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International Commission on the History
of Geological Sciences

NEWSLETTER 21

Moscow
"Nauka"
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INTERNATIONAL UNION OF GEOLOGICAL SCIENCES
INTERNATIONAL UNION OF THE HISTORY AND
PHILOSOPHY OF SCIENCES

INTERNATIONAL COMMISSION ON THE HISTORY OF
GEOLOGICAL SCIENCES
(INHIGEO)

NEWSLETTER 21

MOSCOW "NAUKA"
1988

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PREFACE

In the autumn of 1986, Dr. Endre Dudich our Secretary General was appointed as Secretary of the International Geological Correlation Programme (IGCP) founded by IUGS and UNESCO. I am sure that we would all wish to congratulate him on this important appointment in the UNESCO headquarters in Paris, where he is in a position to serve the international geological community. He is of course no longer able to continue to act as Deputy Director of the Hungarian Geological Survey and although the Survey very kindly agreed to print and distribute NEWSLETTER 20(1987) it is understandable that we had to find another way of publishing Newsletter 21. After examining various possibilities, we learned with considerable pleasure that Professor V.V. Tikhomirov was able to offer printing and destribution facilities in Moscow. This NEWSLETTER is the product and I am sure that all historians of geology would want to thank our founder President for this generous arrangement.

G.Y. Craig

President of INHIGEO
April 1988

CONGRATULATIONS

A.G. WERNER MEDAL AWARDED

Alexander M. Ospovat, Professor of History at Oklahoma State University, has been awarded the Abraham Gottlob Werner Medal for his scholarly contributions, over a period of three decades, to historical understanding of Werner's role in the development of geology and of the sciences in Germany. The medal was awarded to Prof. Ospovat by the "Gesellschaft für Geologische Wissenschaften". On behalf of the Society for Geological Sciences of the German Democratic Republic, Professor Martin Guntau of the Wilhelm-Pieck University of Rostock presented the medal to Professor Ospovat in Stillwater, Oklahoma, on April 1, 1987.

BUSINESS MEETING OF THE BUREAU OF INHIGEO

Since the last elections (August 1984, Moscow), the first Business Meeting of the Bureau was held on September 25, 1987 at the "Domus Galileana" in Pisa, Italy, on the occasion of the 13th INHIGEO Symposium.

Attendance: President G.Y. Craig (U.K.), Vice President V.V. Tikhomirov (USSR), Secretary General E. Dudich (Hungary), Full Members G.H. Davies (Ireland), M. Guntau (GDR), W. Langer (FRG), G. Regnell (Sweden), J. Urban (Czechoslovakia), designated proxies: for L. Azcona (Spain) E. Dudich; for U.B. Marvin (USA) K. Taylor; for T.G. Vallance (Vice President, Australia) G.Y. Craig; for Xia Xiangrong (P.R. of China) Wen Guang.

Past President R. Hooykaas (the Netherlands) and G.K. Georgiev (Bulgaria) have submitted their votes in writing.

As observers were present former Vice President for America C.J. Schneer (USA), corresponding members F. Ellenberger (France) and W. Narebski (Poland).

The Bureau accepted the oral report presented by the President and the Secretary General, referring to Nos 19 and 20 of the NEWSLETTER as the basic source of information. The Bureau expressed gratitude to the Hungarian Geological Survey for the publication of those two issues of the NEWSLETTER.

INHIGEO's Bye-laws were discussed, on the basis of the amendment proposals circulated before the meeting in writing. All modifications proposed were accepted except for one. The amended text of the Bye-laws was sent by the Secretary General to the Council of IUGS for approval. It will be dispatched to the full members and corresponding members upon receipt of the approval.

On the basis of a list of nominations circulated in advance, the following decisions were taken.

Ursula B. Marvin (USA) was unanimously accepted to be forwarded to the Council of IUGS for being appointed Vice-President of INHIGEO for America.

The following were accepted to be forwarded to the Council of IUGS for being appointed Full Members of INHIGEO:

F. Ellenberger (for France), to replace the late A. Cailleux,
W. Kupsch (for Canada),
N. Morello (for Italy),
S.K. Mukerjee (for India, to replace the late B.C. Roy).

The following Corresponding Members of INHIGEO were elected:
L. Adaro Ruiz-Falco (Spain),
A. Bolewski (Poland),
S.F. de M. Figueiroa (Brazil),
A. Grubić (Yugoslavia),
C.M. Nelson (USA),
J. Truyols-Santonja (Spain),
F. Urbani-Patat (Venezuela).

To all these, we extend also herewith our warmest congratulations. Three candidatures were declined by the Board. The Board discussed the future of INHIGEO's NEWSLETTER. The proposal forwarded by Vice-President V.V. Tikhomirov, to publish it in Moscow, at the expense of the USSR Academy of Sciences, was accepted unanimously, with thanks. However, the alternative proposal of HESS was also acknowledged with thanks, the goodwill and readiness to help being highly appreciated.

The Bureau discussed the plans for 1988 and 1989, noting that by the Washington Gongress (July 1989) the mandate of the present Bureau of INHIGEO will expire.

Under "Other Business", two anniversaries were commemorated: 20 years of INHIGEO's foundation in Yerevan, Armenian SSR (USSR) in 1967, and 25 years of INHIGEO's conception at the IGC held in New Delhi, India, in 1964 (the latter to be celebrated at the Washington Congress in 1989).

Congratulations were expressed to the "founding fathers" still active, in particular to those who were present at the business meeting: M. Guntau, G. Regnell, C.J. Schneer, and the first president of INHIGEO, Prof. V.V. Tikhomirov, but also to those absent but still active, such as Prof. R. Hooykaas, S. Czarniecki, L. de Azcona, and a number of colleagues in the USSR.

The Board officially expressed their thanks to the Italian organizers of the 13th INHIGEO Symposium, in particular to Dr.N. Morello, Prof. G. Giglia, and Prof. G. Piccoli.

The Board congratulated the Hungarian Geological Society and the Hungarian Geological Survey on the publication for the 13th Symposium of a special, English language issue of the "Annals of the History of Hungarian geology", which had been distributed among the participants of the Symposium.

The Board acknowledged with thanks the moral and financial support granted by the International Union of the History and Philosophy of Science to the Commission in general and to this Symposium in particular.

E. Dudich

COMMEMORATIONS

PROF: ANDRE CAILLEUX

(1907 – 1986)

Andre de Cayeux de Sénarpont (called Cailleux) died in December 27, 1986.

Born in Paris, December 24, 1907, he became B. Sc. in 1932, B. Lit. in 1933, M. Sc. in 1936, D. Sc. (Geology) in 1942.

He was exceptionally fertile in science. About 600 his scientific papers deal with geology and physical geography, but also with comparative planetology, including some twenty books.

A. Cailleux took part in a great number of expeditions in America, Greenland, Gyuana, in Sahara, and even in Antarctica.

After having been a grammar school teacher in Warsaw, Brest and Saint-Maur (1934-1956), he became Professor of Sedimentology at the Sorbonne in Paris. Later on, he was invited to several universities abroad (University of Laval in Quebec, California Institute of Technology, University of Rio de Janeiro, University of Montreal, etc). He was elected a member of several scientific academies, e.g. in Germany and Argentina, and was awarded Doctor honoris causa by University of Lodz in Poland.

A. Cailleux founded the "Revue de géomorphologie dynamique", edited the "Annals of Geomorphology" (Göttingen-Berlin), and the "Annales de Geographie".

He served for several years as president of INQUA, of the International Association of Planetology, and of the French Geochemical Society. He has been awarded several high French governmental decorations, including the Legion d'honneur, the 1940 War Cross, and the Medal of the French resistance.

His interest in the history of geology is well exemplified by his small but idea-rich booklet "Histoire de la géologie" (Presses Universitaires de France, 126 p., Paris 1968.)

He was an active participant of the COFRHIGEO Meetings, and Full Member for France of INHIGEO.

A. Cailleux, a great and exceptionally broad-viewed scientist, was also a noble-hearted humanist, always ready to help generously colleagues and also other people in need.

We shall keep his memory alive.

E. Dudich

JOAN MARY EYLES, NÉE BIGGS

(1907 – 1986)

Joan Eyles, who, with her husband, made up the British delegation to the Constituent Assembly of INHIGEO at Yerevan (Armenian SSR, USSR) in 1967, died in 1986 after a short illness.

Born in June 15, 1907 in Glamorgan, she grew up in Bridgend. She was educated privately at St. Winifrede's convent in Swansea. In July 1924 she entered University College, Cardiff, where she studied science. She graduated B.Sc. with first class honours from there in 1928 and achieved a double first with her external B.Sc. in Geology from London University in the next year.

She turned to research in geology and entered King's College, London, to study volcanic rocks in the Sourthern Uplands. For this she was awarded the Dixon Fund in 1931. She joined the Geological Society in the same year. A more momentous event in that year was her meeting with Victor Ambrose Eyles (1895–1978) whom she married after a whirlwind romance in October. Her Ph. D. work suffered more and more from her new life with this peripatetic field geologist on H.M. Geological Survey of Great Britain, then based in Newcastle-on-Tyne, and it had to be abandoned.

