselbukta, Nordenskiöld retreated via Nordaustlandet in order to

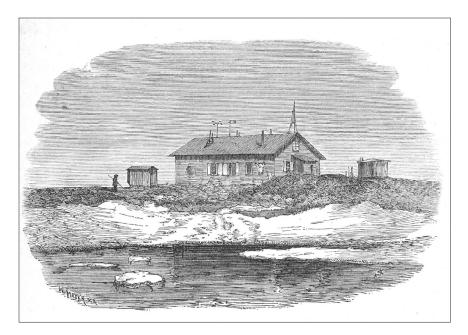


Fig. 23. Nordenskiöld's winter quarters at Mosselbukta (from Kjellman 1875).

explore that area, so when Leigh Smith arrived off Mosselbukta he was still away on this exploring expedition.

By evening on the 13th, Leigh Smith had his crew members moving hundreds of pounds of provisions by sledge from the British to the Swedish ships. It was, Chermside writes, "a great triumph for the judgment of B.L. as regards ice, current, winds, etc., as in his letter to *The Times* in the winter, & ever since, in spite of many contrary statements, he had predicted that they would be lying there. This he takes in his usual quiet way."²⁹ Potter wrote a hasty letter to his father, noting that the Swedes had survived a fairly mild winter on half rations, "so will be glad of the provisions which Mr. Smith is giving them."³⁰

Leigh Smith's letter to *The Times*, written from the Oxford and Cambridge Club the previous November, spelled out his concerns over Nordenskiöld's fate. He thought, correctly, that the Swedish expedition had put in to some safe harbor, unloaded their cargo but, before the two supply ships had been able to get away, they had been locked in the ice. He felt that the Swedes would survive the winter on the strength of their supplies and their ability to live off the land. Then, in a rare moment of both public expression and private introspection, Leigh Smith writes of the last time he saw the Swedish fleet at Fuglefjorden, "rosy with the ray of the evening and the morning sun."³¹ As *Sampson* cleared the fjord on its way southwards, Leigh Smith writes that he felt "something like the shame of desertion" and promised he would search for Nordenskiöld when he went north again in the spring.³² These are clearly the words of someone who saw Nordenskiöld as a friend and colleague rather than a polar competitor.

The survival of most of Nordenskiöld's crew (another died of scurvy) was in sharp contrast to the deaths by starvation and exposure of nineteen Norwegian whalers trapped in Svalbard by the severe ice conditions at the same moment in time. By mid-September, 1872, no less than six walrus-hunting vessels had been frozen in near Velkomstpynten. Seventeen sea hunters managed to escape in small boats to a hut at Isfjorden but, once there, all died over the winter. Two other sea hunters refused to leave their uninsured ship and were later found dead in a small boat, their ship having been crushed.³³ It was a horrific death toll for one season on Svalbard.

Yet, despite their successful overwintering, by early June of 1873, Nordenskiöld's expedition was in a bad way. The expedition's chief scientist, the physicist August Wijkander, noted that the first vessel to reach the Swedes arrived on June 7th, followed the next day by two fishing vessels from Tromsø. They delivered letters and newspapers and a little butter and flour. It was apparently this meager relief on the part of Nordenskiöld's agent in Tromsø that convinced the Swedish government that a large relief ship from Sweden was not required.

They could not have been more incorrect. Wijkander appealed without success to the fishing *jakts* to return to the mainland for relief supplies, but the Norwegian skippers were reluctant to abandon their seasonal work before it had even begun. "By this time all but one of the people aboard *Onkel Adam* had come down with scurvy, and half of the crew of *Gladan*, too. Even if all of the ice had magically disappeared from Mossel Bay ... there just were not enough [healthy] men available to sail them home."³⁴ Just as the Swedes began to sink into renewed despair at their worsening situation, *Diana* along with *Sampson* appeared just beyond the ice that clogged Mosselbukta. Wijkander writes of the almost miraculous appearance of "an English gentleman, Mr. Leigh Smith [who] offered the expedition with great generosity ... lime juice, tobacco, rum, fresh potatoes, and preserves for more than two weeks for all men, which we received with great gratitude."³⁵

