



МЕЖДУНАРОДНЫЙ СОЮЗ ГЕОЛОГИЧЕСКИХ НАУК  
МЕЖДУНАРОДНЫЙ СОЮЗ ПО ИСТОРИИ И ФИЛОСОФИИ НАУКИ

МЕЖДУНАРОДНЫЙ КОМИТЕТ  
ПО ИСТОРИИ ГЕОЛОГИЧЕСКИХ  
НАУК

---

INTERNATIONAL  
COMMITTEE ON THE HISTORY  
OF GEOLOGICAL SCIENCES

---

ИНФОРМАЦИОННЫЙ БЮЛЛЕТЕНЬ №7

NEWSLETTER N° 7

1973

Составители: В.В.Тихомиров

А.И.Равикович

Москва Ж-17, Пыжевский пер.7, Геологический  
институт АН СССР

Compiled by: V.V.Tikhomirov,

A.I.Ravikovitch.

Geological Institute of the Academy of Sciences of the  
USSR, Pyzhevsky per. 7, Moscow 109017, USSR.

## СОДЕРЖАНИЕ

Карел Заплетал. Некролог.....	4
Отчет о деятельности ИНИГЕО в 1972 г.....	5
Краткая информация о симпозиумах по истории геологических наук во время XXIV Сессии МГК.....	8
Состав ИНИГЕО.....	11
Информация о совещаниях по истории науки в 1974 г.....	14
Karel Zapletal. Obituary note .....	16
Report on the activities of INHIGEO in 1972 .....	17
Information on the symposia on the history of geological sciences during the XXIV Session of IGC .....	20
The INHIGEO panel .....	24
Information on the scientific events on the history of science in 1974 .....	28

## 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 Checkoslovakia, 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, viscinities 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 CSSR 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 preceeded 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. C. m. l. w. e. d. v. s.  
in London on 3.9.75

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

INHIGEO members

(approved by IUGS Council on August 22, 1972)

- |   |                         |               |  |   |
|---|-------------------------|---------------|--|---|
| 1. President                                    | Tikhomirov V.V.         | USSR          | Geological Institute<br>of the USSR Academy<br>of Sciences,<br>Pyzhevsky 7<br>Moscow 109017  | X |
| 2. Vice-<br>President<br>for Europe             | X Hooykaas R.           | Netherlands   | Krullelaan 35,<br>Zeist  | X |
| 3. Vice-<br>President<br>for Asia<br>and Africa | X Roy B.C.              | INDIA         | 37/3 South End<br>Park<br>Calcutta-29  | X |
| 4. Vice-<br>President<br>for America            | X White G.W.            | USA           | Department of Geology<br>University of Illinois<br>Urbana, Ill. 61801                        | X |
| 5. General<br>Secretary                         | X Maślankiewicz K.      | Poland        | Ul. Czysta 12, m.7<br>Krakow   | X |
| 6. Scientific<br>Secretary                      | Ravikovitch A.I. (Mrs.) | USSR          | Geological Institute<br>of the USSR Academy<br>of Sciences,<br>Pyzhevsky 7,<br>Moscow 109017 | . |
|   | 7. Asano K.             | Japan         | Institute of Geology<br>and Paleontology<br>Tohoku University<br>Sendai (Anobayama)          |   |
|   | 8. de Azcona J.L.       | Spain         | Comision Nacional<br>de Geologia<br>Rios Rosas, 23<br>Madrid-3                               |   |
|   | X Basset D.A.           | Great Britain | National Museum of<br>Wales,<br>Cathays Park,<br>Cardiff, CF 1 3NP                           |   |
|   | 10. Cailleux A.         | France        | 9 Avenue de la<br>Tremouille<br>Saint-Maur<br>Val-de-Marne                                   |   |

- Members: 111 Castellanos T.G. Argentina Academia Nacional  
(cont.) de Ciencias de Cordoba  
Casilla de Correo no.36  
Cordoba
- X 12. Guntau M. DDR Bereich Geschichte,  
SBW,  
Postschliessfach 47,  
Bergakademie  
Freiberg  
92
- X 13. Hölder H. BRD Geologisch-Paläontolo-  
gisch Institut,  
Pfergasse 3,  
44 Münster (Westf.)
- X 14. Regnell G. Sweden Department of Histori-  
cal Geology and  
Paleontology  
University of Lund  
Solvegatan, 13  
S-22362 Lund
- X 15. Urban J. CSSR Geofond  
Dačockene nam.11  
Kutna Hora
- X 16. (Vallance T. Australia) Department of Geology  
and Geophysics  
University of Sydney  
Sydney, N.S.W.
- 17 Waterhouse J. Canada Department of Geology  
University of Toronto  
170 College Street  
Toronto 181

INHIGEO corresponding members  
(elected at the INHIGEO general meeting on 29 August, 1972)

- X 1. Albritton C. USA Box 153  
Southern Methodist University  
Dallas, Texas 75222
2. Batushkova I.V. (Mrs.) USSR Institute for the History of  
Natural Sciences and Technics  
Staropansky per.1/5  
Moscow 103012
- X 3. Branagan D. Australia Department of Geology and Geo-  
physics, Edgeworth David Bldg.  
University of Sydney N.S.W. 20006

