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## THE ABISKO-SYMPOSIUM AS OUTSTANDING EXAMPLE OF AN INTERNATIONAL SCIENTIFIC MEETING

The idea of arranging a Symposium in Abisko was, indeed unusually valuable and fortunate, as this meeting may be said to have been the most — or at least one of the most successful enterprises of the XIX<sup>th</sup> International Geographical Congress. And the reason for this success can be briefly summarised: the Abisko-Symposium offered all the advantages of an international scientific conference and none of the disadvantages which are frequently associated with modern congresses.

It seems to be, nowadays, almost generally agreed that the great scientific congresses, in the particular form which they usually assume, have definitely outlived their usefulness. To begin with, they assemble too large a number of participants — hundreds, sometimes even thousands — of scientific workers who are all engaged in specialized, often widely different, or even divergent lines of research. Consequently, the overwhelming multitude of reports which necessarily differ from each other in both topics and importance — make it practically impossible to concentrate attention — even within the scope of a formally homogenous section — upon a selected set of related problems. Clearly, such conditions cannot promote any penetrating and thorough discussion of the problems offered in the individual reports, owing as much to their abundance as to the resulting lack of time.

The Abisko-Symposium was devoted to problems of geomorphology, both glacial and periglacial. Its organizers, our Swedish colleagues ought to be warmly congratulated on its perfectly thought out plan and, in particular, on their concern to present the participants with a positive wealth of regional data. For the Symposium, in a broader sense, may be said to have included in perfect keeping with its full proper purpose — the excursions to Lule (E. Sw. 1), Kebnekajse (E. Sw. 2), and Kårsa (S. Sw. 2 B), which all converged towards Abisko where the majority of their members attended, what may be called the Symposium in a strict sense. The Lule excursion, in which the present writer had the pleasure of taking part, provided an excellent opportunity of getting acquainted

with various cross-sections through the glacial relief of N-Sweden, from the shore of the Botnia bay to the high mountains. Thus, submarine relief forms could be studied along with such as originated above the highest shore line level. The events responsible for their production could, therefore, be discussed on the basis of a varied display of glacial relief forms. Certain new research methods and — suggested by their application — recent genetic hypotheses relating to a number of glacial forms were presented and estimated on the background of former, and already classical, views. To recall only a few of the most interesting ones, let us mention such problems as those of: "washboard" moraines, subaqueous thrust moraines, rim ridges, dead-ice hollows and glaciifluvial channels.

The excursions of Kebnekajse and Kårsa led their participants into a world of high mountains and glaciers which, in addition to a wide range of glaciological events, exhibits also a large number of other features, lying within the scope of glacial geomorphology.

Thus all the workers who finally met in Abisko had already acquired a good deal of knowledge and discussed a variety of problems. The subsequent Symposium, i.e. the Symposium in the strict sense of the term, was mainly devoted to periglacial questions.

Abisko itself is, without doubt, an ideal site for a conference on glacial and periglacial problems. The surrounding landscape, though showing a conspicuous predominance of landforms produced under the powerful action of glacial morphogeny, exhibits throughout fresh traces of intensive periglacial processes which are not merely present, but still developing today. The Symposium was thus held within a periglacial environment, overlying recently extinct glacial events. Moreover it seems worth emphasizing that these characteristic landscape features in the immediate neighbourhood of Abisko appeared to have, in addition to their vital scientific significance, also a sort of emotional appeal which was felt by all the participants.

The programme of the Symposium comprised two kinds of activities: excursions and paper sessions. The excursions were preceded by introductory lectures delivered at special sessions which were held under the chairmanship of prof. G. Hoppe. These introductions to a knowledge of the area were concerned with: Geology and general geomorphology (prof. S. Rudberg), Glaciation and deglaciation (dr. C. G. Holdar), Periglacial morphology and development of slopes (prof. S. Rudberg and dr. A. Rapp), Vegetation (dr. G. Sandberg). Apart from the introductory lectures, each excursion was discussed on the preceding evening. The route, as well as the individual sites and problems, were illustrated by means of maps, drawings and photographs.

Mention must be also made of the small but unusually interesting exhibition organized in the "hobby room" of the Tourist Station in Abisko. Publications relating to the problems to which the Symposium was devoted, were displayed here, including a number of papers now scarcely available as well as some quite recent and still unpublished works.

