

МЕЖДУНАРОДНЫЙ СОЮЗ ГЕОЛОГИЧЕСКИХ НАУК  
МЕЖДУНАРОДНЫЙ СОЮЗ ПО ИСТОРИИ И ФИЛОСОФИИ НАУКИ

МЕЖДУНАРОДНЫЙ КОМИТЕТ  
ПО ИСТОРИИ ГЕОЛОГИЧЕСКИХ  
НАУК

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INTERNATIONAL  
COMMITTEE ON THE HISTORY  
OF GEOLOGICAL SCIENCES

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ИНФОРМАЦИОННЫЙ БЮЛЛЕТЕНЬ №7

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## KAREL ZPALETAL

Professor Karel Zapletal, corresponding member of INHIGEO, well-known by his scientific works on the geology of the Carpathians passed away on December 29, 1972.

Karel Zapletal was born May 18, 1903 in Velká Bíteš (Moravia). Graduate of the University named after Masaryk in Brno and having completed his doctorate of natural sciences, he became assistant professor in geology, and in 1948 and onwards - professor at the same University. He combined this work with teaching geology and petrography at the Higher Technical School in Brno. Simultaneously with teaching in 1925 began his many years' activities in the Moravia Museum, where in 1945 he became the head of geological-mineralogical department.

K. Zapletal carried on his investigations in different parts of Czechoslovakia, dealing mostly with geological survey and search for minerals. He was interested in various problems of geomorphology, tectonics, paleogeography and mineral studies.

He had organized a permanent mineralogical-geochemical exhibition which was highly appreciated by the outstanding geochemist A.E. Fersman.

K. Zapletal is the author of more than a hundred books and articles containing the results of his many years' research work.

At the same time he had compiled a number of geological maps among which are the maps of the Moravia area, vicinities of the towns of Brno and Olomouc.

K. Zapletal took active part in the Constituent Assembly at which the International Committee on the History of Geological Sciences was formed (Yerevan, USSR, June 1967). He was elected corresponding member of the Committee then.

Professor K. Zapletal's death in the prime of his scientific activities is a heavy loss for the geological science of USSR and INHIGEO.

## R E P O R T

on the activities of the International Committee on the History of Geological Sciences (INHIGEO) in 1972.

1. The activity of INHIGEO in 1972 is divided into two periods:

a) the first half of the year, when the former personnel of the Committee was in office, and

b) after August 1972 - the beginning of the work of a new INHIGEO panel elected by the IUGS Council during the 24th Session of the IGS.

In the process of the preparation for the 24th Session of the International Geological Congress and for the meeting of the IUGS Council INHIGEO Newsletter No 6 was compiled and published comprising 46 pages and containing: a report on INHIGEO activities during 1971, a report on the work done by INHIGEO during the four-year period (1968-1972), a list of candidates for corresponding members of INHIGEO, a list of major papers published by INHIGEO members and corresponding members during the four years, etc. The Newsletter had a circulation of 650 copies and was distributed among geological organizations and most prominent geologists and historians of science in the majority of countries of the world.

2. During the year of 1972 INHIGEO organized and held 3 scientific symposia:

a) a bilateral symposium "History of Russian-Polish scientific contacts in geology and geography" (Leningrad, USSR, 13-19 June 1972). Curators: V.V. Tikhomirov and A.V. Halicka. 70 papers were accepted and 61 read; 130 persons attended the symposium.

b) International symposium "Development of concepts on Precambrian History of the Earth" (Montreal, Canada 23-28 August 1972). Curator: J.B. Waterhouse; 16 papers were accepted and 12 read; 75 persons attended the symposium.

c) International symposium "History of Mineralogy" (Montreal, Canada, August 25, 1972). Curator: C.J. Schneer. The Symposium had been prepared together with the International Mineralogical Association; 8 papers accepted and 6 read; 60 persons were in attendance (detailed information about the symposia "b")



and "c" see p.20 )

Abstracts of papers accepted for the 3 symposia were published before the opening of the sessions and distributed among the participants and interested persons.

A considerable number of papers on various subjects, a great number of participants in the sessions and discussions of the papers read are a convincing evidence of the growing interest in research on the history of geological sciences.

In 1972 the book of the Proceedings of the First Bilateral Polish-Soviet Symposium that took place in Warsaw in 1969 was published in Poland. Its subjects were analogous to those of the Leningrad symposium of 1972 (see a). The book comprising 426 pages contains 37 papers and discussions; it is published in Polish and Russian with summaries in English.

