

= Fridtjof Nansen =

Fridtjof Nansen (/ ˈfrɪd.tjɔf ˈnænsən / FRID @-@ choff NAN @-@ s?n ; 10 October 1861 ? 13 May 1930) was a Norwegian explorer , scientist , diplomat , humanitarian and Nobel Peace Prize laureate . In his youth he was a champion skier and ice skater . He led the team that made the first crossing of the Greenland interior in 1888 , traversing the island on cross @-@ country skis . He won international fame after reaching a record northern latitude of 86 ° 14 ? during his North Pole expedition of 1893 ? 96 . Although he retired from exploration after his return to Norway , his techniques of polar travel and his innovations in equipment and clothing influenced a generation of subsequent Arctic and Antarctic expeditions .

Nansen studied zoology at the Royal Frederick University in Christiania (renamed Oslo in 1925) , and later worked as a curator at the Bergen Museum where his research on the central nervous system of lower marine creatures earned him a doctorate and helped establish modern theories of neurology . After 1896 his main scientific interest switched to oceanography ; in the course of his research he made many scientific cruises , mainly in the North Atlantic , and contributed to the development of modern oceanographic equipment . As one of his country 's leading citizens , in 1905 Nansen spoke out for the ending of Norway 's union with Sweden , and was instrumental in persuading Prince Carl of Denmark to accept the throne of the newly independent Norway . Between 1906 and 1908 he served as the Norwegian representative in London , where he helped negotiate the Integrity Treaty that guaranteed Norway 's independent status .

In the final decade of his life , Nansen devoted himself primarily to the League of Nations , following his appointment in 1921 as the League 's High Commissioner for Refugees . In 1922 he was awarded the Nobel Peace Prize for his work on behalf of the displaced victims of the First World War and related conflicts . Among the initiatives he introduced was the " Nansen passport " for stateless persons , a certificate recognised by more than 50 countries . He worked on behalf of refugees until his sudden death in 1930 , after which the League established the Nansen International Office for Refugees to ensure that his work continued . This office received the Nobel Peace Prize for 1938 . Nansen was honoured by many nations , and his name is commemorated in numerous geographical features , particularly in the polar regions .

= = Family background and childhood = =

The Nansen family originated in Denmark . Hans Nansen (1598 ? 1667) , a trader , was an early explorer of the White Sea region of the Arctic Ocean . In later life he settled in Copenhagen , becoming the city 's borgmester in 1654 . Later generations of the family lived in Copenhagen until the mid @-@ 18th century , when Ancher Antoni Nansen moved to Norway (then ruled by Denmark) . His son , Hans Leierdahl Nansen (1764 ? 1821) , was a magistrate first in the Trondheim district , later in Jæren . After Norway 's separation from Denmark in 1814 , he entered national political life as the representative for Stavanger in the first Storting , and became a strong advocate of union with Sweden . After suffering a paralytic stroke in 1821 Hans Leierdahl Nansen died , leaving a four @-@ year @-@ old son , Baldur Fridtjof Nansen , the explorer 's father .

Baldur was a lawyer without ambitions for public life , who became Reporter to the Supreme Court of Norway . He married twice , the second time to Adelaide Johanne Thekla Isidore Bølling Wedel @-@ Jarlsberg from Bærum , a niece of Herman Wedel @-@ Jarlsberg who had helped frame the Norwegian constitution of 1814 and was later the Swedish king 's Norwegian Viceroy . Baldur and Adelaide settled at Store Frøen , an estate at Aker , a few kilometres north of Norway 's capital city , Christiania (since renamed Oslo) . The couple had three children ; the first died in infancy , the second , born 10 October 1861 , was Fridtjof Nansen .

Store Frøen 's rural surroundings shaped the nature of Nansen 's childhood . In the short summers the main activities were swimming and fishing , while in the autumn the chief pastime was hunting for game in the forests . The long winter months were devoted mainly to skiing , which Nansen began to practice at the age of two , on improvised skis . At the age of 10 he defied his parents and attempted the ski jump at the nearby Huseby installation . This exploit had near @-@ disastrous

consequences , as on landing the skis dug deep into the snow , pitching the boy forward : " I , head first , described a fine arc in the air ... [W] hen I came down again I bored into the snow up to my waist . The boys thought I had broken my neck , but as soon as they saw there was life in me ... a shout of mocking laughter went up . " Nansen 's enthusiasm for skiing was undiminished , though as he records , his efforts were overshadowed by those of the skiers from the mountainous region of Telemark , where a new style of skiing was being developed . " I saw this was the only way " , wrote Nansen later .

At school , Nansen worked adequately without showing any particular aptitude . Studies took second place to sports , or to expeditions into the forests where he would live " like Robinson Crusoe " for weeks at a time . Through such experiences Nansen developed a marked degree of self @-@ reliance . He became an accomplished skier and a highly proficient skater . Life was disrupted when , in the summer of 1877 , Adelaide Nansen died suddenly . Distressed , Baldur Nansen sold the Store Frøen property and moved with his two sons to Christiania . Nansen 's sporting prowess continued to develop ; at 18 he broke the world one @-@ mile (1 @.@ 6 km) skating record , and in the following year won the national cross @-@ country skiing championship , a feat he would repeat on 11 subsequent occasions .

= = Student and adventurer = =

In 1880 Nansen passed his university entrance examination , the examen artium . He decided to study zoology , claiming later that he chose the subject because he thought it offered the chance of a life in the open air . He began his studies at the Royal Frederick University in Christiania (renamed Oslo in 1925) early in 1881 .

Early in 1882 Nansen took " ... the first fatal step that led me astray from the quiet life of science . " Professor Robert Collett of the university 's zoology department proposed that Nansen take a sea voyage , to study Arctic zoology at first hand . Nansen was enthusiastic , and made arrangements through a recent acquaintance , Captain Axel Krefting , commander of the sealer Viking . The voyage began on 11 March 1882 and extended over the following five months . In the weeks before sealing started , Nansen was able to concentrate on scientific studies . From water samples he showed that , contrary to previous assumption , sea ice forms on the surface of the water rather than below . His readings also demonstrated that the Gulf Stream flows beneath a cold layer of surface water . Through the spring and early summer Viking roamed between Greenland and Spitsbergen in search of seal herds . Nansen became an expert marksman , and on one day proudly recorded that his team had shot 200 seal . In July , Viking became trapped in the ice close to an unexplored section of the Greenland coast ; Nansen longed to go ashore , but this was impossible . However , he began to develop the idea that the Greenland icecap might be explored , or even crossed . On 17 July the ship broke free from the ice , and early in August was back in Norwegian waters .