A number of interesting and relevant facts were pointed out during the four larger and the two shorter excursions. A wide range of glacial and periglacial problems was presented. The excursions were perfectly organized, the small number of participants and ample time creating favourable conditions for the development of lively and almost incessant debates. Thus the excursions turned into a sort of "Symposium in the field" or "peripatetic Symposium".

The excursions themselves need not be described here as detailed reports on this point by the most expert writers, are given below. It would besides be rather difficult to enter upon a full estimate of all their advantages; a general impression will better serve the purpose. In the writer's opinion, the excursions of the Abisko-Symposium contributed immensely to a better and fuller understanding of the periglacial environment and of the morphogenetic events that took place within it. Any scholar, who seeks in distant polar regions e.g. in Spitsbergen, some explanation of the periglacial events which in the main part of continental Europe came to an end in Pleistocene times, usually returns home with the queer feeling of missing something vital. The present writer thinks that just Lapland — the region of Abisko in particular — provides that "missing link", for it presents the observer with picture of such events, which are either quite recent or still coming into existence and, which being here more widespread than in Spitsbergen — are at the same time much more closely related to those, whose traces are found in the Pleistocene deposits of Central Europe.

The Symposium was attended by 50 scholars, representing 18 countries. Apart from the introductory lectures, 14 reports were delivered, 1 of which dealt with glaciological, 4 with geomorphic, and 9 with periglacial problems. The investigations whose results were presented in these reports were conducted in various countries mostly far distant from each other: Alaska, Antarctica, Chechoslovakia, Canada, Germany, Morocco, Norway and Spitsbergen. Some reports were devoted to regional phenomena but nearly all of them were of general interest as well.

More than 12 hours were allotted altogether to those 14 lectures. Ample time and the possibility of concentrating on the problems which were of interest to all the participants, created ideal conditions for the development of serious and profitable discussions. No report passed without

being thoroughly debated, frequently beyond the time that was formally allotted for the purpose. Even in the train, on the way back to Stockholm, the exchange of views and observations continued late into the night.

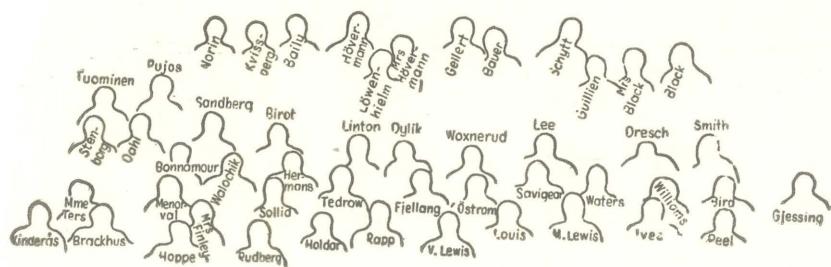
The lovely landscape of the Abisko area which harmonized so well with the problems discussed, but above all the personal charm and friendly courtesy of our hosts, combined to create a unique atmosphere, in which the participants felt united not by common scientific interests alone but also by the bonds of a real companionship if not by those of friendship.

The Symposium has come to an end like all things on earth. But the work which was done in this distant region of Swedish Lapland and completed on the beautiful Lake Torneträsk will pass, as a lasting value, into the history of scientific progress. Although no longer assembled, those who met in Abisko will remain "participants" in a common experience, and the companionship of Abisko will grow and develop in the form of a continuous exchange of letters, experiences and views. That will certainly mean a lot of additional work for numerous post-offices but will no doubt stimulate the advancement of science and bring nations closer to one another.

The Abisko-Symposium was a scientific event, a remarkable achievement for which we all feel deeply indebted to its organizers.



Pl. 1. Participants of the Abisko Symposium



Picture comparisons  
showing  
recent development of steep slopes.

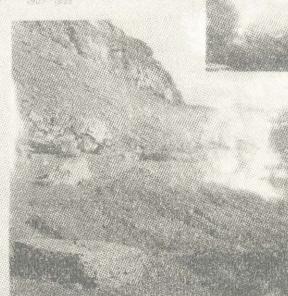
E. B. M. Skjernfjellet, Sotfjelgen  
1937-1952



