

Valter Schytt (1919-1985)

Valter Schytt, Sweden's leading glaciologist and polar scientist, died 30 March 1985 in the Tarfala valley, Kebnekaise, Swedish Lapland. He was en route to the University of Stockholm's Tarfala Research Station, a station he had nurtured for 40 years amidst the mountains he and his family loved so deeply.

As a student at the University of Stockholm, Schytt came under the influence of Hans W:son Ahlmann, already a famous glaciologist because of his studies of glacier mass balance and related topics on a series of expeditions around the North Atlantic in the 1930s. When Ahlmann initiated a long-term program of glacier research in the Swedish mountains, Valter Schytt was selected to lead the work, and the first hut was built in the Tarfala valley in 1945. As a result of Schytt's interest and initiative, the station had grown to the size of a small hamlet by the time of his death. Generations of Swedish students, as well as many from abroad, had their first encounter with glaciers at Tarfala.

Hans Ahlmann was also the moving spirit behind the Norwegian-British-Swedish Antarctic Expedition, 1949-52, on which Valter Schytt served as chief glaciologist and second-in-command. Fellow glaciologists on this highly successful expedition, which signaled the start of international expeditions to the Antarctic following World War II, were Gordon Robin and Charles Swithinbank. Schytt's glaciological research, published in 1958 as volume 4 in the special series of publications that resulted from the expedition, contained three chapters: Snow Studies at Maudheim; Snow Studies Inland; and The Inner Structure of the Ice Shelf at Maudheim as Shown by Core Drilling. This paper, which he defended publicly in the spring of 1958, constituted his thesis for the degree of *Filosofie doktor*.

In 1953 and 1954 Valter Schytt served as a visiting professor at Northwestern University in Evanston, Illinois. He spent the summer of 1954 leading a field party on the Greenland Ice Sheet east of Thule Air Base. This field research, conducted under the auspices of the Snow, Ice and Permafrost Research Establishment (SIPRE) of the U.S. Army, based in Wilmette, Illinois, was directed toward determining the origin of ramps, as opposed to cliffs, at the edge of the ice sheet. My association with Schytt began that summer, when I made daily weather observations from an outpost on the ice sheet as a small contribution to his research.

Later in the 1950s, when plans were afoot for the International Geophysical Year, Valter Schytt organized a small glaciological expedition to Nordaustlandet, Svalbard. This island had been visited by many Swedish expeditions in the century preceding 1957, including such luminaries as A.E. Nordenskiöld, Gerard De Geer, and Hans Ahlmann. In 1956 Schytt and two Scandinavian colleagues had an opportunity to make preliminary observations on Vestfonna, the smaller of the two main ice caps on Nordaustlandet, as guests on a Soviet expedition aboard the icebreaker 'Ob. Because of a helicopter accident the party was marooned on the ice cap for two weeks, but this gave Schytt a rare chance to visit Franz Josef Land, as the group was eventually evacuated to Nagurskoye, on Alexander Land, by fixed-wing aircraft.

The Swedish Glaciological Expedition to Nordaustlandet, which used the base of the Swedish-Finnish-Swiss IGY Expedition (under G.H. Liljequist, who had been with Schytt in the Antarctic) as its headquarters, was in the field during the summers of 1957 and 1958. The first season was a small preliminary expedition, but in 1958 a five-man group, led by Schytt, traversed Vestfonna and Austfonna. Not only were a series of pits dug to study snow stratigraphy, but seismic refraction and reflection measurements were carried out by S.R. Ekman (the greatest thickness obtained was over 500 m on Austfonna), crystallographic investigations were made by Erkki Palosuo, and snow and ice temperatures were recorded. Because of Schytt's absence from Stockholm at the time when he normally would have been promoted officially to *Filosofie doktor*, an informal ceremony was held on Vestfonna on 30 May, certainly a farthest north record for a Swedish "promotion." It was a good party nevertheless, and dynamite sticks were set off at appropriate intervals as a substitute for the traditional naval gun salute in Stockholm!

In the autumn of 1958 Valter Schytt became Docent in physical geography at the Geographical Institute, University of Stockholm, and this appointment was followed by a personal professorship in glaciology, awarded through the Natural Science Research Council, a position he held for the rest of his life.

In 1966, another major expedition to Svalbard was organized by Schytt, together with Gunnar Hoppe. Helicopter support came from the Swedish Army and ship support was provided by the Norwegian Polar Research Institute. Expedition members, including the Russian glaciologist M.G. Grosswald, were able to visit many new areas of Nordaustlandet as well as Kong Karls Land. The emphasis of this expedition was to unravel the glacial history of eastern Svalbard.

Always an internationalist, Schytt became the first non-British president of the International Glaciological Society (1969-72), he was a long-time council member and then president (1977-79) of the Swedish Society for Anthropology and Geography, he was president of the Swedish Travellers' Club (1976-85), and he was a council member of Comité Arctique International (1979-85). Elected to membership in the Royal Swedish Academy of Sciences in 1974, he maintained his active interest in polar research and at the same time continued as director of the station at Tarfala. His standing in the Swedish scientific community was recognized in 1976 by his appointment as Lord Chamberlain in Waiting to the Court of King Carl XVI Gustav, a post that he enjoyed and handled with aplomb.

The culmination of Valter Schytt's work in the field of polar research came in 1980, when the Swedish icebreaker *Ymer* made a voyage to commemorate Nordenskiöld's attainment of the Northeast Passage (and the circumnavigation of Asia) in *Vega* between 1878 and 1880. Schytt was responsible for much of the organization and, as scientific leader, he was on board for both legs of the expedition, which ranged around Svalbard, to Greenland in the west, to the waters north of Franz Josef Land in the east, and to latitude 82°30'N. Schytt would have been pleased with the final report of this multifaceted expedition, issued in 1987 by the Swedish Academy of Sciences under the



Valter Schytt taking a sun shot on Vestfonna, May 1958.

editorship of Gunnar Hoppe. For his outstanding work on the *Ymer-80* Expedition Valter Schytt was awarded the Vega Medal, the highest award of the Swedish Society for Anthropology and Geography, in 1981.

Another result of Schytt's efforts to stimulate polar research was the creation of a Committee for Polar Research within the Swedish Academy of Sciences, as well as a Polar Research Secretariat (a special government entity). Sweden acceded to the Antarctic Treaty in 1984, and during several recent austral

summers Swedish glaciologists, physical geographers, and Quaternary geologists have again worked in the Antarctic. This is Valter Schytt's legacy.

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