Nansen did not resume formal studies at the university . Instead , on Collett 's recommendation , he accepted a post as curator in the zoological department of the Bergen Museum . He was to spend the next six years of his life there ? apart from a six @-@ month sabbatical tour of Europe ? working and studying with leading figures such as Gerhard Armauer Hansen , the discoverer of the leprosy bacillus , and Daniel Cornelius Danielssen , the museum 's director who had turned it from a backwater collection into a centre of scientific research and education . Nansen 's chosen area of study was the then relatively unexplored field of neuroanatomy , specifically the central nervous system of lower marine creatures . Before leaving for his sabbatical in February 1886 he published a paper summarising his research to date , in which he stated that " anastomoses or unions between the different ganglion cells " could not be demonstrated with certainty . This unorthodox view , confirmed by the simultaneous researches of the embryologist Wilhelm His and the psychiatrist August Forel . Nansen is considered the first Norwegian defender of the neuron theory , originally proposed by Santiago Ramon y Cajal . His subsequent paper , The Structure and Combination of Histological Elements of the Central Nervous System , published in 1887 , became his doctoral thesis .

= = Crossing of Greenland = =

= = = Planning = = =

The idea of an expedition across the Greenland icecap grew in Nansen 's mind throughout his Bergen years . In 1887 , after the submission of his doctoral thesis , he finally began organising this project . Before then , the two most significant penetrations of the Greenland interior had been those of Adolf Erik Nordenskiöld in 1883 , and Robert Peary in 1886 . Both had set out from Disko Bay on the western coast , and had travelled about 160 kilometres (100 mi) eastward before turning back . By contrast , Nansen proposed to travel from east to west , ending rather than beginning his trek at Disko Bay . A party setting out from the inhabited west coast would , he reasoned , have to make a return trip , as no ship could be certain of reaching the dangerous east coast and picking them up . By starting from the east ? assuming that a landing could be made there ? Nansen 's would be a one @-@ way journey towards a populated area . The party would have no line of retreat to a safe base ; the only way to go would be forward , a situation that fitted Nansen 's philosophy completely .

Nansen rejected the complex organisation and heavy manpower of other Arctic ventures , and instead planned his expedition for a small party of six . Supplies would be manhauled on specially designed lightweight sledges . Much of the equipment , including sleeping bags , clothing and cooking stoves , also needed to be designed from scratch . These plans received a generally poor reception in the press ; one critic had no doubt that " if [the] scheme be attempted in its present form ... the chances are ten to one that he will ... uselessly throw his own and perhaps others ' lives away " . The Norwegian parliament refused to provide financial support , believing that such a potentially risky undertaking should not be encouraged . The project was eventually launched with a donation from a Danish businessman , Augustin Gamél ; the rest came mainly from small contributions from Nansen 's countrymen , through a fundraising effort organised by students at the university .

Despite the adverse publicity , Nansen received numerous applications from would @-@ be adventurers . He wanted expert skiers , and attempted to recruit from the skiers of Telemark , but his approaches were rebuffed . Nordenskiöld had advised Nansen that Sami people , from Finland in the far north of Norway , were expert snow travellers , so Nansen recruited a pair , Samuel Balto and Ole Nielsen Ravna . The remaining places went to Otto Sverdrup , a former sea @-@ captain who had more recently worked as a forester ; Oluf Christian Dietrichson , an army officer , and Kristian Kristiansen , an acquaintance of Sverdrup 's . All had experience of outdoor life in extreme conditions , and were experienced skiers . Just before the party 's departure , Nansen attended a formal examination at the university , which had agreed to receive his doctoral thesis . In accordance with custom he was required to defend his work before appointed examiners acting as " devil 's advocates " . He left before knowing the outcome of this process .

= = = Expedition = = =

On 3 June 1888 Nansen 's party was picked up from the north @-@ western Icelandic port of Ísafjörður by the sealer Jason . A week later the Greenland coast was sighted , but progress was hindered by thick pack ice . On 17 July , with the coast still 20 kilometres (12 mi) away , Nansen decided to launch the small boats ; they were within sight of the Sermilik Fjord , which Nansen believed would offer a route up on to the icecap .

The expedition left Jason " in good spirits and with the highest hopes of a fortunate result " , according to Jason 's captain . There followed days of extreme frustration for the party as , prevented by weather and sea conditions from reaching the shore , they drifted southwards with the ice . Most of this time was spent camping on the ice itself ? it was too dangerous to launch the boats . By 29 July they were 380 kilometres (240 mi) south of the point where they had left the ship . On that day they finally reached land , but were too far south to begin the crossing . After a brief rest ,

Nansen ordered the team back into the boats and to begin rowing north .

During the next 12 days the party battled northward along the coast through the ice floes . On the first day they encountered a large Eskimo encampment near Cape Steen Bille , and there were further occasional contacts with the nomadic native population as the journey continued . On 11 August , when they had covered about 200 kilometres (120 mi) and had reached Umivik Bay , Nansen decided that although they were still far south of his intended starting place , they needed to begin the crossing before the season became too advanced for travel . After landing at Umivik , they spent the next four days preparing for their journey , and on the evening of 15 August they set out . They were heading north @-@ west , towards Christianhaab (now Qasigiannuit) on the west Greenland shores of Disko Bay , 600 kilometres (370 mi) away .

