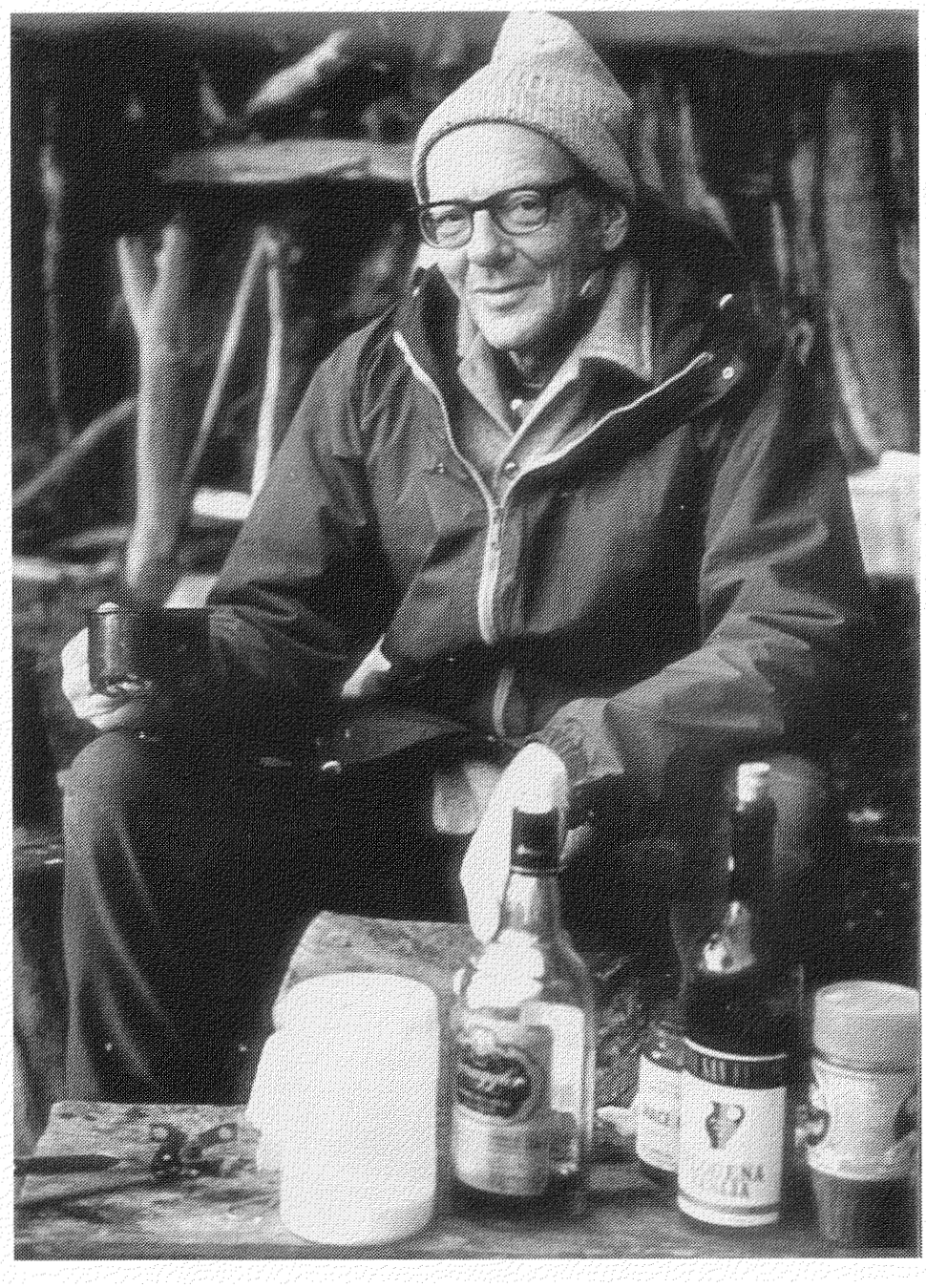
JOHN HAINSWORTH MERCER
(1922-1987)



Born in Cheltenham, England, John Hainsworth Mercer was educated at private schools there and later in Scotland, at the prestigious Gordonstoun School, where he knew Prince Philip. After serving in the British Merchant Marine from 1940 until 1946, during which time he was on four different ships that were sunk — and two of these sinkings occurred in a single night — he emerged, intellectually unscathed, to take a B.A. in geography at Cambridge University (1949). While at Cambridge, or shortly thereafter, Mercer had already visited Patagonia and he later entertained his colleagues with stories of a glacier (Moreno) advancing into a verdant *Nothofagus* (beech) forest in which "parrots" were flying around. A striking photograph of this scene (minus the "parrots") can be found in Mercer (1973).

