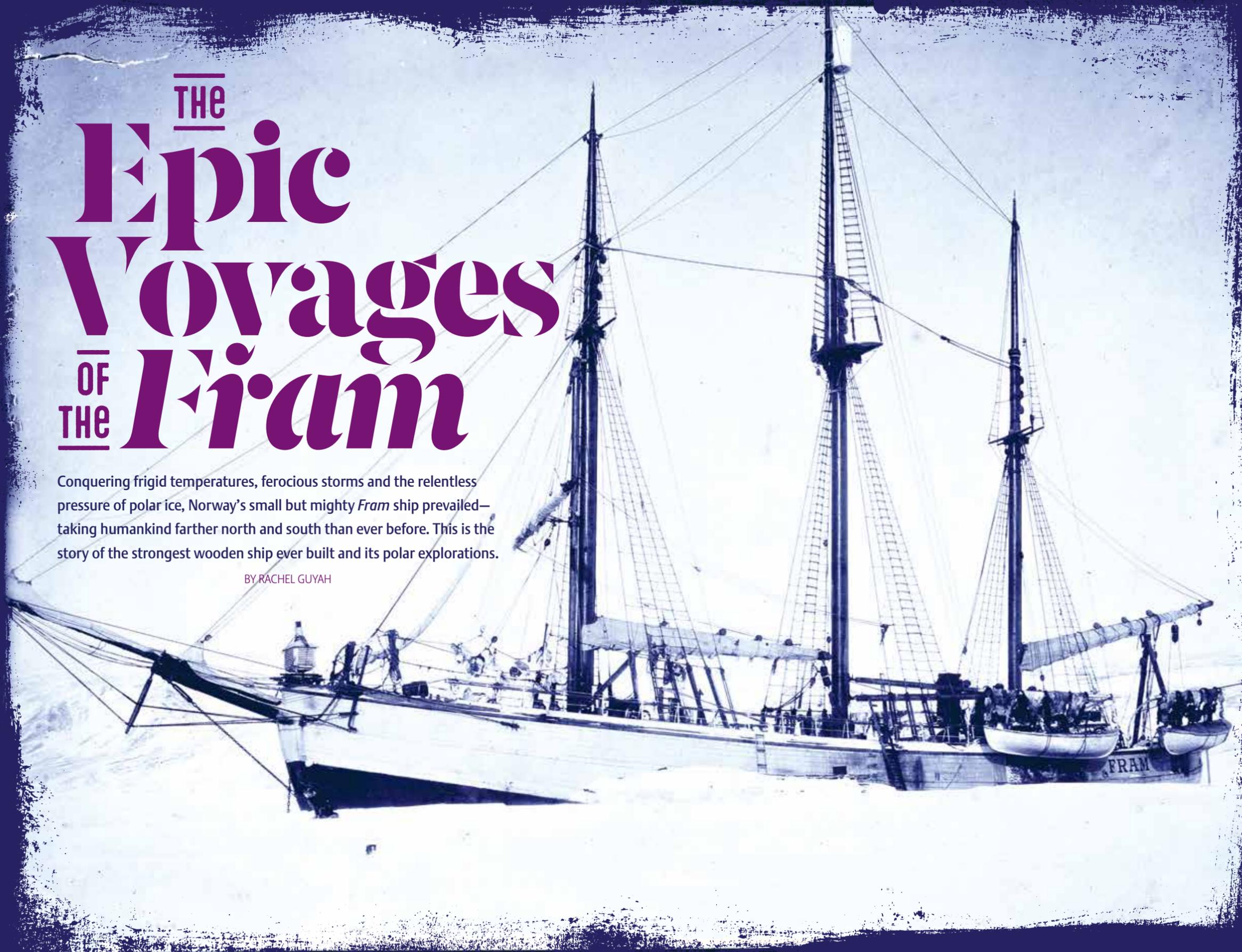


THE Epic Voyages OF THE *Fram*

Conquering frigid temperatures, ferocious storms and the relentless pressure of polar ice, Norway's small but mighty *Fram* ship prevailed—taking humankind farther north and south than ever before. This is the story of the strongest wooden ship ever built and its polar explorations.

BY RACHEL GUYAH



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There is a case to be made that the most successful pioneer in modern polar exploration was neither man nor woman—it was a ship, a three-masted schooner made of oak, pine and greenheart. It was the *Fram*.

