Ny-Ålesund

By Per Kyrre Reymert

– the world's northernmost mining town

The Governor of Svalbard is the government's chief representative on Svalbard. One of the agency's key tasks is to manage Svalbard's natural and cultural environment.

This booklet is about cultural heritage in Ny-Ålesund, the buildings, mines, port and railway. When were they built, who by and why? The building history illustrates the historical development of the city, but cultural monuments also tell another story. They are historical sources that we can access, touch and smell. Cultural heritage conveys an atmosphere and a feeling for the history in a completely different way to pure facts. We hope the booklet will contribute to attracting more visitors to the cultural heritage sites in Ny-Ålesund. Unlike the mining towns of Barentsburg, Grumant and Longyearbyen, Ny-Ålesund was not destroyed during World War II. Ny-Ålesund therefore has a wealth of preserved historical buildings. The buildings are owned and maintained by Kings Bay AS, and the majority are in use.
2016 marks 100 years since the formation of the company Kings Bay AS. The company is inextricably linked to the activities in Ny-Ålesund. Initially as a commercial mining company and later in the restructuring process which turned Ny-Ålesund into a base for international research.

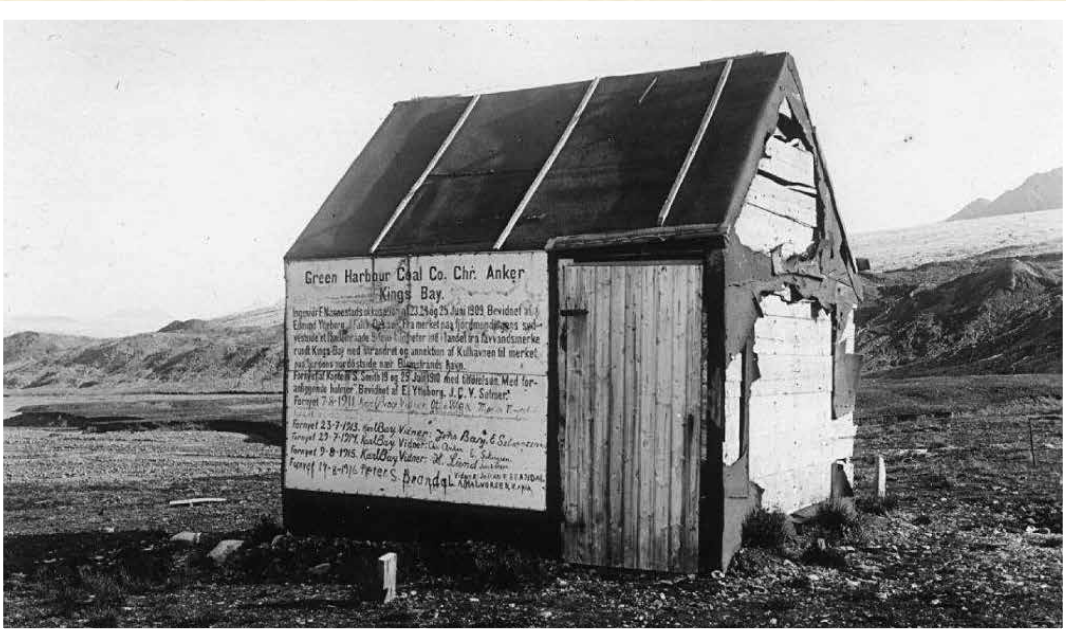
Cultural heritage sites in Svalbard

The visible traces of humanity in Svalbard date back over the last 400 years. Even though the archipelago is one of the last large untouched wilderness areas in Europe, it is full of cultural history. The history of human activity that tells the story of how humans interact with the nature surrounding them. All traces of humans that date back to before 1946 are therefore automatically protected as cultural monuments under the Svalbard Environmental Protection Act. This applies to all types of buildings or building ruins, hunting and fishing equipment, graves, crosses, inscriptions and all movable objects. Cultural monuments have the greatest value when experienced largely intact, and it is therefore an offence to destroy or remove cultural monuments and heritage sites. This protection normally includes a protection zone of 100 metres around a monument.

Maps

Buildings, graveyard, memorials and attractions are identified by number or letter in the text and on the maps: General map of the Ny-Ålesund-area with special maps marked on page 5, History of Building - Ny-Ålesund (numbers and letters in colour) page 30-31, graveyard, memorials and attractions ● page 32-33, Ny-Ålesund coal mines page 34-35, Science stations ● page 36-37.

Before Ny-Ålesund



Hut with annexation claim sign put up by Green Harbour Coal Co. Chr. Anker in 1909. Below the description of the area are dates and names from the annual renewals. The bottom line is Peter S. Brandals signature from his first visit in 1916. Three of the boards four parts are in Ny-Ålesund.

Photo: 1922, Anders Orvin, Norwegian Polar Institute.

TEXT ON THE ANNEXATION CLAIM SIGN:

Green Harbour Coal Co. Chr. Anker Kings Bay. Engineer F.Nannestads annexation on June 23rd, 24th and 25th 1909. Witnessed by EdmundYtteborg, J. Falk Dessen. From the board at the fjords south west opening an land area 5 - five- kilometer in land from the low tide mark around Kings Bay with right to the beach and annexation of "Kolhamna" to the board on the fjords north east side near Blomstrand harbor. Renewal by Captain S. Smith July 19th and 25th 1910 with an addition, including the holms. Witnessed by E. Ytteborg, I. C. V. Selmer. (The next lines are renewals from 1911 to 1915.) The last line is: Renewed Peter S. Brandal witness Johansen Brandal, A. Halvorsen.

Kongsfjorden is situated at 79 ° north, on the north-western side of Spitsbergen, the largest island in Svalbard. The fjord is thirty kilometres long and nearly ten kilometres wide. Along the southern side there is a flat coastal plateau set against a backdrop of jagged mountains and glaciers. The Kronebreen, Kongsbreen and Conwaybreen glaciers enter the sea at the innermost point of the fjord. The Ossian Sarsfjellet and Lovénøyane are situated in front of the glaciers with the jagged Tre Kroner peaks in the background. Ny-Ålesund is situated on the southern side, halfway inside the fjord, with the Blomstrand peninsula to the north.

Kongsfjorden (Kings Bay) was used by the first western European whalers in the 1600s, and whaler graves have been found at Hollendarhaugen in Ny-Ålesund.

The British whaler Jonas Poole discovered coal in Kongsfjorden in 1610. The Swedish geologists Christian A. Blomstrand and Otto M. Torell detected the presence of coal in Kongsfjorden in 1861 and 1868.

After Søren Zakariassen opened the first commercial coal mine in Svalbard in 1899 at Isfjorden, there was major interest in starting coal mines. In 1901, A/S Bergen-Spitsbergen Kulgrubekompani annexed an area on the southern side of Kongsfjorden. Here, the coal was visible to the eye. A steel wire was erected around the area, and an annexation sign and a small barrack for tools and dynamite was also erected. The annexation sign has been preserved as the oldest cultural monument in Ny-Ålesund's coal history. No coal was mined, and the Bergen company never returned to Ny-Ålesund.

In 1909 an expedition from Green Harbour Coal Co., a company owned by Chr. Anker in Halden, arrived at Kongsfjorden. They took possession of the same area as the Bergen company and erected annexation signs and a house. One of these annexation signs can also be found in Ny-Ålesund. The area was named Kolhamna. The coal field received yearly visits until 1915.

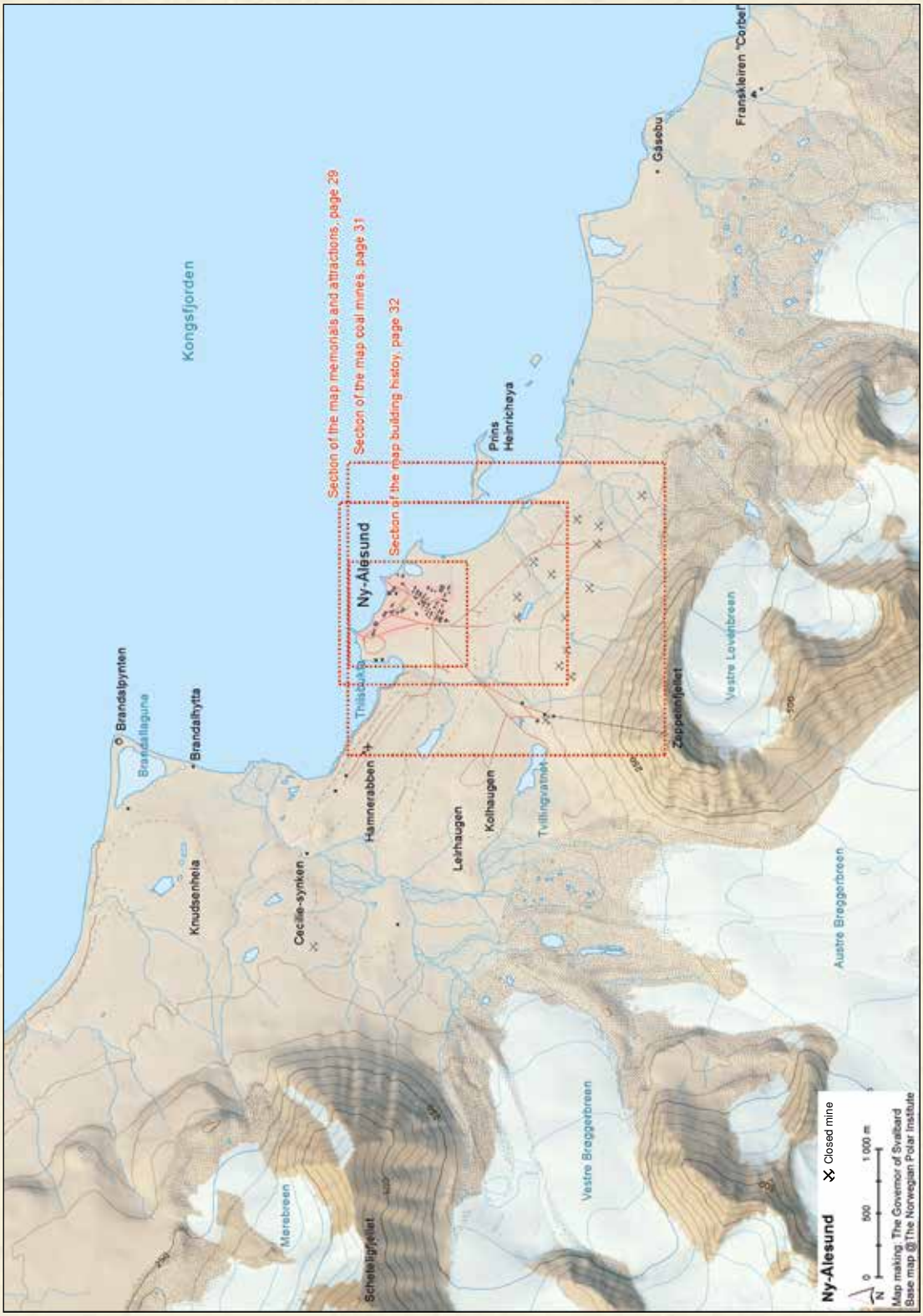
In 1910 the house from 1909 was moved to the mining area where the new Agnes mine opened. In 1911 commercial activities were carried out for 14 days and, 400 metres further south, coal was found in a place that was named Godthaab. A large zinc annexation sign was erected on the house. Three quarters of the sign are at the museum in Ny-Ålesund. In 1912 and 1913 commercial activities took place for six weeks, and a new cabin and barrack were built. Green Harbour Coal Co. also visited the coal field in 1914 and 1915 but only for a few days.