Lieutenant P. M. von Krusenstjerna, commander of *Gladan*, observed that the fresh provisions allowed the men suffering from scurvy to recover in little more than a week and so "are able to join in the severe work of sawing a passage through the ice in order to deliver us out of our ice-prison."³⁶ A member of the *Polhem* crew went further, writing on June 19th that all of "the sick have rapidly improved and that already in six days. Such a generous and at the same time beneficent gift deserves indeed to be made known."³⁷ The expedition's medical officer, Axel W. Engvall, writes in a report to the Swedish Board of Health that they would "not have got off with less than one or more deaths" if Leigh Smith had not arrived when he did.³⁸

As Nordenskiöld's Lapps, "in their curious hats & long blue frocks ... and bright leggings, smoking their pipes," looked on, Chermside acted as quartermaster as provisions were off-loaded from *Diana* for the Swedish survivors. "Half a ton of beef, 40 tins of cabbage, 20 tins of salmon, 1 case of sherry, 1 case of brandy, 10 tins of carrots, 2 cases of lime juice, 59 lbs of tobacco, 5 bags of potatoes & 10 gallons of concentrated rum."³⁹ Along with Eaton, Leigh Smith took lunch with the Swedes, going over their scientific results for the winter. Chermside, for his part, had by this point perfected his sly style of revealing the quirks of his compatriot's characters: "Eaton was much pleased with their collection of sea-weeds."⁴⁰ Earlier in the year, and apparently at her request, Eaton had written to Leigh Smith's sister Barbara Bodichon with the news that he had compiled lists of all of Svalbard's flora as well as "of the Seals and Whales, Birds and Shells" so that in between his collecting forays he would be able to see at a glance where he had gaps in his efforts and strive to fill them in.⁴¹

Chermside visited the Swedes' small village of science huts and saw the three ships locked in four feet of ice about a quarter mile from shore. The *Onkel Adam* was in the center, with *Polhem* to port and *Gladan* to starboard. He thought that they couldn't have picked a worse place to be stranded, as between the ships and the open sea was a screen of grounded ice and several large hummocks. From his few weeks of experience with ice conditions around Svalbard, he thought it unlikely the rotting floe would keep the three vessels trapped for much more than another month.

Potter wrote to his father that he and Chermside spent much time ashore shooting, bagging Eider ducks, looms and a few ptarmigan. When not so occupied on land, Potter and Chermside invested hours in taking and processing photographs. "We had some difficulty with the photographs at first as the cold was too great, but now we have taken to warming the bottles and seem to be getting on all right as we got a good one of the *Diana* to-day. Chermside knows more about it than I do, so he does the most difficult part of it and I help him."⁴²

Diana remained at the edge of the floe near Mosselbukta until the morning of June 15th, when steam was gotten up and the ship moved off toward Sjuøyane. Leigh Smith hoped to catch up with Nordenskiöld there, for if the Swede had managed to reach the pole he was scheduled to return to Parryøya on June 23rd and would almost certainly welcome if not require some assistance. When ice blocked *Diana*'s approach to Parryøya, ice anchors were deployed to moor the ship to a floe halfway between Parryøya and Waldenøya. Leigh Smith, along with Chermside and Captain Alex Fairweather, *Diana*'s skipper, rowed the three nautical miles to Waldenøya and climbed to its highest point to gain a view to the north.

From this perch, they could see that all of the islands off the northern coast of Svalbard were linked by ice. Ice blocked the ways to the north and east as well. The three regained the ship and then began a long exploration along the ice edge, gliding through still, clear water and making occasional soundings as they went. "A deep sea sounding [on Sunday, June 22nd] of 800 fathoms gave no bottom & we got plenty of exercise hauling in the line."⁴³ They again returned to Sjuøyane, as "the owner is very anxious to get to Parry's Island to see if there is news or trace of the Swedes."⁴⁴