Polar exploration peaked in the decades leading up to and following the turn of the 20th century. In pursuit of fame, national pride and scientific discovery, explorers around the world raced to reach the frozen ice caps of the North and South Poles. Many tried, with tragic endings. But the *Fram* forged on, safely guiding its crew and setting the record of sailing farther north and south than any vessel of its time. The ship plunged deep into the Arctic and Antarctic regions during its three epic voyages, each led by one of Norway's legendary explorers.

BUILDING AN ICE SHIP

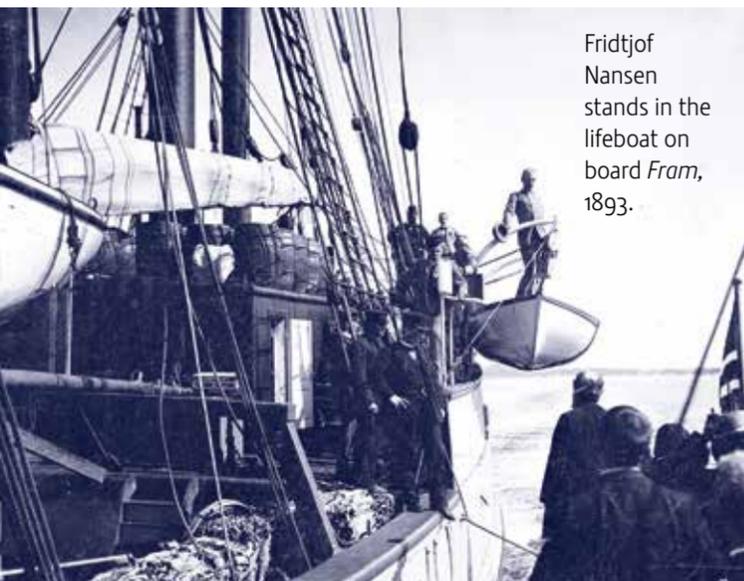
The idea for the *Fram* came from Fridtjof Nansen, Norway's beloved scientist-explorer. There was a theory at the time that a continuous east-west current exists in the Arctic Ocean, crossing through the North Pole. Compelled to test this theory firsthand and also win the race to the pole, Nansen decided to build a boat—but not just any boat. It would be a small, wooden ship, strategically designed to get locked into, then lifted up onto, polar ice, after which the natural currents would carry them onward. Many doubted its potential, based on the fate of previous ships that had succumbed to the pressures of polar ice—but not Nansen.

To build the ship, Nansen received a grant from the Norwegian parliament as well as funds from private donors. The talented shipbuilder and naval architect Colin Archer was tasked with designing and constructing the vessel.



EXPEDITION 1

Nansen Journeys to the Arctic



Fridtjof Nansen stands in the lifeboat on board *Fram*, 1893.

there bottom upward on the floe ... I wonder what is next in store for her?"

When Nansen realized that the *Fram* would not end up drifting as close to the North Pole as he had hoped, he and another crewman, Hjalmar Johansen, set off on skis, sleds and kayaks on March 14, 1895 to reach the North Pole themselves. However, the harsh terrain and endless ice blocks made advances nearly impossible. By early April they reached 86°14'N—the farthest anyone had ever gone—and decided to head south. They wintered on an island, then spent the next spring winding south. By incredible luck they ran into another explorer, Frederick George Jackson, who returned them safely to Norway on board his ship.



British officer and Arctic researcher Frederick George Jackson greets Fridtjof Nansen in the Arctic.



In the meantime, the *Fram* was under Otto Sverdrup's captainship. On Oct. 16, 1895, the ship reached its highest latitude: an impressive 85°57' N. It drifted westward while enduring another winter of

polar pack ice, then drifted south for the spring and summer, finally breaking free of the ice on Aug. 13. Nearly three years had passed since it had sailed open waters. On Aug. 25, the crew was reunited with Nansen and Johansen, and they returned to Oslo on Sept. 9.

The *Fram* may not have reached the North Pole, but it did help the crew take many scientific measurements and observations, leading to a fascinating discovery: Contrary to previously held beliefs, the area surrounding the North Pole is an extremely deep basin—an ice-covered sea—devoid of major landmasses.