Over the next few days the party struggled to ascend the inland ice over a treacherous surface with many hidden crevasses . The weather was generally bad ; on one occasion all progress was halted for three days by violent storms and continuous rain . On 26 August Nansen concluded that there was now no chance of reaching Christianhaab by mid @-@ September , when the last ship was due to leave . He therefore ordered a change of course , almost due west towards Godthaab (now Nuuk) , a shorter journey by at least 150 kilometres (93 mi) . The rest of the party , according to Nansen , " hailed the change of plan with acclamation " . They continued climbing , until on 11 September they had reached a height of 8 @,@ 922 feet (2 @,@ 719 m) above sea level , the summit of the icecap with temperatures dropping to ? 50 ° F (? 46 ° C) at night . From then on the downward slope made travelling easier , although the terrain was difficult and the weather remained hostile . Progress was slow because of fresh snowfalls which made dragging the sledges as hard as pulling them through sand . By 26 September they had battled their way down to the edge of a fjord that ran westward towards Godthaab . From their tent , some local willows and parts of the sledges Sverdrup constructed a makeshift boat , and on 29 September Nansen and Sverdrup began the last stage of the journey , rowing down the fjord . Four days later , on 3 October 1888 , they reached Godthaab , where they were greeted by the town 's Danish representative . His first words were to inform Nansen that he had been awarded his doctorate , a matter that " could not have been more remote from my thoughts at that moment " . The crossing had been accomplished in 49 days , making 78 days in total since they had left the Jason ; throughout the journey the team had maintained careful meteorological , geographical and other records relating to the previously unexplored interior . The rest of the team arrived in Godthaab on 12 October .

Nansen soon learned that no ship was likely to call at Godthaab until the following spring , though they were able to send letters back to Norway via a boat leaving Ivigtut at the end of October . He and his party therefore spent the next seven months in Greenland , hunting , fishing and studying the life of the local inhabitants . On 15 April 1889 the Danish ship Hvidbjørnen finally entered the harbour , and Nansen and his comrades prepared to depart . " It was not without sorrow that we left this place and these people , among whom we had enjoyed ourselves so well " , Nansen recorded .

= = Interlude and marriage = =

Hvidbjørnen reached Copenhagen on 21 May 1889 . News of the crossing had preceded its arrival , and Nansen and his companions were feted as heroes . This welcome , however , was dwarfed by the reception in Christiania a week later , when crowds of between thirty and forty thousand ? a third of the city 's population ? thronged the streets as the party made its way to the first of a series of receptions . The interest and enthusiasm generated by the expedition 's achievement led directly to the formation that year of the Norwegian Geographical Society .

Nansen accepted the position of curator of the Royal Frederick University 's zoology collection , a post which carried a salary but involved no duties ; the university was satisfied by the association with the explorer 's name . Nansen 's main task in the following weeks was writing his account of the expedition , but he found time late in June to visit London , where he met the Prince of Wales (the future King Edward VII) , and addressed a meeting of the Royal Geographical Society (RGS) .

The RGS president , Sir Mountstuart Elphinstone Grant Duff , said that Nansen has claimed " the foremost place amongst northern travellers " , and later awarded him the Society 's prestigious

Founder 's Medal . This was one of many honours Nansen received from institutions all over Europe . He was invited by a group of Australians to lead an expedition to Antarctica , but declined , believing that Norway 's interests would be better served by a North Pole conquest .

On 11 August 1889 Nansen announced his engagement to Eva Sars , the daughter of Michael Sars , a zoology professor who had died when Eva was 11 years old . The couple had met some years previously , at the skiing resort of Frognerseteren , where Nansen recalled seeing " two feet sticking out of the snow " . Eva was three years older than Nansen , and despite the evidence of this first meeting , was an accomplished skier . She was also a celebrated classical singer who had been coached in Berlin by Désirée Artôt , one @-@ time paramour of Tchaikovsky . The engagement surprised many , since Nansen had previously expressed himself forcefully against the institution of marriage ; Otto Sverdrup assumed he had read the message wrongly . The wedding took place on 6 September 1889 , less than a month after the engagement .

= = Fram expedition = =

= = Theories and plans = =

Nansen first began to consider the possibility of reaching the North Pole by using the natural drift of the polar ice when , in 1884 , he read the theories of Henrik Mohn , the distinguished Norwegian meteorologist . Artifacts found on the Greenland coast had been identified as coming from the lost US Arctic exploration vessel Jeannette , which had been crushed and sunk in June 1881 on the opposite side of the Arctic Ocean , off the Siberian coast . Mohn surmised that the location of the artefacts indicated the existence of an ocean current , flowing from east to west all the way across the polar sea , possibly over the pole itself . A strong enough ship might therefore enter the frozen Siberian sea , and drift to the Greenland coast via the pole .

This idea remained with Nansen during following years . After his triumphant return from Greenland he began to develop a detailed plan for a polar venture , which he made public in February 1890 at a meeting of the recently formed Norwegian Geographical Society . Previous expeditions , he argued , had approached the North Pole from the west , and had failed because they were working against the prevailing east @-@ west current . The secret of success was to work with this current . A workable plan , Nansen said , would require a small , strong and manoeuvrable ship capable of carrying fuel and provisions for twelve men for five years . The ship would sail to the approximate location of Jeannette 's sinking , and would enter the ice . It would then drift west with the current towards the pole and beyond it , eventually reaching the sea between Greenland and Spitsbergen .

Many experienced polar hands were dismissive of Nansen 's plans . The retired American explorer Adolphus Greely called the idea " an illogical scheme of self @-@ destruction " . Sir Allen Young , a veteran of the searches for Sir John Franklin 's lost expedition , and Sir Joseph Hooker , who had sailed south with James Clark Ross in 1839 ? 43 , were equally dismissive . However , after an impassioned speech Nansen secured the support of the Norwegian parliament , which voted him a grant . The balance of funding was met by private donations and from a national appeal .

= = Preparations = =

Nansen chose Colin Archer , Norway 's leading shipbuilder and naval architect , to design and build a suitable ship for the planned expedition . Using the toughest oak timbers available , and an intricate system of crossbeams and braces throughout its length , Archer built a vessel of extraordinary strength . Its rounded hull was designed so that it would slip upwards out of the grip of packing ice . Speed and sailing performance were secondary to the requirement of making the ship a safe and warm shelter during a predicted lengthy confinement . With an overall length of 128 feet (39 m) and a beam of 36 feet (11 m) , the length @-@ to @-@ beam ratio of just over three gave the ship its stubby appearance , justified by Archer thus : " A ship that is built with exclusive regard to its suitability for [Nansen 's] object must differ essentially from any known vessel . " The ship was

launched by Eva Nansen at Archer 's yard at Larvik , on 6 October 1892 , and was named Fram , in English " Forward " .