The Director of the Survey took pity on the couple and moved Victor and Joan to London to prepare exhibits for the new Geological Museum. Life in the midst of the capital introduced them to the world of second-hand bookshops. Their weekends were spent exploring them at laying the foundation of the magnificent Eyles library of early literature on the History of Geology now housed as a special collection at Victor Eyles' Alma Mater, Bristol University.

By 1945 Victor had become a District Geologist on the Survey but finding administration less to his liking than field work or book collecting they decided he would retire at his reaching sixty. They moved first to the old rectory at Milton-under-Wychwood near Oxford and then in 1962 to Great Rissington in the heart of the Cotswalds nearer Cheltenham. Proximity to Oxford had reintroduced Joan to the world of William Smith whose manuscripts had been discovered in an Oxford University museum attic just before the war. Joan started meticulous and very devoted research on the collection and on all aspects of William Smith's life for a planned biography. While this never, sadly, appeared, she made at least eleven significant published contributions to Smith's scholarship between 1967–1985.

In March 1978 Victor Eyles died after a short illness. She then faced the choice of staying in her Cotswold cottage or moving to somewhere nearer Oxford. But her commitments, whether as the senior British scholar in the field of the history of geology, as a lecturer on Smith, as a source of information to an ever increasing circle of strangers who sought her expertise, as adviser to the Geological Society library or as a devoted conference goes, never really allowed her to face the choice.

She died in June 14, 1986 after a stroke, and was cremated at Cheltenham.

Her (and Victor's) best general memorial will remain the magnificent Eyles Library at Bristol. This is a major collection selected before it became a financial liability by two who became very able "book hounds".

She had a truly international view on the history of geology, as witnessed by two of her last papers, with important American and French connections, and she will be much missed at INHIGEO meetings.

SIR CHARLES FLEMING

(1916–1987)

Sir Charles Alexander Fleming, K.B.E., F.R.S., scholar and scientist, and sometime corresponding member of INHIGEO, died suddenly in September 11, 1987 at Wellington, New Zealand.

Born in Auckland in September 9, 1916, Fleming was educated there and made a professional career in the New Zealand Geological Survey, from which he retired in 1977 as Chief Palaeontologist. His notable scientific work had already been recognized by election to the Royal Society of London (F.R.S.) in 1967. In the year of his retirement Fleming was knighted (K.B.E.) for service to science and the community.

Sir Charles Fleming was a Past President of the Royal Society of New Zealand and, more recently, its historian. His "Science, Settlers and Scholars. The Centennial History of the Royal Society of New Zealand" has just appeared (1987) as Roy. Soc. N.Z. Bulletin 25. In 1969 he was the president of the Australian and New Zealand Association for the Advancement of Science and, in his native land, a member of various public cultural bodies including the National Art Gallery and Dominion Museum Board.

Sir Charles was also known as a talented naturalist, especially in the field of ornithology. His contribution to the history of geology was great. It includes translated edition (1959) of Hochstetter's classic work on the Geology of New Zealand, originally issued in 1864 as a part of the Novara expedition report. As conference chairman he successfully promoted an international meeting at Wellington in 1983 on the theme "In Search of New Zealand's Scientific Heritage" (Roy. Soc. N.Z. Bulletin 21, 1984). His inaugural Alfred R.C. Selwyn Memorial Lecture "Trans-Tasman Influences in Geology" delivered in Australia in 1985, has recently appeared in print (Austr. J. Earth Sci. 34, 1987: 261–277).

INHIGEO has good reason to remember Sir Charles Fleming with gratitude and pride.

T.G. Vallance

PROFESSOR TAKEO WATANABE

(1907–1986)

Prof. Watanabe, former Vice President of INHIGEO for Asia, died in Tokyo in December 18, 1986.

Born in Tokyo in June 23, 1907, he graduated form the University of Tokyo in 1931 (B.Sc. in Geology) and 1943 (Dr. Sci.) During his long academic career, he was professor of Geology at the University of Tokyo (1944–1968) and at Nagoya University (1968–1971), and President of Akita University (1971–1976). In 1971 Prof. Watanabe was elected Member of the Academy of Sciences of Japan.

He held various scientific and honorary functions: Associate aditor of "Economic Geology", President of the Society for Mining Geologists of Japan, Chairman of the National Committee for Geology, President of the Geological

Society of Japan, Chairman of the National Committee for Mineralogy, Member of the Council of the International Mineralogical Association (IMA), President of the Mineralogical Society of Japan, 2nd Vice President of the International Association for the Geology of Ore Deposits (IAGOD), etc.

Although his deteriorated health did not allow him during the past years to be acitve in INHIGEO, he is considered having been one of its pioneers in the Far East.

E. Dudich

CONFERENCE REPORTS

IVth GDR–USSR BILATERAL SYMPOSIUM ON THE HISTORY OF GEOLOGY

This Symposium, held in Baku, the capital of the Azerbaijan SSR (USSR) from September 29 to October 4, 1986, had about ninety participants. Forty-one papers were read.

The Symposium was organized by the USSR Academy of Sciences and the Geological Institute of the Azerbaijan Academy of Sciences. The GDR counterpart was the Working Group for History and Philosophy of the Society of Geological Sciences. Contributions were presented to the development of ideas on oil generation, to the history of oil geological, geochemical and geophysical methods as well as to the formation of oil geology as a scientific discipline. Moreover, attention was paid to the historical aspects of the tectonics of hydrocarbon bearing structures, to early ideas on mud volcanoes and earthquakes. It is natural that a number of papers dealt with the geological exploration of the Caucasus and its mineral resources. In this context, several Russian and German scientists were evoked, who had been active in this field since the 18th century. Particular attention was devoted also to GDR–USSR cooperation in oil and gas exploration on the territory of the GDR.

It was known that during the period 1917–1933 considerable German-Soviet cooperation was developed in the field of geology. Publications were mutually reviewed, important German treatises were translated into Russian and published, a number of Soviet geologists, geochemists, and geophysicists made lecture tours in Germany. After the end of World War II, these positive interrelations have been renewed.

Excursions took the participants of the Symposium to the oil fields of the Caspian Sea, to the early historic rock drawings of Kobustan, South of Baku, to the shrine of the fire-worshippers on Apsheron Peninsula, and to the mud volcano fields at Lokbatan.

Some papers will be published in German and in Russian in both countries.

The next, Vth Bilateral GDR–USSR Symposium on the History of Geology is planned to be held in the GDR in 1990.

M. Guntau

THE DEVELOPMENT OF MODERN GEOLOGY IN NORDEN

For a number of years, the Department of Quaternary Geology (Professor L.-K. Königsson) of the University of Uppsala, Sweden, has acted as host for symposia on various subjects in the field of geology. The 21st Uppsala Symposium was held in November 10–11, 1986, as a joint arrangement of the Department of Quaternary Geology and the Department of the History of Sciences (Professor T. Frängsmyr) of the University of Uppsala, bringing together about 50 geologists and historians. The theme chosen was the "Development of Modern Geology in Norden".

One objective was to celebrate the tercentenary of the foundation of the Laboratorium Chymicum in Uppsala by Urban Hiärne, a pioneer in geology in Sweden. Different aspects of his activities in this field were educidated in lectures by T. Frängsmyr and L.-K. Königsson. In addition, Hiärne was commemorated by an exhibition in the University Library.

Twenty seven papers were read, covering a wide range of subjects with a certain emphasis on Quaternary geology. A category of papers dealt with the break-through of ideas and concepts, another one focused individuals of particular importance.

ROCK, FOSSILS AND HISTORY
XIIIth INHIGEO SYMPOSIUM
(Pisa and Padua, Italy)
September 23 – October 1, 1987

The thirteenth INHIGEO symposium consisted of 3 days of meetings and 5 days of geological excursions concentrating on the theme of biostratigraphy and was attended by some 45 delegates from 14 different countries ranging from as far as China to Brazil. Two of the three formal sessions were held in Pisa and the last in Padua.

The theme of the symposium was designed to highlight the Italian contributions to the development of geology and at the end of the meeting no foreign member of the symposium could have failed to have been impressed by the brilliant contributions made by Italian scientists and philosophers over the past centuries to our understanding of the history of the Earth.

As is so common in these meetings there was the customary jigsaw of historical vignettes – one speaker, one historical hero, especially Steno who can be claimed by both Danes and Italians. Besides were added historical appraisals of German stratigraphy, Russian palaeontology, Scandinavian geology, a splendid book on Hungarian contributions provided by the Hungarian delegates and astute observations on some early Italian scientists especially Leonardo da Vinci. Leonardo's powers of observation were strikingly illustrated by colour slides of his famous painting in the Louvre of the Virgin and Infant Jesus with Saint Anne. Enlargements of that picture show minute details of turbidite deposits; indeed he painted in great detail, no doubt unwittingly, incomplete Bouma sequences. Certainly it was one of those occasions when the audience was completely engrossed and taken aback!

It was a great pleasure to see the ancient universities of Pisa and Padua and some of the early collections of fossils which did so much to develop the science of palaeontology. If one collection above all other has to be singled out it must surely be the magnificent display of fossil fishes from Bolca in the geological museum in Padua.

The geological excursion which wound its way from Pisa to Padua over the Appenines can be remembered for the magnificent marble quarries at Carrara, worked since Roman times: the structure of the Appenines tantalizing displayed through winding roads and mists; the fascinating geology and vulcanicity on the Veneto region; and the harmony that seems especially Italian between rocks, vineyards and food.