FAST FACTS

Explorer: Fridtjof Nansen
Captain: Otto Sverdrup

Duration: 1893–1896
Location: Arctic Ocean

Fram's maiden voyage began June 24, 1893, when it left the port in Oslo. With a crew of 13 and provisions for five years, they received a warm welcome from villages and passing ships as they skirted the coast. On July 21 the *Fram* and its crew left the northern tip of Norway and set off for the New Siberian Islands.

By end of September the *Fram* was fully locked in ice, and the next month it fought off the first brush of ice pressure. The ice pressed hard against the ship, then sunk below, pushing the vessel upward—precisely as Nansen had expected. As the explorer writes in his gripping first-person account of the voyage, "Farthest North":

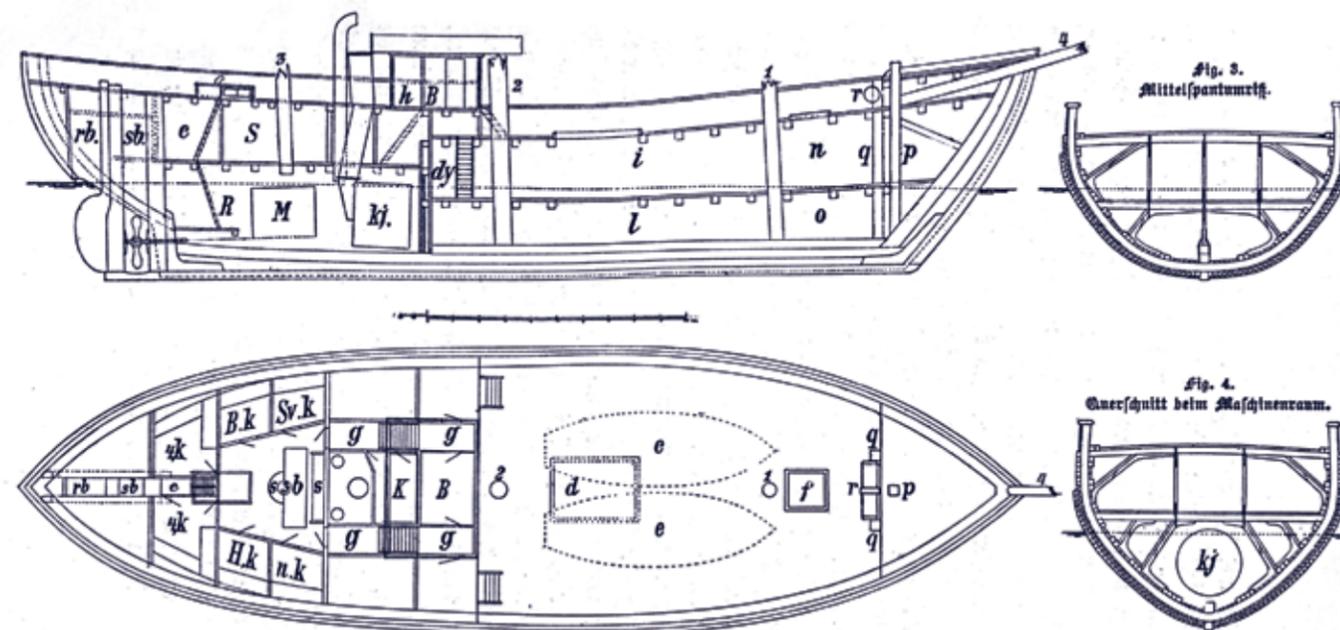
"The ice is pressing and packing round us with a noise like thunder ... in fact, it is trying its very utmost to grind the *Fram* into powder. But here we sit quite tranquil ... just chatting and laughing as usual."

During the second winter, enormous pressure caused the ice to crack, pile up and form massive ridges around the ship. As ice pounded and ground against the *Fram*, the crew scrambled to gather their belongings and bring them out on the ice, preparing to abandon ship if need be. By the time the pressure subsided, most of the port side was buried in snow; only the top of the tent could be seen. The crew spent a long time excavating the ship from the snow and ice. But Nansen was pleased with the victory:

"It has now come out unscathed from the ice, and lies

A Ship is Born

This drawing shows the internal structure of the *Fram* as originally built.



rb—rudder well. **sb**—propeller well. **S**—saloon. **s**—sofas in saloon. **b**—table in saloon. **Svk**—Svederup's cabin. **Bk**—Blessing's cabin. **4k**—four-berth cabins. **Hk**—Scott-Hansen's cabin. **nk**—Nansen's cabin. **c**—way down to engine room. **R**—engine room. **M**—engine. **kj**—boiler. **g**—companionways (ladders and passageways) to and from saloon. **K**—cook's gallery. **B**—chart room. **dy**—space for dynamo. **d**—main hatch. **e**—longboats. **i**—main hold. **l**—under hold. **f**—fore hatch. **n**—fore hold. **o**—under fore hold. **p**—windlass post. **1**—foremast. **2**—mainmast. **3**—mizzenmast.