3. During the 24th Session of the IUC in Montreal on 22 August, 1972 the IUGS Council heard the report on the activities of INHIGEO during the four-year period and approved it; the Council marked a great activity of the Committee, which resulted in an increasing interest in the study of the history of geological sciences among geologists. A new panel of INHIGEO was elected of 17 scientists, (see p.23 )

4. Two meetings of INHIGEO took place during the 24th session of the IGC.

(1). On August 25 the report on the activities of INHIGEO published in Newsletter No 6 was discussed. Eight people spoke on the subject giving unanimously a positive appraisal of the work done. A number of suggestions for the plan of the future work were introduced. Communications were made on the formation of national INHIGEO subcommittees in a number of countries: in the USSR and in Great Britain such subcommittees had already been organized, in the USA and in Poland there exist necessary conditions for the formation of such organs.

(II). On August 29th the general meeting of INHIGEO in its new panel elected the Bureau of the Committee and elected corresponding members of INHIGEO for the coming four years (42 per-

sons from 19 countries). The plan of INHIGEO work for 1972-1976 was discussed and approved; it was decided to hold symposia:

a. on the history of teaching geological sciences (1974, in Spain),

b. to commemorate the 100th anniversary of the death of Ch. Lyell (1975, in Great Britain).

5. For the expenses in 1972 INHIGEO received Am.\$800.00 from the Executive Committee of the IUGS and Am.\$150.00 from the Executive Committee of the International Union for the History and Philosophy of Science. These sums were spent for:

a) clerical expenses Am.\$150.00

b) subsidies to INHIGEO members to cover part of their expenses in attending the 24th Session of the IGC (J.L.de Azcona, K.Maslankiewicz, B.C.Roy, V.V.Tikhomirov, G.W.White)

Am.\$800.00

An additional sum of Roubles 180.00 was spent for the preparation, publication and partial distribution of Newsletter No.6. This sum was allotted by the USSR Academy of Sciences.



SYMPOSIA ON THE HISTORY OF GEOLOGICAL SCIENCES DURING  
THE 24TH SESSION OF THE IGC

Symposium No 106 "History of Concepts of Precambrian Geology" took place in Montreal on August 23, 24 and 28, 1972; each session was attended by 50-75 scientists. Abstracts of 16 selected papers were published in a special volume.

Out of the total number of the accepted papers 9 were dedicated to the presentation of the history of general geological problems of the Precambrian. The concepts of A.G.Werner on the composition and origin of "primary", i.e. Precambrian rocks were analysed in the paper of A.M.Ospovat (USA). The development of his ideas by W.Maclure, who worked in North America in the XIX century, was shown in the paper of G.W.White (USA).

The evolution of concepts on the litho- and petrogenesis of Precambrian rocks was characterized in the papers on the history of concepts of the genesis of magmatites. (R.V.Dietrich) and on the conditions of formation of ring dikes in the traps in the Ontario region. (J.S.Stevenson, Canada).

Two communications touched upon the development of concepts on the conditions under which the primary crust had originated: the ideas of Scandinavian scientists of the XVIII century on the peculiarities of the Earth's nature at the early stages of its existence (G.Regnell, Sweden), and the concepts of scientists of different countries (from Antiquity up to the XX century) on the problem of oceans and continents origin (unread paper of I.V.Batushkova).

Great attention was attracted by the paper on the modern concepts of the problem of the origin of life on the Earth. Consideration of possible variations of an abiogenic synthesis gives grounds to assert that under definite conditions a biological stage in the evolution of abiogenic carbon compounds could begin (A.I.Oparin, USSR). The subject of other papers were the problem of the first stages of discovery and studies of the remains of oldest algae (E.L.Yochelson, USA) and the development of concepts on the paleogeographic conditions on the Precambrian land (V.V.Tikhomirov, USSR). In the latter report the author stressed the necessity of investigation of Archean and Protero-

zoic deposits by newest research methods in order to check up the concepts of V.I.Vernadsky and L.S.Berg on the simultaneous appearance of life in three geospheres - the water, the air and the land.

Five papers were dedicated to the history of studying Precambrian rocks in various regions in Scotland and Ireland (J.G.Anderson, Great Britain), in Charnwood Forest, England (T.D.Ford, Great Britain), in North America (W.O.Kupsh, Canada), in Australia (D.Branagan, Australia) and in Mysore area, India (unread paper by S.Sambe Gowda and R.Srinivasan, India).

Of considerable practical value is the paper, where the author analysed the errors which arose due to the use of foliation, jointing and similar factors when establishing occurrence conditions of Precambrian metamorphic rocks (D.Bowes and A.Hopgood, Scotland). Undoubtedly interesting is the abstract of the unread paper (K.O.Kratz, V.A.Maslennikov and N.N.Barkhatova, USSR) dealing with the history of application and evolution of various methods of absolute geochronology in the USSR, where radiometry is used for stratigraphic purposes successfully and for a long time.

Symposium No 114 "History of Mineralogy" took place in Montreal on August 25, 1972; about 60 persons participated in its work; 8 papers were accepted.

An introductory paper (C.J.Schneer, USA) showed some peculiarities of development of mineralogy and pointed out to the fact that very frequently ideas had preceded the establishment of a certain fact, whereas the development of mineralogy proceeded in close relationship with chemistry, physics, mathematics and, especially, geology. The author noted that the industrial revolution of the XIX century had created conditions that stimulated the formation of concepts on groups of symmetry, lattice theory and certain modern ideas on the structure of crystals.

