

**INTERNATIONAL COMMISSION ON THE HISTORY  
OF GEOLOGICAL SCIENCES**

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**NEWSLETTER 19**

**BUDAPEST (Hungary)  
1985**

**INTERNATIONAL UNION OF GEOLOGICAL SCIENCES  
INTERNATIONAL UNION OF THE HISTORY AND  
PHILOSOPHY OF SCIENCES**

**INTERNATIONAL COMMISSION ON THE HISTORY OF  
GEOLOGICAL SCIENCES  
(INHIGEO)**

**NEWSLETTER N° 19**

**BUDAPEST (HUNGARY)  
1985**

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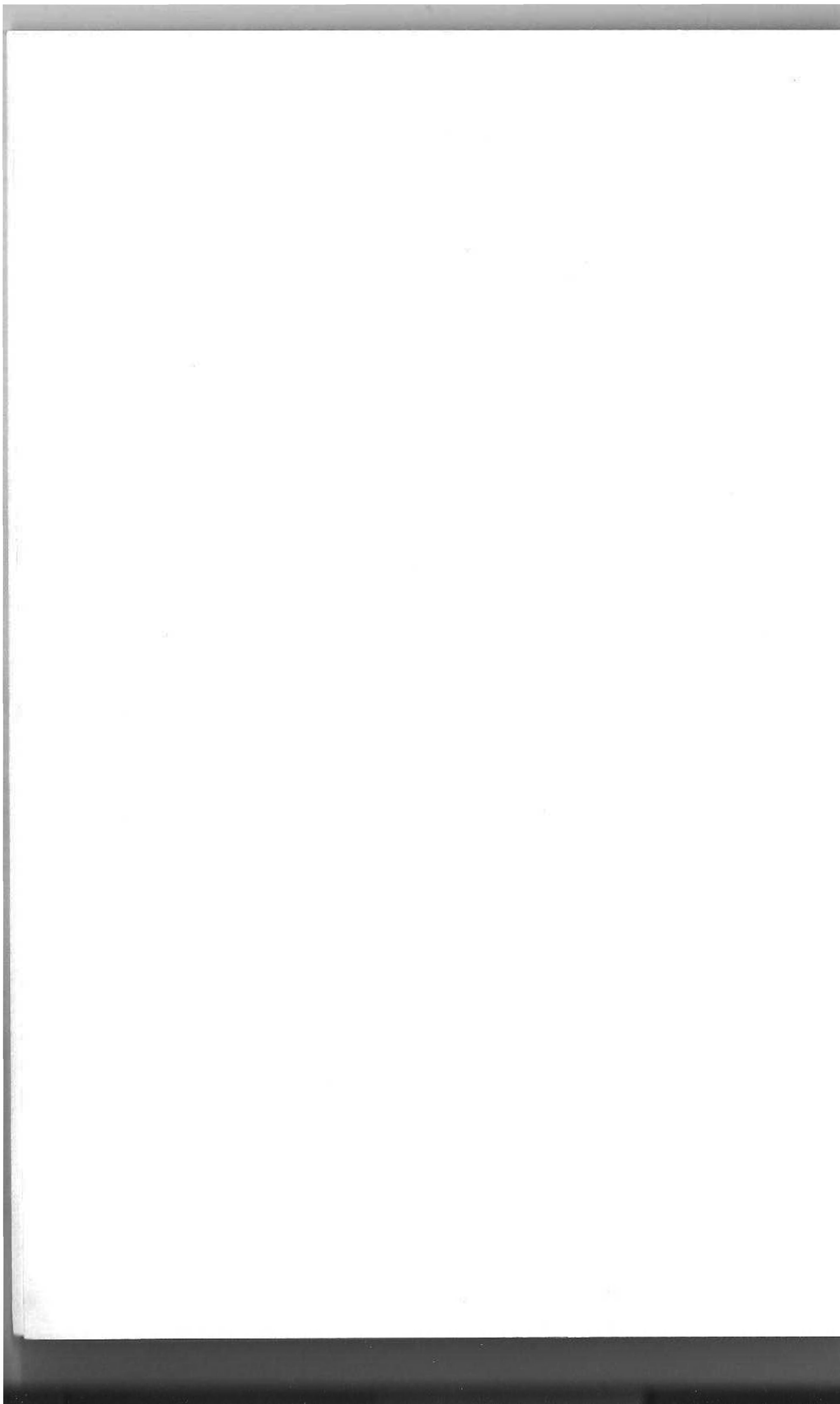
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## PREFACE

It gives me considerable pleasure to write this Preface for the 19<sup>th</sup> issue of the INHIGEO NEWSLETTER assembled by Dr. Endre DUDICH, the Secretary-General of INHIGEO from Reports sent in by correspondents from many different countries. Dr. DUDICH and I have recently taken over from our distinguished predecessors, Professor R. HOOYKAAS and Professor M. GUNTAU. We are all aware that although INHIGEO is healthy and growing, it is not yet as virile as it might be.

This NEWSLETTER is really the only way in which historians of geology can keep in touch with what is happening in their field of interest on an international basis. We can't always get to international meetings to talk to each other (how curiously English that we *talk* to each other instead of *listening* to each other), and since INHIGEO meetings are generally held biennially things do happen in between! You will notice that the NEWSLETTER has a patchy geographical representation which we hope can be improved; and there is a refreshingly individualistic style to the various reports which you may well find inconsistent. We also have a problem in making sure that each copy of the NEWSLETTER reaches its intended recipient. Postal charges nowadays are so high that we are forced to bulk-mail copies to various countries in the hope that they are dispatched without loss. The NEWSLETTER is heavily subsidized by the Hungarian Geological Survey, as were earlier NEWSLETTERS by the University of Rostock. It is therefore essential that every copy printed is put to effective use.

May we suggest a basic outline for the format of future reports from national correspondents.

1. National meetings/symposia held on the History of Geology and related subjects
2. New major library acquisitions/displays
3. List of new books published on the history of geology and related subjects
4. Museum displays – exhibits
5. Miscellaneous.

We hope that the contributors will be able to give an overall impression of the work in their country rather than being obliged to record individual activities.

We are not in the position to provide an authoritative bibliography of all papers published, but we are exploring ways by which that might be done.

Above all, it is only if you tell us what you want, that we can respond — provided we can afford it.

Although reports are of necessity country by country, it is all too obvious that history knows no national boundaries. It so happens that I am in Budapest today talking (and listening) to my good friend Endre DUDICH. Two months ago I had an unusual request from a colleague in Canada. Did I know anything about a Canadian sculptor called Hamilton Plantagenet McCARTHY? Apparently he made a bronze bust of Sir Roderick Impey MURCHISON (1792—1871) the originator of the Silurian, Devonian and Permian systems. As it happens we do have in Edinburgh University a bronze bust of MURCHISON but it is not signed by the sculptor. I therefore went to the Scottish National Portrait Gallery in an attempt to find out a little more about busts of MURCHISON. Although I failed I discovered one extraordinary lead in another direction.

The most famous portrait painter in Edinburgh at the turn of the 18<sup>th</sup> century was Sir Henry RAEBURN. He painted Mrs Barbara MURCHISON, the mother of Sir Roderick and that painting is now in the Museum of Arts in Budapest. How did it get there? Are there any papers or letters associated with the portrait? What is the matriarch of the geological record, if I dare call her such, doing in Budapest? Tomorrow with Endre's help, I hope to find out.

September 1985

G. Y. CRAIG  
*President*



**COMMEMORATION ON B. C. ROY**  
(1907–1984)

The prominent Indian geologist B. C. ROY was born on August 1, 1907. Beside his home country, he also studied at several colleges and universities in Europe (including the Freiberg Mining Academy).

For more than 30 years he worked with the Geological Survey of India and headed one of its departments. During this period he visited the USSR, Europe, both Americas, New Zealand, Australia, Japan and SE Asia. In this way, B. C. ROY had the opportunity to study a wide variety of mining regions, the work of various geological surveys and scientific institutions. Based on his vast personal experience and wide knowledge of the geological literature, he published a number of papers and books.