Highlights of the Fram

Length: 128 feet
Width: 36 feet

SHORT + SMALL

- Easier to maneuver
- Better navigation through ice
- Compact = strength to withstand ice pressure

SMOOTH, ROUND + WIDE

- Designed to hoist vessel up onto the ice
- Harder for ice to grab onto
- Allows ship to slide through ice floes

LOW RUDDER WITH WELL

- Prevent direct impact and damage from ice
- Can be quickly lifted on deck to safety

FORE + AFT RIGS*

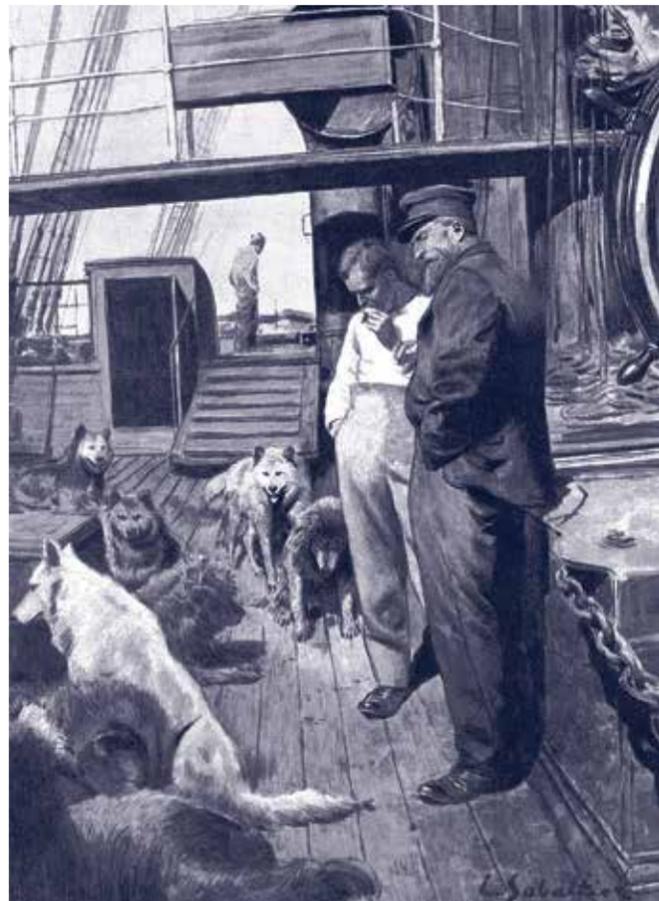
- Sails are set parallel to the keel
- Easier to maneuver in changing winds
- Only requires a small crew

*Previous Arctic ships had been square-rigged, with sails set perpendicular to the keel.



EXPEDITION 2

Sverdrup Surveys Northern Greenland



FAST FACTS

Explorer + Captain: Otto Sverdrup

Duration: 1898–1902

Location: Arctic archipelago west of Greenland

After successfully guiding the ship back to Norway during the first expedition, Otto Sverdrup was asked to lead the *Fram* on a second voyage, this time to survey northern Greenland and the unknown northeastern coast.

To prep for this voyage, the *Fram* was towed back to its builder's shipyard for several modifications. A false keel was added for lateral stability and a new, longer deck built with six extra cabins for more crew.

On June 24, 1898, the *Fram* left port with Sverdrup, five scientists and 10 crew members. While the original plan was to venture deep into the north, Sverdrup switched gears after the first winter. Ice continued to block Smith Sound and Kane Basin, preventing passage farther north—plus Sverdrup had run into another explorer, Robert Peary, who was also leading a Greenland expedition. Rather than ignite a battle, Sverdrup turned his compass south and west.