Following the death of Chr. Anker in 1912, the estate wanted to sell Green Harbour Coal Co. In 1916 the Arctic Sea ship owner Peter S. Brandal in Ålesund received an offer to buy.

The Green Harbour house **1** *is the oldest house in Ny-Ålesund. It was built by Green Harbour Coal Co. Chr. Anker in 1909 or 1912 and placed in the mine area before it was moved into the town. The cows do not seem satisfied with the grassing possibilities.*

Photo: Ca 1960, Elna Stiens photo collection.

General map of the Ny-Ålesund area with squares showing the other maps with pages



World's northernmost coal mine 1916-1929

The Josefine coal mine in the 1920s.

Photo: 1920s, Erling Einar Angell Thiis, Norwegian Polar Institute.

Peter S. Brandal, ship owner and Arctic Sea captain from Ålesund, had previously carried out business with the Germans and continued doing so during World War I. Norway was neutral during World War I, but the merchant shipping fleet was undertaking assignments on behalf of Germany's enemies. Brandal feared that his German connections would make it difficult to buy coal from England and the western allies. What do you do when no one wants to sell you any coal? You start your own coal mine. In 1916 he received an offer to buy Green Harbour Coal Co.'s coal field in Kongsfjorden. He travelled up to take a look at the site and bought it. Kings Bay Kull Comp. A/S was formed in Ålesund on 12 December 1916 by Peter S. Brandal, solicitor Trygve Klausen, Arctic Sea ship owner Michael Knutsen and consul Trygve Jervell.

The flat plain below the Zeppelin mountain was named Kolhamna. Two mines opened in 1916, numerous layers of coal were found and three small buildings were erected in the coal field. In the centre of Ny-Ålesund there is now a small red house called the Green Harbour house **1**. The house is the only one remaining of the three buildings from the site in 1916 and is likely to be the oldest house in Ny-Ålesund.

Kings Bay Kull Comp. A/S made a large and daring investment. The company developed a town with enough room for 250 winter residents and an additional 50 during the summer. The site had everything a town would require in terms of residential properties, power plants, workshops, a dock and a telegraph station. Several mines with pithead installations and railways, locomotives and coal carriages were built. All materials and equipment necessary to build the town had to be shipped by boat from the mainland. Nothing could be obtained in Svalbard. The challenge was not only that the coal was situated 2000 km to the north of the buyers on the Norwegian mainland, but that shipping could take place only during the four to five ice-free months. Mining would take place at 79° north during the polar night.

1917 saw the arrival of the first boat ferrying labourers, mining equipment and materials for buildings. This was the start of Ny-Ålesund, the world's northernmost mining town. However, this was not the name of the place at the time. It says Brandal City on a map dating back to 1919, named after the founder Peter S. Brandal. A few years later the town was referred to as Ny-Ålesund after the city in which the company was founded.

Front row from left: officers house I, officers house H and managers house 16. In the row behind is the hospital G, officers mess 15 and mine office 17. The officers houses and the hospital was burned down by German soldiers during the second World War. *Photo: 1920, Erling Einar Angell Thiis, Norwegian Polar Institute.*

A total of 143 men were employed during the first summer. Tracks were laid up to the Agnes mine, and 800 tonnes of coal were extracted. Several buildings were erected and furnished: two 40-man barracks, Barrack 1 and Barrack 2. Barrack 1 D, was burnt down in 1973, but Barrack 2 6 is still standing. The canteen barrack, Mellomdekket, was erected where the Kongsfjord store E is currently situated. Horse stable C, the workshop with forge and the steam-powered generating station B are also gone. The engine shed was situated where M is now. The first overwinter stay in Ny-Ålesund took place in 1917-18, and 62 people lived in the mining town at the time. 15,000 tonnes of coal were shipped out the following summer.

300 people were employed by summer 1918. Firstly they erected five six-man prefabricated barracks for themselves. Some were later extended and became small houses for families. The red house 12 behind the museum has been renovated as a six-man barrack and is a museum. The converted houses 10 and 11 were also six-man barracks.

Three 40-tonne barges came up to bring the coal from land to the ships as no dock had been built. One of these barges 24 has now been converted to a boat-house in Thiisbukta. Bathing facilities F,

The coal quay in 1925. Todays quay is here 53. On the quay we can see coal wagons. A ship is being loaded through coal shuts.

Photo: Helge Hjelle, Norwegian Polar Institute.

Ny-Ålesund in 1938. *Photo: Norwegian Polar Institute.*

and a house for the pithead at the mine were also built. Ny-Ålesund got a telegraph station 7 which turned out to be crucial to the operation of the mine and general contact with the mainland. The telegraph station was built in 1917 and was situated on the hill facing the fjords. It was equipped with its own power plant. After World War II the telegraph was moved to where it is now 7 between the Ungkarsheimene buildings 36 and 39. The telegraph opened to the general public in 2014 following extensive renovations that started in 2012.

Chefsmessen, or the Villa as it was also called 13, was built to house the board of directors and CEO of the mining company when they came to visit. The house is now called the Amundsen Villa because the Arctic explorer Roald Amundsen lived there for a few weeks in 1925 and 1926. During winter 1927-28 the Governor of Svalbard, Johannes Gerckens Bassøe and an official and his wife lived in the villa. The Amundsen Villa was restored and renovated in 2009-2011.

An officers mess 15, home for the Manager 16, and an office building 17, were built during summer 1919. They are all still standing today. Two officers' residences that stood where I and H are now and a hospital at G, are gone. Ny-Ålesund then gained its largest building, a 76-man barrack 14, which is currently the Nordpol Hotellet which is painted on the roof. Mellageret 18, which now acts as the town's gathering place during summer, was also erectedin the same year.

To the west of the Nordpol hotel, four 8-man barracks were built. These became family homes in the 1920s and have since been replaced by modern houses 48, 50, 51, 52. The green house 9, was an 8-man barrack. It is preserved as it was as a family house in 1963, now a museum. The pitheads at the mines were extended to include more houses. All of these are now gone, but some dwellings are still visible. Sætra 21, which was situated in the pithead of the Sofie I mine, was moved to the town as a family home in the 1950s.

The Governor of Svalbard has restored a small ventilation and rest shed by the Josefine mine.

The coal dock with the railway was completed during the summer of 1920. It was situated where the current dock is. The coal ships were loaded during summer, and then the train drivers and other seasonal summer workers would arrive. The pigsty for 60 pigs J, and the bakery, K, were also built, both are now gone. Barrack 3, Lompa L, was used for seasonal workers and had enough space for 32 people. It burned down in 1965. The store 8 was erected in 1920 and is now Ny-Ålesund's museum and information centre. The current post office 19, was built as a library and has also been used as a school.

In 1920-21, 269 people remained over winter, 12 of which were employed women. There were also ten women and 23 children staying in the town as family members. The world's northernmost farm, consisting of four cows, five horses and 92 pigs, could also be found here.

The supply of fresh water to households and workshops is a challenge when there is permafrost in the ground. There are no wells or groundwater, and the meltwater from glaciers in summer is full of sediment. Lake Tvillingvatnet was and still is the best water source in Ny-Ålesund. A two kilometre long water pipe and a pipe duct were built down to the town in 1925. The pipe duct contained heating cables and provided the only year-round water pipeline in Svalbard. It ended at the mining baths, BATH, bakery, B, and workers' mess, Mellomdekket, 13. The final 250 metres were built as a rising bridge, and the water was transported by horse from the end of the water pipeline to the houses in town.

23 of Ny-Ålesund's 29 preserved buildings were built between 1917 and 1920. Ny-Ålesund is the place in Svalbard with most preserved buildings from mining activities. The town was grey, none of the houses were painted. Some of the houses gained some colour in connection with the hotel operations in 1936.

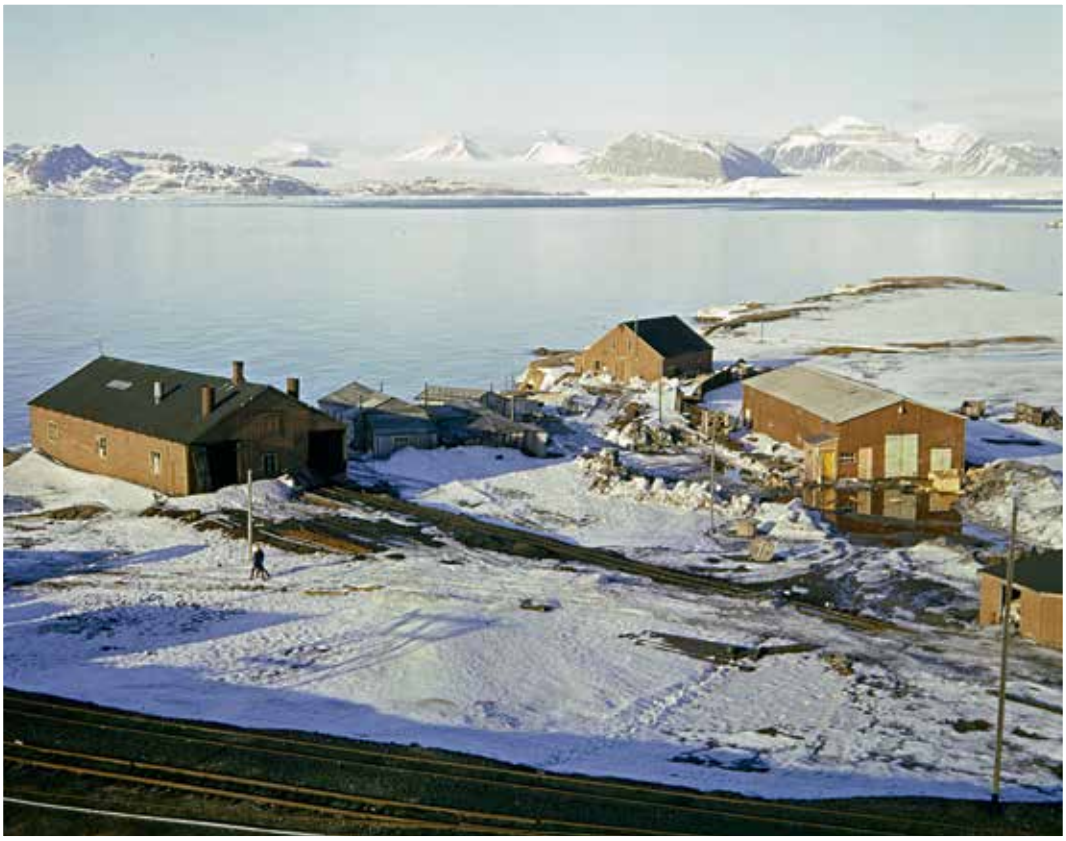
After 1920 there was barely any development in Ny-Ålesund, with the exception of the pithead installations at the mines. From 1921 until the shutdown in 1929, operations were excellent in the Ester I and Sofie I mines. Between 70,000 and 90,000 tonnes of coal were extracted each year. After World War II there were only three years during which production was this high. Low coal prices resulted in a poor financial situation, and the company became dependent on operational support from the Norwegian state. Operations were terminated during winter 1925-26, and each year the state considered whether to support summer and winter operations. A new generating station was built in 1928.