B. C. ROY actively participated in the work of international geological organizations. 1961–68 he was Vice President of the IUGS, 1958–68 Vice President of the Commission on the Geological Map of the World.

In 1967 he was elected Vice President of INHIGEO and actively attended several INHIGEO Symposia.

At the beginning of August 1984, B. C. ROY arrived in Moscow as a guest of honour at the 27<sup>th</sup> Session of the International Geological Congress. Though he felt unwell, he forced himself to participate in the events of the Congress.

On August 6 1984, as a result of sudden worsening of his illness, B. C. ROY deceased in one of the Moscow hotels.

*V. V. TIKHOMIROV*

**27<sup>th</sup> SESSION OF THE INTERNATIONAL GEOLOGICAL CONGRESS**  
*(Moscow August 1984)*

Section 21

Conveners: T. Vallance, V. V. Tikhomirov, R. Hooykaas.

C. 21.1. Themes

C.21.1.1. **Development of Concepts of the Earth's Composition**

C.21.1.2. **Evolution of Concepts of the Dynamics and  
Structure of the Earth's Crust and Upper Mantle**

S.21.2.1. **History of Mineralogy** (*XI INHIGEO Symposium*)

**Theme C.21.1.1.**

TIKHOMIROV V. V.: Opening address

VALLANCE T. G.: The span of metamorphism

ROMANOVA M. M.: Main stages of metamorphism theory development

DUDICH E.: From alchemy through geochemistry to cosmochemistry

BABČAN J.: Contribution to the history of geochemistry

LAPO A. V.: V. I. Vernadsky's ideas on the leading role of life in the Earth's  
crust generation

KRASCHENINNIKOV G. Th.: Entstehung und Entwicklung des genetischen  
Studiums der Sedimentite in Russland und in der DDR

VINE J. D.: History of investigation of geochemistry of "black shale" (read  
by W. Finch)

TIKHOMIROV S. V.: On the genetic classification of sedimentary rocks in  
the USSR

SOLOVIEV Yu. Ya.: Comparative-lithological method in the history of  
palaeogeography

POPOV V. I.: F. Yu. Loevinson-Lessing — a founder of the genetic study of  
formations

GERBOVA V. G.: Development of the study of genetic types of Quaternary  
continental deposits

URBAN J.: To the history of geological sciences in the ČSSR



### Theme C.21.1.2.

ELLENBERGER F.: Quelques idées anciennes sur la constitution interne du globe terrestre

RANALLI G.: Sir James Hall and the early development of experimental tectonics

MILANOVSKY E. E.: Formation and the present-day state of the concepts on the Earth's expansion and pulsations

HARLAND D.: On the development of geotectonics for 150 years

MURAWSKY H.: Remarks about the space problem in tectonics, using examples from Central Europe

TIKHOMIROV V. V.: Experience in the analysis of a single branch of science (tectonics)

AUBOUIN J., DELANY F., DOTTIN O.: The Commission for the Geological Map of the World

KOLCHANOV V. P.: Elaboration of an international tectonic nomenclature

WATANABE T.: Development of ideas on the structure of the lithosphere in the continent-ocean zone

KUZNETSOV G. A.: Evolution of the concepts of the geodynamics of the marginal structures of the platforms and the active belts

REZANOV I. A.: Evolution of the conception of the Earth's crust

ZAICHENKO V. I., KARUS E. V., SURKOV V. S., ERKHOV V. A., SCHCHUKIN Yu. K., ERMAKOV B. V., SEMOV V. N.: Modern representations of the crust and upper mantle structure of the territory of the USSR

### S.21.2.1

HOOYKAAS R.: Opening address of the President of INHIGEO

GUNTAU M.: Die Entstehung der Mineralogie als wissenschaftliche Disziplin in der Geschichte

YUSHKIN N. P.: The history of mineralogy and the evolution of fundamental mineralogical ideas

BOUILLET G., CAILLEUX A.: Diversity of minerals on the Earth and the Moon

KAZUROV B. K.: The development of gemmology. A historical review

DURANT G. P., ROLFE W. D. I.: The mineral collection of William Hunter (1718-1783) as an illustration of early mineralogy

- SCHMIDT P.: Beziehungen zwischen Mineraliensammlungen und Bergbau insbesondere im 18. Jahrhundert
- BARSANOV G. P.: The establishment of Academician V. I. Vernadsky's mineralogical school at the Moscow University
- TORRENS H. S.: J. B. Longmire (1786–1858) – an English practical mineralogist in Russia
- HOOYKAAS R.: The historical, philosophical and scientific implication of Hauy's crystal theory
- CHAFRANOVSKY I. I.: Les grandes dates du développement de la cristallographie en URSS
- BÉRCZI K., NAGY D.: Development of the ideas on symmetry in mineralogy and other sciences
- FABIAN E.: Die Antizipation der morphologischen Erkenntnisweise der Kristallographie in Nikolaus Stenos "De solido intra solidum naturaliter contento. Dissertationis prodromus" von 1669
- GAWEL A., NAREBSKI W.: 200 years of teaching mineralogy at the Jagellonian University in Cracow
- BABICZ J.: S. Símonovich's system of mineralogical sciences and its real application in Poland in the first half of the XIX<sup>th</sup> century
- MELKUMIAN A. M.: Obsidian and transformation of its role in the history of material culture
- GINZBURG D.: The mineralogical identification of the biblical saphiros stone
- MALKHASIAN E. G.: Artzrunie's study of isomorphism
- GEORGIEV G. K., MINKOV S. I.: The origin and migration of the mediaeval German miners and metallurgists, who migrated to the Balkan Peninsula
- VALLANCE T. G.: Sydney's Earth and after; mineralogy of colonial Australia 1788–1901
- STOINOV S. Kh., STARIKOVA L. V.: The history of mineralogical studies in Bulgaria
- CSIKY G.: The history and development of mineralogy in Hungary till 1825
- PÓKA T.: Development of mineralogy in Hungary in the 19<sup>th</sup> century
- PROUVOST J.: Apport de l'école française de minéralogie expérimentale à l'interprétation des processus petrogénétiques liés au magmatisme acide et alcalin
- FIGUEIROA S.: La Commission Géographique et Géologique de São Paulo; un travail à peine commencé



LANGER W.: Early studies in volcanic mineralogy and petrography in the Rhenish Slate Mountains (Western Germany)

GOLDENBERG L. A.: The manual of mineralogy, mining and melting, Bergcollegium, 1770 — a new source on the history of geological knowledge in Russia

URBAN J.: On the history of mineralogy in the ČSSR

**XII INHIGEO SYMPOSIUM**  
*Edinburgh April 11–15 1985*

*The Influence of Scientific Organizations on the Development of Geology*

**Symposium (April 11–12)**

The symposium, attended by about 70 geologists and historians, was held under the umbrella organization of the 4<sup>th</sup> Meeting of the European Geological Societies. The speakers at the symposium were:

- HERRIES DAVIES G. L.: The Natural History of Geological Institutions  
GUNTAU M.: The development of the German Geological Survey  
KURSTEN M.: History of geological survey activities in Germany  
TIKHOMIROV S. V.: R. I. Murchison and the Geological Survey of Russia in the mid 19<sup>th</sup> century  
TORRENS H.: The influence of provincial Societies on the development of English geology in the 18<sup>th</sup> century  
BUTCHER N. E.: The influence of Scottish Societies on the development of geology in Scotland  
DUDICH E.: The influence of middle European scientific organizations on the development of geology  
HAMILTON B. M.: The relationship between Professor Charles Lapworth and the Geological Survey of Great Britain and the effects of this on British geology  
HOLLAND C. H.: The influence of the Geological Survey of London on the development of geology  
LINGWOOD P.: Magnanimity and parsimony – the Navy's contribution to geology in the 19<sup>th</sup> century  
ELLENBERGER F.: Role of engineers in the birth of French geology

Papers accepted but not read in the absence of the authors

GEORGIEV G. K.: Influence of the Bulgarian Geological Society on the development of geology in Bulgaria

12.4. RUDWICK M.: The geological community in early 19<sup>th</sup> century Europe

Abstracts of the MEGS 4 meeting which include abstracts of the INHIGEO XII symposium are available from Mr A. BANNERMAN, KB Library, West Mains Road, Edinburgh 9, Scotland, at a cost of £2 per copy.