4. Camacho H.            Argentina            Facultad de Ciencias Exactes y Naturales, de la Universidad de Buenos Aires, Departamento de Ciencias Geologicas, Ciudad Universitaria, Pabellon N2-1 piso Nuñez-Buenos Aires
5. Carozzi A.            USA                    Department of Geology NHB 254 University of Illinois, Urbana, Illinois 61801
6. Czarnecki S.        Poland                Pracownia Geol. P.A.N. Ul. Senacka 3, Krakow
- X 7. Davies G.            Ireland                Trinity College, Department of Geology, University of Dublin, Dublin 2
- X 8. Ellenberger F.      France                Laboratoire de Géologie Structurale, Bat. 504, Centre d'Orsay Université Paris-Sud, F-91405 - Orsay
9. v. Engelhardt W.    BRD                    Mineralogische Institut, Universität Tübingen, Wilhelmstrasse 56, 74 Tübingen
- X 10. Eyles V.A.        Great Britain        The Old Cottage, Great Rissington Cheltenham
- X 11. Eyles J. (Mrs.)    Great Britain        see V.A. Eyles.
12. Fleming C.        New Zealand        New Zealand Geological Survey P.O. Box 30368, Lower Hutt
13. Ford T.            Great Britain        Department of Geology, Bennet Bld. University of Leicester, University Road, Leicester LE1 7RH
14. Gawel A.            Poland                Katedra Geologii Uniwersytetu Jagiellonskiego, Oleandry 2, Krakow
15. Georgiev G.K.      Bulgaria            Bul. Chr. Smirnenski, 16, Sofia
16. Gordeev D.I.        USSR                Department of Geology, Moscow State University, Lenensky Gory Moscow 117234
17. Greene J.            USA                    The College of Liberal Arts and Sciences, Department of History University of Connecticut Storrs, Connecticut 06268
18. Halicka A. (Mrs.)    Poland                Museum Ziemi, al. na Skarpie 20/26 Warszawa

19. Hedberg H. USA Department of Geology and Geophysical Sciences, Princeton University  
118 Library Place, Princeton,  
New Jersey 08540
20. Islamov O.I. USSR University named after Lenin  
Geology Department, ul.K.Marxa 32  
Tashkent 700095
21. Ivan L. CSSR Geofond, Trnávka, Galvaniho ul.  
Bratislava
22. Kleczkowski A. Poland Akademia Gorniczo-hutnicza im.  
S.Staszica, Institut Hydrogeologii  
i Geologii Inzynierskiy, Krakow  
Aleja Mickiewicza 3a
23. Kupsh W. Canada Institute for Northern Studies  
University of Saskatchewan,  
Saskatoon, 7N 0W0
24. La Rocque A. USA Department of Geology and Mineralo-  
gy, Ohio State University,  
1253 Oval Drive, Columbia, Ohio  
43210
25. Laszkiewicz A. Poland Bachacka 2-8, Warszawa 87
26. van Leckwijck W. Belgium Mechelses teenweg, 206, B-2000  
Antwerp
27. Malhasian E.G. USSR Institute of Geological Sciences  
Academy of Sciences of Armenian SSR  
Barekamutian 24, Yerevan-19
- X 28. Ospovat A. USA Oklahoma State University, White-  
hurst Hall, Stillwater, Oklahoma  
74074
29. Portmann J. Suisse Institut de Géologue, Rue E.Argand  
11, CH 2000 Neuchâtel
30. Povarennykh A.S. USSR Institute of Geochemistry and Phy-  
sics of Minerals of Ukranian SSR,  
Novo-Belichanskaya 34, Kiev 68
31. Radkevich E.A.(Mrs) USSR Far Eastern Geological Institute  
Prospect Stoletia 159,  
Vladivostok 690022
32. Routhier P. France Bureau de Recherches Géologiques et  
Minières, 74 Rue de la Fédération  
75 - Paris 15e
- X 33. Rudwick M. Great Britain University of Cambridge, History  
and Philosophy of Science,  
Whipple Science Museum, Free School  
Lane, Cambridge CB2 3 RH

- X 34. Schneer C. USA Department of the Earth Sciences,  
James Hall, University of New Hampshire  
Durham, New Hampshire 03824
35. Shafranovsky I.I. USSR Leningrad Mining Institute, Department  
of Crystallographie, Vasilevsky Ostrov  
21 Linia, Leningrad 199026
36. Spjeldnaes N. Denmark Geologisk Institut, Aarhus Universitet  
DK-8000 Aarhus
37. Tasnadi Kubacska Hungary Hungarian Geological Institute,  
Nepstadim 14, Budapest-XIV
38. Turner J. Argentina Facultad de Ciencias Exactes y Natura-  
les, Universidad de Buenos Aires,  
Calle Viamonto 444, Buenos Aires
39. del Valle Spain c/ Espronceda, 34 trip.  
Menendez Madrid-3
40. Watanabe T. Japan Akita University 1-1, Tegata Gakuencho  
Akita City
41. Woicik Z. Poland Museum Ziemi P.A.N., Al. na Skarpie  
20/26, Warszawa
42. Zapletal K. CSSR 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-Cordoba-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