Over the next four years, Sverdrup and his crew wintered along the southern coast of Ellesmere Island, then spent the other seasons collecting scientific data and heading out on long sledge journeys, surveying and mapping several islands in the archipelago.

Many an expedition to these areas had turned grim in the past, but Sverdrup was pleased with his careful planning and preparations, as well as the strength of his small wooden

ship. “There lay the *Fram*, stout and defiant, like a little fairyhouse in the midst of the polar night,” the captain wrote in his book, “New Land: Four Years in the Arctic Regions (Volume 1).”

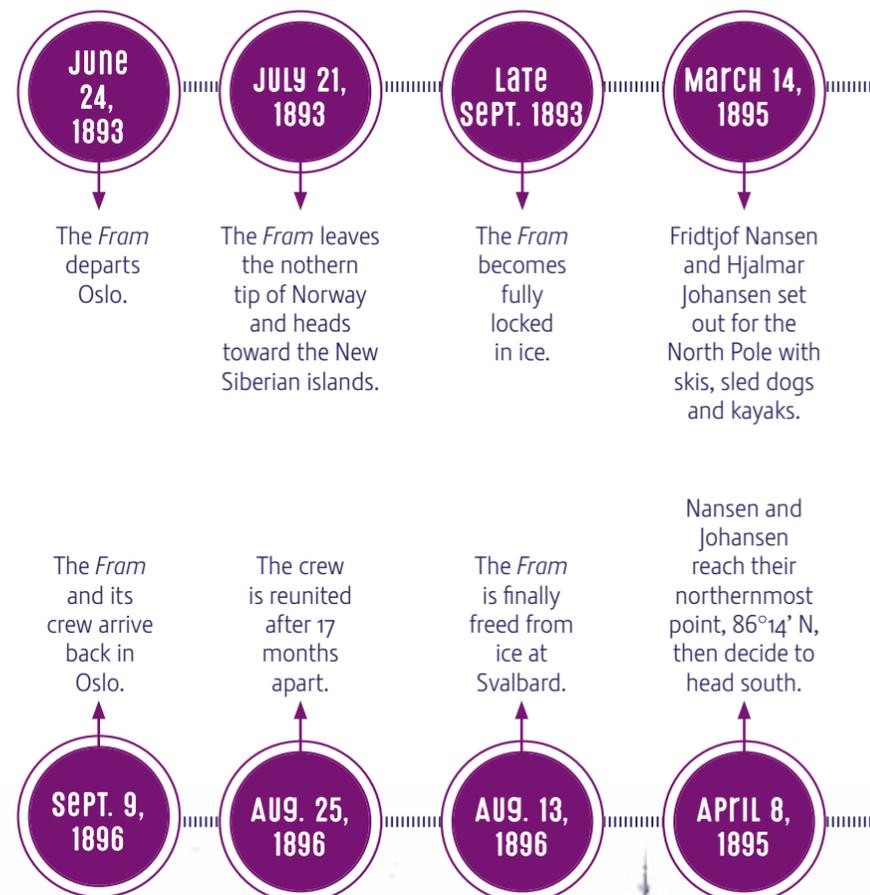
Despite this strength, the ship was nearly burnt to ashes one day in May 1900 when the canvas awning for the winter caught fire. The crew dragged cases of gunpowder away just in time, then frantically dumped buckets of water on their beloved ship. Sverdrup recounts: “Our craft was dear to us, and fight they meant for every plank of the old *Fram*—our only bit of Norway up there in all that solitude.”

Luckily the fire soon went out, leaving the hull and deck relatively unscathed.

All in all, Sverdrup's team surveyed over 200,000 square kilometers of land. The crew conducted copious scientific observations as well, collecting thousands of plant samples and data about the ice, temperature, and Earth's magnetism—which later resulted in multiple volumes of scientific analyses.