From 1951 until 1954, Mercer studied at McGill University. His Ph.D. thesis, supervised by J. Brian Bird, was based on field work carried out in the vicinity of the Grinnell and Terra Nivea ice caps on southern Baffin Island. For one of us (W.B.Jr.), who was Mercer's field assistant in 1952, this first

trip to the Arctic was a most rewarding experience. Even at that early stage of his career, Mercer already had an extensive knowledge of glaciers. Because of the difficult logistics and the extent of the field work, it was to be a long arctic field season by most standards (23 May-29 August). Mileage was made on RCAF aircraft to Frobisher Bay, Inuit dog team and canoe and on the Fisheries Research Board's vessel *Calanus* to Watts Bay, close to the edge of the Grinnell Ice Cap. The arctic wildlife experts in Montreal had predicted a bear-free journey (because of Inuit hunting), but no fewer than eleven close-range bear encounters were experienced, involving at least seven different bears, who reacted rather casually to a .22 rifle and an improvised bear warning system made from a series of pebble-filled Beardmore dried cabbage cans strung along a spare bootlace.

Upon graduating in 1954, Mercer was appointed research scholar at the Australian National University in Canberra (1954-56), where in the true geographical style of diversity, he studied land use and population problems in Samoa. Early desires for independence took over as he discovered that it was not necessary to rent a room, when he could pitch his tent on the banks of the Molonglo River and enjoy uncomplaining platypi neighbours. Following this "study tour," he returned to Canada to take a position as geographer with the Hydrographic Office in Ottawa.

The influence of the aquatic platypi must have soon waned and his interest in glaciers rekindled, because, after two years, Mercer moved to the World Data Centre A (Glaciology), then affiliated with the American Geographical Society in New York City. While there, he wrote the *Southern Hemisphere Glacier Atlas* (1967) and contributed extensively to the *Atlas of Mountain Glaciers of the Northern Hemisphere* (W.O. Field, editor). This endeavour must have provided him with a solid background from which to plan his subsequent field campaigns. From 1959 to 1966, he alternated between New York City and Columbus, Ohio, where he was a research associate at the then Institute of Polar Studies (Ohio State University). This latter institute served as his base of operations for a geographically diverse sequence of field work in Antarctica (1960-61; '64-65; '69-70), Alaska (1967), Greenland (1968), Argentine Patagonia (10 field seasons between 1963 and 1985) and the Chilean Channels (11 field programs between 1969 and 1987), as well as the Peruvian Andes (1974, '76, '77 and '81) and, finally, New Zealand. Obviously, Mercer was highly motivated by field work and literally thrived on it.

Typically, and often to the chagrin of at least one of his contemporaries, Mercer did not unnecessarily burden himself (or others) with loads of data. Many of his papers seemed to be largely based on his unusual synthesizing and perceptive powers, supported, where necessary, by a few, but key, radioisotope dates. Mercer was not a compulsive lecturer — in fact, he shunned such "duties" — but for those of us at the institute as graduate students (of which G.H. was one) Mercer was frequently a source of both private inspiration and considerable amusement. An important paper in 1968 set in motion his and others' ideas on the dynamics of "marine ice sheets" (Mercer, 1968). He wrote about the instability of the West Antarctic (marine) Ice Sheet and the inferred effects in terms of global sea level changes, as well as postulating the previous existence of Wisconsinan marine ice sheets grounded on the shallow continental shelves of arctic Canada, Greenland and Siberia. Recent Soviet field evidence, made available since Mercer's death, strongly indicates the former presence of grounded ice masses on at least a part of the "Siberian" continental shelf (T.J. Hughes, personal communication). Equally recent numerical modelling of the dynamics of the West Antarctic Ice Sheet (Lindstrom and MacAyeal, 1987) gives results that are entirely consistent with most of the ideas expressed in Mercer (1968) and, very significantly, in Mercer (1978), in which he issued a warning about the instability of the West Antarctic Ice Sheet and subsequent sea level rise if there were a continuous warming such as could result from an atmospheric greenhouse effect. His realistic thinking through the ice sheet dynamics scenarios and the associated sea level changes inspired the numerical modellers to dedicate their paper to him.

His field work in South America and the glacial chronologies he derived are well known, and it was following his initiative that the "tropical" Quelccaya Ice Cap in Peru was the scene of many Institute of Polar Studies glaciological campaigns between 1974 and 1983. The results of this work are of great importance in synthesizing the spatial variations of global climate change, which was one of the underlying themes of Mercer's research.

John Hainsworth Mercer was typically a rather quiet, soft-spoken person who must have absorbed vast quantities of literature and who must have been perpetually planning his "next" field season. His stimulating presence will be widely missed, especially by those at the Byrd Polar Research Center in Columbus, Ohio.

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