During winter 1928-29 it was discovered that the Sofie I and Ester I mines were not viable and the coal mines in Ny-Ålesund were closed in autumn 1929.

From 1929, two or three guards were stationed there until the hotel operations and fishery arrived in 1936.

The Norwegian state acquired all shares in Kings Bay Kull Comp. A/S in 1933.

Left the coal mine Sofie I, right coal mine Ester I, 1938. *Photo: Norwegian Polar Institute.*



The work shop area by Solvatnet in the 1960s. From left the engine shed **M**, *some small stores now gone, and beyond Store 1* **A**. *To the right is Jernlageret* **20** *and a part of Mellageret* **18**, *is just visible.*

Photo: Herta Lampert Grøndal, Tromsø University Museum, UiT The Arctic University of Norway.

The town closest to the North Pole

Record amounts of coal were extracted between 1925 and 1928, but this is not what Ny-Ålesund would become world-famous for. The town became the starting point for the race to the North Pole. A community of 271 people, a dock, a telegraph station, as well as technical and practical expertise only 1231 km from the North Pole meant that Ny-Ålesund was the best place in the world for expeditions to the North Pole.

N24 og N25

On 15 April 1925 Roald Amundsen arrived in Ny-Ålesund with three ships. He wanted to try to reach the North Pole by air. The seaplanes N24 and N25 arrived in crates aboard the "Hobby". The planes were assembled on land, and Roald Amundsen and his six expedition partners moved into the mining town. Amundsen, the expedition sponsor Lincoln Ellsworth and Amundsen's Materials Manager, Fritz G. Zapffe were assigned beds on the first floor of Chefsmessen 13 . It had been built in 1918 as a summer home for the CEO and board of directors of Kings Bay. The directors moved out when Amundsen arrived, and this is when the house was given the name Amundsen Villa. The rest of the expedition's participants were assigned beds in one of the small family homes and at the hospital. Everyone ate together at Speilen, now known as the Green Harbour building 1. This was the oldest building in Ny-Ålesund. The name was taken from another elegant eatery, the Mirror Hall (Speilsalen) at the Grand Hotel in Oslo.

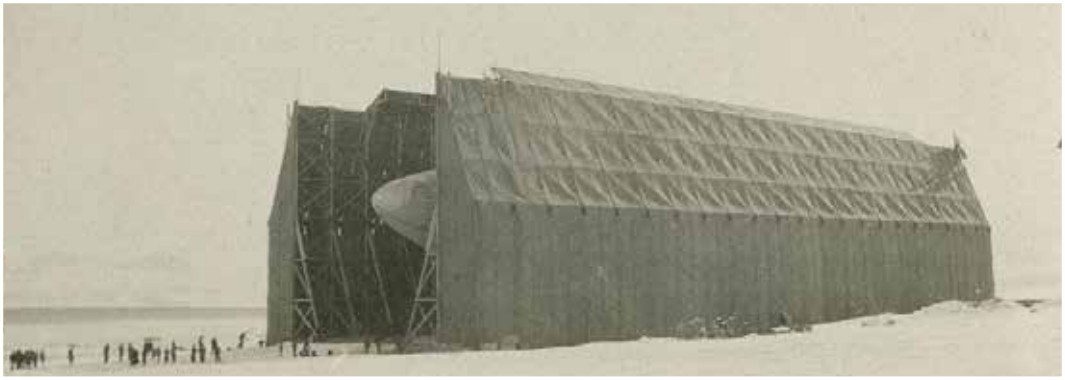
Two of the buildings in Ny-Ålesund held special importance to the expedition. One was the workshop B dating from 1917, where those assembling the planes received crucial assistance from the mining company's employees. This property B , is now gone, and the other was the telegraph station dating from 1918 7. It has been preserved and was renovated with telegraph equipment from the post-war era in 2009-2011. Via Spitsbergen Radio in Grønfjorden he received weather forecasts, and this is where he went to set the expedition clocks using the time signal from the Eiffel Tower. Amundsen and the journalists also used the telegraph to send telegrams about the expedition's preparations to the mainland.

Amundsen's crew took hygiene seriously. Friday was bathing day in the mining baths, ladies in the morning and gentlemen, including the North Pole pilots, in the afternoon. The bath F, was built in 1918.

The two flying boats set off towards the North Pole on 21 May. Amundsen and his expedition had been in Ny-Ålesund for five weeks by then. They would later return to the town for another week. The planes had to perform an emergency landing at 88 degrees north and the six adventurers returned to Ny-Ålesund on 18 June 1925 following a miraculous rescue operation. The telegraph operator was kept busy, and Amundsen and his expedition crew spent a few days in the Amundsen Villa in Ny-Ålesund before taking the sea route south.

N25 in Ny-Ålesund May 1925.

Helge Hjelles photos, Norwegian Polar Institute.



The air ship NORGE in the air ship hangar 6 in Ny-Ålesund in 1926.

Helge Hjelles photos, Norwegian Polar Institute.

Back in Ny-Ålesund the directors Peter S. Brandal and Michael Knudsen moved back to their director's residence, now known as the Amundsen Villa, and Ny-Ålesund returned to its normal coal mining life.

In memory of this first attempt to reach the North Pole by plane, a monument bearing the names of the six participants was erected 7. It is situated on a small hill outside the town, and a bust of Roald Amundsen 3 can be found in the town centre.

The NORGE airship

No houses or other buildings were erected for Amundsen's N24 and N25 expedition, what Ny-Ålesund already had to offer was sufficient. But new-builds were necessary for the next North Pole expedition. In 1926, Amundsen wanted to try to reach the North Pole by air again, this time with the airship NORGE. It required both a large hangar and a mooring tower. Erecting these structures in the Arctic winter posed major challenges. They were therefore prefabricated as elements on the mainland. Timber Master Ferdinand. R. Arild managed the 23 people undertaking the assembly. They arrived in Ny-Ålesund on 22 October 1925, accompanied by 600 m^3 wooden material for the hangar, the hangar cloth, 11 tonnes of iron bolts and what would later become the airship mast. During the dark polar winter they managed to construct the hangar, cast concrete foundations and erect the mast. It is a very impressive piece of work.

The wooden hangar 6 was 110 metres long, 34 metres wide, 30 metres high and covered by 10 measures of double sail cloth. The mooring mast is 35 metres high and still standing today 4.

The hangar eventually collapsed as the bracing wire snapped. Kings Bay was in need of wooden materials, and the solid timber from the hangar was reused in various building projects. The two railway bridges across the gorge immediately next to where the hangar was located were built using materials from the hangar. Here you can get a good idea of the dimensions of the timber and how they were joined together. The hangar was kept steady using 16 steel bracing wires. Today, we can see several of the concrete foundations and iron loops to which the bracing wires were attached. And we can clearly see the levelled area where the hangar stood, with a talus at each end.

Amundsen arrived on 21 April. He moved into the villa 13, which was now named after him. We also believe that Lincoln Ellsworth may have lived here as he also helped finance this expedition, but the others were accommodated throughout the town. Few people stayed in Ny-Ålesund over winter in 1925-26, only 17 people in total. This meant that the town had plenty of space. Materials Manager Fritz G. Zapffe and the Italian airship designer Umberto Nobile stayed at the hospital G, which was situated where Trønderheimen, one of the Swedish barracks from 1945, can now be found 25. The foundation wall protrudes under the barrack, towards the road. The 50 men involved in the expedition ate at the workers' canteen, Mellomdekket, which dates from 1917 E and was demolished in 1969. The Kings Bays store, Kongsfjordbutikken, can now be found on that plot.

The NORGE airship took off from the airbase in Ciampino, Italy on 10 April. The journey took it via Pulham in England, Oslo, Leningrad and Vadsø before the airship came flying through Kongsfjorden on 7 May. The airship was moved into

The air ship NORGE in Ny-Ålesund May 1926.

Helge Hjelles photos. Norwegian Polar Institute.

the hangar and refilled with hydrogen gas that was supplied in approximately 10,000 steel containers. These were valuable and had to be returned to the mainland, but one was saved and can now be found at the museum in Ny-Ålesund.

The northbound journey started on 11 May. NORGE passed the North Pole on 12 May and landed in Teller, Alaska the next day. This was the first time anyone had seen the North Pole.

The ITALIA airship

Umberto Nobile returned to Ny-Ålesund with his own airship, ITALIA, on 5 September 1928. His plan was to fly to the area surrounding the North Pole for the purpose of research and exploration. In Ny-Ålesund he could take advantage of the hangar 6 and 4 mast, which were still in working order, and he was familiar with the town's facilities such as the port and telegraph from his stay in 1926. It is not known which house Nobile lived in. We must assume that he officers'

The air plane Josephine Ford in Ny-Ålesund with the coal mines Ester I and Sofie I behind. On May 9th 1926 Richard E. Byrd and Floyd Bennett tried to reach the North Pole by air from Ny-Ålesund with Josephine Ford. Byrd said they reached the pole, but today it is generally agreed that they did not.

Photo from "Ny-Aalesund - Svalbard", Kings Bay Kul Comp. A.S., Aalesund.

residences, while the crew stayed in lived in good conditions, perhaps in one of the workers' barracks. There was plenty of space as only 162 people stayed in the town over winter.