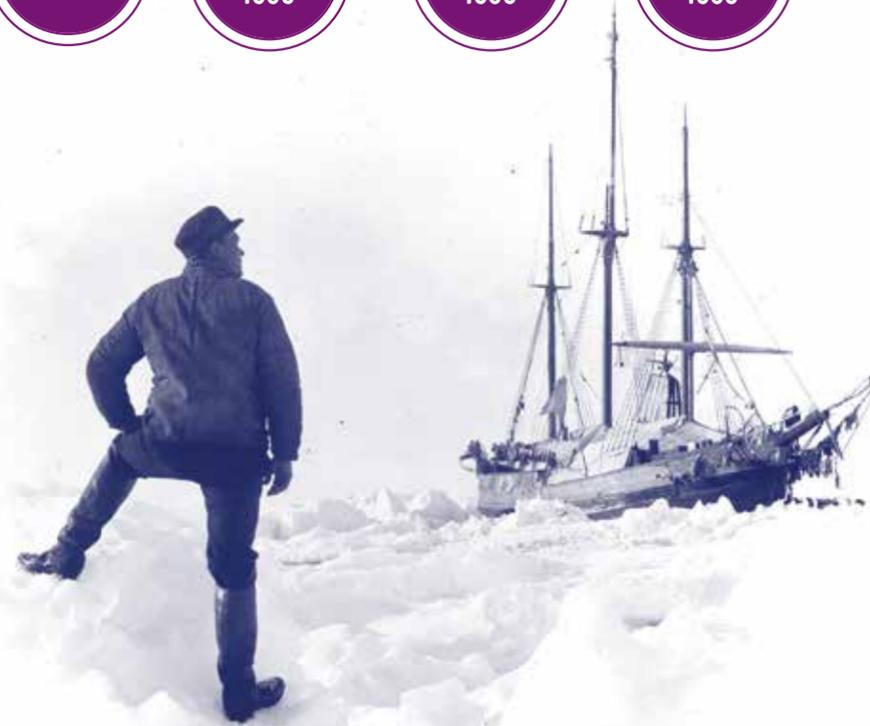
From North to South

EXPEDITION 1: Nansen's Journey to the Arctic

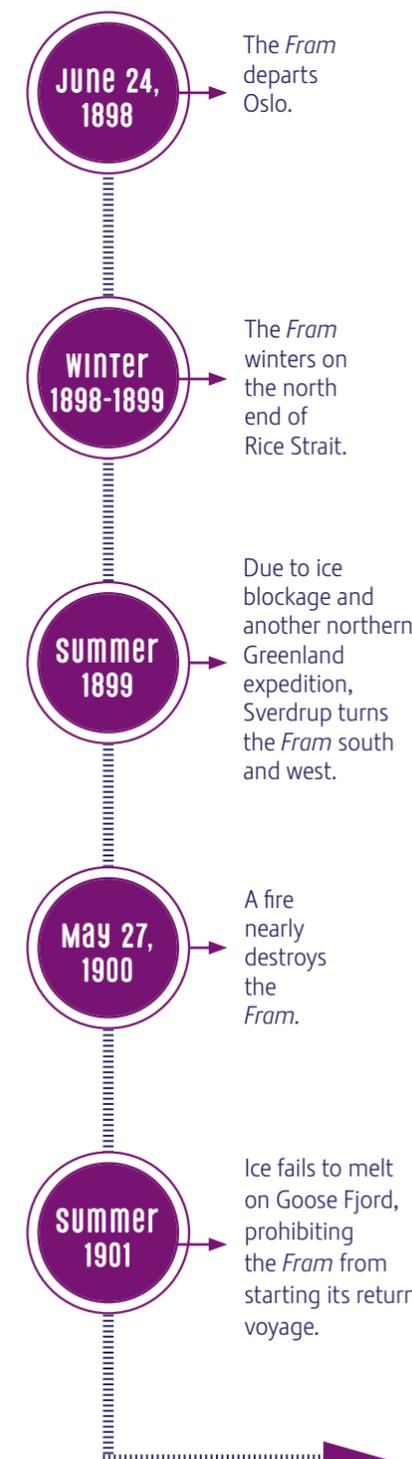


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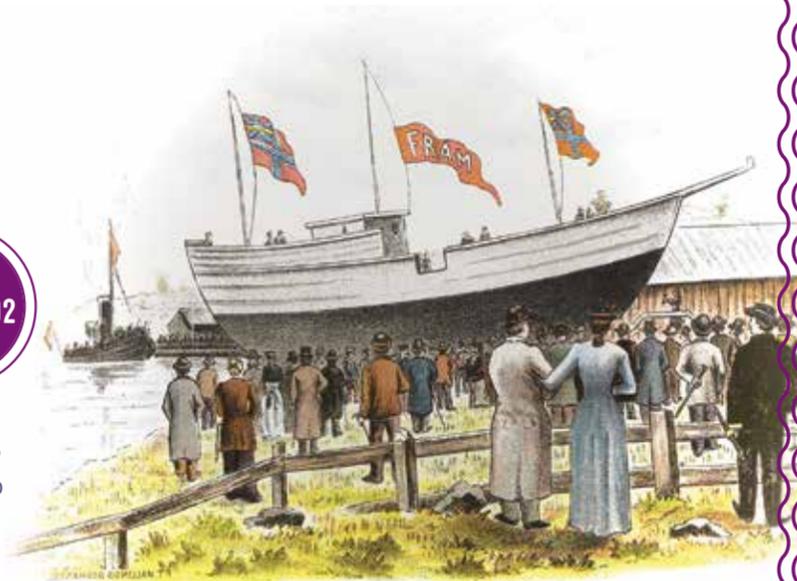
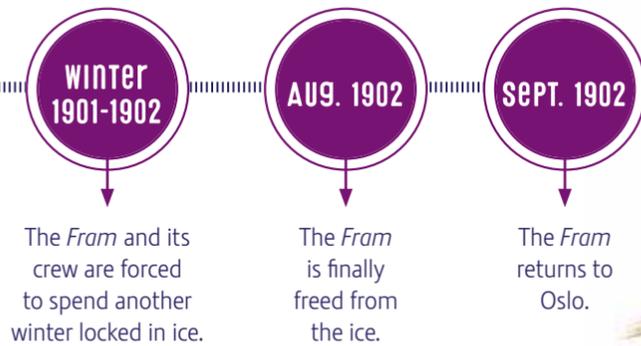