### Geological excursion (April 12–15)

The object of this excursion was to retrace some of the geological journeys made by James Hutton during the period 1785–88 and to see something of the historical geological treasures of Scotland. The excursion was of particular interest to geologists from overseas.

The party of 25 included representatives from Canada (1), Eire (2), France (1), Hungary (1), Italy (2), DDR (1), USA (1), USSR (2) and W. Germany (3).

The party visited the famous *Siccar Point* unconformity first recognised by James Hutton in 1788 and Hutton's two farms. That evening at a buffet supper in the newly refurbished premises of the Royal Society of Edinburgh, they examined MSS belonging to the Society including letters written to David Hume the philosopher and the original manuscript of James Hutton's treatise on Agriculture.

On the second day the party travelled in two minibuses north to *Kinnordy House, Kirriemuir* where they were royally entertained by Lady Lyell and had the opportunity after lunch to see Sir Charles Lyell's wonderful library. In the late afternoon the group visited *Kinnordy Loch*, the subject of one of Lyell's first papers and a restored 13<sup>th</sup> century keep, *Inverquharity Castle*. On Day 3 the party toured the area of *Glen Prosen* whose glacial features were first recognised by Buckland and Lyell and from there in crisp (!) Scottish spring weather northwestwards into the Highlands. Seven miles up the starkly beautiful *Valley of Glen Tilt* an outcrop in fast flowing water clearly shows the contact between granite and country rock that convinced Hutton that granite was an intrusive rock. The party completed the day by a visit to *Blair Castle*, the home of the Duke of Atholl, whose ancestor, the 4<sup>th</sup> Duke, had made Hutton's visit to Glen Tilt possible in 1785. The return trip to Edinburgh on the last day was via *Crieff* to examine exposures described by Hutton including a large E–W dolerite dyke, Lower Old Red Sandstone conglomerates in a spectacular gorge at *Rumbling Bridge* and a section of Carboniferous sediments nearby.

G. Y. CRAIG

**17<sup>th</sup> INTERNATIONAL CONGRESS OF HISTORY OF SCIENCE**

*University of California, Berkeley (USA)*

*July 31–August 8 1985*

**Symposium N<sup>o</sup> 9 Earth Sciences in the 19<sup>th</sup> and 20<sup>th</sup> Centuries**

*Session 1: Petroleum Exploration and Seismology*

August 2

BOLT B.: Development of earthquake seismology in the western United States

MEKHTIEV Sh. F.: History of oil prospecting in Azerbaidzhan

BUNIAT-ZADE Z.: History of the origin and formation of oil geology, 1800–1925

CZARNIECKI S.: Polish petroleum explorers in Europe, Asia and America before the regaining of the independence of Poland

WANG Y.: Chinese oil exploration for 100 years

QI Sh.: Earthquake science in China's historical documents before the 20<sup>th</sup> century

MA Z.: History of Chinese seismology

*Session 2: Education in Geology*

August 2

Chair: ALDRICH M.

BASSETT D.: Frederick John North, interpreter and historian of geology

SCHULTZ S.: From scenery to science: The development of geologic interpretation in the national parks

RUDWICK M.: Arenas of geological debate in early 19<sup>th</sup>-century Europe

CAILLEUX A. P.: Geological education in France, 1910–1938

LOPEZ DE ASCONA J. M.: History of geological education in Spain in the 19<sup>th</sup> and 20<sup>th</sup> centuries

**Section Ga Geology and Geophysics**

August 3

Chair: FRÄNGSMYR T.

TAYLOR K.: Turgot, Desmarest, and the "Observations géologiques" of 1760



FLEMING R.: The clouds that gather 'round the setting sun: Antebellum meteorological networks and the "problem of American storms"

PITTMAN W.: Soil and geology: Contributions of Eugene Woldemar Hilgard (1833–1916)

ALDRICH M.—LEVITON A.: Yosemite Valley: Controversy in grandeur

**Section Gb Origins of Modern Earth Sciences**

August 7

Chair: RUDWICK M.

BILLO S.: Uniformitarianism in geology

BERRY W.: On the relevance of Charles Darwin's geological observations in South America to modern plate tectonic theory

FRÄNGSMYR T.: The discovery of the Ice Age: A Scandinavian view

LeGRAND H.: Reception of continental drift theory in Australia, 1920–1940

BABICZ J.: F. v. Richthofen and W. M. Davies: Their role in geomorphology

## REPORTS FROM VARIOUS COUNTRIES

The following contributions vary largely in several respects, such as the time span concerned, the activities listed and the form of their presentation. No attempt has been made to find a common denominator. This is one of our future tasks.

*The Editor*

### Australia

At the 1984 Geological Conference held in August at Sydney an *Earth Sciences History Group* was inaugurated. It has been accepted as a specialist group within the Geological Society of Australia. Some half dozen historical papers on a variety of earth science topics were presented at the inaugural meeting where the South Australian Division of the Geological Society was nominated as "host" for the first committee of the Group.

Dr. B. J. COOPER of the S. A. Department of Mines and Energy is first chairman, Dr. D. CORBETT of the University of Adelaide is vice-chairman, and Mr. C. GATEHOUSE (S. A. Department of Mines and Energy) secretary. The Group issues a NEWSLETTER to its members, now more than 20.

Dr. COOPER is the organizer of the *History Section of the forthcoming Sedimentological Congress* (1986) which has gained INHIGEO Patronage.

Dr. COOPER and CORBETT are currently busy compiling a history for the centenary of the Royal Society of South Australia which will have a strong geological content.

During 1984 many of the papers presented at the *History of Science in New Zealand Conference* (held at Wellington, Z. N., in February 1983) appeared in print as Bulletin 21 of the Royal Society of New Zealand under the title: "*In Search of New Zealand's Scientific Heritage*".

The Bulletin includes "*Samuel Stutchbury and his Manuscripts*" by D. F. BRANAGAN and "*Gideon Mantell (1790-1852): A Focus for Study in the History of Geology at the Turnbull Library*" by T. G. VALLANCE. In addition to those papers by INHIGEO affiliates, another in the volume deals with early seismographs in New Zealand.

Another paper with INHIGEO links is D. BRANAGAN and E. LIM: "*J. W. Gregory, Traveller in the Dead Heart*" (*Hist. Records of Austr. Sci.*, 6 (1) 1984: 71-84).



Both Prof. BRANAGAN and T. G. VALLANCE have prepared works on the history of Australian geology as contributions to publishing ventures related to the bicentenary of European settlement of Australia (1988).

T. G. VALLANCE

## Brazil

The history of geological sciences is still in its very beginning in Brazil. Accordingly, little work has been done so far.

The most important achievement is the creation of the *Technical – Scientific Commission on the History and Theory of Geology*. This Commission is directly tied to the Brazilian Geological Society, and it was founded during the 33<sup>th</sup> Brazilian Geological Congress, in November 1984.

Its provisory *Executive Group* is the following.

Adalberto da SILVA (Universidade Federal do Rio de Janeiro) Conrado PASCHOALE (Universidade Estadual de Campinas) Silvia F. de M. FIGUEIROA (Instituto Geológico, São Paulo).

Three further points to be mentioned are:

- The 50-year anniversary of the National Department of Mineral Production;
- The venture aimed at the centenary celebration of the "Instituto Geológico". This Institute decided to organize the archives as well as an exposition of photographs and documents. A 150-page volume on its history is also in preparation. This work (the first of this kind in Brazilian geological sciences) began on March 19, 1984 and is going on till March 19, 1986.
- The Museum of the "Escola Superior de Agricultura de Mossoró" published the Inventory of the correspondence of geologists, covering both the 19<sup>th</sup> and the 20<sup>th</sup> centuries.

S. F. de Mendonça Figueiroa

## Bulgaria

Prof. G. K. GEORGIEV channelled information on INHIGEO activities to various geological organizations of Greece, Turkey, Yugoslavia and Albania.