Abstracts of all the papers presented were distributed among the participants and it is intended that some of the papers should be published fully in a volume of Acta. Further details may be obtained from the Secretary of the Symposium.:

Dr. Nicoletta Morello
Ist. di Storia Moderna e Contemporanea,
Via Balbi, 6,
16126
Genova
ITALY

G.Y. Craig

COUNTRY REPORTS

AUSTRALIA (1986)

The Earth Sciences History Group, a specialist group within the Geological Society of Australia, continues to serve as a useful focus for effort in our field in Australia.

Admission of a History Section to the programme of the 12th International Sedimentological Congress (Canberra, August 1986) owed much to initiatives from that group. Its chairman at that time, Dr. B. J. Cooper of Adelaide, served with Dr. G. M. Friedman (U.S.A.) as joint convenor of the History Section.

INHIGEO and HESS (the History of Earth Sciences Society) were both associated with the meeting, as supporting sponsors. INHIGEO was represented by the undersigned.

Papers, mainly from the U. S. A. and Australia, were presented at the public sessions.

At a business meeting of the Australian Earth Sciences History Group, held in Canberra after the public sessions of the Congress, the chairmanship of the group was relinquished by Dr. Cooper. The current chairman is Dr. H.J. Harrington of Canberra.

A successful meeting of Australian Mineralogical Societies was held in Adelaide during June 1986. Historical papers were well-represented on that occasion and it has been a matter for personal gratification to find an initiative of INHIGEO having been welcomed.

In Australia, some of the most enthusiastic historians are to be found among the mineralogists and historical effort is proving to be a fertile theme for uniting amateurs and professionals.

There is, of course, an increasing sense of matters historical at large in this country as Australia approaches (in 1988) the bicentenary of European settlement. Historians of geology in its broadest sense have a part to play in giving appropriate dimension to that anniversary. Reports for 1987 and 1988 will convey news of that affort, and, I hope, some of excitement.

T.G. Vallance

AUSTRIA (1986)

1. Publications on the History of geology in Austria

a) "History of the geological exploration of Austria", a chapter in vol. 3 of the "Geology of Austria", p. 3–42, figs. 1–10, with 211 bibliographical references, by A. Tollmann(1986, published by Verlag F: Deuticke in Vienna).

b) Three articles in the Annual Report of the Geological Survey of Austria in 1985 (published in 1986).

2. Commemorations and obituaries

a) In the Bulletin of the Austrian Geological Society (Mitt. Österr. Geol. Gesellschaft): Karl Beurlen (by A. Tollmann); Làszló Bogsch (by T. Kecskeméti); Robert Janoschek (by von E. Braumüller).

b) In the new issue of the Biographic Lexicon there are biographies of August Rosival and L. Roth von Telegd.

c) Issue 43 of the Publications of the Commission on the History of Mathematics, Natural Sciences and Medicine is published in the Proceedings (Sitzungsberichte) of the Austrian Academy of Sciences, vol. 461.

3. Celebration

In 1986 the report on the celebrations held in November 15, 1985 on the celebration occasion of the 150th anniversary of the founding of the Montanistic Museum in Vienna was published in the Annual Report of the Geological Survey.

4. Work in Archives

a) T. Cernajsek (Library and Archives of the Geological Survey) published (at the end of 1985) the Bibliography of Geological Literature in Austria (1979–1983) with a list of periodicals, key words, authors' index, and map register.

b) Up-to-date short bibliography of Austria's geological literature is included in the References (over 7.000 entries) in the three-volume work "Geology of Austria" by A. Tollmann.

c) A. Tollmann is building up Archives of Austrian Earth Scientists at the Department of Geology of the Vienna University. It was enriched in 1986 by interesting papers and objects from the heritage of the Tyrolian geologist of the Alps O. von Schmiedegg and by a large number of valuable letters and objects donated by Professor E. Clar, retired head of the Department.

5. Honouring papers (Festschriften)
with bibliographic references

a) On W.E. Petrascheck, on the occasion of the 80th birthday, in vol. 78 of the "Mitt. der Österr. Geol. Gesellschaft". A list of thesis papers is added which were directed by him to the Mining College at Leoben.

b) On Oskar Schmidegg, on the occasion of his 85th birthday, in vol. 12 (dated 1983) of "Geol.-Pal. Mitteilungen Innsbruck", with curriculum and bibliography.

c) On Eirich Thenius, in vol. 11 of "Beitrage zur Palaönologie von Österreich", on the occasion of his 60th birthday, with curriculum and bibliography.

d) In vols. 28–33 of the "Mitt. der Gesellschaftder Geologie – und Bergbaustudenten in Osterreich" there are more such honouring papers to be found on B. Plochinger, E. Scholl, H. Mostler, C. Exner and E.N. Weiss.

A. Tollmann

BRAZIL (1986)

The most important event of the year was the centenary of the Geological Institute of São Paulo. Several items can be cited commemorating it.

A solemnity paying tribute to ancient scientists who worked with the Institute, and a religious ceremony (20 March).

An exhibition entitled "Hundred years of transformation in discussion" analizing the role of geological sciences in the territorial occupation of São Paulo state June 3 – December 16.

Publication of a book entitled "One century of research in Geosciences", discussing the history of the Institute (in May).

Edition of a commemorative post stamp (April 7).

A symposium on "Earth Sciences: from the Brazilian Empire to the Constituent Assembly 87", held in Curitiba, Parana State, during the 38th Annual Meeting of the Brazilian Society for the Progress of Science (July 14–15).

Figueiroa, S.F. de M. (coord). One century of research in Geosciences. São Paulo, Instituto Geologico, 1986. 96 p.

Figueiroa, S.F. de M.: The São Paulo Geographical and Geological Commission. Rev. Not. Bibl. e Hist., Campinas, (124): 286–290, Oct.–Dec. 1986.

Rosado, V.U., Rosado, A. Taking altogether about Orville Adelbert Derby. Mossoro, 1986, 174 p., Col. Mossoroense, vol. 263.

Rosado, V.U, Rosado, A. Derby's contribution to the problem of dryness. Mossoro, 1986, 125 p., Col. Mossoroense, vol. 262.

Rosado, V.U., Rolim I.E.F.R. Karl Beurlen and the geology of Rio Grande de Norte State. Mossoro, 1986, 174 p., Col. Mossoroense, vol. 322.

Silvia F. de Mendonca Figueiroa

CHINA (1986)

A special meeting of the History of Geological Sciences Committee of the Geological Society of China was held in Beijing in April 9, 1986. A new Board was elected. It consists of President Wang Hongzhen (Former name: H.C. Wang, professor at the Chinese University of Earth Science, Beijing), Secretary General Li Erong, Deputy Secretary General Sun Ronggui and Wang Genyuan, and Past-President Xia Xiangrong, Full Member of INHIGEO.

On the 50th anniversary of the passing away of Dr. Ding Wenjiang (former name: V.K. Ting, 1887–1936) a commemorative meeting was held in Changsha City, Hunan Province, April 23–25, 1986. Some 150 people participated. At the opening session, with Prof. Chen Gouda, president of Hunan Geological Society, in the chair, Prof. Xia Xiangrong delivered a speech entitled "To cherish the

memory of Dr. Ding Wenjiang who worked so loyally for the development of geological science in China". In the afternoon of April 23, all the participants visited the grave of this greatest Chinese geologist at Yuelushan, near Changsha City, to pay respects at his tomb.

The 4th Symposium of the History of Geology Division coincided with the Symposium of the History of Hydrogeology Section of the Commission on Hydrogeology of the Geological Society of China. It was held in Tunxi, Anhui Province, October 27–31, 1986. Thirthy eight participants attended the meeting and nineteen papers were delivered. After that two mountaneering field trips were organized.

The "Newsletter of the History of Geology Division, the Geological Society of China", Number 1 (18 pages), edited by Pan Yuntang (member of HGGSC), was published in Hankou, March 1986.

A Memoir entitled "Papers on the History of Geology, 1" (144 pages) compiled by the Committee was published by the Geological Publishing House, Beijing, in May 1986. It contains 23 papers in Chinese with English translations of the titles.

Xia Xiangrong

CZECHOSLOVAKIA (1986)

1. The main attention was devoted to the publication of the "Studies on the History of Mining", No. 18, by the National Technical Museum in Prague. This volume of 312 pages has the following contents.

1) On the results of Bohemia's mining archeology, achieved in 1984.

2) Historical reports on water hoisting machines used in the mines around the town of Jihlava.

3) Geological and montanistic characteristics and the situation of old mines in the Ratiborske Hory – Stará Vozice Ore District.

4) On the nature of mining technology in the Jáchymov Ore District (Joachimsthal) in the 16th century.

5) The beginnings of coal mining and of the chemical industry in the surroundings of the town Loket in the late 18th century.

6) Birth of the Duchcov Coal Association.

7) History of coal mining in the territory of Czechoslovakia prior to World War 1. Results of research.

8) Outline of the real situation and of the development of ore mining in the Bohemian Lands from 1918 to 1945.

9) The post-war recovery of the national economy of Czechoslovakia and the development of the mining industry prior to the beginning of the Two-year Plan.

10) Traditional mining symbols in the region of Pribram.

11) Mining instructional paths in Bohemia.

12) Czechoslovak coal and non-metallic ore mining industry on numismatic coins.

