

## THE DEFINITION OF "GLACIOLOGY"

It has recently come to our knowledge that in some quarters the word "Glaciology" is understood to mean the study of glaciers and that alone.

This is incorrect. The word is derived from the Latin *glacies*—ice, and has always been intended to cover every form of ice. The first definition of the word that we can find appears in the *Oxford Dictionary* as "The scientific treatment of ice or glaciers". The Dictionary quotes *Nation* (New York) 29 December 1892, p. 492, col. 2, "already this suggestion finds favour among some of our leaders in glaciology". Used in this broad sense the word appears in Charcot's *Expédition Antarctique Française* (1903-05), and in Shackleton's *The heart of the Antarctic* (1909).

In Wright and Priestley's *Glaciology*, written to record the results of the British (Terra Nova) Antarctic Expedition 1910-13, but only published in 1922, every form of snow and ice is dealt with under the single heading—"Glaciology". This title included chapters dealing with "snow and its derivatives", "ice crystals formed from vapour", "crystalline structure of ice", "glacier motion", "classification of land-ice formations", "ice formations of an advanced stage of the glacial cycle", "structure of glaciers", "fast-ice", "pack-ice", "icebergs", "causes of glacierization", etc.

Sir Charles Wright, co-author of the above, has written to us in confirmation of this: "To me from the beginning glaciology was the study of ice in all its forms . . . I think it will be a great pity if 'Glaciology' is restricted to glaciers and I hope you can scotch this heresy."

In recent times Professor P. A. Shumskiy in his *Principles of structural glaciology* (Kraus' translation) 1955, writes to the effect that the tendency to call glaciology the study of glaciers is incorrect "since the word, derived from the Latin, means the study of ice, consequently the study of ice in general and not just glaciers".

Professor R. Finsterwalder, President of the Committee on Snow and Ice of the International Association of Scientific Hydrology, writes that he and his colleagues agree with us that "Glaciology" includes every form of ice and snow from the time of snowfall until it disappears.

Naturally some aspects of ice overlap into pure physics, into meteorology, into geology and into other sciences, but this does not alter what has been stated above.

Professor F. Debenham, one of the best known authorities on these matters, writes: "It seems curious that some people should persist in a narrow connotation . . ."

Professor P. L. Mercanton, formerly of the Swiss Glacier Commission, who also speaks with great authority and life-long experience, writes that he is horrified by this "new restricted use of the term".

It is puzzling to know how this false definition arose, particularly in view of the fact that this Society, which can claim some authority in these matters, has, from its early days, covered in its Journals and at its meetings, every form of ice.

It is to be hoped that the evidence and opinions cited above will be accepted in the very few quarters where there has been this recent deviation.

## THE MEETING OF THE INTERNATIONAL COMMISSION ON SNOW AND ICE, HELSINKI, 1960

THE twelfth General Assembly of the International Union of Geodesy and Geophysics was held in Helsinki from 26 July to 6 August 1960 at the invitation of the Finnish National Committee of Geodesy and Geophysics, and under the presidency of Professor J. T. Wilson, a member of this Society.

The meetings of the Commission were held in the fine new University building which houses the Department of Forestry and lies close to the centre of the town. The first meeting

took place on Thursday, 28 July and a final meeting was held on Thursday, 4 August. Eight sessions were devoted to sea and lake ice, snow accumulation and ablation, general glacier studies and glacio-meteorology, response of glaciers to climate, glacier surveying and thickness measurement, and to glacier flow; in three further sessions the Commission, working in co-operation with the Special Committee for Antarctic Research, held a special symposium under the Chairmanship of Dr. G. de Q. Robin, on Antarctic Glaciology during the International Geophysical Year.

An unprecedented number of about 100 papers had been submitted for the Meeting, including 25 for the Antarctic Symposium, and it was fortunate for those who attended the meetings that about half the authors were absent and not able to present their papers for discussion. Even so many of those present did not have a reasonable time in which to present their papers. This situation arose because there were no restrictions on the topics covered by the papers and the International Geophysical Year had stimulated a much wider interest in the subject. About 50 people with active interests in snow and ice attended each of the sessions and more would have come if there had not been three other conferences with kindred interests in Scandinavia at about the same time. As a matter of fact the geographers and geologists had an important excursion and symposium on the glaciers of Swedish Lapland the same week. This was a most regrettable clash; there was not a single representative from Norway, or Denmark, and steps must be taken to avoid a similar situation in the future.

Several important decisions were taken on the future policy of the Commission. In a special meeting between officers of the Association of Hydrology and the Commission, it was agreed that a Russian proposal for the Commission to become an Association separate from Hydrology should not take place in the next three years, that the National Committee of Hydrology be asked to appoint National Correspondents and sub-committees to the Commission.

The President of the Commission, Professor R. Finsterwalder, proposed that the Commission should undertake the regular task of recording the variations of existing glaciers in all countries. The Commission agreed to his proposal and set up a sub-committee, with Professor A. Bauer as Chairman, to prepare by 1 February 1961 a document detailing the measurements, the means by which the work could be accomplished, and the results collected together and published.

The Commission further agreed to hold a symposium at Obergurgl in Tirol in September 1962 on the variations in the regime of existing glaciers; this was approved by the Association of Hydrology. Professor H. Hoinkes of Innsbruck kindly agreed to act as the local organizer, and it is hoped that the first circular giving details of the symposium will be issued early in 1961.

For the purpose of organizing future assemblies and symposia it was agreed to divide the work of the Commission into four sub-divisions: (1) Glaciers; (2) Seasonal snow cover and avalanches; (3) Sea, lake and river ice; (4) Ground ice. The existing organization would deal with (1), while Dr. de Quervain (Switzerland), Dr. E. R. Pounder (Canada) and Dr. M. Meier (U.S.A.), would be responsible for fostering the development of sub-divisions (2), (3) and (4) respectively.

The following officers were elected for the ensuing 3 year period:

Professor P. A. Shumskiy (U.S.S.R.) as President;  
 Professor A. Bauer (France), Mr. W. O. Field (U.S.A.) and Professor G. Morandini (Italy) as Vice-Presidents;

Mr. W. H. Ward (United Kingdom) as Secretary.

The next General Assembly of the Union of Geodesy and Geophysics will take place in 1963 in the United States of America at Berkeley, California.

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