A few years ago a "Working Group on the History of Geological Sciences" was founded, headed by Prof. G. K. GEORGIEV, affiliated to the Bulgarian



Geological Society. Young Bulgarian geologists, however, display but little interest for the topic. It is difficult to organize meetings and to keep contacts alive.

At the 11<sup>th</sup> INHIGEO Symposium in Moscow Prof. G. K. GEORGIEV delivered a lecture on the "*Provenance and Migrations of Mediaeval German Miners and Metallurgists on the Balkan Peninsula*".

His publications:

1. Mineral resources in the epoch of the Thracians. (Monograph, ed. Bulgarian Academy of Sciences, in press.)
2. Ancient mining and metallurgy in the Plana Mts district, Bulgaria (in Bulgarian). In: vol.2 of Scientific Papers on the History and Theory of Science (1983), p. 205–212, Sofia
3. Mediaeval metallurgy in the surroundings of Pirin village, Blagoevgrad district (as item 2, in vol.3, in press).

The Institute of Balkanistics of the Bulgarian Academy of Sciences is sponsoring the publication of a book entitled "*Early mediaeval history of the Balkan peninsula*". Prof. GEORGIEV contributed by writing two chapters: 1. Mineral resources of the Balkan Peninsula in the Early Middle Ages, and 2. Provenance and migrations of mediaeval German miners and metallurgists on the Balkan peninsula.

Prof. GEORGIEV is member of the Board of the Society for the History and Theory of Science in Sofia and of the Scientific Group for the History of Science at the Historical Centre of the Bulgarian Academy of Sciences.

G. K. Georgiev

### China (1984)

The 3<sup>rd</sup> Symposium of the History of Geology Division of the Geological Society of China coincided with the 2<sup>nd</sup> National Symposium on the History of Earth Sciences.

It was held in Guilin (Kweilin), Guangxi (Kwangsi), between November 19–23, 1984. The number of participants amounted to a total of 90.

On the morning of November 19, all participants were invited by the Institute of Karst Geology, Chinese Academy of Geological Sciences, to attend the unveiling ceremony of the statue of Xu XIAKE (1587–1641), ancient Chinese traveller and geographer. Prof. Xia XIANGRONG, president of

HGGSC, and Prof. David HOOSON, president of the *International Commission on the History of Geographical Thought*, delivered short speeches to convey their congratulations.

On the afternoon session, Prof. HOOSON delivered a lecture consisting of three parts: (1) on the organization and activities of the International Commission on the History of Geographical Thought, (2) geographical thought in the United States of America and (3) geographical thought in the USSR.

86 papers were given. Most of them could be classified under 6 headings: (1) studies on Xu XIAKE, (2) history of applied geology, (3) history of basic geology, (4) history of cartography, (5) history of hydrography, meteorology and oceanology, (6) history of geographical thought.

Guilin is a city famed for its karst landscapes as being "second to none in scenery in China". The stretch of 83 kilometres down the Lijiang River from Guilin to Yangshuo is a choice scenic area. On November 22, about 90 members took part in the one-day excursion along Lijiang to study the karst landforms enjoying the beautiful scenery.

The *Proceedings of the 2nd Symposium on the History of Geology Division of the Geological Society of China* (83 pages) were published by the Naging University Press in November 1984. It contains 53 abstracts in Chinese with English titles.

A textbook entitled "*Outline of the History of Geological Sciences*" (366 pages in Chinese) written by Sun RONGGUI, Deputy Secretary General of HGGSC and Associate Professor at the Geological Department of Peking University, was published by the Peking University Press in June 1984.

*Xia Xiangrong*

### **Czechoslovakia (1984)**

The main event of the year was the Symposium "*Mining Přebram in Science and Technology*", 15–20 October, 1984 (at the ancient mining town of Přebram).

A special *Historical Section* dealt with the history of exploitation of non-ferrous metals in Europe.

The following lectures were delivered.

- The ore mining in Saxony, the industrial revolution and the development of mining and geological sciences
- The past of ore mining in the territory of the FRG and its cultural achievements



- Geology and history of copper ore mining in Thuringia
- Mediaeval exploitation of ores in Poland
- On the problem of Bronze Age metallurgy
- Copper ore mining in Slovakia and its importance for Europe
- The beginnings of mining and processing of bismuth and cobalt at the Erzgebirge (Ore Mts) occurrences
- Criteria for the assessment of mediaeval gold mining in Lower Silesia
- Development of silver ore mining at Walbrzych, 15–19th c.
- Ancient engine models in the former Mining School at Clausthal, relics of technical training from the first half of the 19th century
- Development of mining in North Moravia till the end of the 19th century
- Copper ore mining in the Spiš-Gemer area (Slovakia) in the 19th century
- The uranium ore of Jáchymov (Joachimstal) at the beginning of radiology.

*J. Urbán*

#### **Federal Republic of Germany (1984)**

On the initiative of Prof. W. LANGER a *Working Group on the History of Geological Sciences* has been set up at Mainz, on February 25, 1984.

At present, this group is still like a baby in an incubator, but we are optimistic. The first NEWSLETTER of this working group was published towards the end of December 1984. A meeting is scheduled for September 1985, to be held at Munich.

Remarkable achievements in the field of the history of geology and mineralogy have been obtained at the universities of Frankfurt am Main, Munich and Würzburg. Detailed account of these will be given in the next annual report.

During a Symposium held at Göttingen in May 1984, organized by the Society for the History of Sciences, W. LANGER delivered a lecture about the role of early geology and palaeontology in the process of historization of sciences, to be published in the journal of the Society.

At the same Symposium there was also an exhibition about the life and work of J. F. BLUMENBACH (1752–1840). A 219-page catalogue has been edited by F. W. P. DOUGHERTY.

The renowned palaeontologist, former president of the Geological Survey of Baden–Württemberg, Prof. Dr. Franz KIRCHHEIMER (born 1.7.1911) died on the 17<sup>th</sup> June 1984. He was wellknown for his studies on the introduction of nature-printing and photography into earth scientific documen-

tation. A commemorative meeting was held at the University of Heidelberg in November 1984.

*W. Langer*

### **Hungary (October 1981–December 1984)**

The *Hungarian Geological Society* greatly supported the work of its *Section on the History of Geology* during this period. Regular sessions were held and some important meetings organized.

#### **1981**

##### *October*

CSIKY G.: The first scientific movement in Hungary: the Assemblies of Hungarian Physicians and Scientists

DUDICH E.: Henrik Taeger – commemoration on the occasion of the 100<sup>th</sup> anniversary of his birth

PAPP P.: J. E. Fichtel's "Beitrag zur Mineralgeschichte Siebenbürgens" – published 200 years ago

##### *December*

DOBOS I.: The role of Henrik and Ferenc Horusitzky in Hungarian hydrogeology

BOGSCH L.: In memoriam of the recently deceased Tibor Szalay

BIDLÓ G.: Organization (in 1881) and work of the Earthquake Committee of the Hungarian Geological Society

CSIKY G.: Secretary's report of 1981

#### **1982**

*February 3: the 3<sup>rd</sup> Geohistorical Day. Topic: "Some important events in the development of earth sciences in Hungary between 1848 and 1919."*

##### *Lectures delivered:*

ALLODIATORIS I., BOGSCH L.: The importance of M. Hantken's oeuvre in the development of Hungarian mining, geology and palaeontology



CSIKY G., DUDICH E., PÓKA T.: The first special scientific society (the Hungarian Geological Society) and the first scientific research institute (the Royal Hungarian Geological Institute) in Hungary

CSIKY G.: The importance of L. Eötvös' torsion balance and H. Böckh's role in its practical application

DOBOS I.: The impact of drilling for groundwater on the scientific approach to the geological evolution history of the intra-Carpathian basins

PÓKA T.: The impact of Prof. J. Szabó's geological school on the 19<sup>th</sup> century capitalist development in Hungary

VARGA-MAJZIK A.: The role and influence of the Hungarian Geological Institute in the development of science in Hungary

KOVÁCS J.: Discovery and the beginning of mining of bauxite in the Carpathian basin

#### *March*

DUDICH E.: Historical conclusions drawn from the research of the flysch sediments in Hungary

ALLIQUANDER Ö.: Commemoration of Ferenc Böhm on the 100<sup>th</sup> anniversary of his birth

CSIKY G.: Life and work of József Jónás, a "forgotten" Hungarian mineralogist (1787–1821)

#### *April*

SZEDERKÉNYI T.: Gyula Prinz and Hungarian geology

CSIKY G.: Ernő Balog was born 100 years ago

BIDLÓ G.: Commemoration on Sándor Kalecsinszky

#### *May*

BOGSCH L.: Commemoration on Zoltán Schréter, born 100 years ago

KRIVÁN P.: Centenary of the birth of Róbert Ballenegger

*June 4–5: "Geological Days" at Zirc, on the occasion of the 800th anniversary of the Cistercian Abbey. A memorial tablet was unveiled by E. DUDICH, on behalf of the Hungarian Geological Society in the "Pantheon of Hungarian Scientists", to Prof. K. TELEGDI-ROTH,*

who has great merits in the exploration of coal and bauxite deposits of Transdanubia, and was Professor of Palaeontology at the Budapest University.