From thousands of applicants , Nansen selected a party of twelve . Otto Sverdrup from the Greenland expedition was appointed captain of Fram and second @-@ in @-@ command of the expedition . Competition for places on the voyage was such that reserve Army lieutenant and dog @-@ driving expert Hjalmar Johansen signed on as ship 's stoker , the only position available .

= = = Into the ice = = =

Fram left Christiania on 24 June 1893 , cheered on by thousands of well @-@ wishers . After a slow journey around the coast , the final port of call was Vardø , in the far north @-@ east of Norway . Fram left Vardø on 21 July , following the North @-@ East Passage route pioneered by Nordenskiöld in 1878 ? 79 , along the northern coast of Siberia . Progress was impeded by fog and ice conditions in the mainly uncharted seas . The crew also experienced the dead water phenomenon , where a ship 's forward progress is impeded by friction caused by a layer of fresh water lying on top of heavier salt water . Nevertheless , Cape Chelyuskin , the most northerly point of the Eurasian continental mass , was passed on 10 September . Ten days later , as Fram approached the area in which Jeannette had been crushed , heavy pack ice was sighted at around latitude 78 ° N. Nansen followed the line of the pack northwards to a position recorded as 78 ° 49 ? N , 132 ° 53 ? E , before ordering engines stopped and the rudder raised . From this point Fram 's drift began .

The first weeks in the ice were frustrating , as the drift moved unpredictably , sometimes north , sometimes south ; by 19 November Fram 's latitude was south of that at which she had entered the ice . Only after the turn of the year , in January 1894 , did the northerly direction become generally settled ; the 80 ° mark was finally passed on 22 March . Nansen calculated that , at this rate , it might take the ship five years to reach the pole . As the ship 's northerly progress continued at a rate rarely above a mile (1 @.@ 6 km) a day , Nansen began privately to consider a new plan ? a dog sledge journey towards the pole . With this in mind he began to practice dog @-@ driving , making many experimental journeys over the ice . In November Nansen announced his plan : when the ship passed latitude 83 ° he and Hjalmar Johansen would leave the ship with the dogs and make for the pole while Fram , under Sverdrup , continued its drift until it emerged from the ice in the North Atlantic . After reaching the pole , Nansen and Johansen would make for the nearest known land , the recently discovered and sketchily mapped Franz Josef Land . They would then cross to Spitzbergen where they would find a ship to take them home .

The crew spent the rest of the 1894 ? 95 winter preparing clothing and equipment for the forthcoming sledge journey . Kayaks were built , to be carried on the sledges until needed for the crossing of open water . Preparations were interrupted early in January when violent tremors shook the ship . The crew disembarked , fearing that the vessel would be crushed , but Fram proved herself equal to the danger . On 8 January 1895 the ship 's position was 83 ° 34 ? N , above Greely 's previous Farthest North record of 83 ° 24 .

= = = Dash for the pole = = =

On 14 March 1895 , after two false starts and with the ship 's position at 84 ° 4 ? N , Nansen and Johansen began their journey . Nansen had allowed 50 days to cover the 356 nautical miles (660 km ; 410 mi) to the pole , an average daily journey of seven nautical miles (13 km ; 8 @.@ 1 mi) . After a week of travel a sextant observation indicated that they were averaging nine nautical miles a day , (17 km ; 10 mi) , putting them ahead of schedule . However , uneven surfaces made skiing more difficult , and their speeds slowed . They also realised that they were marching against a southerly drift , and that distances travelled did not necessarily equate to northerly progression . On 3 April Nansen began to wonder whether the pole was , indeed , attainable . Unless their speed improved , their food would not last them to the pole and then on to Franz Josef Land . He confided in his diary : " I have become more and more convinced we ought to turn before time . " On 7 April ,

after making camp and observing that the way ahead was " a veritable chaos of iceblocks stretching as far as the horizon " , Nansen decided to turn south . He recorded the latitude of the final northerly camp as 86 ° 13 ' @ 6 ' N , almost three degrees beyond the previous Farthest North mark .

== Retreat ==

At first Nansen and Johansen made good progress south , but on 13 April suffered a serious setback when both of their chronometers stopped . Without knowing the correct time , it was impossible for them to calculate their longitude and thus navigate their way accurately to Franz Josef Land . They restarted the watches on the basis of Nansen 's guess that they were at longitude 86 ° E , but from then on were uncertain of their true position .

Towards the end of April they observed the tracks of an Arctic fox , the first trace they had seen of a living creature other than their dogs since leaving Fram . Soon they began to see bear tracks , and by the end of May seals , gulls and whales were in evidence . On 31 May , by Nansen 's calculations , they were only 50 nautical miles (93 km ; 58 mi) from Cape Fligely , the northernmost known point of Franz Josef Land . However , travel conditions worsened as the warmer weather caused the ice to break up . On 22 June the pair decided to rest on a stable ice floe while they repaired their equipment and gathered their strength for the next stage of their journey . They remained on the floe for a month . The day after leaving this camp Nansen recorded : " At last the marvel has come to pass ? land , land , and after we had almost given up our belief in it ! " Whether this still @-@ distant land was Franz Josef Land or a new discovery they did not know ? they had only a rough sketch map to guide them . On 6 August they reached the edge of the ice , where they shot the last of their dogs ? they had been killing the weakest regularly since 24 April , to feed the others . They then lashed their two kayaks together , raised a sail and made for the land .

It was soon clear that this land was part of a group of islands . As they moved slowly southwards , Nansen tentatively identified a headland as Cape Felder , on the western edge of Franz Josef Land . Towards the end of August , as the weather grew colder and travel became increasingly difficult , Nansen decided to camp for the winter . In a sheltered cove , with stones and moss for building materials , the pair erected a hut which was to be their home for the next eight months . With ready supplies of bear , walrus and seal to keep their larder stocked , their principal enemy was not hunger but inactivity . After muted Christmas and New Year celebrations , in slowly improving weather they began to prepare to leave their refuge , but it was 19 May 1896 before they were able to resume their journey .

