

Our Ocean Backyard — *Santa Cruz Sentinel* columns by Gary Griggs, Director, Institute of Marine Sciences, UC Santa Cruz.

#126 February 23, 2013

Nansen Heads for the Arctic



The Fram, 1893.

Fridtjof Nansen and his small group of not so merry men were the first to cross the Greenland ice cap. When they arrived on the west side at Godthaab in October 1888, they discovered that the last ship for the year had just left and the next wouldn't arrive until spring. He and his party just made the most of it and spent the next seven months hunting, fishing, and studying the life of the local inhabitants, which they quite enjoyed.

They received a hero's welcome back in Norway in May 1889, and the enthusiasm for their achievement led directly to the formation of the Norwegian Geographical Society. The Royal Geographical Society of England awarded Nansen the Society's prestigious Founder's Medal, stating that Nansen had reached "the foremost place amongst northern travelers".

On a more personal side, while our young adventurer had made it no secret that he himself was strongly against the institution of marriage, less than three months after returning to Norway he was engaged, and then, less than a month later, Nansen married Eva Sars, the daughter of a zoology professor.

His successful Greenland crossing, combined with his spirit for exploration and long interest in the Arctic led him to think again about the possibility of reaching the North Pole through the natural movement of the ice. In February 1890, Nansen addressed a meeting of the new Norwegian Geographical Society where he proposed a plan to drift in a vessel across the Arctic.

In contrast to the earlier Arctic voyages of others that ended in disaster, and based on the theories of a distinguished Norwegian meteorologist, Nansen believed that success required that any ship drift with the direction of ice flow. This meant sailing from the Siberian side, where the Jeannette had been crushed in the ice in 1881, and then drifting towards Greenland. Nansen stated that the obvious thing to do was “to make our way into the current on that side of the Pole where it flows northward, and by its help to penetrate into those regions which all who have hitherto worked against (the current) have sought in vain to reach”.

He planned to sail to where the Jeannette sank, and at the time of minimum ice extent, “we shall plough our way in amongst the ice as far as we can”. He believed that the ship and crew would then drift with the moving ice towards the North Pole and eventually reach the open sea between Greenland and Spitsbergen.

As with his proposed Greenland trip, there were a number of polar explorers who were completely dismissive of Nansen’s plan, including a retired American adventurer who called the idea “an illogical scheme of self-destruction”. Another American explorer called it “one of the most ill-advised schemes ever embarked on” and predicted that it would end in disaster. But Nansen’s earlier success and a passionate request to the Norwegian parliament led to a grant, followed by funding from private individuals and also from a successful national appeal.

He was on his way to his next great adventure and just needed the right ship and a trusting and dedicated crew who didn’t mind spending five years stuck in the Arctic ice. Nansen’s plan required a small, strong, and maneuverable ship, powered by both sail and an engine, capable of carrying fuel and provisions for twelve men for five years. Well, and then there was also the matter of several dog teams to pull the sledges in case they were needed, so a lot of dog food.

Nansen knew he was risking his and his crew’s lives and went with quality. He choose Colin Archer, Norway’s most respected naval architect and shipbuilder, to design and build a ship that could resist all of the forces the Arctic ice would throw at it. Archer built a vessel of extraordinary strength by using the strongest oak timbers he could find, combined with an intricate system of crossbeams and braces along the entire length of the vessel. The hull was sheathed in South American greenheart, the hardest timber available. Three layers of wood forming the hull provided a combined thickness of between 24 and 48 inches.

Sleek would not have been a good description of the ship. It was designed with a rounded hull so that as the ice froze around it, the ship would be pushed upwards onto the surface rather than being crushed in an ice vice of considerable pressure. In Nansen's words, the vessel would "slip like an eel out of the embraces of the ice". The vessel was also quite broad, 36 feet, relative to its length (128 feet), giving it a somewhat stubby appearance, but then beauty wasn't a criterion.

On the 6th of October 1892 the ship was launched, christened by Nansen's wife Eva, and given the name *Fram*, meaning Forward, which was the only direction Nansen understood.

One might think that there wouldn't have been much appeal of a five-year voyage in a small ship, stuck in the Arctic ice with 12 other men and several dozen dogs. But Nansen received thousands of applicants from all over the world. In the end, he selected only Norwegians and carefully handpicked each crewmember for their skills and strengths. Second in command was Otto Sverdrup, an experienced sailor who had accompanied him on the Greenland crossing.

Before setting off, Nansen made the decision to alter his original plan. Instead of following Jeannette's route through the Bering Sea to the New Siberian Islands, he decided to take a shorter route around the top of Norway and then proceed eastward along the northern coast of Siberia.

The *Fram* departed Christiania on June 24, 1893 with thousands cheering them on. The last port call was in Vardo, on the far north coast of Norway, and from there they headed east along the coast of Siberia. These seas were little known and poorly charted and they were slowed by ice and heavy fog, even in mid-summer. Today, with the rapid melting of the Arctic ice, their voyage would have been considerably easier.

As they approached the New Siberian Islands, where Jeannette had been caught in the ice and crushed, they began to encounter heavy pack ice. On about the 20th of September 1893, they had reached 78° 49' N latitude before Nansen ordered the engines stopped and the rudder raised. From this point, the drift of the *Fram* in the ice began and would last for the next three years.