*August 16–23*

The **10<sup>th</sup> International Symposium of INHIGEO** held in Budapest on the "*Development of Geological Mapping in Connection with Progress in Geological Thinking*". (See NEWSLETTER 16).

*October*

REICH L.: Commemoration on E. Suess, born 150 years ago

MIHÁLTZ I.-né: Palaeobotany in Hungary – from the beginning till 1950

*November*

PÓKA T.: Role of Hungarian mineral and rock collections in the development of geological sciences

VARGA-MAJZIK A.: Commemoration on Imre Maros, born 100 years ago

*December*

VÉGH S.-né: Commemoration on Pál Káposztás

BOGSCH L.: Commemoration on Gyula Rakusz

CSIKY G.: Secretary's report of 1982

**1983**

On the General Assembly of the Hungarian Geological Society (March 16)  
CSIKY G. commemorated on K. A. Zipser (born 200 years ago), who had forwarded the proposal to found the Society, in 1847.

*March 28: the 4<sup>th</sup> Geohistorical Day. Topic: Development of Geological Mapping in Hungary, in Connection with Progress in Geological Thinking.*

The 8 Hungarian contributions to the 10th INHIGEO Symposium were presented to the Hungarian public.

*April*

DUDICH E.: Hungarian connections of Athanasius Kircher as reflected in his *Mundus subterraneus*

CSIKY G.: On a hitherto unknown 18<sup>th</sup> century metallurgical school in Transylvania

*May*

VARGA-MAJZIK A.: Geological work in Hungary between 1825 and 1869

CSIKY G.: Sámuel Köleséri, a pioneer of Hungarian mining, born 250 years ago

KÖVESS Gy.: Commemoration on Bernhard von Cotta

*June*

GREENE J. C. (USA): The geological sciences in the United States in the age of Jefferson (1780–1830)

*October*

BIDLÓ G.: The development of Prof. J. Szabó's ideas as revealed by his successive books on mineralogy

PÓKA T.: The first Hungarian university textbook on geology (by J. Szabó, 1882)

NAGY B.: Minerals described from Hungary

*November*

DUDICH E.: Commemoration on A. E. Fersman on the 100<sup>th</sup> anniversary of his birth

ZENTAY T.: Past and present of agrogeology in Hungary

KORDOS L.: Commemoration of F. Nopcsa

*December*

EMBEY-ISZTIN A.—KASZAP A.: The oeuvre of Andor Semsey. On the occasion of the 150<sup>th</sup> anniversary of his birth

CSIKY G.: Secretary's report of 1983



1984

*March*

CSIKY G.: The discovery of natural gas in the Transylvanian Basin (1909)

BIDLÓ G.: About K. Marx's book "Geschichte der Kristallkunde" (1822)

*April*

Presentation of the lectures to be delivered at the *27<sup>th</sup> Session of the International Geological Congress in Moscow* (August 1984)

CSIKY G.: History and development of mineralogy in Hungary till 1825

PÓKA T.: Development of mineralogy in Hungary in the 19<sup>th</sup> century

DUDICH E.: From alchemy through geochemistry to cosmochemistry

*May*

VITÁLIS Gy.: Geological and hydrogeological implications of topographic maps from the 16–18<sup>th</sup> centuries

CSÁSZÁR G.: Commemoration on Jenő Noszky Jr. on the 75<sup>th</sup> anniversary of his birth

*October*

HETÉNYI R.: The life and work of János Böckh

ALLIQUANDER Ö.: Pál Mazalán deceased 25 years ago

VITÁLIS Gy.: Geological and hydrogeological lessons drawn from 19<sup>th</sup> century topographic and geological maps

*November*

JASKÓ S.: Mineral and fossil localities and mining sites in the Buda Mts during the 18<sup>th</sup> and 19<sup>th</sup> centuries

BIDLÓ G.: A. Krenner's manuscript: "A biography of József Krenner"

*December*

DUDICH E.: Report on the 27<sup>th</sup> (Moscow) Session of the International Geological Congress and of the 11<sup>th</sup> INHIGEO Symposium

CSIKY G.: Secretary's report of 1984

KORDOS L.: On the oeuvre of V. O. Kovalevsky

*Papers published during this period:*

- CSIKY G.: The role of Hungarian naturalists in the work of the "Mineralogische Societät" of Jena and its effect on the development of geological sciences in Hungary. — *Földt. Közl.* 11. (2): 338–349, in Hungarian, English abstract, Budapest 1981
- CSIKY G.: The Master and his two disciples (Parallel biographies of H. Böckh, S. Papp and F. Pávai-Vajna). — *BKL Kőolaj és Földgáz* (Hungarian Journal of Mining and Metallurgy, Oil and Gas). 15 (115) 7/8.: 252–254, in Hungarian, 1982
- CSIKY G.: The role of Hungarian geologists in the International Geological Congresses. — In *Annals of the History of Hungarian Geology*, 8.: 69–92 in Hungarian with English abstract, Budapest 1983
- CSIKY G.: The significance of L. Eötvös' torsion balance and the role of H. Böckh. — In *Technikatörténeti Szemle* (Review of the History of Technics), 18.: 207–212, in Hungarian with English abstract, Budapest 1982
- CSIKY G., DUDICH E., PÓKA T., ZSÁMBOKI J.: French–Hungarian interrelation in the geological sciences before 1832. — *Histoire et nature*, 19–20, 125–131, Paris 1981–82
- CSIKY G.: Die Rolle ungarischer Naturforscher in der Jenaer "Mineralogischen Societät" und deren Einfluss auf die Entwicklung der Geowissenschaften in Ungarn — *Münsterische Forschungen zur Geologie und Palaontologie*, 58, 96–97, Münster 1983
- CSIKY G.: Luigi Ferdinando Marsigli, the "Discoverer of Hungary" (On the occasion of the 250<sup>th</sup> anniversary of his death). — In *Annals of the History of Hungarian Geology*, 9.: 85–96, in Hungarian with English abstract, Budapest 1983
- CSIKY G.: The "wander meetings" of Hungarian physicians and naturalists. — In *Annals of the History of Hungarian Geology*, 9.: 157–173, in Hungarian with English abstract, Budapest 1983
- CSIKY G., DUDICH E., PÓKA T.: Role of the first specialized scientific society and of the first scientific research institute in Hungary (Hungarian Geological Society and Hungarian Royal Geological Institute). — In *Annals of the History of Hungarian Geology*, 9.: 207–214, in Hungarian with English abstract, Budapest 1983