== Rescue and return ==

On 17 June , during a stop for repairs after the kayaks had been attacked by a walrus , Nansen thought he heard sounds of a dog barking , and of voices . He went to investigate , and a few minutes later saw the figure of a man approaching . It was the British explorer Frederick Jackson , who was leading an expedition to Franz Josef Land and was camped at Cape Flora on the nearby Northbrook Island . The two were equally astonished by their encounter ; after some awkward hesitation Jackson asked : " You are Nansen , aren 't you ? " , and received the reply " Yes , I am Nansen . " Johansen was soon picked up , and the pair were taken to Cape Flora where , during the following weeks , they recuperated from their ordeal . Nansen later wrote that he could " still scarcely grasp " the sudden change of fortune ; had it not been for the walrus attack that caused the delay , the two parties might have been unaware of each other 's existence .

On 7 August Nansen and Johansen boarded Jackson 's supply ship *Windward* , and sailed for Vardø where they arrived on the 13th . They were greeted by Hans Mohn , the originator of the polar drift theory , who was in the town by chance . The world was quickly informed by telegram of Nansen 's safe return , but as yet there was no news of *Fram* . Taking the weekly mail steamer south , Nansen and Johansen reached Hammerfest on 18 August , where they learned that *Fram* had been sighted . She had emerged from the ice north and west of Spitsbergen , as Nansen had predicted , and was now on her way to Tromsø . She had not passed over the pole , nor exceeded

Nansen 's northern mark . Without delay Nansen and Johansen sailed for Tromsø , where they were reunited with their comrades .

The homeward voyage to Christiania was a series of triumphant receptions at every port . On 9 September Fram was escorted into Christiania 's harbour and welcomed by the largest crowds the city had ever seen . The crew were received by King Oscar , and Nansen , reunited with family , remained at the palace for several days as a special guest . Tributes arrived from all over the world ; typical was that from the British mountaineer Edward Whymper , who wrote that Nansen had made " almost as great an advance as has been accomplished by all other voyages in the nineteenth century put together " .

= = National figure = =

= = = Scientist and polar oracle = = =

Nansen 's first task on his return was to write his account of the voyage . This he did remarkably quickly , producing 300 000 words of Norwegian text by November 1896 ; the English translation , titled *Farthest North* , was ready in January 1897 . The book was an instant success , and secured Nansen 's long term financial future . Nansen included without comment the one significant adverse criticism of his conduct , that of Greely , who had written in *Harper 's Weekly* on Nansen 's decision to leave Fram and strike for the pole : " It passes comprehension how Nansen could have thus deviated from the most sacred duty devolving on the commander of a naval expedition . "

During the 20 years following his return from the Arctic , Nansen devoted most of his energies to scientific work . In 1897 he accepted a professorship in zoology at the Royal Frederick University , which gave him a base from which he could tackle the major task of editing the reports of the scientific results of the Fram expedition . This was a much more arduous task than writing the expedition narrative . The results were eventually published in six volumes , and according to a later polar scientist , Robert Rudmose Brown , " were to Arctic oceanography what the Challenger expedition results had been to the oceanography of other oceans . "

In 1900 Nansen became director of the Christiania based International Laboratory for North Sea Research , and helped found the International Council for the Exploration of the Sea . Through his connection with the latter body , in the summer of 1900 Nansen embarked on his first visit to Arctic waters since the Fram expedition , a cruise to Iceland and Jan Mayen Land on the oceanographic research vessel *Michael Sars* , named after Eva 's father . Shortly after his return he learned that his *Farthest North* record had been passed , by members of the Duke of the Abruzzi 's Italian expedition . They had reached 86 ° 34N on 24 April 1900 , in an attempt to reach the North Pole from Franz Josef Land . Nansen received the news philosophically : " What is the value of having goals for their own sake ? They all vanish ... it is merely a question of time . "

Nansen was now considered an oracle by all would be explorers of the north and south polar regions . Abruzzi had consulted him , as had the Belgian Adrien de Gerlache , each of whom took expeditions to the Antarctic . Although Nansen refused to meet his own countryman and fellow explorer Carsten Borchgrevink (whom he considered a fraud) , he gave advice to Robert Falcon Scott on polar equipment and transport , prior to the 1901 ? 04 *Discovery Expedition* . At one point Nansen seriously considered leading a South Pole expedition himself , and asked Colin Archer to design two ships . However , these plans remained on the drawing board .

By 1901 Nansen 's family had expanded considerably . A daughter , Liv , had been born just before Fram set out ; a son , Kåre was born in 1897 followed by a daughter , Irmelin , in 1900 and a second son Odd in 1901 . The family home , which Nansen had built in 1891 from the profits of his Greenland expedition book , was now too small . Nansen acquired a plot of land in the Lysaker district and built , substantially to his own design , a large and imposing house which combined some of the characteristics of an English manor house with features from the Italian renaissance . The house was ready for occupation by April 1902 ; Nansen called it *Polhøgda* (in English " polar

heights ") , and it remained his home for the rest of his life . A fifth and final child , son Asmund , was born at Polhøgda in 1903 .

= = = Politician and diplomat = = =

The union between Norway and Sweden , imposed by the Great Powers in 1814 , had been under considerable strain through the 1890s , the chief issue in question being Norway 's rights to its own consular service . Nansen , although not by inclination a politician , had spoken out on the issue on several occasions in defence of Norway 's interests . It seemed , early in the 20th century that agreement between the two countries might be possible , but hopes were dashed when negotiations broke down in February 1905 . The Norwegian government fell , and was replaced by one led by Christian Michelsen , whose programme was one of separation from Sweden .