Nobile's flights came to a tragic end. Following two successful test flights, 11 men set off towards the North Pole on 23 May. The next day they lost ascending force, and ITALIA crashed hard into the ice. The gondola carrying Nobile and some of the men broke off and, with less weight, the airship lifted off again with six men on board who were never found. A major search operation involving 22 planes, 15 ships, two teams of dog sleds, as well as many smaller vessels and a total of 1500 people was initiated. The search operation became major international news, and the telegraph station 7 in Ny-Ålesund became the press centre. When Nobile and the seven others who were rescued returned to the town after nearly two months, Ny-Ålesund had become famous worldwide and this awareness was not lessened by Roald Amundsen disappearing on his way from Tromsø to Ny-Ålesund to participate in the search with the seaplane Latham. The final communication from Amundsen was received via the Ny-Ålesund telegraph.

As well as the telegraph station, the Amundsen Villa was also at the centre of events. The Governor of Svalbard Gerckens Bassøe and his official and wife had hired the Amundsen Villa for the winter and ended up with a lot to do during the search operation, assisting Norwegian and international search and rescue crews and all kinds of journalists.

The telegraph station 7 and the Amundsen Villa 13 have both been renovated, and the airship mast 4 towers close to the settlement. Those who are looking will be able to identify the plot of the airship hangar and several of the bracing wire foundations just 500 metres from the settlement.

The air ship ITALIA in Ny-Ålesund april 1928.

Helge Hjelles photos, Norwegian Polar Institute.

Tourist hotel and fishery

The Amundsen Villa 13 *in 1937 when it was a hotel.*

Photo: Robert Devron,Norwegian Polar Institute.

In 1938 the hotel moved to the miners barrack and the Amundsen Villa became a bar.

Photo: Wilhelm Solheim, 1939, Norwegian Polar Institute.

The grandest residence in Svalbard in 1918 was the director's residence in Ny-Ålesund 13. This was where the company director and visiting board members lived during the summer. The property was located on the outskirts of the settlement at a suitable distance from workers and officials. The house has had many names: Chefs-messen, Direktørboligen and Amundsen Villa after Roald Amundsen stayed there in 1925 and 1926. When it was used as a hotel in the 1930s, the house was given another two names, first "NORTH POLE HOTEL" and then "NORD-POL BAR".

The Norwegian state acquired Kings Bay Kull Comp. A/S (KBKC) in 1933 and looked for opportunities to bring business to the town. The company wanted there to be activity so that buildings and facilities would be taken care of. From 1929, the town was populated only by a guard team of a couple of people. The two opportunities that arose were a tourist hotel and fishery.

The justification for hotel operations in Ny-Ålesund was that tourism had existed in Svalbard from the latter part of the 1800s. KBKC had already been selling postcards and souvenirs during the summer since the 1920s. Svalbard had Norwegian mining communities in both Longyearbyen and Ny-Ålesund, and this gave rise to the possibility of both tourist and freight shipping. Troms Fylkes Dampskibsselskap (TFDS) built a dedicated vessel, D/S Lyngen, for Svalbard traffic. The ship sailed five or six times a year from 1934 until World War II.

Adolf Hoel was the man who managed to get hotel operations going in Ny-Ålesund. He was a geologist and had been working in Svalbard for nearly 30 years. In 1928 he became the head of the newly created company, Norges Svalbard- og Ishavsundersøkelser, the predecessor of the Norwegian Polar Institute. Hoel was very familiar with Svalbard and eager for business activity, mining in particular, but he also saw opportunities in tourism. In 1935, Hoel managed to get Den Norske Husflidsforening involved in the sale of craft products to tourists in Ny-Ålesund. Sales took place in the workers' canteen, Mellomdekket E, which was demolished in 1969.

Hoel laid down the plans for the hotel operations together with Laura Borgen, who had experience of hotels. During the summer of 1936, Borgen and two assistants travelled up to investigate the conditions and sell souvenirs. A deal had been made with KBKC concerning the use of the property and inventory. Ship owner Jacob Kjøde, who had shipped coal from Svalbard for a number of years, financed the hotel operations. The company directors' residence, the Amundsen Villa, became the NORTH POLE HOTEL, as displayed in large letters on the roof facing the fjord. During the summer of 1936, eight large tourist ships carrying more than 4,000 tourists docked, and the sales of souvenirs and alcohol went well.

The hotel guests were cruise tourists visiting land for a day trip and those who arrived on D/S Lyngen. They stayed for 14 days or more until the steamship returned. What did Ny-Ålesund have to attract tourists? Roald Amundsen and Umberto Nobile's North Pole expeditions had put the town on the global map, and the airship hall and mooring mast were situated close to the hotel. For physically fit tourists, excursions to glaciers and bird cliffs, as well as skiing trips on Lovénbreen were arranged. Others found the duty-free alcohol to provide a welcome distraction. The local drink *Isbjørnkyss* (polar bear's kiss) was especially popular, but what it was made of remains unclear.

Encouraged by the positive operations in 1936, Laura Borgen applied for public funding for hotel operations in 1937. The application was rejected, and coal ship owner Jacob Kjøde financed the operations again in 1937. Ten cruise ships with more than 7,000 tourists arrived in Ny-Ålesund that year. D/S Lyngen sailed its regular route, and the hotel operations went well.

The successful operations resulted in public funding in 1938, and A/S Nordpolhotellet was formed with Adolf Hoel on the board of directors. 11 people were employed to run the hotel and to fix up more of the properties. The workers' barrack **14**, which had been built for 76 miners in 1919, was transformed into a hotel. The barrack contained bedrooms only. There were no bathrooms, laundry facilities, toilets, kitchens or living rooms. The name NORDPOLHOTELLET was painted in large letters on the side of the roof facing the fjord. The ground floor was equipped with a kitchen, dining room, lounge and office, and twelve bedrooms were created on the first floor. The Amundsen Villa was given the name NORD-POL BAR. The name was written in large letters on the roof and was clearly visible from the tourist ships that moored in Kongsfjorden. In the bar on the ground floor, the walls and ceiling were decorated by Robert Drevon and master painter Petter Gran. The motifs were taken from North Pole expeditions and landscapes, as well as hunters and nature.

The doctor's and engineer's house from 1918 **I**, was put into use with guests in four rooms on the first floor. It was located where Mexico **26**, now is and burned down during World War II. The workers' canteen was used as a dining room, while another property provided accommodation for hotel employees. The exterior of the Amundsen Villa and Nordpolhotellet were painted, and around 5,000 tourists visited Ny-Ålesund in 1938.

D/S Lyngen brought the tourists to Nordpolhotellet in Ny-Ålesund. The ship belonged to Troms Fylkes Dampskipsselskap, now Hurtigruten, and had a regular route from Tromsø to Svalbard in 1934-1939 and 1952-1965.

Photo: Norwegian Polar Institute.

The Nordpolhotellet in 1939. To the left part of miners Barrack 3 L *and to the right the officers mess* 14 .

Photo: Wilhelm Solheim, Norwegian Polar Institute.

For the 1939 season the hotel had the properties and rooms required to meet demand. The guests were awarded visitor certificates signed by the Governor of Svalbard Wolmer Marlow. Physician Per Holager looked after the health of the visitors. The telegraph station also contained a post office managed by telegraph operator August Syvertsen. The telegraph station was built in 1918 and was situated on the hill facing the fjords. After World War II the telegraph was moved to where it is now 7 between the Ungkarsheimene buildings. It opened to the general public following extensive renovation work in May 2014.

In addition to the six scheduled visits by D/S Lyngen and in spite of the tense political situation in Europe, eight large tourist ships called in 1939 and operations were successful.

A big inauguration dinner was held on 3 September for the recently decorated hotel buildings. During the middle of dinner an ominous telegram arrived, stating that Germany had invaded Poland. World War II had begun. AS Nordpolhotellet's first era was thereby over almost before it had begun. Everyone left on the final departure of D/S Lyngen that year.

Hotel operations after World War II

During World War II the officers' residences and hospital H, I and G were burnt down by German soldiers, while Nordpolhotellet only suffered minor damage to the roof. When Kings Bay Kull Comp. A/S (KBKC) started up mining operations again in 1945, Nordpolhotellet 14, was turned into a space for officials. The single officials lived and ate here, and prominent guests and other visitors would also stay here. Officers who had brought their families and therefore did not live in the officials' residence, would often eat there and would bring their families over for Sunday dinner. The Amundsen Villa 13 was also given a new lease of life and turned into family homes in 1956.

Mining activities in Ny-Ålesund closed down in 1963 following the Kings Bay accident the previous year. D/S Lyngen had faithfully transported tourists, miners, post and cargo to Ny-Ålesund ever since 1951, and in 1963 the shipping company suggested that hotel operations be resumed again. The A/S Nordpolhotellet company still existed.

In autumn 1964, TFDS became involved with A/S Nordpolhotellet with a stake of NOK 10,000 and trial operations were carried out in 1965. The manager was the steward Ivar Kræmer, who was assisted by Nanna Ødegaard from Kyrksæterøra and Alice Karlsen from Gryllefjord, but the business operated with a loss.

By 1966 Nordpolhotellet was run exclusively by Ivar Kræmer and Nanna Ødegaard. 12-14 guests stayed at the hotel for the duration of D/S Lyngen's ten-day roundtrip to Tromsø. A/S Nordpolhotellet closed down in 1967 and was deleted from the Norwegian Business Register in 1978.

Fishing boats at the Ny-Ålesund quay in 1936. Todays quay is here **53**.

Helge Hjelles photos. Norwegian Polar Institute.

Today, both the Amundsen Villa and Nordpol-hotellet have returned to their original use. In 2009-11 the exterior and interior of the Amundsen Villa were renovated, and the ground floor has been returned to how it was during the hotel operations in the 1930s, including the painted decorations on walls and ceilings. The Kings Bay director lives on the first floor, whereas the old bar acts as entertainment premises. The 76-man barracks from 1919, which was changed into a hotel in 1938, reopened in 1998 having been redecorated to modern hotel standard, and NORDPOLHOTELLET was once more painted on the roof. It is used by Kings Bay when it receives guests. The lounge has largely been retained as it was in 1939.

Fishery

The Norwegian state acquired Kings Bay Kull Comp. A/S in 1933 and looked for opportunities for the town. In 1934 there were excellent fishing opportunities for cod and Greenland shark just off the western coast of Spitsbergen. The fishing organisations asked the authorities to establish a warehouse in Ny-Ålesund for consumables for the fishing fleet. KBKC responded positively, and in 1935 it was given the task of establishing a fishery by the Norwegian Directorate of Fisheries. The work was managed by the company's General Manager, Arne Brøgger.