- CSIKY G.: Commemoration on Ernő Balogh on the 100<sup>th</sup> anniversary of his birth. — In *Annals of the History of Hungarian Geology*, 9.: 221–228, in Hungarian with English abstract, Budapest 1983
- CSIKY G.: Development of natural gas reservoirs in the Transylvanian Basin. *BKL Kőolaj és Földgáz* — (Hungarian Journal of Mining and Metallurgy, Oil and Gas) (117) 4.: 107–109, Budapest 1984
- CSIKY G.: History and results of hydrocarbon exploration on the Great Hungarian Plain. Chapter from the history of oil exploration on Hungary (1918–1958). — *Közl. a magyarországi ásványi nyersanyagok történetéből*, II. 1–50, in Hungarian, Miskolc 1984
- CSIKY G.: In memoriam A. K. Zipser, on the 200<sup>th</sup> anniversary of his birth. — *Földt. Közl.* 114. (2): 231–234, in Hungarian, with English abstract, Budapest 1984
- DUDICH E.: Regional effects on the development of theories on bauxite genesis. — *Acta geol. Ac. Sc. hung.* 24, (2–4): 247–255, in English, with abstract in Russian, Budapest 1982
- DUDICH E.: Regionale Einflüsse auf die Entwicklung der Theorien von der Entstehung des Bauxits. — *Münstersche Forschungen zur Geologie und Paläontologie*, 58: 63–66, Münster 1983
- FÜLÖP J.: Az ásványi nyersanyagok története Magyarországon (The history of mineral resources in Hungary), in Hungarian. — Budapest 1984
- PÓKA T.: Der Karpathen-Vulkanismus und die ungarische petrographische Schule im 19. Jahrhundert. — *Münstersche Forschungen zur Geologie und Paläontologie*, 58: 67–70, Münster 1983

Two issues of the "*Földtani Tudománytörténeti Évkönyv*" ("Annals of the History of Hungarian Geology") came out: N<sup>o</sup> 8 in April 1982 and N<sup>o</sup> 9 in December 1984.

The "*Proceedings of the 10<sup>th</sup> Symposium of INHIGEO*" came out in April 1984, Publishing House of the Hungarian Academy of Sciences, Budapest, ed. E. DUDICH. See among the Book Reviews, p. 42.

It contains 8 Hungarian contributions:

- DUDICH E.: Impact of the dawn of space age on geological mapping
- BREZSNYÁNSZKY K.: Megatectonic maps of the Carpathian Basin in connection with the evolution of tectonic theories
- STEGENA L.: Hungarian contribution to the geophysical mapping of the world

- KNAUER J.: The development of bauxite-geological mapping in Hungary  
SZANTNER F., KNAUER J., TÓTH K., MINDSZENTY A.: Base maps used  
in the bauxite prognosis of Hungary  
SZÉLES L., KISS J.: Geological maps and their role in coal mining  
PÓKA T.: Development of the cartographic presentation of igneous formations  
CSIKY G.: Forerunners of mining-geological mapping in Hungary in the  
18<sup>th</sup> century (L. Ferdinando Marsigli, Ignác Born, Johann E. Fichtel  
and János Fridvaldszky)

G. CSIKY

#### Netherlands (1983–84)

The *Commission on the History of the Geological Sciences of the Royal Netherlands Academy* met regularly during 1983 and 1984.

Two books were published under its auspices:

- History of Volcanology in the former Netherlands East Indies, by Dr. M. NEUMAN van PADANG (See NEWSLETTER 17, p. 45) and
- History of Geophysical Research in the Netherlands and its former Overseas Territories, by prof. J. VELDKAMP.

A "History of geology of the Netherlands West Indies" has been prepared by (the late) Dr. WESTERMAN.

The Tropen Instituut at Amsterdam organized an exposition in commemoration of the catastrophic eruption of the Krakatau volcano on the 26–28 August, 1883. The opening address was given by Dr. M. NEUMAN van PADANG.

R. Hooykaas

#### Poland (1984)

In Poland, the work on the history of geological sciences is going on mainly in the institutions of the Polish Academy of Sciences (PAN).

Such are the *Museum of the Earth* (J. GARBOWSKA), the *Natural Sciences Department of the Institute for the History of Science, Culture and Technique* (INHOIT, Prof. J. BABICZ) and the *Working Group on the History of Palaeontology* (headed by Z. WÓJCIK).

Several scientists are active in this field also in other institutions, e.g. S. CZARNIECKI in the *Institute of Geological Sciences of the Polish Academy of Sciences*, in Cracow, J. SKOCZYLAS at the *University of Poznan*, J. RZYMELKA at the *Silesian University*. As far as the scientific societies are



concerned, the activity of the *Society of the Friends of Ancient Polish Mining, Metallurgy and Industry* (Z. RUBINOWSKI et al.) has to be mentioned.

1. In the *Natural Sciences Department of INHOIT* studies were performed on the advance of physiogeographical knowledge of the territory of Poland during the 18<sup>th</sup> and 19<sup>th</sup> centuries (geology by J. GARBOWSKA, geography by J. BABICZ). J. GARBOWSKA and W. GREBECKA gathered copious evidence on the scientific (inc. geological) work of A. ANDRZEJOWSKI and W. BESSER.

2. In the *Museum of the Earth*, historical work was focussed on general problems (J. POPIOLEK) and on the 19–20<sup>th</sup> century history of the geological sciences in Poland and abroad. A contribution by J. GARBOWSKA was already mentioned under (1). B. STUDENCKA collected documents referring to the history of Tertiary research. Z. WÓJCIK studied the Polish contribution to the geological knowledge of Russia prior to 1917.

Study tours abroad: J. GARBOWSKA in Vilnius (USSR), B. STUDENCKA in Bucharest (Romania), Z. WÓJCIK in Moscow (USSR).

Work performed at other institutions:

- Report on the historical development of geological knowledge of the Upper Silesian Coal Basin (by J. RZYMELKA)
- History of exploration of the karst and the caves in the Tatry Mts (by W. SIARZEWSKI)
- Bibliographical monograph of the geology of the Tatry Mts (by G. BARCZYK)
- Report on the history of exploration and exploitation of the Sudetan hard coals (by E. PIĄTEK)

Several lectures were delivered at sessions of various Polish scientific societies. Moreover, two were presented in Moscow at the 27<sup>th</sup> IGC: "On the reception of A. G. Werner's geological ideas in Poland" (by J. BABICZ) and "On the history of mineralogy at the Jagello University in Cracow" (by W. NARĘBSKI and A. GAWEL).

Several papers were published:

- On the Polish participation at the sessions of the International Geological Congress (in "Kwartalnik Geologiczny"), by E. RUHLE
- The 17<sup>th</sup> century theories of the Earth ("Kwartalnik Historii Nauki i Techniki"), by J. SKOCZYLAS

- History of the geological cartography of Polish towns (in vol. 3 of "Studies on the History of Cartography in Poland")
- The 18<sup>th</sup> century Ore Commission ("Studie Kieleckie", papers by D. MOLENDY et al.)
- Advances of research on the Permian basement in Wielkopolska (in the volume "Mineral prospects of the Wielkopolska part of the Central European Basin"), by W. GROCHOLSKI
- Concepts of oil exploration in the Wielkopolska and Kujawy regions prior to 1939 (ibid., by J. SKOCZYLAS). Several short radio broadcasts also were made, especially devoted to S. STASZIC, and popular lectures were held, among others on the Polish contribution to the reconnaissance of Siberia in the 19<sup>th</sup> century.

Documents and other objects stored in geohistorical collections were made use of for the exhibition on the 40-year results of mineral exploration in Poland. S. CZARNIECZKI prepared an exhibition on S. STASZIC (opened already in 1985, in the Museum of Lublin).

In December 1984, a scientific meeting was held in Kielce on the history of the exploration and mining of copper ores in the Holy Cross Mts region. (The Proceedings are in press.)

*Z. Wójcik—J. Babicz*

### **Spain (1974–1983)**

Since the INHIGEO Symposium held in Madrid (1974), interest in the history of geological sciences has been growing in Spain. For the time being, *the main groups are active in the towns of Madrid, Barcelona, Asturias and Zaragoza*. Publication activity is listed below. (All items have been published in Spanish).