Once again they anchored to a floe and this time Leigh Smith, the captain, and two crew members trudged across the ice toward Nelsonøya in search of Nordenskiöld. Chermside and Eaton rowed back to Waldenøya to collect some lichen. There Chermside found an old coffin filled

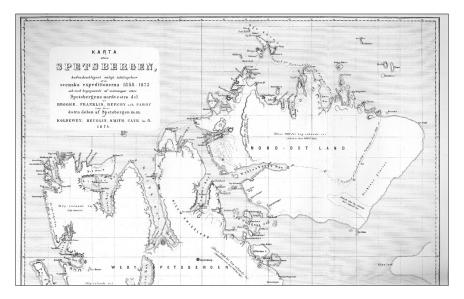


Fig. 24. Nordenskiöld's 1875 chart of Svalbard, showing his route from Sjuøyane southwestwards to Nordaustlandet and back to Mosselbukta (from Kjellman 1875). The map also shows the continued fascination with the "Giles Land," thought to exist somewhere to the east of Svalbard.

with stones and a bone or two. They had brought miniature caskets of their own, as Chermside thought of them, for Eaton's botanical collecting. They ascended to the highest point of the island, collecting lichens, flowers and grasses along the way, and then writing the names of their prizes in Latin "with care and precision, on the lids of the nice little wooden coffins prepared for any rarity vain enough to bloom & pining for sepulcher in a museum, by the indefatigable Eaton."⁴⁵ They reached *Diana* just as Leigh Smith returned to announce that he'd found no sign of Nordenskiöld on Nelsonøya.

On the 29th they made a journey to Tavleøya and, climbing to its height, stood for a long time gazing north. Chermside seemed to realize that he would very likely never again set foot on land so far north, so he looked intently "over the ice towards the mystic pole, that defies approach." When it was time to return to the ship, "it is almost with a feeling of awe that one turns away from the outmost (or inmost) threshold of the dread unapproachable tract of frozen ocean...." As they reached the shore, lit their pipes, and waited for the launch, the euphoric, heroic feeling began to recede until they were once again, as Chermside writes, merely "ordinary."⁴⁶

Having arrived at Magdalenafjord on June 20th, Captain Walker of *Sampson* had sent one of his small boats north to Danskøya and the planned rendezvous point at Kobbefjorden. It returned the following day with the news that they had reached Kobbefjorden and brought back "letters from the *Diana* and found a [separate] letter, on a small island near Kobbe Bay [Kobbefjorden], from the Danish expedition dated 11th Oct. 1872."⁴⁷

On July 1st, *Sampson* got underway toward the Sjuøyane and they soon ran into *Diana*, which was maneuvering south. The steamship took *Sampson* in tow and brought her into Sorgfjorden the same evening. As coal, stores, and fresh water were transferred to *Diana* over the next three days, Chermside climbed to the top of what he called Parry's Hill (Heclahuken), where two years earlier Leigh Smith had found a flag staff left by Parry in 1827. The staff was now gone, and Chermside relates a rather extraordinary tale of its disappearance from the 486 m/1,596'-high summit. He writes of a group of Norwegians trapped at Sorgfjorden, presumably during the catastrophic freeze-up the previous fall, who "nipped it as a mast to a piece of drift ice + proceeded on their way."⁴⁸

On July 6th, Leigh Smith was on board *Sampson* to talk with Captain Walker and review his charts prior to making his main push north and east. Once the transfer of supplies between *Sampson* and *Diana* was completed, a few of the men went ashore to "collect whalebones, ancient + very bleached."⁴⁹

Chermside in the meantime hiked to Mosselbukta, presumably alongside the low-lying streams and swampy ground that run up from Sorgfjorden and then down to Mossellaguna. There he found Nordenskiöld's huts barred, the windows boarded and smoke no longer rising from the chimneys. The Swedes had made their escape at last.

Nordenskiöld himself had journeyed south over the ice from Phippsøya to Kapp Platen. Stopped by open water east of Kapp Platen, Nordenskiöld sought to cross Nordaustlandet to its southeasternmost point at Kapp Mohn. Discovering a uniquely impenetrable landscape of 'ice canals,' Nordenskiöld and Palander studied the area before giving up any hope of traveling further south.