EXPEDITION 2: Sverdrup Explores Greenland



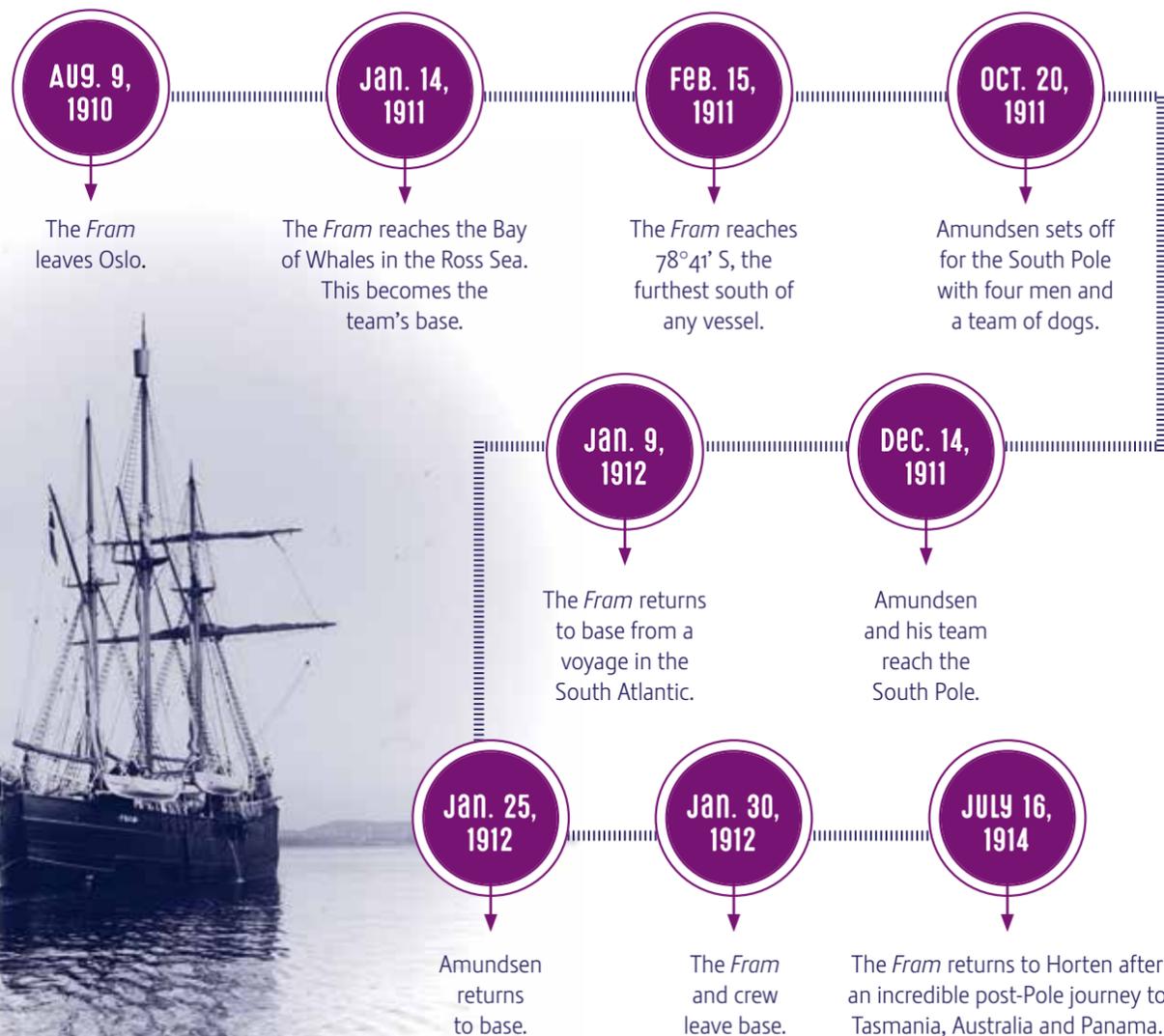
EXPEDITION 2 CONTINUED

Svederup Explores Greenland



EXPEDITION 3

Amundsen Heads South



EXPEDITION 3

Amundsen's Race to the South Pole



FAST FACTS

Explorer: Roald Amundsen
Captain: Thorvald Nilsen
Duration: 1910–1912

Location: Antarctica, Southern Ocean, South Pole

The *Fram* had been resting in a naval base in Horten for several years when Norway's Roald Amundsen decided to test the ship's strength once more. His original intentions were to drift along the Arctic ice in hopes of reaching the North Pole, just as Nansen had attempted. However, when Amundsen received word that two explorers (Robert Peary and Frederick Cook) had just laid claim to reaching the North Pole, he quickly set his sights south. Not many knew of this change of plans. In fact, except for the captain and two shipmates, no one knew of the switch until already on board.

After undergoing extensive repairs (the idle years had left many parts of the ship damaged by fungus, and a naval storehouse fire had destroyed most of the sails and rigging), the *Fram* left Oslo on Aug. 9, 1910, for its third expedition.

After sailing an incredible 16,000 miles, the *Fram* and its crew reached the Bay of Whales in the Ross Sea in January 1911 (the bay would become their base). During the stay there the *Fram* set a second polar record by reaching 78°41' S—the farthest south of any ship.