#### *Madrid*

LOPEZ DE AZCONA J. M. Academician

- Spanish geology and mining . . . 102. p. 1974
- Uniforms of miners, 1777–1977, 22 p., 1977
- Instruction of mining knowledge in the Spanish world, 200 p., 1979
- The Potosi Academy and Theoretical-Practical School of Metallurgy, 1780–1980, 10 p., 1980
- The Elhuyar brothers, the discoverers of tungsten (1782–1783), 125 p., 1983



Edition of two series of biographies:

- prominent miners of the 18<sup>th</sup> century, started with that of H. C. KOEHLER (in "Revista Industria Minera")
- prominent miners of the 19<sup>th</sup> century, started with G. SCHULZ y SCHWEIZER (in "Boletín Geológico y Minero")

DEL VALLE MENÉNDEZ A. Academician

- Notes on transfer of technology in mining, 1976
- Historical review of the transfer of geological and mining knowledge between Almaden and Huancavelica, in connection with the creation of the School of Mines in Spain, 1978
- The beginnings of technically equipped mining engineering and its contribution to the advancement of science, 1982
- Two-century Spanish experience as a base for the future development of coal mining, 1982
- Introduction to the historical development of mining right, 76 p., 1983

ALASTRUE Y CASTILLO E. Professor

- The fruitful life of Don Lucas Mallada, 112 p., 1983

ROMEU DE ARMAS A. Academician

- The Royal School of Mineralogy in Madrid (1789–1808), 34 p., 1979

#### *Barcelona*

SOLÉ SABARIS L. Academician

- The roots of Spanish geology. 15 p., 1981
- The oldest geological maps of Spain. 12 p., 1983
- Historical development of geomorphological studies in the Spanish Pyrenees. 22 p., 1983

VIA BOADA L.

- Spanish participation in the birth of the International Geological Congress. 14. p. 1980

VALIS JULIA J.

- Dr. Jaime Almera Comas, the father of Catalonian geology. 168 p. 1982



GÓMES TEJEDOR J.

- Studies on regional geology in Vizcaya, prior to the 20<sup>th</sup> century. 580 p., 1983

*Zaragoza*

At the University there is a more than 100-member *Working Group on the History and Epistemology of Geology*, headed by L. SEQUEIROS SAN ROMÁN, Corresponding Member of INHIGEO.

SEQUEIROS SAN ROMÁN L.

- Lucas Mallada – centenary of a forgotten oeuvre. 9 p., 1978
- Production of Spanish scientific palaeontology in the 19<sup>th</sup> century: impact of modernity. 1982
- The biological evolution: history and texts for a debate. 68 p., 1983
- Historiography of Spanish geology: gaps and plans. 1983

ADARO RUIZ L.

- On ancient Asturian mining. 218 p., 1973
- Data and documents for the history of mining and industry in Asturia. vol. 1, 942 p., 1981
- Historical summary of the economic and mining industrial development of Asturia during the 18<sup>th</sup> and 19<sup>th</sup> centuries. 204 p., 1983

TRUYOLS J.

- The geological cartography of Asturia from Guillermo Schulz up to the present day. 29 p., 1978

*J. M. Lopez de Azcona*

**United Kingdom (1984)**

**Geology 150 years ago**

A meeting was held at the Geological Museum, London, on November 24 on the theme "*Geology 150 years ago*". Six speakers dealt with many aspects of the subject including the Cambrian–Silurian controversy, the use of fossils in stratigraphy, the Geological Survey's early mapping in Devon and DARWIN's voyage in the Beagle. 70 people attended the meeting, which included several lively discussions. A new storeroom for the Geological So-

ciety's archives was commissioned early in 1984. Temperature and humidity are controlled within narrow limits and dust and noxious gases are removed from incoming air. Exhibitions featuring William BUCKLAND (born 1784) and the early manuscript map of South Africa by A. G. BAIN were held in the Society's rooms during the year. (THACKRAY J. A. 1984: *The Archives of the Geological Society of London*. — *Earth Sciences History* 3.: 3–8).

The *Journal of the History of the Earth Sciences Society* broke into new ground in 1984 by devoting vol. 3, no.1 entirely to European (mainly British) geology and geologists. This issue was edited by Hugh S. TORRENS of Keele.

#### *Publications in 1984 by Hugh S. TORRENS*

- with T. G. VALLANCE: The Anglo-Australian Traveller Robert TOWNSON (1762–1827) and his map of Hungarian "Petrography" (1797) — Proc. of the 10<sup>th</sup> INHIGEO Symposium, Budapest 1984, p. 391–398
- with T. A. GETTY: Louis HUNTON (1814–1838) English pioneer in Ammonite Biostratigraphy. — *Earth Sciences History* 3, 58–68, 1984
- The History of Coal Prospecting in Britain 1650–1900. p. 88–95 in "Energie in der Geschichte". Papers presented to the 11<sup>th</sup> Symposium of ICOHTEC (*International Commission on the History of Technology*), Düsseldorf 1984.

## USA

### I. American Geophysical Union Committee on the History of Geophysics

#### 1. *Early geophysical data*

With a few exceptions the geophysical data base is short. It is mostly restricted to the period of instrumental records. But geophysical instruments are at most 350 years old. That short interval is but an eyewink in the history of the earth. We do have about that many years of sunspot observations and about 250 years of geomagnetic data. Meteorological instrumental observations reach back in a few places 200 to 300 years. Seismic data are less than 100 years old and ionospheric data are only available for about 60 years.

But even much of that information is not too well organized. It was late in the 19<sup>th</sup> century that systematic collection began and that data banks of global scope became established. For the time service it began after the *Washington 1884 Meridian Conference*. Latitude variations were not discovered until 1888, and led to the international collection of information on



this element by a Bureau established in Paris. This was followed by the *International Seismological Office in Strasbourg*. Even the records of the *First International Polar Years 1882/83* were not centrally collected. For the *Second Polar Year 1932/33* there is a data depository at Copenhagen, Denmark. It was not until the *International Geophysical Year (IGY) 1957/58* that permanent data centers were established as archives for geophysical observations made during the IGY (GERSON, 1958). These have fortunately continued to function and one can only hope that they will remain permanent repositories.

## 2. *Meetings Chairman*

Dr. Patrick TAYLOR  
Mail Code 622, Goddard Space Flight Centre,  
Greenbelt  
MD 20771  
USA

## 3. *British Challenger Expedition Letters*

A series of letters written by a crew member of the famous British *Challenger Expedition of 1872–76* has been donated to the archives at UCSD's Scripps Institution of Oceanography in La Jolla, CA.

The twenty-three letters, written by Joseph MATKIN, a steward's assistant on the nineteenth century voyage of discovery on H. M. S. CHALLENGER, are a gift on his granddaughter, Mrs Mary MATKIN STONE of DOWNEY, CA. The letters, together with eight additional letters recently acquired by the British Museum, are the only known surviving letters written by a CHALLENGER crew member.

"We are very fortunate to have received such a valuable resource for American scholars interested in the Challenger Expedition," said Scripps Director William A. NIERENBERG. "The letters give us a rare glimpse of shipboard life and the attitudes of theseamen who tended the sails and boilers and manned the dredges on this historic scientific voyage."

## 4. *History of Hydrology*

First Symposium was held in the autumn of 1984 on "*History of Hydrogeology: Earth Science Aspects*".



## II. History of the Earth Sciences Society

The journal of HESS had two thematic issues in 1984.

Volume 3 (1) concentrated on the history of geology in Europe (in fact, Great Britain and France), while vol. 3 (2) was largely devoted to the history of geology in Kansas.

## III. The geological Society of America – the History of Geology Division. (USHIGEO)

Officers for 1985–86:

The Division Nominating Committee, consisting of Donald McINTYRE (chair), Clifford M. NELSON, and Ellen T. DRAKE, has submitted the following names for officers:

Chairman

J. Thomas DUTRO Jr.  
USGS, E-501  
Museum of Natural History  
Washington, DC 20560

1st Vice-Chairman

William M. JORDAN  
Roddy Science Center  
Millersville State Univ.  
Millersville, PA 17551

2<sup>nd</sup> Vice-Chairman

Leo F. LaPORTE  
Earth Science Department  
University of California  
Santa Cruz, CA 95064

According to the Division's By-laws, Joseph GREGORY (Paleontology Department, University of California, Berkeley, CA 94720) serves on the Management Board as Past Chairman. Secretary-Treasurer Michele ALDRICH (AAAS, 1333 H Street NW, Washington, DC 20005) is on the second year of her twoyear term.