The impassable glacial landscape forced Nordenskiöld west, toward Wahlenbergfjorden, which he and his men reached in mid-June just as Leigh Smith was relieving the Swedish base camp at Mosselbukta. Nordenskiöld and his party finally returned to Mosselbukta on June 23rd, less than a week after Leigh Smith had departed. No other expedition of Nordenskiöld's, writes George Kish, was "as beset by trials and bad luck as the expedition of 1872–1873."⁵⁰ Only the timely arrival of Leigh Smith had prevented the Swedish expedition from tipping into a complete Arctic catastrophe, a fact later recognized with the Royal Order of the Polar Star for Leigh Smith.

Chermside learned all of this when he returned to Sorgfjorden and saw *Polhem* anchored alongside *Diana*. Prior to a brief exploration northwards before his return to Sweden, Nordenskiöld had come to thank Leigh Smith. The other two Swedish vessels had already made their way south on June 30th, quickly departing the scene as soon as the ice had moved out of Mosselbukta. Potter wrote a hurried note home to his father, the M.P. Thomas Bayley Potter, saying that the *Polhem* had come in the night before and was leaving that day. "I must finish this letter," he concluded, "as we are just going on board the *Polhem* to say goodby." The contrast between the ordeal the Swedes had just endured and Leigh Smith's cruise was apparent, as Eaton finished with a cheery postscript saying that he had "never enjoyed anything as much as this trip, and don't feel the cold a bit. It is warmer here than it has ever been, the temperature being 49 deg. We have plenty of sport with the birds, eider ducks, etc., and find them all capital eating..."⁵¹

The meeting between Leigh Smith and Nordenskiöld must have been brief indeed, or perhaps private, for Chermside makes no mention of it in his otherwise expansive journal. Both men were serious in their respective intent to explore the north, and the brief summer was already advanced. It was perhaps at this meeting that Nordenskiöld mentioned the possibility that the north cape of Svalbard was in fact an island and suggested naming it for the man who saved him, while the ever-humble Leigh Smith deferred the honor to his young aide-de-camp Chermside.

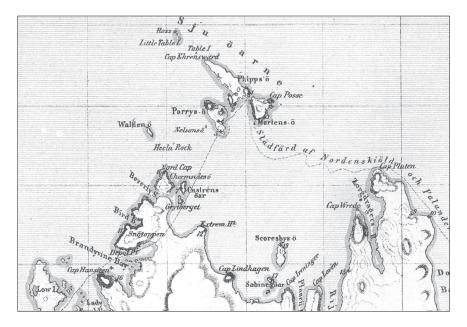


Fig. 25. Detail from Nordenskiöld's 1875 chart of Svalbard, showing the area of northern Svalbard bounded by Rossøya, Lågøya, and Kapp Platen (from Kjellman 1875). It was in this area where Leigh Smith spent much of his 1873 expedition in search of Nordenskiöld, and where he decided that Beverly Bay was in fact a sound or channel separating Nordaustlandet from the island to the north.

On July 7th, *Diana* moved out of Sorgfjorden and down Hinlopenstretet to a group of islets called Fosterøyane that Nordenskiöld had explored in 1861.⁵² There Leigh Smith's expedition was itself beset by ice that stretched all the way across the strait from Kapp Fanshawe to Selanderneset. Retreating into Lomfjorden, Chermside found a "vertical pillar of flat stones covered with inscriptions in Norwegian."⁵³ Fishing *jakts* with ill or injured crew would call on *Diana* for a chance to be treated by Eaton, who passed for the only doctor north of Tromsø and served as a kind of replacement for Envall, who had performed much the same duty during the Swedish expedition's stay in Svalbard.