In February and March Nansen published a series of newspaper articles which placed him firmly in the separatist camp . The new prime minister wanted Nansen in the cabinet , but Nansen had no political ambitions . However , at Michelsen 's request he went to Berlin and then to London where , in a letter to The Times , he presented Norway 's legal case for a separate consular service to the English @-@ speaking world . On 17 May 1905 , Norway 's Constitution Day , Nansen addressed a large crowd in Christiania , saying : " Now have all ways of retreat been closed . Now remains only one path , the way forward , perhaps through difficulties and hardships , but forward for our country , to a free Norway " . He also wrote a book , Norway and the Union with Sweden , specifically to promote Norway 's case abroad .

On 23 May the Storting passed the Consulate Act establishing a separate consular service . King Oscar , refused his assent ; on 27 May the Norwegian cabinet resigned , but the king would not recognise this step . On 7 June the Storting unilaterally announced that the union with Sweden was dissolved . In a tense situation the Swedish government agreed to Norway 's request that the dissolution should be put to a referendum of the Norwegian people . This was held on 13 August 1905 and resulted in an overwhelming vote for separation , at which point King Oscar relinquished the crown of Norway while retaining the Swedish throne . A second referendum , held in November , determined that the new independent state should be a monarchy rather than a republic . In anticipation of this , Michelsen 's government had been considering the suitability of various princes as candidates for the Norwegian throne . Faced with King Oscar 's refusal to allow anyone from his own House of Bernadotte to accept the crown , the favoured choice was Prince Charles of Denmark . In July 1905 Michelsen sent Nansen to Copenhagen on a secret mission to persuade Charles to accept the Norwegian throne . Nansen was successful ; shortly after the second referendum Charles was proclaimed king , taking the name Haakon VII . He and his wife , the British princess Maud , were crowned in the Nidaros Cathedral in Trondheim on 22 June 1906 .

In April 1906 Nansen was appointed Norway 's first Minister in London . His main task was to work with representatives of the major European powers on an Integrity Treaty which would guarantee Norway 's position . Nansen was popular in England , and got on well with King Edward , though he found court functions and diplomatic duties disagreeable ; " frivolous and boring " was his description . However , he was able to pursue his geographical and scientific interests through contacts with the Royal Geographical Society and other learned bodies . The Treaty was signed on 2 November 1907 , and Nansen considered his task complete . Resisting the pleas of , among others , King Edward that he should remain in London , on 15 November Nansen resigned his post . A few weeks later , still in England as the king 's guest at Sandringham , Nansen received word that Eva was seriously ill with pneumonia . On 8 December he set out for home , but before he reached Polhøgda he learned , from a telegram , that Eva had died .

= = = Oceanographer and traveller = = =

After a period of mourning , Nansen returned to London . He had been persuaded by his government to rescind his resignation until after King Edward 's state visit to Norway in April 1908 . His formal retirement from the diplomatic service was dated 1 May 1908 , the same day on which his

university professorship was changed from zoology to oceanography . This new designation reflected the general character of Nansen 's more recent scientific interests . In 1905 he had supplied the Swedish physicist Walfrid Ekman with the data which established the principle in oceanography known as the Ekman spiral . Based on Nansen 's observations of ocean currents recorded during the Fram expedition , Ekman concluded that the effect of wind on the sea 's surface produced currents which " formed something like a spiral staircase , down towards the depths " . In 1909 Nansen combined with Bjørn Helland @-@ Hansen to publish an academic paper , The Norwegian Sea : its Physical Oceanography , based on the Michael Sars voyage of 1900 .

Nansen had by now retired from polar exploration , the decisive step being his release of Fram to his fellow @-@ Norwegian Roald Amundsen , who was planning a North Pole expedition . When Amundsen made his controversial change of plan and set out for the South Pole , Nansen stood by him . Between 1910 and 1914 , Nansen participated in a several oceanographic voyages . In 1910 , aboard the Norwegian naval vessel Fridtjof , he carried out researches in the northern Atlantic , and in 1912 he took his own yacht , Veslemøy , to Bear Island and Spitsbergen . The main objective of the Veslemøy cruise was the investigation of salinity in the North Polar Basin . One of Nansen 's lasting contributions to oceanography was his work designing instruments and equipment ; the " Nansen bottle " for taking deep water samples remained in use into the 21st century , in a version updated by Shale Niskin .

At the request of the Royal Geographical Society , Nansen began work on a study of Arctic discoveries , which developed into a two @-@ volume history of the exploration of the northern regions up to the beginning of the 16th century . This was published in 1911 as Nord i Tåkeheimen (" In Northern Mists ") . That year he renewed an acquaintance with Kathleen Scott , wife of Robert Falcon Scott whose Terra Nova Expedition had sailed for Antarctica in 1910 . Biographer Roland Huntford has asserted that Nansen and Kathleen Scott enjoyed a brief love affair . Many women were attracted to Nansen , and he had a reputation as a womaniser . His personal life was troubled around this time ; in January 1913 he received news of the suicide of Hjalmar Johansen , who had returned in disgrace from Amundsen 's successful South Pole expedition . In March 1913 , Nansen 's youngest son Asmund died after a long illness .

In the summer of 1913 Nansen travelled to the Kara Sea , by the invitation of Jonas Lied , as part of a delegation investigating a possible trade route between Western Europe and the Siberian interior . The party then took a steamer up the Yenisei River to Krasnoyarsk , and travelled on the Trans @-@ Siberian Railway to Vladivostok before turning for home . Nansen published a report from the trip in Through Siberia . The life and culture of the Russian peoples aroused in Nansen an interest and sympathy he would carry through to his later life . Immediately before the First World War , Nansen joined Helland @-@ Hansen in an oceanographical cruise in eastern Atlantic waters .

= = = Statesman and humanitarian = = =

On the outbreak of war in 1914 Norway declared its neutrality , alongside Sweden and Denmark . Nansen was appointed president of the Norwegian Union of Defence , but had few official duties , and continued with his professional work as far as circumstances permitted . As the war progressed , the loss of Norway 's overseas trade led to acute shortages of food in the country , which became critical in April 1917 when the United States entered the war and placed extra restrictions on international trade . Nansen was dispatched to Washington by the Norwegian government ; after months of discussion he secured food and other supplies in return for the introduction of a rationing system . When his government hesitated over the deal , he signed the agreement on his own initiative .