But what did a mining town have to offer fishermen? The essentials were in place: a decent dock and electrical power for the freezer facility, housing for the station staff and an excellent telegraph station. What about storage space for salt and ice and housing for the ice grinder? Kullkaia, where the current dock is situated, was able to be used. It had high posts clad in steel plates. These were taken from the vast warehouse for the marble quarry on the Blomstrand peninsula on the other side of the fjord. This provided space for the salt store, refrigeration facilities and the ice grinder. Steaming experiments on cod liver oil using steam from a mining locomotive were carried out but were unsuccessful. The fishermen also requested minor ship repairs, bait and stockfish racks, but the fishery was unable to provide this.

The staff at the fishery consisted of a radio telegraph operator, steward and four others. The telegraph operator was responsible for the sale of supplies, diesel oil, lubricating oil and ice. The telegraph remained in operation during the period in which the fishery was active. 150 fishing boats came, and in spite of operating at a loss there were operations in 1936 too. In 1937 ship owner Jacob Kjøde became responsible for the operation of the fishery in Ny-Ålesund. A coffee house for fishermen opened up in one of the officials' residences in 1938. It was run as part of A/S Nordpolhotellet.

The fishery opened for the last time on 4 July 1939 during D/S Lyngen's first visit. When the summer season ended and the ship returned to the mainland on 3 September, World War II had broken out and the fishery and hotel operations were abandoned. The fishery was closed down for good, whereas the hotel operations were later resumed.

Ny-Ålesund during World War II

A troop from the Norwegian garrison on Svalbard is visiting the deserted Ny-Ålesund in August 3rd 1942. The building behind the soldiers is Mellageret **18**.

Photo: Norwegian Armed Forces Museum, Army, Oslo.

Mining operations in Ny-Ålesund were idle from 1929. Until 1941, KBKC had only a married couple and a man acting as the maintenance and guard crew in the town. World War II created a greater market for Svalbard coal on the Norwegian mainland, and during summer 1941, 80 people arrived to begin preparatory development works in the Ester II mine. Some coal was extracted, and on 27 August approximately 8,000 tonnes of coal were ready for shipping, but the English cruiser Aurora visited the town that very same day with an evacuation order.

"For the people of Ny-Ålesund. In accordance with the decision made by the allied governments and communicated through the Military District Commander today, we need to vacate Svalbard this winter. It is important to follow the orders that are issued so that we can vacate in good order and as quickly as possible."

Signed by
The Governor of Svalbard, Wolmar Marlow.

To emphasise the seriousness and mandatory nature of the matter, all men between the ages of 18 and 55 were mobilised for the Norwegian Armed Forces in England.

During the evacuation, British and Norwegian soldiers destroyed anything that could have been of benefit to German military activities in Svalbard. The old and new substations that were under development were blown up. The same went for the radio masts. The telegraph station equipment was made unusable. The mining railway tracks and entrances to the mines were destroyed, the coal store was set on fire and the mining dynamite was blown up. Winter supplies and residents' luggage were loaded onto the sealer Polaric. On 29 August 1941 the Norwegian flag was lowered by Engineer Petersen under military salute. He was the oldest resident of Ny-Ålesund and had been there since the mines were established in 1917. He had also raised the Norwegian flag for the first time when Svalbard became Norwegian in 1925. The Aurora sailed to Longyearbyen, and on 2 September the

population of Ny-Ålesund was put aboard the troop ship Empress of Canada, which sailed to Glasgow in Scotland where it safely entered port on 8 September.

During the war, Kings Bay Kull Comp. A/S had offices in Norway and London and it arranged financial support for the company employees who were based in England during the war.

There were no acts of war in Ny-Ålesund during World War II, but both Norwegian and German soldiers came to check whether the enemy was using the town. The German weather ship Sachsen visited Ny-Ålesund in October 1941. Shots were fired at the settlement, and seven men disembarked when there was no reaction. They saw that the table in Nordpolhotellet 14, had been laid with food and drink and that it appeared to have been abandoned in a hurry. The Germans helped themselves to supplies, tools and maps. In August 1942 a troop of soldiers from the Norwegian garrison in Barentsburg carried out an inspection of Ny-Ålesund. They found no German soldiers but noted that the buildings and property left behind by the evacuated residents had been ransacked. Norwegian soldiers also visited in June 1943. The coal store was still burning but no further damage was found. The hospital G, was still standing, and there were no signs of German activity.

Later in August, the German submarine U-302 opened fire on Ny-Ålesund and three properties caught fire, the hospital G, and two officers residences H and I. In July 1944, soldiers from the Norwegian garrisons in Barentsburg and Longyearbyen carried out another inspection and saw that buildings had been destroyed. Peace came on 8 May 1945, and mining inspector Hans Gunnar Aasgaard visited Svalbard as early as July in order to inspect the mines. He feared that the crews of hunting vessels would steal what remained in Ny-Ålesund and asked Garrison Commander Captain Etterlid to send M/S "Prøven" to Ny-Ålesund with a corporal and three men aboard. They were able to report that Ny-Ålesund had been ransacked, even the linoleum had been taken from the Amundsen Villa. Some things had been taken by German soldiers during the war, but much had likely been "saved" by Norwegian hunters during the spring of 1945.

The telegraph during the Second World War on the hill west of the Marine laboratory 63.

Photo: 1942, Norwegian Armed Forces Museum, Army, Oslo.

The Swedish barracks

The five Svenskebrakkene in the 1970s. Sibir **N**, *which is gone, is behind the white house to the left. The white barrack is the hospital* **27**, *with the light blue Mexico* **26** *to the right. In the middle of the photo is Trønderheimen* **25**. *Samfunnshuset* **28** *is the red barrack to the right. The yellow wall indicates that the roof was raised in 1962.*

Photographer unknown, Svalbard Museum.

At the end of World War II, Kings Bay's board of directors in Norway and London knew little about the condition of Ny-Ålesund and the mines. They knew what had been damaged during the evacuation and that the facility had been left to deteriorate without maintenance for four years. They also knew that Longyearbyen, Barentsburg and Sveagruva had been burned down and destroyed by German attacks. Had Ny-Ålesund suffered the same fate?

Kings Bay wanted to resume coal mining immediately after the war had ended and, in collaboration with Store Norske Spitsbergen Kulkompani, the company established a procurement office in Stockholm for some of what was required for the reconstruction. During the winter of 1944-1945 it looked like the allies would be victorious, and two diesel generators, a locomotive and miscellaneous pieces of machinery were ordered. Equipment, supplies and personnel were shipped up during summer and autumn of 1945.

On 13 August 1945 Kings Bay Kull Comp. A/S' D/S "Vilma" arrived with Operating Manager and Engineer Sigurd Foss and 70 men to restore the town and prepare the mines for operation. Mining inspector Gunnar Aasgaard arrived from Longyearbyen on the same day to carry out an inspection of Ny-Ålesund, and he wrote a detailed report of his visit. The damage to the town turned out to be less than had been feared. Two officials' residences **H** and **I**, and the hospital **G**, had been destroyed, and the 76-man barrack,

Nordpolhotellet 14, had some damage to the roof as well as some interior damage. All of the windows in the town had been broken, presumably when the dynamite stores had been blown up. The telegraph station had suffered major damage, but the properties were otherwise in good condition.

The coal silo that had been moved to Ester II and which was nearly complete in 1941, was in good condition, but the opening to the mine had been damaged and was full of ice. Kullkaia had suffered some damage and would require a thorough overhaul prior to use. The water pipeline from Tvillingvatnet had been destroyed, and both of the substations were damaged, but two of the locomotives and several coal carriages were in good condition.

There was a great need for accommodation, especially during the summer season when additional people were taken on for coal shipping and outdoor work. No houses had been built in Ny-Ålesund since 1919, but five large barracks from a Swedish manufacturer were now erected, and these were referred to as the Swedish barracks. The barracks were pre-fabricated, single-storey modular buildings measuring 30 metres long and 7.80 metres wide. Kings Bay used the barracks to fill the empty space left behind from the buildings that were burned down during the war.

One barrack 27, became the new hospital andwas erected at the site of one of the former officials' residences. The foundation wall is still visible at the front. The hospital had a doctor's surgery, operating theatre, radiology room, sick bay for four patients, kitchen, bathroom/ sluice, store room and accommodation for the physician and the nurse. This was the hospital in Ny-Ålesund until mining activities were closed down in 1963. Since 1984 this Swedish barrack has been a snowmobile garage and has provided storage for the Welfare Organisation in Ny-Ålesund as well as for the Norwegian Polar Institute's research station.

A workers' barrack N, with double rooms was erected behind the hospital. It was situated at the outskirts of the settlement and was referred to as “Sibir” because it was situated “so far away”. It was converted into four family homes in 1959. It was used as a fox farm for the Norwegian Polar Institute from 1982. Sibir was demolished in 1992- 94 to make room for the Italian research station Dirigibile Italia 57.

Ny-Ålesund gained its own community hall 28, in a barrack situated between the store and Nordpolhotellet. It had a large hall for weekly gatherings with shows, dancing and a cinema, and the hall was also the venue for Christmas parties and other celebrations that brought everyone in the town together. The community hall also had a cafeteria and a room for bridge and other hobbies and also had some space for overnight guests. The hall was extended and the roof was raised in 1962. The sports hall was redecorated in 1998, and a sauna and new shower facility were installed, fully financed by lottery funds.

Trønderheimen 25, became the name of the workers' barrack that was erected in the space left by the hospital, Sy, which dated from 1919. The name stems from people from Trøndelag who were placed here, perhaps during the 1950s and 1960s when construction workers from Birger Pedersen in Namsos undertook projects in the town. Trønderheimen has undergone multiple modernisation projects and remains an accommodation barrack to this day.

Just across the road from Trønderheimen you will find Mexico 26, a workers' barrack with double rooms and a communal space. According to old Ny-Ålesund traditions the name stems from lively social events that took place there. In 1949, Mexico was extended to the west and the extension was, naturally, given the name New Mexico. Between 1973 and 1991, English geologists had a summer station here, and the barrack was also referred to as Cambridge during this period. Mexico returned to its old name when it was modernised and converted to flats for Kings Bay employees in 2008-09.

The Swedish barracks are the most recent of the automatically protected buildings in Ny-Ålesund and Svalbard. They are well maintained, and windows and sanitary facilities have been replaced. The use of the Swedish barracks provides a good example of Ny-Ålesund's transformation from a mining town to a research town.