On July 14th they were hailed by Norwegian skipper Frederick (Fritz) Christian Mack (1837–1876), of whom *Place-Names* writes, "several important geographical discoveries in the Arctic are due."⁵⁴ "Like all

Vord Cap Beven Chermsidesö strens get strem Hk ntoppe

Fig. 26. Further detail from Nordenskiöld's 1875 chart of Svalbard, showing that the island north of Nordaustlandet had already by 1875 been named 'Chermsides ö' for the then-twenty-three-year-old Herbert Chermside (from Kjellman 1875).

these Norwegian skippers that I have met," Chermside writes, "he is a well-informed superior class of man...."⁵⁵ Mack had also been sent by Nordenskiöld's agent in Tromsø with supplies for the beset expedition but had arrived after the relief from Leigh Smith. (Three years later, Mack would write a plaintive letter to Leigh Smith complaining that he had been swindled by two putative foreign polar expeditions, had been without work for a year and a half, and was at the end of his tether.⁵⁶ He died only a few months later.)

The next day, *Diana* escaped Hinlopenstretet and anchored back in Mosselbukta only a short distance from the Swedish camp. "How different on a calm sunny summer evening like this it looks from the dreary icebound haven of 4 or 5 weeks ago."⁵⁷ With the way north blocked by ice pressing on the north coast, *Diana* maneuvered down Wijdefjorden, where Chermside and Potter went ashore for a bit of surveying while Leigh Smith initiated dredging and collecting operations. *Sampson* in the meantime had caught up with *Diana*, and for several days the two vessels – along with a collection of Norwegian fishing smacks – anchored in Lomfjorden to await favorable conditions.

Leaving its escort on the 14th, *Diana* passed beyond Kapp Petermann and anchored near a small island in Austfjorden that Leigh Smith named after *Diana*. On this newly-christened 'Diana Island,' they went on a reindeer hunt, returning with no fewer than sixty-eight reindeer, two or three seals, and seven white-fronted geese, which Chermside describes as a "new species to Spitsbergen."⁵⁸ Chermside notes that the hunting was a very trying experience, as the "excitable sailors are not trained gillies, will not keep line, do not know when to stand, when to show, when to squat, or act in concert at a distance...."⁵⁹

The expedition remained anchored near Diana Island for several days, surveying the island and a nearby shoal, while the crew performed chores of painting the vessel, flensing and salting skins, and preparing heads for mounting. They continued dredging operations and on the 26th began a running survey as *Diana* retreated back toward the mouth of the fjord in another attempt to get north.

On July 27th, the expedition sighted ice-covered Lågøya and did their best to avoid the treacherous seas around it, which Chermside noted were foul with "black wicked rocks & reef."⁶⁰ The following day they took up dredging in 120 fathoms with a whale line and a heavy iron dredge weighing one cwt (112 lbs).

Chermside described several other aspects to this dredging operation. First, they fashioned a "swab" from a "long broom of oakum used to clean the decks," which was used to gather up starfish and seaweed, echinoderms, and stones from the bottom. To this was added a small tin to form a scoop to capture stones or gravel, along with a small hoop net and a sounding lead to gauge the character of the bottom. Deep-sea thermometers were attached at intervals of fifty fathoms. Deploying the dredge many times in a single day was impossible; it was so heavy it required all hands to haul it out of the depths. The device likewise took a toll on the specimens collected. As Chermside writes, "any animals unlucky enough to be caught in this are of little value, since they have been pounded to fragments or reduced to become amateur jellyfish....⁷⁶¹ Hemmed in by ice on the 29th, the crew nevertheless managed to sound and dredge with their "swab" when possible and retrieve what Chermside described as "some fine specimens of coral.⁷⁶²

Diana pushed through the ice and into Lomfjorden on the 30th, there to be met by four Norwegian fishing *jakts*. Increasingly unable to maneuver, Leigh Smith made for Heclahamna, where he knew he could gain an elevated view of the ice conditions. Still station-keeping after several days, Chermside writes that "Macawber-like, we wait for something to turn up."⁶³