2. J. Haubelt, Corresponding Member of INHIGEO, published a 459-page book on "The Czech Enlightenment". It contains two chapters concerning the

history of geology: one on Ignaz von Born ("A Scientific Society", p. 291–312) and another on Frantisek Josef Kinsky ("A Noble Voclanist", p. 313–332).

3. Preparatory talks were undertaken in view of organizing a trilateral (Czechoslovak – Hungarian – Polish) symposium on the Geological Exploration History of the West Carpathians, to be held in autumn 1988.

Jan Urban

FEDERAL REPUBLIC OF GERMANY (1986)

The annual meeting of the Working Group (Arbeitskreis) on the History of Geology was held at the University of Würzburg, in October 3, 1986, with the following programme.

Address by W. Langer, Bonn
Briefing on the development of geology at the University of Würzburg.
Commemoration on the 300th Anniversary of N. Steno's death (by H. Hölder, Münster, read in his absence).
Book review (E. Fabian's "Discovery of Crystals", Leipzig 1986)
Dr. Beringer's "lying stones" (Lügensteine) in Würzburg (by Dr. Irapp. Würzburg).
F. von Hochstetter: his life and work; his contribution to technology (by A. Holl, Hamburg).
The James Hall Collection in Keyworth, England (by B. Fritscher, Münich).
Themes and methods in the history of geology, a comparison of the "externalist" and "internalist" approaches (by G. Hofbauer, Erlangen, followed by an animated debate).

In October 4, an excursion went to Erlangen (visit to the collection on the history of geology created by B. von Freiberg, in the Geological Museum), and to the Muggendorf area, which has been renewed since the 18th century due to the classic works of J.F. Esper, Chr. Rosenmüller, G.A. Goldfuss and W. Buckland.

The third issue of the Bulletin ("Mitteilungen") of the Working Group was published in December 1986 in Bonn. (17 p., half of which contains bibliographic references.)

W. Langer

FRANCE

In 1986, the French Committee on the History of Geology (COFRHIGEO) celebrated its tenth birthday. It was a good occasion for defining its main characters. At the end of 1986, the number of personal members reached 124. Among them 23 (18,5%) were living abroad. It is to be emphasized that about 80% of the members are geologists who are principally working at Universities and Research centers, although some of them are engineering geologists in private companies. Additionally, one can note that 70% of the members are still professionally active.

During the 32 meetings held since May, 1976, a great diversity had taken place among the topics of the delivered lectures. Although those devoted to Methods and Concepts in Earth Sciences have been clearly prevailing (15), Palaeontology (12), Sedimentary geology (6) and Stratigraphy (5) have also been especially attractive. The distribution of the topics through time is also indicative of this diversity. Of course, the greatest number of lectures was centered on the XIXth century (50), while the XVIIIth and the XXth centuries also looked attractive (respectively 33 and 22 lectures). Nevertheless, one can note that 10 of the lectures dealt with the XVIIth century, 4 with the XVIth century and 8 with Antiquity.

In 1986, as usually, the French Committee on the History of Geology held three scientific meetings, during which 9 lectures were delivered. In November, during our annual General Assembly, we especially enjoyed the presence of the Secretary General of INHIGEO, Dr. Endre Dudich, who spoke in an impressively perfect French on "The importance of the History of Geology among Earth Sciences". It was for us an excellent opportunity for being conscious of the international impact of our activities.

J. Gaudant

HUNGARY (1986)

Activities of the "History of Geology" Section of the Hungarian Geological Society.

F e b r u a r y

"S. Papp" memorial exhibition and meeting in Miskolc, on the 100th anniversary of his birth. (G. Csiky, in collaboration with the University of Heavy Industries and the Mining and Metallurgical Society).

M a r c h

"F. Pàvai-Vajna" memorial exhibition and meeting at Hajduszoboszló, commemorating the centenary of birth of this pioneer of oil and gas exploration in Hungary.

A p r i l

Papers read:
(a) life and work of Prof. S. Papp (by G. Csiky),
(b) history of teaching geology in grammar schools in Hungary (1848–1918), by E. Lisztes;
(c) beginnings of water exploration in Hungary (B. Csath).

M a y

"F. Benko" Memorial Meeting.

S e p t e m b e r

A joint meeting was held in commemoration of F. Pavai-Vajna, by the Hungarian Geological Society, the Mining and Metallurgical Society and the Society of Karst Exploration and Speleology. Speeches dealt with F. Pavai-Vajna's contributions to geology in general, to hydrology, to speleology, and to oil exploration.

November

Centennial celebrations of the birth of Prof. K. Telegdi-Roth (with the University of Budapest) and of Prof. A.Vendl (with the Hungarian Academy of Sciences and the Technical University of Budapest).

On a national conference, G. Csiky held a lecture on "The first scientific society in Hungary".

December

Year-closing meeting with the Secretary's annual report (by G. Csiky), and two papers read:

(a) history of teaching geology in grammar schools in Hungary (1918–1945);

(b) commemoration on K. Lambrecht on the 50th anniversary of his death.

Vol. 10 of the "Annals of the History of Hungarian Geology" came out of press.

Other geohistorical activities in Hungary in 1986.

February

The University of Heavy Industries in Miskolc opened a permanent exhibition entitled "From the Selmec Mining Academy to the Miskolc University, 1735–1985".

November

The Society of Mining and Metallurgy and the University of Heavy Industries organized a jubilary meeting and exhibition on the occasion of the bicentenary of the foundation of the "Societät der Bergbaukunde" by Ignaz von Born.

To the Lexicon "Hungarians in the History of Science and Technology" contributed as authors G. Csiky, E. Dudich and T. Poka.

The Department of Mineralogy of Budapest Univesity published a facsimile reproduction of the first Hungarian mineralogy, on the bicentenary of its publication in Kolozsvar by F. Benkö. (eds. M. Janosi, G. Papp and T. Weiszburg).

The Mining and Metallurgical Society published a facsimile of G. Agricola "De Re Metallica Libri XII" (ed. L. Molnar, Director of the Mining Museum in Sopron.)

E. Dudich was elected member of the Complex Commission on the History of Science and Technology of the Hungarian Academy of Sciences, and G. Csiky, member of one of its subcommissions. (G. Csiky was awarded Honorary Membership of the Hungarian Geological Society by the General Assembly of the Society in April 1986).

The "Bulletin of the Hungarian Geological Society" (Vol. 116, 1986) Foldtani Közlony) published several papers of geohistorical character.

POLAND (1986)

As in the preceding years, the Museum of the Earth of the Polish Academy of Sciences was the centre of research in this field. It was focused on the development of geological sciences in the 19th century (Tertiary stratigraphy organization and teaching of geological sciences at the Wilno University biographies of Polish geologists). Moreover, work was started on a Biographic Glossary of Polish geologists. Its realization may take a couple of years, due to the very limited financial means.

In 1986 the 160th anniversary of the death of Stanislaw Staszic, author of the first geological monograph of the Carpathians with a geological map showing most of Central Europe (1815) was celebrated in Poland. Numerous scientific sessions were held, under the auspices of the Democratic Party. They took place in Pila (when Staszic was born), Warsaw, Kielce, Cracow, Zakopane and Zamosc, organized jointly by the Academy of Mining and Metallurgy in Cracow, the Museum of Pila, the Museum in Hrubieszow, and the Association of the Fans of Ancient Polish Mining, Metallurgy and Industry in Kielce.

During the 1986/87 academic year, the Department of History of Technology and Museum at the Academy of Mining and Metallurgy (Cracow) organized a cycle of lectures devoted also to the history of geology, including Staszic's anniversary (By S. Czarniecki, M. Wirska-Parachoniak, and A. Bolewski.)

The above-mentioned Association in Kielce organized two scientific meetings. Lectures were given on the history of exploration of salt deposits (by A. Debski and Z. Wójcik) and on industrial raw materials in the inter-war period in Poland (by Z. Rubinowski and Z. Wójcik).

The scientific achievements of E. Romer were analyzed at a Conference on the History of Cartography.

A number of exhibitions were organized, devoted to the oeuvre of some outstanding geologists. S. Czarniecki's merit is the creation of those commemorating G. Bukowski (in Bochnia) and M. Ksiazkiewicz (in Cieszyn). He, together with J. Bzinkowska, set up a larger Staszic exhibition in the National Museum of Kielce.

The Staszic Biographic Museum in Pila was entirely renewed and modernized. Work was started to organize a Museum of the History of Geology in Dabrowa Gornicza.

The 38th volume of the "Transactions of the Museum of the Earth" contains papers on late INHIGEO member Prof. A. Halicka unpublished articles of A. Halicka, a study on the Mining Academy in Kielce founded in 1816, a sketch of the Carpathian geologist B. Kropaczek, etc.

Archival studies of documents concerning the history of geology were carried out by Z. Wojcik and J. Garbowska in Wilno (USSR), Banská Stiavnica and Bratislava (Czechoslovakia).

W. Narebski, Z. Wójcik

SWEDEN

THE MAIN PUBLICATIONS

Chough, P.W.L. Dennis Field 1943–1986. Norsk Geologisk Tidsskrift, 66 (Oslo, 1986), p. 251–253.

Frängsmyr, T., Otto Torell, Lychnos, 1985 (Uppsala: Almqvist & Wiksell, 1986). (English summary: Otto Torell (1828–1900), the geologist), P. 73–88.

