

## **German Exploration of the Polar World: A History**

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## Book Reviews

GERMAN EXPLORATION OF THE POLAR WORLD: A HISTORY, 1870–1940. By David Thomas Murphy. Lincoln, Nebraska, and London: University of Nebraska Press, 2002. xvii + 273 pp. \$49.95. ISBN 0-8032-3205-5.

This is a thoughtful, scholarly written, and well-footnoted history of German interests in the poles and accounts of significant expeditions into the Arctic and Antarctic regions during the seven decades encompassing the “golden age” of polar exploration prior to World War II. While the accounts of the expedition leaders’ polar voyages are substantial, the book focuses as much or more on expedition preparations, their motives, and interactions of Germans with polar society and politics of the times. The author’s de-emphasis of the typical tales of polar adventure, valor, and sacrifices is somewhat refreshing for this reviewer more familiar with either popular or scientific accounts of the British, American, or Norwegian exploits. German polar enthusiasts, including the Arctic’s and Antarctic’s strongest German advocates, August Petermann and Georg von Neumayer, respectively, were unable to raise their country to a leadership position in polar exploration. There were no real polar firsts, many failures to attain lofty or even the fanciful goals, and in sum, few spectacular successes to sustain public enthusiasm in Germany. Nevertheless, German explorers made significant contributions to geographic knowledge of Arctic and Antarctic lands. Oceanographic and particularly meteorological data as well as innovative applications of scientific instruments and tools were also important results of the expeditions.

The six book chapters are set around exploration during each of four German geopolitical systems—from the multi-state Germany of the pre-unification era to the Third Reich. The most significant expeditions during each of the four eras are briefly outlined below.

The earliest of the German quests that had some success during the first era was led by Karl Koldewey in 1868 using the single-masted sailing ship *Grönland*. Charged with a long list of objectives from Petermann (many unrealistic), the ship headed northward between Greenland and Spitsbergen in May 1868. However, the *Grönland* was stopped by a sea ice barrier at  $\sim 81^{\circ}\text{N}$  latitude, neither reaching much more northward than earlier ships, the coast of Greenland, nor the open water predicted by Petermann to surround the pole.

The *Grönland* expedition results, however, were enough to help raise funding for an 1869–1870 expedition to northeastern Greenland with the vessels *Germania* and *Hansa*. These were again under the overall command of Koldewey, with several scientists aboard each vessel. The *Germania* spent much of its time collecting abundant data north and south of, or at, Sabine Island, Greenland, at  $\sim 75^{\circ}\text{N}$  and reached a record of  $\sim 77^{\circ}\text{N}$  on the Greenland coast. After an early separation for the *Germania*, the *Hansa* became frozen into the pack ice, drifting south of Sabine Island along the Greenland east coast, subsequently to be crushed and abandoned. The crew traveled  $\sim 2000$  km southward along the coast on the pack, eventually taking to their boats and rounding southernmost Greenland to a Danish village on the west. Both vessel crews returned to Germany in September 1870 to the Franco-Prussian War.

Germany’s first venture to Antarctic waters followed much later in 1901–1903 with the plushly furnished vessel *Gauss* under the leadership of Erich von Drygalski. The *Gauss* included a crew with several young scientists and was supported by the Kaiser and his government. The *Gauss* dropped three of its complement of scientists

off at Kerguelen Island, south of Cape Town, and aimed for the Antarctic mainland farther east at  $\sim 90^{\circ}\text{E}$ . The plan was to proceed inland as far as possible toward both the geographic and magnetic poles; the latter located theoretically in 1838 by the German, Carl Friedrich Gauss, the ship’s namesake. Unfortunately, the vessel was frozen into the pack ice for a year, still 90 km from the mainland. Although Drygalski’s shore party did make important discoveries after reaching the mainland, the geographic limitations, together with significant depression and disease that betook the Kerguelen Island party, persuaded the German public to unfairly judge the Drygalski expedition a failure.

A subsequent German Antarctic expedition in 1911–1913, led by Wilhelm Filchner in the vessel *Deutschland*, also succumbed to bad luck, this time augmented by strong personnel conflicts aboard ship. Reaching the coast south of South Georgia, the shore crew set up a station on an iceberg embedded in the barrier of the Weddell Sea ice shelf, now the “Filchner Ice Shelf.” The iceberg soon calved, destroying the station; then as the *Deutschland* moved northward, it became locked in the ice pack for eight months—until late November of 1911. Imperial Germany’s second attempt to lead in Antarctic exploration ended with little public approval or national prestige.

In late July of 1931, a few years after Richard Byrd’s successful flights to both poles, Germany’s Hugo Eckener and crew flew the *Graf Zeppelin* from Germany to Russia and across the islands of Franz Josef Land and subsequently Severnaya Zemlya, and back home over Novaya Zemlya Peninsula. This, a ninety-hour joint Russo-German-sponsored flight near the end of the Weimar Republic government, helped inspire many in Germany and collected useful geographic data, but was in itself a “dead end” in exploration. The event occurred as the world received news of Alfred Wegener’s death in central Greenland.

Wegener, the leader of the German Greenland expedition of 1930–1931, had already attained middle age with world-class status as a skilled scientist and polar explorer; among other things, he was the major innovator of the Continental Drift Hypothesis, the stepping stone for modern plate tectonics. The scientific contributions of Wegener’s party, with his closest associates, Johannes Gorgi, Ernest Sorge, and meteorologist Fritz Loewe, were considerable, especially in the fields of geophysics and meteorology. Studies were based on traverses tied to three Inland Ice stations in western, central, and eastern Greenland. The hardships and tragedy of Alfred Wegener’s loss crossing the ice sheet in late autumn of 1931 along with polar problems such as Loewe’s need to remove his own frozen toes (a personal communication to this reviewer), probably helped bring the expedition into the public eye.

Nazi Germany’s major polar effort produced the National Socialist Antarctic Expedition of 1938–1939. Assembled in secrecy, it was designed to exploit scientific exploration for the service of politics and land acquisition. Aside from rather sinister values and territorial goals, the thorough planning of its expedition commander, naval aviator Capt. Alfred Ritscher, the vessel *Schwabenland* with its catapult and two launchable flying boats, as well as a large disciplined complement of scientists and crew allowed for substantial data-gathering along the coast of Queen Maud Land south of Cape Town in East Antarctica. One of the most important outcomes was the first significant collection of aerial survey photography extending inland from the Antarctic coast. Nevertheless, Germany’s defeat in Hitler’s War quickly nullified the official territorial goals of the expedition.

This small volume may be aimed at those with historical or political science leanings, but will be revealing to some of us more

fact-focused physical scientists and polar enthusiasts who may appreciate the well-thought-out background for exploration and the German political scene. The *German Exploration of the Polar World* has useful maps of North and South Poles with expedition routes, 31 illustrations, bibliography, and index. The illustrations, while interesting, include many photographs of poor quality.

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