On August 5th, *Diana* made its way offshore to Moffen Island, where they discovered the enormous whale skeleton covered with inscriptions and ship's names the year previous. Chermside described Moffen as a lowlying mass of shingle just a few feet above sea level, with a scattering of granite boulders apparently carried onto the island by the movement of ice grounding on the shoal ground. One group began walking around the lagoon in one direction while a second group walked the opposite way. In just an hour and a half, the two parties completed a circuit that Chermside estimated to be about seven nautical miles and met "at opposite points of a large natural bay or harbor which occupies the greater part of the interior and which had still a great deal of land ice in it."⁶⁴

The moveable entrance to the harbor now lay on the northwest corner of the island, not along the north as shown on their charts. They had been looking for walrus but found only scores of carcasses of walrus killed along the inner edge of the lagoon. "We also saw which was far more interesting the bone-covered sites of what at one time must have been glorious engagements with large numbers of sea-horse. There were three of the sites with immense quantities of bones of the animals evidently all killed at one time & the layers of these was over an acre in extent & I am rather sorry I did not count the number of skulls."⁶⁵ If Leigh Smith took this chance to seek out the skeleton he had found the previous year, Chermside does not mention it, or perhaps by this point it had already been carried away as the dramatic souvenir of a passing whaler or walrus-hunter. Chermside does mention a painting hanging in the dining room of the Admiralty, which depicted Moffen Island and an attack on a large number of walrus by men of the Phipps expedition, so it seems clear that the island's connections to British polar history were the subject of a lively discussion amongst the exploring parties.

After two days of exploration around Moffen, *Diana* returned to Lågøya and then continued southeastwards down Hinlopenstretet, arriving at Augustabukta on August 10th. Here Chermside does mention a phenomenon associated with the whale skeleton from Moffen, which had apparently died naturally and been raised by isostatic uplift. The shingle beaches Augustabukta showed the remains of whales "killed perhaps 100 years ago, the dates indeed have been in some cases determined, then the skeletons too heavy to drag above it must have lain in the water & now you find skeletons almost complete at 6, 8 & 10 feet above the sea level."⁶⁶

Chermside does not describe the skeletons in any detail, or how he arrived at a relative death date, so it is not possible to know if the whales died naturally or showed evidence of butchering, but his assumption that the skeletons were left in shallow water, being too heavy to be dragged, makes it clear that he believes the whales were killed by humans. Such evidence at the remote Augustabukta could mean that, absent a shore-based tryworks, the whales were pursued into shallow water by the occasional visit of a pelagic hunting expedition or an expedition operating away from the established whaling stations on the west coast of Spitsbergen. There they could have been flensed alongside a ship, the blubber boiled down on board and the largely intact carcasses left to rot, as opposed to being set adrift as in deep-harbor or open-ocean whaling.⁶⁷ The low elevation of Chermside's whale skeletons at Augustabukta, like the palimpsest whale found at Moffen, both suggest human agency.

Perhaps it was while contemplating these maritime mysteries that Leigh Smith repeated his comment about Svalbard to Chermside: "[T]he owner always says it is like Switzerland with the sea."⁶⁸

Returning to familiar waters east of Tumlingodden, near where Leigh Smith had circumnavigated Wilhelmøya in 1871, Chermside recorded a humorous scene when the entire watch gathered around the heavy dredge for a deep-sea sounding in heavy ice, only to lower the instrument and find that the water was but seventeen fathoms deep. *Diana* continued around the southern edge of Nordaustlandet to Vibebukta, which the crew also dredged. They were operating in a fantastically remote area little visited even today. Chermside notes that Leigh Smith wanted to explore "Wiches Land" [Kong Karls Land], just visible across the pack, but the expedition was stopped by ice near Kapp Mohn. Even so, when added to his 1871 track, with this foray, Leigh Smith came very close to seeing the entire coast of Nordaustlandet. They returned northwestwards up Hinlopenstretet, emerging from the strait on August 23rd with hopes of reaching the Sjuøyane.