Frängsmyr, T. Urban Hiärne's view of the subterranean world//Geologiska Föreningens i Stockholm Förhandlingar, Stockholm, 1986, Vol. 108, p. 313–319.

Noe-Nygaard, A. Et geologisk specialmuseum tager form (Mineralogisk Museum 1870–1970), 2. Mineralogisk Museum (1895–1945) (Getting a professional geological museum into shape (Mineralogisk Museum 1870–1970). 2. Mineralogisk Museum (1895–1945) Copenhagen: Geologisk Museum, 1986, 49p.

Poulsen, J.E. & Snorrason, E. Nicolaus Steno 1638–1686. A reconsideration by Danish scientists (Gentofte: Nordisk Insulinlaboratorium, 1986); herein: Noe-Nygaard, A. Nicolaus Steno, paleontologist, geologist, crystallographer, p. 167–190.

Tanskanen, H. (ed.). The development of geological sciences in Finland. Geological Survey of Finland Bulletin, 336 Espoo, 1986, 344 p. (includes 12 articles).

Wickman, F.E. Brögger in Stockholm 1881–1890, a seminal period of Nordic geology. Bulletin of the Geological Society of Finland, 58 (Helsinki, 1986), p. 29–54.

Uppsala Newsletter, History of Science (ed. T. Frängsmyr), the first number of which appeared in 1984, is an occasional publication from the Office for History of Science at Uppsala University as an attempt to give information about activities in the field of History of Science, including Geology, in Scandinavia. So far, there have been two issues a year.

A symposium called "Den moderna geologins historia i Norden" (The history of modern nordic geology) was held in Uppsala, November 10–11, 1986, with around 70 participants. 27 papers were read. The symposium was arranged by Prof. Lars-Konig Königsson, the Department of Quaternary Geology, and Prof. Tore Frängsmyr, Office for History of Science, both in Uppsala. The papers will hopefully be published in English during 1987.

Gerhard Regnell

UNITED KINGDOM

GEOLOGICAL HISTORY IN THE MAKING IN THE UK

The year 1987 looks as if it will be a historically eventful year in terms of proposed Governmental changes in the way in which research and teaching of geology in the United Kingdom is supported.

In the first place a committee – the"Butler Committee" – was established to examine the future of geological surveying. In other words what should be the future role of the British Geological Survey .The committee recommends that the Survey should continue to be responsible for surveying the land and adjacent ocean bed and that it should operate a National Geosciences Data Centre. Data

and services should be sold to obtain income to help finance the operation. The work of the Survey should primarily be seen as surveying; research should serve at the handmaiden of that primary aim. Proposed line-management changes would enable the BGS to have a hotter line to the Government minister responsible, and no doubt vice versa! As I write there is, in general, favourable reaction but not yet action to the proposals.

A second committee, the "Oxburgh Committee", was charged with examining the future of geology and geophysics in British Universities. It concluded that if British geology is to keep abreast internationally there will have to be more large departments capable of teaching and research in the major areas of the science. These large departments should be well equipped. Since this growth is to be achieved without an increase in annual expenditure on geology, it follows that some departments will have to shrink and a few will be required to close.Transfer of staff and redundances seem to be inevitable and the resulting pattern of geological education and research will assuredly change. Universities have now submitted (December 1987) their bids for the kind of future they wish for their earth science departments and we shall know in 1988 what the future pattern is likely to be. Not surprisingly, departments most likely to suffer are expressing the most concern.

A third major current enquiry is concerned with the future trends of relevant geological research in the UK. It has been promoted by the Royal Society and the Natural Environmental Research Council – a Goverment-funded body. That report will probably be published next year. I confidently predict that the years 1987 and 1988 will provide rich pickings for future historians of the UK geological scence in the last decade of the 20th century.

HISTORY OF GEOLOGY IN THE UK

The National Committee for Geology, charged with advising the Council of the Royal Society on matters relating to International Geological Congresses, has four subcommittees – Geochemistry and Cosmochemistry, History of Geological Sciences, Hydrogeology, and Quaternary Research. The committee on the history of geology (HOGS is its acronym!) has been engaged in producing a computer-held bibliography of publications on the history of geology. The major part of the compilation of almost 3000 entries was undertaken by Dr. D.A. Bassett, the past Chairman of HOGS, and is being updated by members of the subcommittee. It will eventually be retrievable through an inter-University computer program called FAMULUS and trial printouts should be available next year. The library of Edinburgh University holds the data. Requests for further information should be made to Mr. P.E. Freshwater, Deputy Librarian of Edinburgh University Library or to G.Y. Craig at the Dept. of Geology, University of Edinburgh, Scotland.

A symposium on granite was organized by the two Royal Societies (London and Edinburgh) to celebrate the bicentenary of James Hutton's contributions to geology. One of the highlights of the meeting attended by some 280 scientists was a talk on the history of ideas on granite by Professor W.S. Pitcher. Young scientists seemed to appreciate a little historical background to their science! Each delegate was given a facsimile copy of Hutton's 1785 Abstract, elegantly

reproduced by Scottish Academic Press, 33 Mongomery Street, Edinburgh, from whom copies may be obtained at a cost of $ 5.50. Copies of the printed contributions (mostly modern, not historical) will be available from the Publications Secretary,

Royal Society of Edinburgh,
22,24 George Street,
Edinburgh,
Scotland.

A meeting to celebrate the contributions of Victor and Joan Eyles to the history of geology will be held in Bristol on the 29th and 30th September 1988. Further information is available from John Thackray,

Society for the History of Natural History,
c/o British Museum (Nat Nist),
Cromwell Road,
London SW7 5BD

G. Y. Craig

USA (1986)

*UNITED STATES NATIONAL COMMITTEE ON THE HISTORY OF GEOLOGY (USHIGEO)

Clifford M. Nelson, Chairman (1990)**
Kenneth L. Taylor, Secretary (1990)
Michele L. Aldrich (1989)
Albert V. Carozzi (1987)
William M. Jordan (1989)
Rachel Laudan (1987)
Anne M. Millbrooke (1987)
John H. Ostrom (1988)
Mary C. Rabbitt (1989)
Martin J.S. Rudwick (1989)
Leonard G. Wilson (1988)
Hatten S. Yoder, Jr. (1988)

USHIGEO is sponsored by the U.S. National Committee on Geology, under the auspices of the National Academy of Sciences. USHIGEO meets annually during the regular annual meeting of the Geological Society of America. The main tasks with which USHIGEO is presently concerned are preparations for the historical activities of the 28th International Geological Congress in Washington, D.C., in 1989. (Information see below)

* Information on the organizations concerning the history of geological sciences.

** Year of expiration of Committee membership.

THE HISTORY OF GEOLOGY DIVISION OF THE GEOLOGICAL SOCIETY OF AMERICA

Officers for 1986–87:

William M. Jordan, Chairman
Leo F. LaPorte, 1st Vice-Chairman
Clifford M. Nelson, 2nd Vice-Chairman
Michele L. Aldrich, Secretary-Treasurer

The History of Geology Division organizes symposia and technical sessions on topics in the history of geology for the annual meetings of the Geological Society of America. The Division also confers annually an award for achievement in the history of geology.

HISTORY OF EARTH SCIENCES SOCIETY (HESS)

Officers for 1987:

Michele L. Aldrich, President
Walter O. Kupsch, President-Elect
Cecil J. Schneer, Past-President
Kennard B. Bork, Secretary
Kenneth L. Taylor, Treasurer

The History of Earth Sciences Society is an international society devoted to the history of the sciences of the earth. Its major objective is the publication of the journal EARTH SCIENCES HISTORY, first published in 1982, which appears twice yearly. The journal is published in Troy, New York, under the editorship of Gerald M. Friedman.

USSR (1986)

The activities can be grouped as follows.

1. The highlight of the year was the IVth Bilateral (GDR–USSR) Symposium on the History of Geological Sciences. Over 50 papers were read on the history of oil and gas geology and exploration. Field trips went to the offshore rigs in the Caspian Sea and to the mud volcanoes of Azerbaijan.

2. Meetings devoted to the 275th anniversary of the birth of M.V. Lomonosov. At the first one, held in May 1986, nine papers were read on the role of Lomonosov in the development of science and culture in Russia and, in particular, on his contribution to geology. The second meeting, held in November, was a solemn celebration, attended by members of the Government of the USSR, and by scholars studying the scientific heritage of Lomonosov. After the lectures, the participants attended a concert.

3. The annual meeting of the Subcommission on the History of Geological Sciences was held in May in Moscow. Beside scientific lectures, information was given on the geohistorical activities going on in 8 major scientific centres of the USSR.

4. At the Conference of Young Scientists, 14 papers were read on the history of Earth sciences (Moscow, March 1986).

5. The 125th anniversary of the birth of Academician F. Yu. Levinson-Lessing was commemorated on, with meetings held in Leningrad and Petrozavodsk.

6. At a Conference on Tectonics and at another on Palaeontology, papers were read concerning the history of these disciplines.

7. A fundamental work was published in Tallinn (Estonian SSR) with the title "History of Geological Sciences in Estonia" (eds. Kh. Vijding and D. Kaliu, Publishing House "Valgus").