Within a few months of the war 's end in November 1918 a draft agreement had been accepted by the Paris Peace Conference to create a League of Nations , as a means of resolving disputes between nations by peaceful means . The foundation of the League at this time was providential as far as Nansen was concerned , giving him a new outlet for his restless energy .

He became president of the Norwegian League of Nations Society , and although the Scandinavian nations with their traditions of neutrality initially held themselves aloof , his advocacy helped to

ensure that Norway became a full member of the League in 1920 , and he became one of its three delegates to the League 's General Assembly .

In April 1920 , at the League 's request , Nansen began organising the repatriation of around half a million prisoners of war , stranded in various parts of the world . Of these , 300 @,@ 000 were in Russia which , gripped by revolution and civil war , had little interest in their fate . Nansen was able to report to the Assembly in November 1920 that around 200 @,@ 000 men had been returned to their homes . " Never in my life " , he said , " have I been brought into touch with so formidable an amount of suffering . " Nansen continued this work for a further two years until , in his final report to the Assembly in 1922 , he was able to state that 427 @,@ 886 prisoners had been repatriated to around 30 different countries . In paying tribute to his work , the responsible committee recorded that the story of his efforts " would contain tales of heroic endeavour worthy of those in the accounts of the crossing of Greenland and the great Arctic voyage . "

Even before this work was complete , Nansen was involved in a further humanitarian effort . On 1 September 1921 , prompted by the British delegate Philip Noel @-@ Baker , he accepted the post of the League 's High Commissioner for Refugees . His main brief was the resettlement of around two million Russian refugees displaced by the upheavals of the Russian Revolution . At the same time he tried to tackle the urgent problem of famine in Russia ; following a widespread failure of crops around 30 million people were threatened with starvation and death . Despite Nansen 's pleas on behalf of the starving , Russia 's revolutionary government was feared and distrusted internationally , and the League was reluctant to come to its peoples ' aid . Nansen had to rely largely on fundraising from private organisations , and his efforts met with limited success . Later he was to express himself bitterly on the matter :

There was in various transatlantic countries such an abundance of maize , that the farmers had to burn it as fuel in their railway engines . At the same time the ships in Europe were idle , for there were no cargoes . Simultaneously there were thousands , nay millions of unemployed . All this , while thirty million people in the Volga region ? not far away and easily reached by our ships ? were allowed to starve and die .

A major problem impeding Nansen 's work on behalf of refugees was that most of them lacked documentary proof of identity or nationality . Without legal status in their country of refuge , their lack of papers meant they were unable to go anywhere else . To overcome this , Nansen devised a document that became known as the " Nansen passport " , a form of identity for stateless persons that was in time recognised by more than 50 governments , and which allowed refugees to cross borders legally . Among the more distinguished holders of Nansen passports were the artist Marc Chagall , the composer Igor Stravinsky , and the dancer Anna Pavlova . Although the passport was created initially for refugees from Russia , it was extended to cover other groups . After the Greco @-@ Turkish wars of 1919 ? 1922 Nansen travelled to Constantinople to negotiate the resettlement of hundreds of thousands of refugees , mainly ethnic Greeks who had fled from Turkey after the defeat of the Greek Army . The impoverished Greek state was unable to take them in , and so Nansen devised a scheme for a population exchange whereby half a million Turks in Greece were returned to Turkey , with full financial compensation , while further loans facilitated the absorption of the refugee Greeks into their homeland . Despite some controversy over the principle of a population exchange , the plan was implemented successfully over a period of several years . In November 1922 , while attending the Conference of Lausanne , Nansen learned that he had been awarded the Nobel Peace Prize for 1922 . The citation referred to " his work for the repatriation of the prisoners of war , his work for the Russian refugees , his work to bring succour to the millions of Russians afflicted by famine , and finally his present work for the refugees in Asia Minor and Thrace " . Nansen donated the prize money to international relief efforts .

From 1925 onwards he spent much time trying to help Armenian refugees , victims of Armenian Genocide at the hands of the Ottoman Empire during the First World War and further ill @-@ treatment thereafter . His goal was the establishment of a national home for these refugees , within the borders of Soviet Armenia . His main assistant in this endeavour was Vidkun Quisling , the future Nazi collaborator and head of a Norwegian puppet government during the Second World War . After visiting the region , Nansen presented the Assembly with a modest plan for the irrigation of 36 @,@

000 hectares (360 km² or 139 square miles) on which 15 @, @ 000 refugees could be settled . The plan ultimately failed , because even with Nansen 's unremitting advocacy the money to finance the scheme was not forthcoming . Despite this failure , his reputation among the Armenian people remains high . Nansen wrote the book , Armenia and the Near East in 1923 which describes his sympathies to the plight of the Armenians in the wake of losing its independence to the Soviet Union . The book was translated in many languages including Norwegian , English , French , German , Russian and Armenian . After his visit to Armenia , Nansen wrote two additional books called " Gjennem Armenia " (" Across Armenia ") , published in 1927 and " Gjennem Kaukasus til Volga " (" Through Caucasus to Volga ") .

Within the League 's Assembly , Nansen spoke out on many issues besides those related to refugees . He believed that the Assembly gave the smaller countries such as Norway a " unique opportunity for speaking in the councils of the world . " He believed that the extent of the League 's success in reducing armaments would be the greatest test of its credibility . He was a signatory to the Slavery Convention of 25 September 1926 , which sought to outlaw the use of forced labour . He supported a settlement of the post @-@ war reparations issue , and championed Germany 's membership of the League , which was granted in September 1926 after intensive preparatory work by Nansen .

= = Later life = =

On 17 January 1919 Nansen married Sigrun Munthe , a long @-@ time friend with whom he had had a love affair in 1905 , while Eva was still alive . The marriage was resented by the Nansen children , and proved unhappy ; an acquaintance writing of them in the 1920s said Nansen appeared unbearably miserable and Sigrun steeped in hate .