In 1949-50, Ny-Ålesund also gained four new family homes, the London houses 2, 3, 4, 5. The buildings had been erected in the Northern Exploration Company's marble quarry, London, on the Blomstrand peninsula in 1912. Four of the houses were disassembled and moved across the fjord to Ny-Ålesund when KBKC required more homes.

From modernisation to closure, 1945 – 1963

The coal mine Ester III-VI in 1956. *Photo: Erling Christiansen, Norwegian Polar Institute.*

In the autumn of 1945 new-builds and repairs in the town had been completed, with the exception of the new substation. 140 people stayed over winter in 1945-46. The mines required extensive work before operations could resume. The mine openings had to be cleared, the ice in the mine shafts had to be removed and the damage to the pitheads and tracks had to be repaired. Ester II was established in 1941 and had to be emptied of ice before operations could commence.

A new pithead was established in 1946-47 with a mine entrance to the east of the other mines. Here, operations in the coal fields Ester III, IV and V and later VI began and continued until the accident in 1962. There was no coal export in 1946, but 61,000 tonnes was extracted in 1947.

The years immediately following World War II were difficult years for the state-owned company Kings Bay Kull Comp. A/S. The substation burned down in 1948, and 14 men lost their lives in an accident in the mine that very same year. There were explosion accidents in 1952 with nine dead and in 1953 in which 19 people died.

Working conditions were challenging in the mines. The coal field is split up by rifts and the rock is poor quality. Operations were undertaken to a depth of 200 metres, and water penetration took place under the permafrost. Explosive methane gas made adequate ventilation a necessity. The mode of operation was largely a matter of creating space and pillars, and coal pillars were left behind to keep the rock up.

Accidents and shutdowns led to poor operating performance. No plans had been made for long-term operation, and operations were stopped in 1953 while the owner, the Norwegian State, considered the future of Ny-Ålesund.

Modernisation

The Norwegian Parliament voted unanimously for long-term operation and modernisation of the mines and the mining town of Ny-Ålesund in 1956. The chairman of the board of directors in Kings Bay, Karl Skjerdal, wrote: "In 1960 the development programme was largely complete. In 1961 the development could be considered ready to use. During the 1961-62 business year, production amounted to approximately 120,000 tonnes (....), the new development consisted of a workers' canteen with freezer facilities and a frost-free storeroom 34, two bachelors' homes each housing 50 men 36 , 39 , central heating facilities for the camp area with bath rooms and laundry 35, modernisation of the older buildings, the turbo substation of 1500 kW with the former 600 kW station as a spare 30 , workshops, a purification plant with capacity of 100 tonnes per hour 41 , a storage and loading facility with a loading capacity of 500 tonnes per hour and a loading quay for boats up to 15,000 tonnes 42 . Conveyor belt transport was installed in the mines. The investment amounted to 24 million Norwegian kroner)." (This corresponds to 283 million Norwegian kroner in 2015, ed.)

The coal dump at Sofie 1 in 1960. Here the coal from Ester III-VI came out. *Photo: Harald Welde, The Directorate of Mining with the Commissioner of Mines at Svalbard.*

In 1959 coal transport from the mines switched from the railway to lorries, and new roads were constructed between the mines, the town and the docks.

The new, modern purification plant **41** was put into service in 1960. The removal of stone from the coal and sorting of coal took place using the sink and float method in magnetite mixed with water. Stone and sorted coal were stored in dump heaps, ready for sale and use by the town's sub-station. The interior equipment of the purification plant has been removed, but the building still towers as the tallest building in Ny-Ålesund.

In 1962, Ny-Ålesund had been developed for 210 people during summer and 180 in winter. There were also 25 family flats. The town also boasted the world's northernmost stables and barns for cattle and pigs.

The Ester mine had enough coal for 3-4 years of operations, and the plan was to gradually put the new mine in Vestre Senterfelt into use as it was scheduled to take over operations from 1966.

The family town

From 1956 there were extensive construction and civil engineering activities taking place at the same time as mining activities. The population doubled to around 200, and the future looked optimistic. Ny-Ålesund differed from the other mining towns in Svalbard by having many families with children. From 1955, 20-30 women and 30-40 children stayed over winter. The families lived in 10-12 small homes and flats in other properties.

Women and children were involved in the many activities in the town together with the miners. The town had a library, and the community hall **28** had a cinema and the theatre group arranged shows here. Afterwards residents could visit the cafeteria to buy beer and waffles. Kings Bay Idrettslag (KBI) arranged skiing and ski jumping. Competitions were also held in cross country skiing, competing against miners from Svalbard Turn in Longyearbyen. The Welfare Committee and Workers Association organised parties, and the town had its own orchestra. The women had their own association, Polarklokken, and their own cabin, Gåsebu, just outside the town.

To the left the coal cleaning plant **41** *with conveyer bridges for cleaned and sorted coal and stone. The power station* **30** *is to the right.* *Photo: Herta Lampert Grøndal, 1960s, Tromsø University Museum, UiT The Arctic University of Norway*

The coal quay with conveyer and loading tower 42 in 1960.

Photo: Harald Welde, The Directorate of Mining with the Commissioner of Mines at Svalbard.

The children attended school 6, joined the scouts and were confirmed. They had their own ski races and took part in boating in Kongsfjorden.

The town events could be read about in the local newspaper, Det nye Kings Bay, which was published between 1956-57 and 1962-63. There were plans to build a church, but these were not implemented before the mine was closed and Ny-Ålesund was vacated in 1963.

The optimism in Norway and the world's northernmost coal mining society came to an abrupt and tragic end. On 5 November 1962 there was an explosion in the Ester mine. The entire work shift, consisting of 21 miners, lost their lives. 10 of the bodies were found and brought up to the mourning town, 11 were not found and the mine became their grave.

In 1963, exactly one year after the accident, the decision was made to close mining operations, and the town of Ny-Ålesund was vacated.

Ny-Ålesund harbour 1964.

Photo: Thor Siggerud, Norwegian Polar Institute.

Research in Ny-Ålesund

The first research station **6** *in Ny-Ålesund came in 1966-67. It had instrument platforms on the roof and on the ground. Offices for the scientist were on the ground floor.* *Photo: Asgeir Brekke, 1967.*

Ever since the 1700s, research using private ships was the norm. The company Norges Svalbard- og Ishavsundersøkelser and later the Norwegian Polar Institute had used ships since the early 1900s and still do today. The ships provide transport from the mainland, bases with living quarters, store rooms and laboratories and provide transport for field workers. Researchers without their own vessels had to find a dock where ships would call, and this was something Ny-Ålesund could offer. Nowhere else in the world can you get this far north to a good, ice-free dock, where there is also a permanent year-round settlement with a developed infrastructure. Ny-Ålesund has therefore attracted researchers wanting to study Arctic phenomena within the fields of biology, geology, earth magnetism, the Northern Lights, permafrost and glaciology.

In 1909 and 1910 the geologist Olaf Holtedahl carried out the first scientific study of the coal fields on the southern side of Kongsfjorden. The area had been annexed for coal mining, test mining was under way, and there was a need for more geological evidence. Holtedahl's “Zur Kenntnis der Karbonablagerungen des westlichen Spitzbergens. II. Allgemeine strategrafische und tektonische Beobachtungen” arrived in 1913. This was the first research project to come to Ny-Ålesund.

The 1920s were crucial to Ny-Ålesund. Svalbard became Norwegian through the Svalbard Treaty of 1920, and the Norwegian state provided financial support to Norwegian mining companies in Svalbard. This resulted in the first research project in Ny-Ålesund. The geologist Anders K. Orvin surveyed the geology in the area during

the period 1922-1928 with regard to the incidence of coal. As part of this work he also created a topographical map of the property belonging to Kings Bay Kull Comp. AS, Kings Bay.

In 1927 the ownership of the land in Svalbard was arranged, and Kings Bay was assigned the rights to Ny-Ålesund, cadastral number 38 Kongsfjord.

The very beginning of Ny-Ålesund as a base and station for research came about in the 1960s. D/S Lyngen from Troms Fylkes dampskipselskap, TFDS, made summer journeys from Tromsø carrying post, tourists and others, researchers included.

In 1963, the French geologist Jean Corbel started building what is known as the French Camp A at Kongsfjorden, 4.5 km south-east of Ny-Ålesund. The camp has four buildings and was built in close proximity to Ny-Ålesund because the town had a dock and was a calling point for scheduled ships from Norway. This ensured that equipment and researchers could be brought onto land in a practical manner. The French Camp was refurbished in 1987 and in 2001 the station was named Jean Corbel. It is run by the French Polar Institute, which also has a station, Charles Rabot, in Ny-Ålesund.

During summer 1962, the East German geophysicist Ulrich Voigt arrived in Ny-Ålesund. He set up camp near the French Camp. During winter 1964-65 he returned with an overwinter expedition of five men, staying at Barrack 1 D. On the southern side of Kongsfjorden, approximately 8 km from Ny-Ålesund, they built a field station, the German Cottage, which is still standing.

In summer 1964, the Norwegian Polar Institute had its largest Svalbard expedition to date, including two helicopters. These were based in Ny-Ålesund.

Dr. Brian Harland was an English geologist from Cambridge, who worked in Svalbard from 1938. His research programme was called the Cambridge Arctic Shelf Programme, CASP. In 1965, Harland established a summer base in Barrack 1 D , and when it was due to be burned down in 1973, they moved to Mexico 26, one of the Swedish

The instrument platform by the School 6 is visited by two polar bear cubs. In back the Green Harbour-house 1.

Photo: Asgeir Brekke, 1967.

European Space Research Organization ESRO, 1967-1974 B *. The station building, Robben, is situated between the two radomes covering the antennas.*

Photo: Terje Brundtland, 1972.

barracks that had been erected in 1945. The researchers from Cambridge also had access to a boathouse and their own boat. Harland was a key driving force in the creation of the Natural Environment Research Council (NERC)'s base in Ny-Ålesund and, in 1991, the English researchers left Mexico and moved into their new year-round station 54. It was built on the plot of Barrack 1, where Dr Harland and his people had stayed during the summers from 1965 to 1973.

Winter 1966-67 was the first year of a norwegian overwinter research activity in Ny-Ålesund. The reason was that the Tromsø Geophysical Observatory, a department of the Norwegian Institute of Cosmic Physics, NIKF, had been carrying out activities at Isfjord Radio in Svalbard for a few years by this point. But when the Norwegian Council for Scientific and Industrial Research, NTNF, decided to build a telemetry station for the European Space Research Organisation, ESRO, in Ny-Ålesund in 1964, the Geophysical Observatory wanted to move there too.