With ice still fast to the north, Leigh Smith led the expedition east towards Kapp Platen. There *Diana* anchored in shallow water in an ice-covered "Parry's 'Beverly Bay" (Beverlysundet), which Leigh Smith – perhaps with an earlier inference from Nordenskiöld, correctly believed to be a channel, or sound, and the land north of the channel to be an island.⁶⁹ Nordenskiöld in his chart of Svalbard named this 14 km² island after Chermside, and it is now known as Chermsideøya.⁷⁰ This is apparently the only new place name added to the nomenclature of Svalbard during the 1873 expedition, and that it was named for one of the youngest expedition member speaks volumes for the impression he made upon Leigh Smith – and perhaps upon Nordenskiöld as well.

With the ice under heavy pressure, the crew spent its time moving from one anchorage to another. In his unpublished account of Leigh Smith's expeditions around Svalbard, Chermside provides an extensive discussion of the ice-breaking methods employed by the crew of *Diana*. Since leaving the southeastern end of Hinlopenstretet, the vessel had made only slow progress in the heavy ice. On the 28th, with the pressure of the ice lessening, the crew, as Chermside related, "set to work in earnest to extricate ourselves from the pack, as further progress seemed impossible and the pack was more or less cemented together by early and very sharp frosts."⁷¹

On August 28th, *Diana* had managed fifteen nautical miles progress in nine hours through heavy pack, but as Chermside writes, this required that the ice have some 'play.' Now, with three nautical miles of heavy ice separating the ship from sailing ice, the steam engines were run up and the crew warped the ship from its temporary ice dock. Several of the crew were put onto the ice armed with boat hooks. Once the vessel had some maneuvering space and the likeliest spot for the ice to crack was spied from the deck, the ship was rammed into that spot. Loose ice was then pushed aside by the men with the boathooks, or they hopped onto the broken ice and punted the ice out of the path of the ship – appropriate work for Cambridge men like Leigh Smith. While this was carried out, *Diana* was backed to the farthest corner of the cleared area, sometimes as much as two hundred yards. "Then she comes ahead full steam and jumping right on to the ice, succeeds in cracking it. At it she comes again and again and several large piles are by this time smashed. On to these men jump with drills and boring holes. Ice hooks and warps are made fast from the ship and they are towed out of the way, the boathook men removing the smaller pieces. If the floes are nipping fast little is gained, but if not the passage is slowly and gradually cleared...."⁷²

The men bobbing about on the ice were then picked up by the dinghy and the ship proceeded to back once more to the farthest end of the cleared area. The bell was rung and the ship lurched forward again, this time with all hands running from one side of the deck to the other to create a rolling motion, "until by the time her head is straight at the obstacle and the Captain shouts 'Steady' from the crow's nest, she is going at full speed and rolling almost to the rail – a crash – and we are through and looking forward to the next obstacle."⁷³

When the ice would not crack, Chermside was often at work blasting it with explosives, with varying degrees of success. Yet another method was to jam the bow of the ship into the ice, then place an ice anchor ahead of the ship. A line was run from the ice anchor to the ship, the engines run up, and then the helm thrown hard over, the bow of the ship held in place while the stern forced the ice aside, thereby wedging the floe open further. "When there is no more to be gained over goes the helm the other way, and with the immense leverage gained by the length of the ship, the steam of course, besides giving her the power of pushing ahead gives her also the power of swinging, and thus we force our way through inch by inch, not however without breaking three new warps."74 Chermside admitted that often each of these techniques would fail in turn and the expedition had to give up and try to find another place to break through. When all the hard work paid off, however, "a grand sight it is as one stands at work on the ice to watch the ship rush bravely at the obstacle at full speed, and how satisfactory as her bow leaps out of the water on to the mass, ere she falls back to feel it groan and quiver and crack under your feet, a dead dull

muffled sound perhaps, and a new dark crack telling you that your blast has also done its work."⁷⁵

By August 30th, *Diana* was hooked to ice between Parryøya and Phippsøya, which Chermside saw as a collection of "isolated hills connected by low sea beaches [with] immense quantities of driftwood and some whalebones."⁷⁶ Nordenskiöld had cached his small boat and a quantity of supplies on Phippsøya in the spring of 1873 after his aborted attempt to get north of Sjuøyane. Not finding the boat, Chermside wanted to cross to Martensøya and search for it but was stopped by fear of becoming trapped on Martensøya and having to be rescued.