On Oct. 20 Amundsen and four other men set off with sledges, skis and dogs for the South Pole. After eight weeks, Amundsen and his team reached their goal on Dec. 14. They left behind a tent, a Norwegian flag and letters addressed to King Haakon VII and Robert Falcon Scott—the leader of another team racing to the Pole. (Scott's team reached the Pole a month later, then sadly perished during their return.)

While Amundsen's team raced to and from the Pole, the *Fram* and remaining crew investigated the depths of the South Atlantic. The crew collected invaluable oceanographic data that would be studied for years to come. Once reunited with his vessel, Amundsen still dreamed of drifting north on Arctic ice to reach the other Pole, but he eventually changed course and decided to return home. On July 16, 1914, the *Fram* and its crew arrived safely back in Horten after an incredible post-Pole journey to Tasmania, Australia and Panama among other destinations. 📍



Visit the Fram Museum

Amazingly, the mighty *Fram* still stands today—enclosed in an interactive museum on the Bygdøy peninsula in Oslo. Visitors can board the famed ice-defying ship for a fascinating multi-sensory experience. As you tour the cabins, lounge and kitchen you'll see original artifacts, hands-on games and even life-like replica figures of Nansen and other crew members. Up top, you can wander the deck, grab hold of the helm and feel transported to the Arctic as you watch a giant 270-degree projected film. framuseum.no

TOP TO BOTTOM: PT MALLINGS BOOKSTORE, NATIONAL LIBRARY OF NORWAY

CLOCKWISE FROM TOP LEFT: NATIONAL LIBRARY OF NORWAY, INTERFOTO / ALAMY, STOCK PHOTO, UNKNOWN, T. STORM HALVORSEN / THE FRAM MUSEUM