Ny-Ålesund's first research building is the barrack 44, which was erected by the Royal Norwegian Council for Scientific and Industrial Research, NTNF, during the summer of 1966. Here, Asgeir Brekke and Steinar Berger installed traditional magnetometer equipment from the Norwegian Polar Institute (NP). In another little barrack, now gone, the All-sky camera that is now preserved at the town's museum, could be found. The rest of the measuring equipment was located at the School 6, a workers' barrack dating from 1917. It was called Barrack 2 and was used as a school between 1958 and 1964. The aerials for the measuring instruments were erected outside of the school. NP arrived and installed equipment for sun and ozone readings. The activities were managed by the Tromsø Geophysical Observatory, and during winter 1966-67 the research assistant Asgeir Brekke and engineer Jens Angard were tasked with observing the Northern Lights and operating all the other measuring instruments. Brekke and Angard lived in one of the cottages that were converted to family homes in the 1950s.

The creation of the ESRO telemetry station B was crucial to the transformation of Ny-Ålesund into an international research town. The two aerials and the station building were built on Hamnerabben, 2 km to the north-west of

Ny-Ålesund and which the locals referred to only as Rabben. Here an 850 metre landing strip was also established. Development commenced in 1965, and Kongs-fjord Telemetry Station was in operation between 1967 and 1974. The station staff ate at the canteen and lived in one of the bachelors' properties from 1956, refurbished for this purpose. NTNF was responsible for operations. The station downloaded satellite readings about the polar ionosphere, solar radiation, cosmic radiation and magnetic disturbances.

In 1968 the Norwegian Polar Institute established a year-round research station in the officers canteen, which dates from 1920 **15**. In the 1950s this building was used as a residence for the office manager and was known as Engans House, while it is now simply called the Yellow House. The house was equipped with an observatory platform on the roof. A seismograph was installed in the Ester VII mining workshop. NP also hired a boathouse from Kings Bay. Jens Angard was employed to carry out observation work during the winter of 1968-69. There were a number of readings for NP and other institutions: seismic, ionosphere, earth magnetism, Northern Lights, solarimetry and glaciology. Many of these readings were a continuation of the work carried out by Angard and Asgeir Brekke at the school during 1966-67.

In 1982 NP's research station moved to Ungkarsheim I **36**, one of the workers' barracks from 1959, before the Sverdrup station was built in 1999.

Norwegian Polar Institutes first research station in Ny-Ålesund **15**. *In 1989 the former officers mess were enlarged with a third floor and an instrument platform, now gone.*

Photo: 1970s, Norwegian Polar Institute.

History of building, Ny-Ålesund

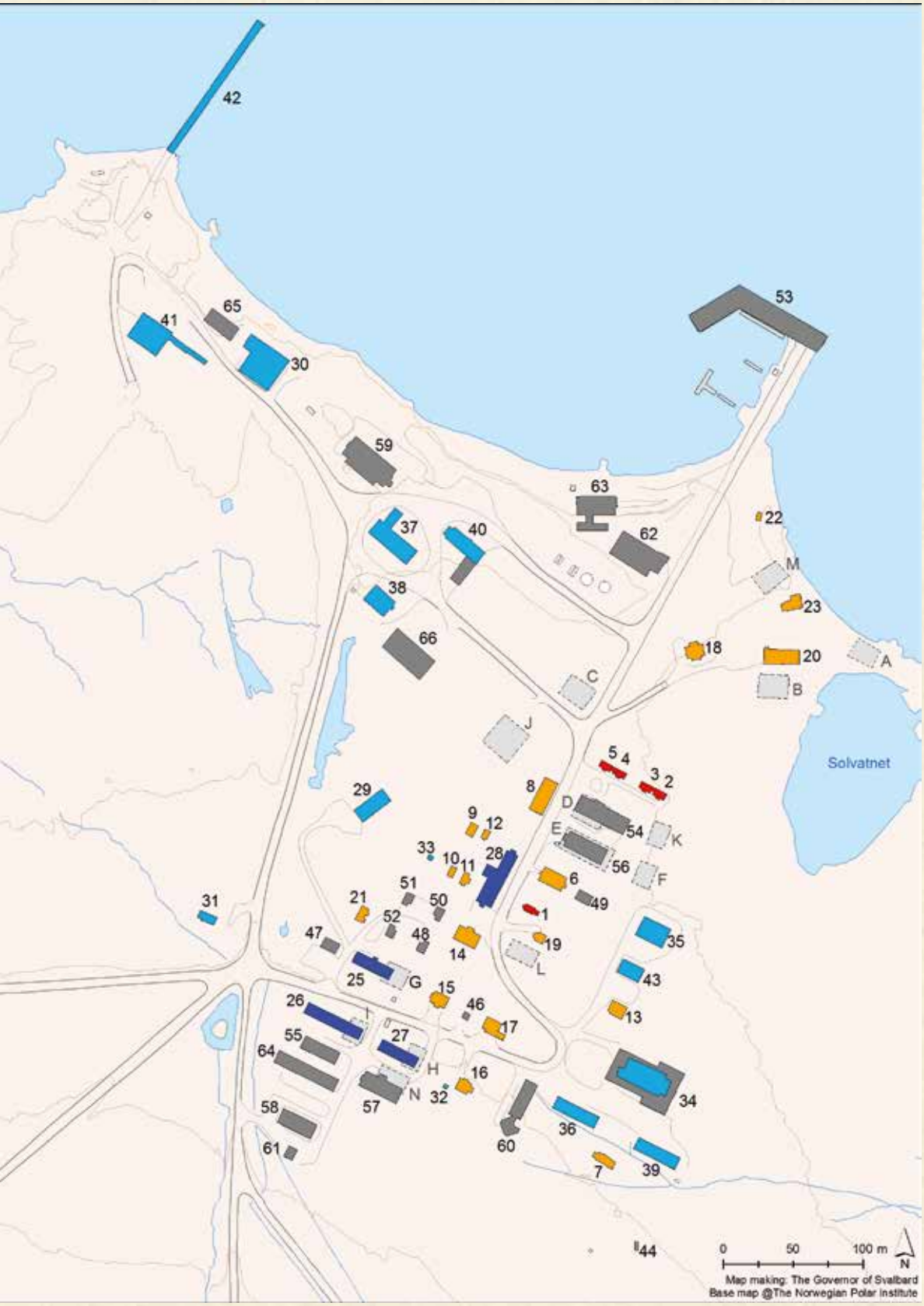
- Before 1916
- 1. mining period
- The Swedish barracks
- 2. mining period
- After 1963
- Removed

Nr	Use/name	Built
1	The Green Harbour house	1909
2	London 4	1912
3	London 3	1912
4	London 2	1912
5	London 1	1912
6	School	1917
7	Telegraph	1917
8	Museum	1917
9	Museum	1918
10	Veterans hut	1918
11	Governors hut	1918
12	Museum	1918
13	Amundsen villa	1918
14	Nordpolhotellet	1919
15	Officers mess	1919
16	Managers house	1919
17	Office	1919
18	Mellageret	1919
19	Post office	1920
20	Jernlageret	1927
21	Sætra	1919-1945
22	Boat house	1. driftsperiode
23	Boat house	Før 1921
24	Boat house	1. driftsperiode
25	Trønderheimen	1945
26	Mexico	1945
27	Hospital/Scooter shed	1945
28	Community house	1945
29	Saw	2. driftsperiode
30	Old power station	1949
31	Dog pen	1949
32	Dolls house	1949
33	Transformator	1956
34	Service building	1957
35	Laundy	1957
36	Dasan/Rabot, Ungkarsheimen I	1957
37	Workshop	1957
38	Stable	1957
39	Yellow River station Ungkarsheimen II	1958
40	Carpenter	1959
41	Coal cleaning plant	1960
42	Coal loading quay	1960
43	Amsterdam, Dutch	1962

Nr	Use/name	Built
44	Science barrack	1966
45	Salterella boatshed	1972
46	Garage	1970-tallet
47	Garage	1980/1990-tallet
48	Artists cabin	1986
49	Consevatory	1987
50	NP directors hut	1991-1995
51	NP employees hut	1991-1995
52	Mapping authority hut	1991-1995
53	Quay	1992
54	UK Station	1992
55	Barrack	1993
56	Kongsfjord shop	1993
57	Italia	1994
58	Observatory	1997
59	New power station	1997
60	Sverdrup station	1999
61	Ballon house	1999
62	Port storage	2000
63	Marin laboratory	2005
64	Evenstad	2005
65	Kongsfjordhallen	2015
66	Shed	?
67	Storage	2010

BYGNINGER SOM ER FJERNET

Nr	Bygningsnavn	Byggeår
A	Store 1	1917
B	Work shed and smithy	1917
C	Stable	1917
D	Barrack 1	1917
E	Miners canteen	1918
F	Bath	1918
G	Hopital	1919
H	Officers house	1919
I	Officers house	1919
J	Pig sty	1920
K	Bakery	1920
L	Barrack 3	1920
M	Engine shed	1927
N	Sibir	1945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Map making: The Governor of Svalbard
Base map @The Norwegian Polar Institute

Graveyard, memorials and attractions

1 **NØRDSTE MÉD.** The sculpture is a stylish boat-shape, created by the MIM group consisting of Merete Hoel Tefre, Ingvil Sleire and Marit Thingsnæs. It was created in a wood workshop in Vevring in Sunnfjord and was unveiled in June 2005. The sculpture was a gift from Kings Bay AS, Telenor Svalbard and the Municipality of Førde, where Tefre and Sleire come from.

2 **Locomotive and coal carriages.** The locomotive was built in Berlin in 1909 and arrived in Ny-Ålesund from Salangsverket in Troms in 1917. The locomotive is called TOA (TWO) after the number 2 on the chimney. It was Ny-Ålesund's smallest and most lightweight locomotive. It was therefore used to pull coal carriages to the coal dock. It was preserved and put on display in 1970, maintenance was performed by the Norwegian Railway Club in 1983 and 1988. The front two coal carriages were put on display after 1983. The rear three carriages were unearthed from the old dock, restored and put in place in 1988. In 2015 Kings Bay AS received funding from the Svalbard Environmental Protection Fund to restore the locomotive.

3 **Roald Amundsen bust.** Created by Alonzo Victor Lewis in 1921. Cast in 1975 at Christiania Kunst- og Metallstøperi. Gifted by Robert W. Stevens, Einar Sverre Pedersen and Ivar Ytreland. Erected next to the Amundsen Villa in 1976 and moved to its current location in 2003.

4 **The Amundsen mast,** erected in 1926 for Roald Amundsen's North Pole expedition with the airship NORGE. The mast was provided with a commemorative plaque from the Italian Air Force in 1983, marking the 57th anniversary of the airship NORGE's North Pole expedition in 1926. It was unveiled by Umberto Nobile's widow, Gertrude Nobile in 1984.