On August 31st, Chermside climbed two peaks, presumably on Phippsøya, of 335 m/1,100' and 372 m/1,220' above sea level, for a view to the north. It was not encouraging. On September 1st, before a southeast gale, *Diana* made her farthest north for the summer at lat. 80°54' N, just beyond Sjuøyane, before being forced to retreat.

The expedition sailed westwards in a heavy gale until the 4th. Finding no possibility of getting further north, they ran for Magdalenefjorden where they rode out the gale for three more days. The seas were so violent that, even as she sheltered in the fjord, *Diana* dragged and broke both of her remaining anchors.

On the morning of September 8th, *Diana* rendezvoused with *Sampson* at Grønfjorden. Captain Walker's crew on August 29th had found a coal mine there at the northeast point of the harbor and taken two boatloads of the stuff on board. Before they parted for the year, *Sampson* passed a spare anchor to *Diana* while Leigh Smith decided on one last late-season attempt to get around the eastern edge of Svalbard.

As *Sampson* headed for home, *Diana* sailed between Edgeøya and Hopen and met pack ice just east of Hopen. The weather was fine and the pack loose enough for *Diana*'s steam power to shoulder it aside. By September 14th, however, severe frost had placed two inches of solid new ice in front of them and cemented the older pack ice together. After a brief exploration of Hopen, *Diana* turned and set sail for Dundee, which the expedition reached on September 26th. The slower *Sampson* returned to Humber Dock early on the morning of Sunday, October 5th. "All well," wrote Walker. "Thus ends the voyage."⁷⁷ After the expedition, Chermside returned home to study coastal defense. He would see service for several years in Turkey, Egypt, and Kurdistan, before returning to Constantinople for seven years as military attaché.⁷⁸ He then commanded British troops on Crete and fought in the Boer Wars before being appointed governor of Queensland in 1902. Despite Lady Tennyson's description of him as "a very short plain little general with a biggish moustache," his range of interests and travels and his genial personality earned him considerable popularity.⁷⁹

Although Chermside never returned to the Arctic, his efforts there with Leigh Smith in 1873 must have made a considerable impression. When Nordenskiöld published his revised map of Svalbard in 1875, Chermside's name had been attached to the island discovered north of Beverlysundet. A valley that crosses Chermsideøya was also named for him in the 1920s, but by this point his reputation would have been long secured.⁸⁰

For Leigh Smith, the conclusion of the expedition began a period of evaluation. By the fall of 1873 he had demonstrated a range of skills for geographic exploration in the waters around Svalbard, and his desire to reach the Pole was as strong as ever. He clearly wanted to push further north and put the theory of an open polar sea to the ultimate test of steam power. On September 30th, just as he arrived back in England, Potter summed up his companions: "Mr. Smith was so kind in every way that it was impossible for anyone to help liking him. Eaton was rather a fool and none of us got on very well with him, but I liked Chermside very much although he was rather conceited & always talking of himself [still] he was a very jolly companion..."⁸¹

Chermside wrote up the results of the 1873 expedition, along with an extended discussion of Leigh Smith's first two expeditions to Svalbard. The manuscript was favorably reviewed by Arctic veteran Admiral Sir Richard Collinson, but ultimately rejected for publication in the RGS's *Proceedings*.⁸² Leigh Smith may have charted much of the northwest coastline of Svalbard, but he was still in search of the imprimatur of the arbiters of geographical significance at the RGS in Kensington Gore in London.

It would be seven years before Leigh Smith returned to the north. When he did it would not be in someone else's vessel but in his own specially designed and Peterhead-constructed polar research vessel, *Eira*. His field of operations would shift from Svalbard to new lands being discovered by Weyprecht and Payer even as Leigh Smith was collecting coal in Grønfjorden.

It would be in this new territory where Leigh Smith's method of polar exploration by adapting to local conditions would find both its greatest success in the summer of 1880 and its greatest test, on August 21, 1881, when *Eira* would sink amid ice floes at Cape Flora.