E. B. M. Tjørnabu, Sotfjelgen  
1932-1954



E. M. Kvitnesdalen, Alnabru  
1937-1958



Pl. 2. Fragment of the exhibition



Pl. 3. Fragment of the exhibition

## THE ABISKO SYMPOSIUM 1960

### THE HIGH MOUNTAIN REGION — GLACIAL MORPHOLOGY AND PERIGLACIAL PROCESSES

#### Program

*Thursday, July 28*

Opening session

*Friday, July 29*

Paper session No. 1 — Chairman: G. Hoppe. Topic: Introductory lectures

S. Rudberg — Geology and general morphology

K. G. Holdar — Glaciation and deglaciation

S. Rudberg and A. Rapp — Periglacial morphology and development of slopes

A short excursion in the vicinity of Abisko

Paper session No. 2 — Chairman: H. T. U. Smith. Topics: Glaciology, ice wedges

W. V. Lewis — The measurement of side-slip at Austerdalsbreen, 1959<sup>1</sup>

T. L. Péwé — Sand-wedge polygons in the McMurdo Sound region, Antarctica

R. F. Black — Ice wedges in Northern Alaska

Evening session

Presentation of next day's excursion program

G. Sandberg — Vegetation of the Abisko area

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<sup>1</sup> J. W. Glen & W. V. Lewis — The measurement of side-slip at Austerdalsbreen, 1959. Printed in full text in: *Journal of Glaciology*, vol. 3, no. 30, 1961.

*Saturday, July 30*

Excursion to Luopakte and Kaisepakte. Leaders: K. G. Holdar, A. Rapp, S. Rudberg

By train from Abisko to Stenbacken. Walking about 12 km. From Kaisaniemi by train back to Abisko

Evening session

Presentation of next day's excursion program

*Sunday, July 31*

Excursion to Narvik. Leaders: A. Rapp, S. Rudberg

By train from Abisko to Narvik. A short walk to „Fjellheisen” cable-car and then up Fagernesfjell. From Narvik by train to Abisko

*Monday, August 1*

Paper session No. 3 — Chairman: J. Dresch. Topics: Glacial morphology, mountain vegetation

H. Louis — Die vom Grundrelief bedingten Typen glazialer Erosionslandschaften

D. L. Linton — Glacial erosion on soft-rock outcrops in Central Scotland

A. Pujos — Aspects de la végétation dans la Montagne Marocaine <sup>2</sup>

A short excursion to the slopes of Mt. Nuolja. Leader: G. Sandberg

Paper session No. 3 — Chairman: D. L. Linton. Topics: Periglacial morphology, deglaciation

J. Dylík — Une carte détaillée des phénomènes périglaciaires de NO-Sörkappland, Spitsbergen

H. T. U. Smith — Periglacial frost features and related phenomena in the United States

H. A. Lee — Method of deglaciation, age of submergence, and rate of uplift west and east of Hudson Bay, Canada

J. D. Ives — The deglaciation of Labrador-Ungava, an outline <sup>3</sup>

Evening session

Presentation of next day's excursion program

<sup>2</sup> A. Pujos — Deux aspects de la végétation du Moyen Atlas en liaison avec les conditions périglaciaires. Published in: *Bulletyn Periglacialny*, nr 10, 1961.

<sup>3</sup> J. D. Ives — The deglaciation of Labrador-Ungava, an outline. Printed in full text in: *Cahiers de Géographie de Québec*, No. 8, 1960.

*Tuesday, August 2*

Excursion to Kärkevagge. Leaders: K. G. Holdar, A. Rapp, S. Rudberg

By train from Abisko to Låktatjåkka. Walking about 12 km. By train from Vassijaure back to Abisko

Evening session

Presentation of next day's excursion program

*Wednesday, August 2*

Excursion to Mt. Låktatjåkka. Leader: S. Rudberg

By train from Abisko to Låktatjåkka. Walking 18 km. By train from Björkliden back to Abisko

*Thursday, August 4*

Paper session No. 5 — Chairman: J. Dylik, Topics: Periglacial morphology, slopes

J. C. F. Tedrow — Morphological evidence of frost action in Arctic soils

P. J. Williams — Quantitative investigations of soil movements in frozen ground phenomena

J. Hövermann — Über Verlauf und Gesetzmässigkeit der Strukturbodengrenze

R. Savigear — Periglacial and tropical slopes: some analogies and contrasts

Paper session No. 6 — Chairman: H. Louis

J. Ksandr — Über die glaziale und periglaziale Problematik in der Tschechoslowakei

Free discussion within the topics of the symposium

*Friday, August 5*

After breakfast departure by train from Abisko