V.V. Tikhomirov

VENEZUELA (1986)

Eleven issues of "Boletin de Historia de las Geosiencias en Venezuela" were published (Nos 20 to 30), totalling 359 pages.

In their content, the most important items are:

a) the compilation of Venezuelan geological bibliographies;

b) articles about the geosciences contribution of several early explorers of Venezuela, such as the Brazilian Miguel Maria Lisboa, the German Richard Ludwig, the U.S.A. citizen George A. Gardiner, the Englishman Everard J. im Thurm, and the Venezuelans J.M. Cagigal, Alfredo Jahn, Angel Maria Alamo, Vicente Marcano, Felix Cardona Puig;

c) the analysis of the contents of the early "Boletin de la Sociedad Farmaceutica de Venezuela" (1882–1883), and of the abstacts presented at the Annual Convention of the Venezuelan Association for Advancement of Science;

d) the paper "Geomorphology, archeology and aspects of the geology of recent rocks".

Franco Urbani P.

INDIVIDUAL REPORTS

Prof. G.K. Georgiev (Sofia)

Prof. Georgiev has worked a 133-page volume on the "Metallic and Non-Metallic Mineral Resources in the Time of the Thracians" (in Bulgarian, published by the Bulgarian Academy of Sciences in Sofia, already in 1987). He prepared for publication the manuscripts of two more works entitled "My Encounters with Famous Geologists" and "With Knapsack and Geologic Hammer Across Europe".

ICOHTEC NEWS

ICOHTEC, the International Committee for the History of Technology, was established at the 12th International Congress for the History of Science, Technology and Medicine, held in Paris in August 1968. ICOHTEC was constituded as a Scientific Section within IUHPS/DHS, the International Union for the History and Philosophy of Science, through which body it is associated with UNESCO.

The governing body of ICOHTEC is the General Assembly of all members which normally meets every four years in the course of the International Congress for the History of Science, Technology and Medicine. The Executive Committee is elected by the General Assembly, as are the officers, who are at present:

President: Prof. *S. Balan* (Romania);
Vice-Presidents: Prof. *M. Kranzberg* (USA) and Prof. *I.S. Voronkov* (USSR);
Secretary General and Treasurer: Dr. *R.A. Buchanan* (U.K.);
Second Secretary: Prof. Dr. *L. Nový* (Czechoslovakia).

The head office of ICOHTEC is now at the Centre for the History of Technology, Science and Society, University of Bath, Claverton Down, Bath BA2 7AY, England, U.K. Membership of ICOHTEC can be either institutional or individual. The subscription for individual members is U.S. $10 per annum.

The Secretary General issues an annual Newsletter for the information of members. Any proposal or request of information about ICOHTEC should be sent to him at the Bath office.

THE DRESDEN SYMPOSIUM ON TECHNOLOGY AND TECHNOLOGICAL SCIENCES IN HISTORY. This very successful meeting was held from August 25–29, 1986 in Dresden (GDR), organized by Prof. Dr. R. Sonnemann. About 80 percent attended the sessions, representing 16 different nations. There were four long working sessions with about a dozen papers in each. It is intended that the papers will be published in full by the University of Technology in Dresden. A final day of the meeting was devoted to an extensive tour of the Oberlausitz region (east of Dresden), including a visit to a granite quarry at Oberkania.

The next (16th) Symposium will be held in Madrid, Spain, September 5–9, 1988, on the topic "Civil Engineering 1750–1850".

Registration fee: US $50 or equivalent.
Correspondence has to be addressed to:
Secretaria de: XVI. Symp. Internacional ICOHTEC
Gabinete de Formacion y Documentacion
C/Alfonso **XII, 3**
28014 MADRID
Spain – Espana

Source: ICOHTEC Handbook 1986
ICOHTEC Newsletter No. 5

HISTORY OF GEOPHYSICS NEWS

For the time being, research activities on the history of geophysics (in the broad sense, as "physics of the Earth") are connected with physics, astrophysics, and meteorology rather than geology.

The American Geophysical Union (AGU) has a History of Geophysics Committee. Its Chairman is:

David P. Stern
Code 695
Goddard Space Flight Center
GREENBELT, MD 20771
U.S.A.

The second volume of the "Newsletter" of the committee was issued in 1986.

In 1986, AGU joined the American Institute of Physics (AIP), an umbrella organization which among other things maintains a Center for History of Physics (CHP) in New York. As a result, the Center for History of Physics launched a pilot study into the history of geophysics, a general survey and inventory of the history of the various geophysical disciplines, an inventory of sources, names, ideas and events and the study of selected topics.

In the Federal Republic of Germany, there is a Working Group on the History of Geophysics of the German Geophysical Society. Its Secretary is Dr. W. Schroeder,

Geophysical Station
Hechelstrasse 8
D-2820 Bremen-Ronnebeck
Federal Republic of Germany

The Newletter of the Working Group ("Mitteilungen", in German) produced its fifth volume in 1986.

BOOK REVIEWS

ARGENTINA

Castellanos, Telasco Garcia: Evolución del concepto de "tiempo" en la ciencia de la tierra (Evolution of the concept of time in Earth science; in Spanish), Anal. Acad. Nac. de Cordoba, vol. 30, p. 33–42, Buenos Aires, 1978.

Although published several years ago, this paper is of particular interest in view of the symposium foreseen on this topic at the 28th International Geological Congress in 1989. The author reviews the changing ideas of time in science (leaving aside the religious and philosophical aspects of the problem), from the Antiquity through the 20th century. As a matter of fact, he deals with the supposed (or "proved") duration of geological processes rather than with the concept of time proper (although some precisionas are introduced, e.g. the terms "relative time", "concrete time", "exact time" and "geological clock".) It is fascinating to learn that in the First Book of Manu on Creation (in ancient India, prior to Buddha) a "Brahma's day" was considered to comprise 4.320 million years, remarkably approximating our recent ideas about the age of the planet Earth... Other topics are also tackled, e.g. the evolutionary ideas of Anaximandros, the principle of actualism established by Aristotle, the correct interpretation of the nature of fossils by Albertus Magnus, etc. – A valuable and delightful reading.

E. Dudich

AUSTRALIA

Branagan, D.F.: Strzelecki's Geological Map of Southeastern Australia; an Eclectic Synthesis. Historical Records of Australian Scinece; 6(3), 375–392, December 1986.

The author presents, for the first time, a detailed analysis of Strezelecki's Australian Geology, based on his original map. Paul Edmund Strzelecki (1797–1873) left Poland permanently in about 1830. He spent some time in France and England, and travelled extensively in North and South America. He arrived in Sydney in April 1839, and departed for England in 1843. During his four-year stay, Strzelecki undertook extensive journeys throughout southeastern Australia, some into unexplored country. He prepared a large geological map (4 inches : 1 English mile). This map was the basic of the greatly-reduced coloured geological map in Strzelecki's "Physical Description of New South Wales and Van Diemen's Land (Tasmania)", published in 1845. He forwarded a substantial report in 1840.

The paper contains a thorough analysis of the background, the borrowed

and new ideas, and the impact on the development of Australian geology of Strzelecki's work. It is stated that "Strzelecki's place in the history of geology is interesting because it stands at the interface between a long established continental European tradition and a rapidly changing British geology".

E. Dudich

AUSTRIA

Tollmann, Alexander: Geologie von Österreich (The Geology of Austria), vol. 1. 782 p., vol. 2. 728 p.; Frenz Deuticke, Vienna 1986.

This three-volume handbook provides a comprehensive overview of the geological setting of Austria. Each chapter begins with a summary, including the historical retrospect; 631 pictures and graphics, 60 tables and a two-part tectonic map illustrate the rich contents.

E. Dudich

Zapfe, Helmut: Index Palaeontologicorum Austriae (Catalogue of the Palaeontologists of Austria), in German. Issue (Haft) XV of "Catalogus Fossilium Austriae", 140 p., Wien 1971; Supplementum – Materialien zu einer Geschichte der Paläontologie in Österreich (Supplement – Materials for a History of Palaeontology in Austria), issue (Heft) XVa, p. 141–242, Wien 1987.

This extremely important reference work contains concise and well-arranged bibliographic data of more than six hundred Austrian (and foreign) paleontologists who contributed to the knowledge of past life in Austria. The 27-page "Materials..." is much more than suggested by its modest title; in fact, it is an outline of the history of paleontology in Austria, with appreciations, assessments and critical remarks. If there is a statement one is reluctant to accept, it is certainly that by which the author ascribes "a merely local importance" to his work, on p. 236.

E. Dudich

BULGARIA

Georgiev, Georgi K.: Mineral Resources in the Time of the Thracians. (In Bulgarian). 134 p., Publishing House of the Bulgarian Academy of Sciences, Sofia 1987.

The results of 45 years of assiduous research are summed up by the author in this work. They concern the metallic mineral deposits (gold, silver, lead, copper, iron ores) as well as the igneous, sedimentary, metamorphic rocks, and even the thermal waters known and used by the Thracian tribes on the territory of present-day Southern Bulgaria and Eastern Greece. In time, it encompasses a time span much longer than one would suspect (even on the basis of the title). It deals (in subsequent chapters) with the period prior to the Roman conquest (back to several millennia), with the Roman and even the post-Roman times, including also that of the Ottoman occupation. 87 figures illustrate the very clearly subdivided and well-documented text. (It

is regrettable that the poor quality of the paper greatly diminishes the effect of the photos.) It is evident that the book has been written not only with much erudition, but also with a tender devotion to the subject. It is provided with abstracts in Russian, French and English.