5 **The graveyard** was inaugurated at the funeral of Knut Johansen, who died at birth on 17 May 1957. The graveyard was built in connection with the relocation of the graves from the old graveyard in 1958.

6 **The airship hangar** was constructed during the winter of 1925-1926, under the supervision of Ferdinand R. Arild for Roald Amundsen's North Pole expedition with the airship NORGE in 1926. A small portion of the hangar was still standing in 1945. Some of the bracing wire attachments on the sides and in the south-eastern end are still visible. Half of the attachments on the south-western side are situated under the road.

7 **Memorial for N24 and N25.** This was erected in 1925 in memory of Roald Amundsen's attempt to reach the North Pole using the flyingboats N24 and N25 in 1925. Monument stone for ITALIA. This was presumably erected in the 1950s in memory of Umberto Nobile's airship expedition in 1928.

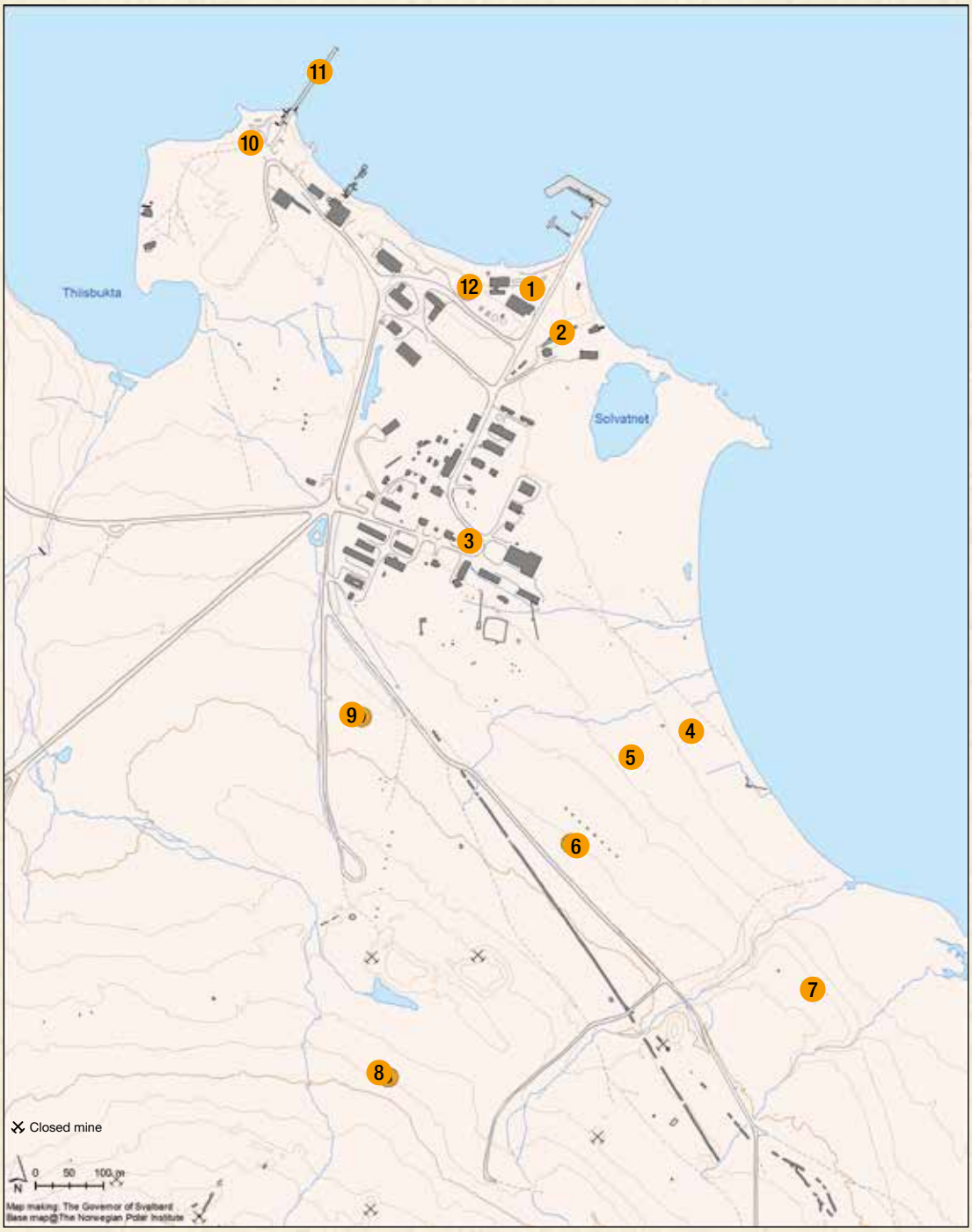
8 **Memorial.** A stone bearing the names of the 11 people whose bodies were not recovered following the mining accident on November 5th 1962. This was paid for by Kings Bay Veteranforening and Kings Bay AS. It was unveiled on November 5th 2002.

9 **Memorial.** In memory of those who lost their lives in accidents in the Ny-Ålesund mines between 1917 and 1963. This was paid for by Kings Bay Arbeiderforening, Ny-Ålesund's women's association Polarklokken and Kings Bay Idrettslag. Unveiled on 13 July 1963. A plaque bearing the names of those who lost their lives was added in 2012.

10 **The old graveyard.** When working on the new loading facilities and quay in 1958, graves dating back to Western European whaling in the 1600s were discovered at Hollendarhaugen. Graves from the 1920s were also discovered. In 1958 the graves were moved to the new churchyard next to the Amundsen mast.

11 **The coal quay.** The new coal dock was built between 1957 and 1960.

12 **Clock tower with the chapel clock.** The tower and clock were erected using funds from Ny-Ålesund's women's association, Polarklokken. These were inaugurated on Christmas Eve 1951.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Map making: The Governor of Svalbard
Base map@The Norwegian Polar Institute

Ny-Ålesund coal mines

The coal dates back to the tertiary geological period and was formed between 60 and 40 million years ago. The Kings Bay coal field is an area spanning approximately 5 km² and has a total thickness of 190 metres. There are six layers of coal (seams) which, from the top down, are called: Ragnhild, Josefine, Agnes-Otilie, Advokaten, Sofie and Ester. The thickness of the coal layers ranges from 2 to 4 metres and the layers slant 8° - 16° towards the south-west.

Most of the mines are named after the coal layers, but some have different names. The Godthaab mine was operated by Green Harbour Coal Co. The Olsen mine has been exhausted. Ragnhild's coal layer is too small in terms of size and thickness to be viable, Josefine is exhausted, the coal layers in Otilie and Advokaten are too thin and mixed with stone, and Sofie is exhausted. The most extensive and longest operations took place in Ester and Sofie.

Operating conditions were challenging. The coal field is split up by rifts, and the rock is poor quality. Operations were under-taken to a depth of 200 metres, and water penetration took place under the permafrost. Explosive methane gas made adequate ventilation a necessity. The mode of operation was largely a matter of creating space and pillars, and coal pillars were left behind to keep the rock up.

Operations were halted between 1929 and 1941 with brief operation during the summer of 1941 before it was once more halted between 1942 and 1945. Coal activities took place in Ester, the deepest coal layer, between 1945 and 1963. Mining operations concluded in 1963.

The map shows the names and numerals for the mine openings and the parts of the coal layers where operations were under-taken.

Mine	Cycle of operation
Agnes	1910-22
Godthaab	1911-16
Advokaten	1918-19
Otilie	1920-21
Josefine	1921-24
Ragnhild	1921
Olsen	1923-24
Sofie I	1923-29
Ester I	1923-29, 1956-62
Ester II, III	1923-29 and 1941, 1945-48
Cecilie, prøvesjakt	1948-49
Sofie III	1947-58
Ester III, IV, V	1947-62
Ester VI	1952-62
Vestre Senterfelt	1960-63


Thiisbukta
Prins
Heinrichøya
Sofie I
Ester I
Ester II
Gamle Advokaten
Olsen
Josefine
Ragnhild
Otilie
Sofie III
Agnes
Nye Advokaten
Ester III
16
Godthaab

Science Stations in Ny-Ålesund

Map nr.	Established	Name
A	1960	The French Camp, Corbel.
6	1966	Tromsø Geophysical Obsrvatory, Norway, map p. 30-31.
44	1966	Tromsø Geophysical Obsrvatory, Norway, map p. 30-31.
B	1967	ESRO, The European Space Research Organisation, to 1974.
15	1968	Norwegian Polar Institute, map p. 30-31.
58	1990	The Koldewey Station (Alfred Wegener Institute), Germany, map p. 30-31.
B	1991	NIPR, Japanese National Institute for Polar Research, Japan.
54	1992	UK Station British Antarctic Survey, Great Britain, map p. 30-31.
C	1992	The Norwegian Mapping Authority's geodetic observatory.
43	1995	Amsterdam, University of Groningen, The Netherlands, map p. 30-31.
D	1997	Norwegian Space Center.
57	1997	Dirigibile ITALIA, National Research Council, Italy, map p. 30-31.
E	1998	The Zeppelin Observatory, Norwegian Polar Institute.
57	1999	Charles Rabot, Institut Paul Émile Victor, France, map p. 30-31.
60	1999	Sverdrup Station, Norwegian Polar Institute, Norway, map p. 30-31.
36	2002	DASAN, Korean Polar Research Institute, Republic of Korea, map p. 30-31.
39	2003	Yellow River Station Chinese Arctic and Antarctic Administration, China, map p. 30-31.
63	2005	Kings Bay Marine Laboratory, Kings Bay AS Norway, map p. 30-31.
6	2008	NCAOR, National Centre for Antarctic and Ocean Research, India, map p. 30-31.
F	2015	Arctic Center for Unmaned Aircraft, UiT The Arctic University of Norway.
G	2016-18	The Norwegian Mapping Authority's new geodetic observatory


Kongsfjorden
Ny-Ålesund
Prins
Heinrichøya
Gåsebu
Franskleiren "Corbel"
A

The unveiling July 13th 1963 of the memorial for all the miners who gave their lives in the mines from 1916 to 1963.
The memorial was given by Kings Bay Arbeiderforening, the miners union, Ny-Ålesund womens society Polarflokken and Kings Bay Idrettslag, the athletic club. In 2012 a plaque with all the names were added.

Photo: Herta Lampert Grøndal,
Tromsø University Museum, UiT The Arctic University of Norway.

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Longyearbyen 2016

SYSSELMANNEN PÅ SVALBARD

MILJØVERNAVDELINGEN

N-9171 LONGYEARBYEN

Skiing in Ny-Ålesund in 1963. Trond Johansen in front.

Foto: Elna Stiens photo collection.

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