The communication on the role of M.V.Lomonosov in the development of mineralogy in the XVIII century was listened to with great interest (A.S.Povarennykh, USSR). M.V.Lomonosov was one of the first to work out the chemical classification of minerals and, on the basis of atomistic views on the structure of the matter, attempted to explain the crystallographic shape and



properties of minerals.

A number of papers were dedicated to the analysis of development of crystallography in the XIX century. The ideas on the lattice structure of the crystalline matter were suggested in the beginning of the previous century; they were later developed by O.Bravais who had proved that the maximum number of possible lattices is 14 (J.G.Burke, USA). Bravais' contemporary Mallard had studied twin lattices and the phenomenon of isomorphism; his pupil Friedel foresaw the existence of the centres of symmetry in crystals. (R.Hocart, France). At the end of the XIX century W.Barlow's prophetic ideas on the dense atomistic "packing" of crystals appeared, but they remained unnoticed (W.J. Hosser, USA).

Two papers dealt with the history of designing crystallo-optical instruments: a polarization microscope, single-circle reflection goniometer and a two-circle goniometer (R.E.Shanklin, H.E.Wenden, USA).

Unread remained a communication dedicated to the investment into petrography and mineralogy by E.S.Fedorov, who deduced 230 geometric figures corresponding to all possible variants of crystal structure and introduced the generally accepted now universal method of studying rockforming minerals with the help of the so-called Fedorov universal stage (I.I.Shafranovsky, USSR).

The material of both the symposia shows that historical research contributes to appreciation of the evolution of certain problems or methods and clarifies some important sides of the problems on which scientists are working now, helping to avoid erroneous interpretations and to select the most rational and vital direction for further investigations.

The symposia attracted lively attention not only of the historians of science but also of many geologists known by their works on applied and theoretical geology, not especially engaged in historical research.

X Te. i melhu a de siting  
in London on 3.8.75

THE PANEL OF  
THE INTERNATIONAL COMMITTEE ON THE HISTORY OF  
GEOLOGICAL SCIENCES (INHIGEO)

INHIGEO members

(approved by IUGS Council on August 22, 1972)

- |                                       |                        |               |  |   |
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9. v. Engelhardt W. BRD

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42. Zapletal K. USSR Brno-16, Colova 15.



INFORMATION ON THE SCIENTIFIC EVENTS  
ON THE HISTORY OF SCIENCE IN 1974  
XIV INTERNATIONAL CONGRESS OF THE HISTORY OF SCIENCE

The XIVth International Congress of the History of Science will be held in Japan in 1974 in Tokyo and Kyoto under the auspices of the International Union of the History and Philosophy of Science.

The activities of the Congress will consist of plenary meetings, symposia and section meetings. There will be organized section of "History of Earth Sciences" with a sub-section of "History of Geological Sciences."

Those geologists who intend to present papers at the Congress must be registered by 15 June 1973 as active members who will be entitled to participate in all activities of the Congress and will receive a copy of the Proceedings.

Papers may be read in English, French, German, Russian or Japanese, but both papers and their summaries should be submitted in English or French.

Registration fees are twenty thousand yen for active members and ten thousand yen for associate members.

Accommodation and domestic tours will be arranged by "Japan Travel Bureau" (JTB).

Address of the Organizing Committee of the XIV International Congress of the History of Science:

Organizing Committee  
XIVth International Congress of the History of Science  
c/o Science Council of Japan  
22-34 Roppongi 7-chome  
Minato-ku, Tokyo 106,  
Japan

V INHIGEO SCIENTIFIC SYMPOSIUM

The Symposium on the History of teaching geological sciences will be held in Madrid from 1 to 7 July 1974.

The Symposium is organized by geological and mining institutions of Spain and by the International Committee on the History of Geological Sciences (INHIGEO).

Papers, planned to be read at the Symposium, will be dedicated to the problems of the history of teaching geological sciences (including geophysics, geochemistry and paleontology) in higher educational institutions and colleges up to the middle of the XXth century.

After the Symposium there will be organized an excursion Madrid-Almadén-Córdoba-Almadén-Madrid.

The authors should notify the Organizing Committee about the subject and title of their papers by 1 July 1973. The summaries of those papers should be submitted by 1 April 1974.

The official languages of the Symposium are: Spanish, French, English, German, Italian and Russian.

Membership fees are: members participating with the right to receiving publications - 2,000 Pts; members not participating with the right to publications - 1,500 Pts; accompanying members, with the right to attend all events - 1,000 Pts; student members with the right to publications and attendance of all events - 500 Pts.

The head office and address of the Symposium is:

Comision Nacional de Geologia  
Rios Rosas, 23  
Madrid - 3  
Spain