E. Dudich

CZECHOSLOVAKIA

Prikryl, Lubomir Vilian: Dejiny speleologie na Slovensku. (History of Speleology in Slovakia) 158 p., photos, bibliography, biographic data. Published by VEDA, Bratislava 1985.

This is the first historical outline of the speleological studies in the Western Carpathians, since the 18th century. Individual chapters are devoted to different parts of the Carpathians. However, there is no relation mentioned with the general development of geomorphology. Another point of criticism concerns the lack of Polish references, concerning the caves in the Slovak Carpathians, such as the publications by S. Staszic, L. Zejszner and S. Zwoliński.

Z. Wójcik

DENMARK

Poulsen, J.E., Snorrason, E.: Nicolaus Steno 1638–1686. A Re-consideration By Danish Scientists. – 224 p., Nordisk Insulinlaboratorium, Gentofte, 1986.

As it is stated in the "Introduction" of the book: "the present board of Nordisk Insulinlaboratorium has wished to celebrate the memory of this famous Danish scientists in 1986 the third centenary of his death by publishing a collection of some papers on the scientific work of Steno in gratitude and respect for his unique contributions in many fields and for his unselfish manner of life with its wholehearted devotion to all his activities, whether in science, philosophy or Christian faith".

The book contains eight papers dealing with Steno's life and fame, childhood and student years, studies on the glands, muscles and the brain, his comparison with J. Ray as geologists and men of faith; Steno as a paleontologists, geologist and crystallographer; and finally, as a brilliant illustrative expositor. A bibliography of N. Steno's papers on natural sciences is also included.

A fascinating multifaceted mirror reflecting Steno's constant aspiration to "cognitio veritatis", the "knowledge of truth".

E. Dudich

FINLAND

Tauskanen, Heikki (ed.): The Development of Geological Sciences in Finland. Geological Survey of Finland Bulletin 336, 334 p., 90 figs, 5 tables and one appendix. Geologian Tutkimuskeskus, Espoo 1986.

The history of geological research and related disciplines in Finland has never

before been reviewed in one volume. This issue is to fill this gap. A large-scale cooperative effort, it consists of eleven papers, written by different distinguished authors, dealing with the following topics: mineral exploration and geological surveys stratigraphical studies of the Precambrian, the history of petrologic study in Finland, the history of mineralogy 1918–1984, history of Quaternary research, ore exploration, the development of exploration geophysics, geochemical research, the history of engineering geology, the history of stone and mineral industry,the history of geology teaching at Finnish universities.

L.K. Kauranne has provided, in form of a "Foreword", a concise outline of the general development of geological research, with special regard to the dynamics of evolution of the Geological Survey. The book is an extremely valuable source of information, convincing the reader once more that small nations with languages other than the main European ones have also essentially contributed to the progress of Earth sciences.

E. Dudich

Virkkala, Kalevi: Geologian Tutkimuskeskuksen 100-Vuotishistoriikki (The 100-year History of the Geological Survey), in Finnish, with summaries in Swedish and English. 93 p., Geologian Tutkimuskeskus, Espoo-Helsinki, 1986.

The well-illustrated volume begins with the early history of geological research in Finland (from 1609 on!). Systematic geological mapping was started in 1862, by the Office of Mines, as a merit of N.G. Nordenskiöld. An independent Geological Survey was founded in 1886. Its evolution is summed up in chapters according to the successive directors (K.A. Moberg 1886–1893; J.J. Sederholm 1893–1933; A. Laitakari 1935–1960; V. Marmo 1960–1969; H. Stigzelius 1970–1980). The actual General Director is Prof. L.K. Kauranne, directing the work of about 920 employes, including about 230 geologists, geochemists and geophysicists, helped by up-to date equipment and technology.

E. Dudich

FRANCE

Gohau, Gabriel: Histoire de la Géologie (History of Geology, in French). 259 p., Ed. La Découverte, Paris 1987.

As it is pointed out by the author, his work deals with "the history of the history of the Earth", i.e. with the evolution of historical geology, putting aside most of the other aspects and branches of geological sciences. From the early Greek beginnings to plate tectonics, the changing and controversial theoretical approaches, and their philosophical background, are traced with high erudition and much wit.

Along with thought-provoking ideas (e.g. the Light of the Middle Ages and the Aristotelian Revolution) the book contains a great number of interesting data. To quote only one: J. Buridan in the 14th century assumed that the ocean slowly moved eastwards, going round the globe in about one hundred million years.

No doubt each reader would find such gems to his own taste in this treasury book. And if one feels the need to enter into discussion with the author on some items, that is another proof of its value as a scientific approach to the problem. One does not discuss dry chronicles.

E. Dudich

Laurent, Goulven: Paléontologie et évolution en France de 1800 a 1860. Une histoire des idees de Cuvier et Lamarck a Darwin. (Palaeontology and Evolution in France from 1800 to 1860. A history of ideas from Cuvier and Lamarck to Darwin; in French). 550 p. ill. Ed. du Comité des Travaux historiques et scientifiques, Paris, 1987.

It is still quite commonly said that Lamarck, the founder of Transformism, was forgotten after his death. One has only to read the French scientific works of the first half of the 19th century to see that this affirmation is a myth. Lamarck's Transformism met with much opposition, but it also produced a great number of followers.

Moreover, in the discussions that began at that time, two stages of thought need to be distinguished. The transition from Fixism to Transformism was too important an intellectual revolution to come about over night and without controvery. There was Catastrophism to get past, reintroduced by Cuvier, which maintained that life on earth had been distroyed several times.

Once this concept had been discarded the way was open for the second stage of thought, that conceived the species as descending from each other. Transformism spread progressively among scholars. In France the decisive role was played by Isidore Geoffroy Saint-Hilaire, who taught the new generation of French naturalists, which would follow Darwin, while at the same time going ahead with Lamarck. G. Laurent, director of the Institute of literature and history at the Catholic University of the West (U.C.O., Angers, France) wrote this impressive book in a lively style, sometimes tinged with humour which greatly increases its interest.

Y. Laissus
Director of the Library
of the National Museum
of Natural History

HUNGARY

Hala, J. (ed.): Rocks, Fossils and History. Italian-Hungarian Relations in the Field of Geology. Special issue of the Annals of the History of Hungarian Geology, 333 p. Hungarian Geological Society, Budapest 1987.

This volume, co-sponsored by the Hungarian Geological Society, the Hungarian Geological Survey, and the Hungarian Hydrocarbon Institute, was published on the occasion of the 20th anniversary of INHIGEO and the XIIIth Symposium of INHIGEO (Pisa-Padova, September 1987). It was distributed among the participants on the spot. It contains 36 papers written by a large team of competent authors, subdivided into 8 chapters as follows.

1. History of stratigraphical and paleontological research in Hungary (a brief summary, first of this kind published in English). 2. History of teaching palaeontology at the universities of Budapest, Kolozsvár (Cluj-Napoca), Szeged, Debrecen, and within the higher educational institutions for mining in Hungary. 3. Prominent Hungarian Palaeontologists: M. Hantken, A. Koch, I. Lörenthey, F. Nopcsa, K. Lambrecht, S.J. Petényi, Gy. Kovács, D. Laczkó, T. Kormos, and Z. Schréter. 4. Important fossils and famous localities in Hungary. 5. Palaeontological collections of the Hungarian Natural History Museum, of the Hungarian Geological Institute, of the Department of Palaeontology of the Budapest University, and minor Hungarian palaeontologic collections in the country. 6. Fossil finds in the archaeological sites of Hungary. 7. Fossils in the popular traditions in Hungary. 8. Italian-Hungarian relations in the field of geology: A. Kircher's geological data from historical Hungary; F. Marsigli, an Italian discoverer of Hungary; G.A. Scopoli' in Hungary; M. Hantken's Italian connections and his collection of Nummulitidas including specimen of Italian origin; P.E. Vinassa de Regny's Hungarian implications; G. Danielli's visit to Hungary; Stones and stone carvers from Italy in Hungary; and the ethnographic data concerning their work; the collections of Italian ornamental stones and fossil fish from Monte Bolca in the Hungarian Museum of Natural History; L. Kossuth's palaeontological collection from Italy.

A List of geographical names facilitates the identification of sites situated outside the state boundaries of the Hungarian People's Republic.

The book includes abundant illustrations (photographs and sketch maps) and a great number of bibliographic references. The first of this kind, this volume may serve as a valuable source of information concerning the history of palaeontology and stratigraphy in a country of Central Europe, unfortunately poorly known because of the language barrier, now presented in English.

E. Dudich

ITALY

Marini, Paola (ed.): L'opera scientifica di Giambattista Brocchi (1772–1826). Atti del convegno a Bassano del Grappa, 9–10 nov. 1985. (Proceedings of the meeting held at Bassano del Grappa, Nov. 9–10 1985, in Italian.) – 169 p., 19 figs., Vicenza 1987.