Nansen 's League of Nations commitments through the 1920s meant that he was mostly absent from Norway , and was able to devote little time to scientific work . Nevertheless , he continued to publish occasional papers . He entertained the hope that he might travel to the North Pole by airship , but could not raise sufficient funding . In any event he was forestalled in this ambition by Amundsen , who flew over the pole in Umberto Nobile 's airship Norge in May 1926 . Two years later Nansen broadcast a memorial oration to Amundsen , who had disappeared in the Arctic while organising a rescue party for Nobile whose airship had crashed during a second polar voyage . Nansen said of Amundsen : " He found an unknown grave under the clear sky of the icy world , with the whirring of the wings of eternity through space . "

In 1926 Nansen was elected Rector of the University of St Andrews in Scotland , the first foreigner to hold this largely honorary position . He used the occasion of his inaugural address to review his life and philosophy , and to deliver a call to the youth of the next generation . He ended :

We all have a Land of Beyond to seek in our life ? what more can we ask ? Our part is to find the trail that leads to it . A long trail , a hard trail , maybe ; but the call comes to us , and we have to go . Rooted deep in the nature of every one of us is the spirit of adventure , the call of the wild ? vibrating under all our actions , making life deeper and higher and nobler .

Nansen largely avoided involvement in domestic Norwegian politics , but in 1924 he was persuaded by the long @-@ retired former Prime Minister Christian Michelsen to take part in a new anti @-@ communist political grouping , the Fatherland League . There were fears in Norway that should the Marxist @-@ oriented Labour Party gain power it would introduce a revolutionary programme . At the inaugural rally of the League in Oslo (as Christiania had now been renamed) , Nansen declared : " To talk of the right of revolution in a society with full civil liberty , universal suffrage , equal treatment for everyone ... [is] idiotic nonsense . "

Following continued turmoil between the centre @-@ right parties , there was even an independent petition in 1926 gaining some momentum that proposed for Nansen to head a centre @-@ right national unity government on a balanced budget program , an idea he did not reject . He was the headline speaker at the single largest Fatherland League rally with 15 @, @ 000 attendees in Tønsberg in 1928 . In 1929 he went on his final tour for the League on the ship Stella Polaris , holding speeches from Bergen to Hammerfest .

In between his various duties and responsibilities , Nansen had continued to take skiing holidays when he could . In February 1930 , aged 68 , he took a short break in the mountains with two old friends , who noted that Nansen was slower than usual and appeared to tire easily . On his return to Oslo he was laid up for several months , with influenza and later phlebitis , and was visited on his sickbed by H.M.K. , Haakon VII of Norway .

= = Death and legacy = =

Nansen died of a heart attack , at home , on 13 May 1930 . He was given a non @-@ religious state funeral before cremation , after which his ashes were laid under a tree at Polhøgda . Nansen 's daughter Liv recorded that there were no speeches , just music : Schubert 's Death and the Maiden , which Eva used to sing . Among the many tributes paid to him subsequently was that of Lord Robert Cecil , a fellow League of Nations delegate , who spoke of the range of Nansen 's work , done with no regard for his own interests or health : " Every good cause had his support . He was a fearless peacemaker , a friend of justice , an advocate always for the weak and suffering . "

Nansen had been a pioneer and innovator in many fields . As a young man he embraced the revolution in skiing methods that transformed it from a means of winter travel to a universal sport , and quickly became one of Norway 's leading skiers . He was later able to apply this expertise to the problems of polar travel , in both his Greenland and his Fram expeditions . He invented the " Nansen sledge " with broad , ski @-@ like runners , the " Nansen cooker " to improve the heat efficiency of the standard spirit stoves then in use , and the layer principle in polar clothing , whereby the traditionally heavy , awkward garments were replaced by layers of lightweight material . In science , Nansen is recognised both as one of the founders of modern neurology , and as a significant contributor to early oceanographical science , in particular for his work in establishing the Central Oceanographic Laboratory in Christiania .

Through his work on behalf of the League of Nations , Nansen helped to establish the principle of international responsibility for refugees . Immediately after his death the League set up the Nansen International Office for Refugees , a semi @-@ autonomous body under the League 's authority , to continue his work . The Nansen Office faced great difficulties , in part arising from the large numbers of refugees from the European dictatorships during the 1930s . Nevertheless , it secured the agreement of 14 countries (including a reluctant Great Britain) to the Refugee Convention of 1933 . It also helped to repatriate 10 @,@ 000 Armenians to Yerevan in Soviet Armenia , and to find homes for a further 40 @,@ 000 in Syria and Lebanon . In 1938 , the year in which it was superseded by a wider @-@ ranging body , the Nansen Office was awarded the Nobel Peace Prize .

In 1954 the League 's successor body , the United Nations , established the Nansen Medal , later named the Nansen Refugee Award , given annually by the United Nations High Commissioner for Refugees to an individual , group or organisation " for outstanding work on behalf of the forcibly displaced " . A central street in Sofia Bulgaria is named after Fridtjof Nansen , and a memorial plate is mounted on a nearby building .

In his lifetime and thereafter , Nansen received honours and recognition from many countries . Nansen Ski Club , the oldest continually operated ski club in the United States , located in Berlin , New Hampshire , is named in his honour . Numerous geographical features are named after him : the Nansen Basin and the Nansen @-@ Gakkel Ridge in the Arctic Ocean ; Mount Nansen in the Yukon region of Canada ; Mount Nansen , Mount Fridtjof Nansen and Nansen Island , all in Antarctica . Polhøgda is now home to the Fridtjof Nansen Institute , an independent foundation which engages in research on environmental , energy and resource management politics . In 1968 a film of Nansen 's life , Bare et liv ? Historien om Fridtjof Nansen was released , directed by Sergei Mikaelyen , with Knut Wigert as Nansen . In 2004 the Royal Norwegian Navy launched the first of a series of five Fridtjof Nansen @-@ class frigates . The lead ship of the group is HNoMS Fridtjof Nansen ; two others are named after Roald Amundsen and Otto Sverdrup . In the ocean , Nansen is commemorated by Nansenia , small mesopelagic fishes of family Microstomatidae . In space , he is commemorated by asteroid 853 Nansenia . In 1964 , the IAU adopted the name Nansen for an

impact crater at the Lunar north pole , after the Norwegian explorer .

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