

OBITUARY



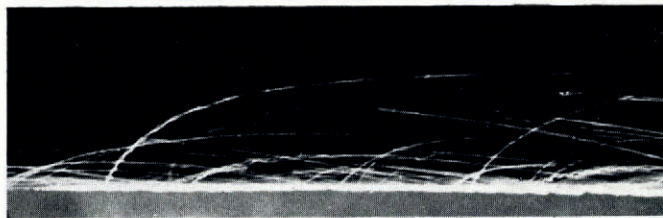
HIROBUMI ŌURA—1921–1969

HIROBUMI ŌURA, Director of the Institute of Low Temperature Science, Hokkaido University, died suddenly on 11 March 1969. Two days before, he made an official trip to the Okhotsk Sea coast to inspect one of the ice radar units which was constructed recently by the Institute to observe drifting sea ice. He climbed by ski to the summit of the mountain where the unit was installed. Feeling extremely tired, he returned home and wanted to take tea before sleeping. When his wife brought a cup of tea to his room, he was unable to take it. Most of the scientists working in the field of snow and ice can find his name in the proceedings of the international conference on the physics of snow and ice which was held in Sapporo in 1966.

Hirobumi Ōura was born on 23 February 1921 at Hiroshima, Japan, and graduated from the physics course of Tokyo Imperial University in 1942. He studied first the band spectrum emitted from excited neutral OD under the guidance of Professor Tsutomu Tanaka. On 5 February 1943, a spectacular solar eclipse was visible from the eastern part of Hokkaido island. There, this young scientist observed the corona spectrum of the sun, and became acquainted with Professor Zyungo Yosida. After this observation, he transferred from Tokyo University to the Institute of Low Temperature Science, Hokkaido University, in order to work with Professor Yosida as an assistant professor. In the Institute, he changed his specialization from optical spectroscopy to snow and ice. He studied reflection and transmission

coefficients of snow for visible light and the sound absorption coefficient of snow. Then his interests were directed to the mechanical properties of snow. He measured the force which snow exerts on a horizontal beam. In 1958, he was awarded his doctorate for his thesis "On the deformation of a snow cave". He was promoted to full professor, and became head of the meteorology section of the Institute. The most remarkable event in his life was wintering at "Syowa" station, Antarctica, from November 1960 to March 1962. During this period, he made a tour from "Syowa" to 75° S., 38° E., measuring the thickness of the ice sheet and gravity distribution along the course travelled. Antarctic exploration is one of the most important scientific tasks undertaken by the Japanese Government. He worked so hard on the white continent, but he was unaware that some disease was gradually developing within his body as a result of the severe cold. After coming back to Japan, he underwent an operation, and one of his kidneys was removed. One year later, he recovered his health and began to study blizzard and drifting snow. The main purpose of this study was to find the criterion of the initiation of a blizzard in the natural turbulent atmosphere. Using high-speed cinemography, he succeeded in taking pictures of the saltation of ice particles drifting on the snow surface (see the example below). This interesting film was shown at the International Symposium on Antarctic Glaciological Exploration which was held at Dartmouth College, Hanover, N.H., U.S.A., in 1968. In April 1968, he was elected Director of the Institute of Low Temperature Science, and devoted his life to this office until his sudden death.

He was a faithful Catholic and loved to read the prayer of St Francis of Assisi. When he talked about this prayer, his face was always full of peace. "I was able to find the existence of God in Antarctica", he told us often. The grace of God will surely be bestowed on his lovely wife and eight children.



DAISUKE KUROIWA