The participants of the meeting highlighted various aspects of Brocchi's life as a naturalist, civil officer, and scholar. Such are: the successive formation of his (mostly pragmatic) scientific approach and his (essentially deistic) intellectual attitude, his theory of the "universal crystallization" and the "vital force" of the Earth (in connection with his fixistic theory of the living species), his role as a neptunist (with some concessions to plutonism in his late years), as an Inspector of Mines during the Austrian domination; his relations to metallurgy; his important collection of fossil molluscs, and the impact of his main work titled "Conchiologia fossile subapennina con osservazioni geologiche sugli Apennini e sul suolo adiacente", Milano 1814.

Separate papers deal with other subjects such as Brocchi's defense of Dante's style, his scientific language, and his Egyptian adventure that costed him his life (he died in Khartum.)

Brocchi is revealed to the reader as an open and sincere mind capable of admitting even some of his own recognized errors. (An uncommon but highly desirable virtue.)

E. Dudich

Malaroda, Roberto: Evoluzione delle conoscenze geologiche sulle Alpi dal 1930 alla fine degli anni '60 (Advances in the geological knowledge of the Alps from 1930 till the end of the 1960s, in Italian). In: Cento anni di Geologia Italiana, vol. giub. I. Centenario della Societa Geologica Italiana, p. 71–93, Bologna 1984.

The author reviews the Italian contribution to the subject, subdivided into a great number of thematic chapters. It is a special merit of the presentation that the achievements are discussed in the context of the international progress of geology, quoting and acknowledging the merits of non-Italian scientists as well. The attached reference list includes 63 titles, considered by the author as "main works".

E. Dudich

POLAND

Kajdanski, Edward: Dzienniki syberyjskich podróży Kazimierza Grochowskiego 1910–1914 (Diaries of the Siberian travels of K. Grochowski, in Polish). 272 p, photos, bibliography, indexes. Published by Wud. Lubelskie, Lublin 1986.

K. Grochowski prospected for gold in Siberia, in the Far East and Alaska before World War I. His diaries, preserved in the National Library in Warsaw, represent valuable sources even for modern geological exploration. Kajdanski presents an extract of the diaries with a short comment. Its value is somewhat diminished by careless transcription from the manuscript.

Z. Wójcik

Wójcik, Zbigniew: Jan Czerski. Polski badacz Siberii. (Jan Czerski, a Polish explorer of Siberia, in Polish). 368 p., ill., indexes, abstracts in English and Russian. Published by Wud. Lubelskie, Lublin 1986.

This is the author's second book (after that on A. Czekanowski, 1982) on the life and work of Polish explorers of Siberia, based on his studies in the archives of Irkutsk, Leningrad and Wilno.

J. Czerski was a self-made scientist, who during his penal exile to Siberia became a specialist of Siberian Pleistocene mammals and wrote pioneer geological studies on the Lake Baikal area. Czerski's paleontological and geomorphological studies are of fundamental importance for Siberian Geology; his name has been given to a mountain chain in NE Siberia. His last expedition in 1891–1892 through Yakutsk and Oymiakon to Kolyma river (where he died) is described in details. This book is the most complete biography of J. Czerski.

W. Narebski

SWITZERLAND

Carozzi, Albert V.: La géologie. De l'histoire de la Terre selon le récit de Moise aux premiers essais sur la structure des Alpes et a la geologie expérimentale, 1778–1878. (Geology. From the history of the Earth according to Moses to the first essays on the structure of the Alps and to experimental geology.) Chap. VI, p. 203–265 of the book "Les savants genevois dans l'Europe intellectuelle du XVII^{e} au milieu du XIX^{e} siècle; Ed. J. Trembley, Geneva 1987.

The history of ideas and the works of J.-A Deluc, H.-B. de Saussure, L.-A. Necker, and A. Favre are presented, clearly situated in the background of international science.

UNITED KINGDOM

Wilson, H.E.: Down to Earth. One hundred and fifty years of the British Geological Survey. 189 p., Scottish Academic Press Ltd, Edinburgh 1985.

A rare combination of thorough personal knowledge of the subject, careful documentation (including a great number of photographs), and sense of humour, this book is a marvellous review of the development of the first-born Geological Survey of the world. It provides the reader even with a quick glance into the future. One is seriously tempted to quote some particularly interesting points. I am afraid, however, that this would be a hopeless venture, ending up with reproducing the whole volume. (You better read it for yourself. I am sure you'll have much fun and learn a lot.)

E. Dudich

FORTHCOMING EVENTS

1988

1. International Colloquium on the History of Gescoiences in Latin America, Theory of Geoscientifical Knowledge, and Methodology of the History of Science, July 1988, University of Campinas (about 90 km from São Paulo), Brazil.
Address of the Organizing Committee:
Dr. *Silvia F. de M. Figueiroa*
Caixa postal 8772
01000 São Paulo – SP
B r a z i l

2. Trilateral Symposium (Czechoslovak-Hungarian-Polish) on the History of the Geological Exploration of the Western Carpathians before World War I, 1988, October, 3–7. Banská Štiavnica, Czechoslovakia.

Co-sponsored by: INHIGEO, Slovakian Society for the History of Sciences and Technology, Slovakian Geological Society, Slovak Mining Museum in Banská Štiavnica, Hungarian Geological Society, (History of Geology Section), Polish Academy of Sciences (Museum of the Earth).

Scientific Session: October 4–5, 1988

Field trip by bus: October 6–7, 1988 to the historical gold, silver, copper, and polymetallic ore mining district of Banská Štiavnica-Kremnica-Spania Dolina (Schemnitz-Kremnitz-Herrengrund)
Address of the Organizing Committee:
Ing. Ivan Herčko C.Sc.
Carpathian Symposium
Slovenské bancské múzeum
969 33 Banská Štiavnica
C z e c h o s l o v a k i a

1989

1. 28th International Geological Congress, July 9–19, 1989, Washington, D.C., USA.

K. Symposia on the History of Geology (XIVth INHIGEO Symposium)

K. 1. The idea of time: changing concepts of the antiquity of Man and the Earth. (M. Guntau, GDR, C. Albritton, USA, and C.J. Schneer, USA).

K 2. The origin, distribution, and adequacy of mineral and energy resources: historical evolution of geologic, mining and environmental perspectives. (J.H. De Young, USA, and J.J. Schanz, USA).

K 3. The Trans-Atlantic exchange of geological ideas during the neneteenth century (G.Y. Craig, U.K., E. Dudich, Hungary).

K 4. Meteorite impact: consequences for the history of geological ideas (U.B. Marvin, USA).

P 33. Poster Session: History of geologic mapping (K. Taylor, USA)

T 169: Field trip: Boston to Buffalo, in the footsteps of Amos Eaton and Edward Hitchcock, June 28–July 8, 1989 (J. Rodgers, T. Grasso, and W. Jordan)

Exhibits:

1. History of geological mapping.
2. Epochal books in geology.

For more details contact:
Clifford M. Nelson
USGS 904 Nat. Center
Reston, VA 22092
U S A

2. XVIIIth International Congress of the History of Science August 1–9, 1989, Hamburg and Munich, Federal Republic of Germany.

The general theme will be: "Science and Political Order".

Chairman of the Organizing Committee:
Prof. *Ch. J. Scriba*
Institut für Geschichte der Naturwissenschaften
Bundesstrasse 55
D-2000 Hamburg 13
Federal Republic of Germany

MISCELLANEOUS

Wanted

Where are to be found letters or manuscripts of Abraham Gottlob Werner? (1749–1817).

The Library of the Mining Academy of Freiberg (GDR) archives the entire scientific heritage of Werner. The collection contains numerous letters, addressed to Werner by scientists from different countries. An overview was given listing their names in "Zeitschrift für Geologische Wissenschaften" 9, p. 908–912; 1981, Akademie Verlag, Berlin. Now the preparation of an edition of "Letters to and by A.G. Werner" is planned. To this purpose, the text of all the letters written by or to Werner are wanted, because Werner himself kept practically no copies of his correspondence.

Information is requested from all colleagues, in which archives, libraries, collections etc; such letters, or other manuscripts of Werner, eventually lecture notes of his students, are to be found.

Information on previously published letters of Werner is also welcome, as well as xerocopies, microfilms etc.

Thanks in advance:

Dr. *Peter Schmidt*
Bibliothek
Bergakademie Freiberg
Postschliessfach 47
Freiberg/Sa
DDR-9200

INHIGEO NEWSLETTER No. 1–10 available

These were published by Prof. V.V. Tikhomirov, during the period 1967–1976, in Moscow, in English and Russian. They can be bought or exchanged, in form of microcards, at

Bibliotheck der Wilhelm-Pieck-Universität
Abteilung Information
Universitätsplatz
DDR-2500 ROSTOCK

INHIGEO Documents (meeting minutes, reports, plans, copies of correspondence) of the period 1976–1984 (the two terms served by Prof. M. Guntau as Secretary General) have been deposited in the Archives of Wilhelm-Pieck-Universität, Universitätsplatz, DDR-2500, ROSTOCK.

HESS NEWS

The History of Earth Sciences Society was founded in 1982. It is truly international, having members in twenty-four countries. HESS publishes every year a volume of "Earth Sciences History". The society aims to publish at increased rate, with about 90 pages in each of two issues per year.

Membership dues in the History of Earth Sciences Society are US $15.00, and include receipt of the journal Earth Sciences History. Fees should be sent to:

HESS c/o *Kennard B. Bork*
Dept. of Geology and Geography
Denison University
GRANVILLE, Ohio 43023, USA

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