### *Award Committee*

At its May 3–4 1984 meeting, the Society's Council confirmed the Division's Award Committee's selection of Mary C. RABBITT (USGS, Reston) as the third recipient of the History of Geology Award.

### *Membership*

As of June 30 1984, the Division had 371 affiliates — 88 Fellows 73 Exempt Fellows, 5 Honorary Fellows, 166 Members, 5 Exempt Members, and 34 Student Associates — a net increase of 8 affiliates since June 30 1983.

### *Wilkes Expedition Exhibit*

The Smithsonian Institution, in cooperation with the Library of Congress and the U. S. Navy's Historical Center, is preparing "*American Science Comes of Age: The United States Exploring Expedition, 1838–1842*", an exhibit scheduled to open at the National Museum of Natural History in October 1985. This exhibit will focus on the professionalization of science in America, the Navy's scientific contributions, and the expedition's institutional legacy; see William STATON's (University of Pittsburgh) *The Great United States Exploring Expedition* (1975). After a year's showing at the MMNH, the exhibit will travel to other museums worldwide.

Yale's James Dwight DANA (1813–1895) served in Lt. Charles WILKES, scientific corps of seven as a geologist–mineralogist–zoologist. In 1833–1834, DANA had instructed midshipman in mathematics (and visited Vesuvius) during Mediterranean cruises in the ship-of-the-line Delaware and the frigate United States Margaret ROSSITER (Harvard University) analyzed the USEE influence on DANA and his contributions to its reports, especially his work on volcanoes and coral reefs in the Pacific, in her article on DANA's career in "*Benjamin SILLIMAN and His Circle*" (1979), edited by Leonard WILSON (University of Minnesota).

### *Directory of Women Historians of Science*

The *Women's Committee of the History of Science Society* is preparing a third edition of the *Directory of Women in the History of Science, Medicine, and Technology*: the Directory was first published in 1977 and revised in 1982.

Women interested in being listed in the Directory, or in updating existing entries, should request questionnaires from (and return them to) Alice STROUP, Department of History, Bard College, Annandale on Hudson, NY 12504; phone (914) 758-6822.

### *Meteorites*

John BURKE (Professor Emeritus, UCLA) is writing a history of the studies of meteorites from earliest times to the present. He is interested in



classification schemes, collecting activities, theories of origin, and chemical and mineralogical analyses. Persons who have citations to printed or unpublished literature to draw to his attention should write to Dr. BURKE at 90 Belvedere St., Port Townsend, WA 98368.

He recently edited *The Uses of Science in the Age of Newton*, published by the University of California Press 204 p. (1983. £ 22.50)

## USSR (1984)

### Activities of Prof. V. V. TIKHOMIROV, Vice President of INHIGEO

"During the year 1984, I was busy with the preparation of the 27<sup>th</sup> Session of the International Geological Congress. Being the scientific guide of Excursion N<sup>o</sup> 099 to sites connected with the development of geological knowledge (mainly the geological museums in Moscow, Leningrad and Petrozavodsk, and also the classical cross section of the Baltic Shield in Karelia), I took part in the writing of the Guidebook and accompanied the foreign scientists on the excursion.

As Convener of Section N<sup>o</sup> 21, *History of Geology*, I headed the preparation of 35 lectures on the themes:

- a) History of the sciences dealing with the material composition of rocks,
  - b) Development of the concepts on the deep structure of the Earth;
- moreover, of 28 lectures for the 11<sup>th</sup> *Symposium of INHIGEO on the History of Mineralogy*.

During the Congress (August 5–11) I was in charge of Section 21 and the Symposium on the History of Mineralogy, and also delivered a lecture about the factors characterizing the development of tectonics.

I attended the General Assembly of INHIGEO, where new members of the Commission were elected and its working plan till 1989 was discussed. I was elected Vice President of INHIGEO.

In 1984, I published 7 papers in various journals on problems of the history of geological knowledge and edited 3 volumes of contributions to the same topic."

V. V. Tikhomirov

### Activities of Yu. Ya. SOLOVIEV

During the past year I took part in the organization of Section 21, *History of Geology*, and the intersectional 11<sup>th</sup> *INHIGEO Symposium* for the 27<sup>th</sup> Session of the International Geological Congress, Moscow, August 1984.



I presented a lecture on "The comparative-lithological approach in the history of palaeogeography".

Working in the Geohistorical Laboratory of the Geological Institute of the USSR Academy of Sciences, I did research work in the field of the history of palaeogeography. Along with the fulfillment of the tasks fixed by the scientific plan, as time permits I also deal with the problems of organization of the history of geological knowledge in different regions of the USSR.

I am Vice president of the Commission of the USSR Academy of Sciences on the History of Geological Knowledge in general and of the USSR in particular, member of the board of the Soviet National Subcommittee on the History of Geology, member of the Historical Commission of the All-Union Mineralogical Society, member of the board of the Section for the History of Geological and Geographical Sciences of the Soviet National Association of the Historians of Sciences and Technology.

I published 8 papers and have 2 in press.

Published papers:

1. with TIKHOMIROV V. V.: On the 100<sup>th</sup> anniversary of A. E. FERSMAN's birth. — *Sovetskaya Geologiya* No 2, 116–118, 1983
2. with MALAKHOVA I. G. and ROMANOVA M. M.: The 3<sup>rd</sup> bilateral Symposium GDR–ČSSR on the history and methodology of geological sciences. — *Voprosy istorii estestvoznaniya i tekhniki*, N<sup>o</sup>3, 168–169, 1984
3. The international organization of the historians of geology. — *Izv. AN SSR, ser. geol.* 2; 136–140, 1984
4. on E. A. BASKOV's book "S. N. NIKITIN". — *Izv. AN SSR, ser. geol.* 5, 139–140, 1984
5. Retrospective analysis of the notion "actualism" in palaeogeography. — In "History of development of the philosophical–methodological ideas in the Earth Sciences", 3<sup>rd</sup> bilateral GDR–USSR symposium on the history and methodology of geological sciences, October 25–27 1983, Baku, p. 92–105, 1984
6. With several co-authors: V. E. KHAIN (on his 70<sup>th</sup> birthday). — *Izv. AN SSR, ser. geol.* 2.: 127–128, 1984
7. The comparative lithological approach in the history of palaeogeography. In the 8<sup>th</sup> vol. of ABSTRACTS, Sections 17 to 22 of the 27<sup>th</sup> IGC, in Russian and English, 467–468, Moscow 1984

In press:

1. with ROMANOVSKY S. I.: N. A. Golovkinsky's ideas in the solution of problems concerning stratification, stratigraphy, facies analysis, palaeogeography, geomorphology (on the occasion of the 150<sup>th</sup> anniversary of his birth). — Izv. AN SSSR, ser. geol.
2. Retrospective Analyse des Begriffs "Aktualismus" in der Palaeogeographie. — Ed. Academy of Sciences of the GDR, Berlin

*Yu. Ya. Soloviev*



## BOOK REVIEWS

(Annotations)

LEVITON A. E., RODDA P. U., YOCHDSON E., ALDRICH M. L. (eds.) 1982: *Frontiers of geological exploration of Western North America*. — San Francisco, Calif., 248 p, ISBN 0.934 394.03.2 (in English)

This volume contains 15 articles. They deal with the history of geology from a regional point of view. This is a further convincing proof of the remarkable upswing of research in the field of the history of geology in the USA in connection with the 100<sup>th</sup> anniversary of the United States Geological Survey (1879–1979). Due respect is paid to the pioneers of geological exploration of the Western North regions along the Pacific Coast and Alaska, and to the work of the Geological Survey in these areas. The volume contains biographical portrayals of C. KING, J. B. TRASK, Th. CONDON, I. C. RUSSELL and A. H. BROOKS. Further articles are devoted to the knowledge of metamorphic and Paleozoic rocks in those regions, Mesozoic and Cenozoic stratigraphy, Quaternary research, studies on volcanism, mineral deposits and cordillerian tectonics history.

The book deserves to be awarded a special place amongst the great number of publications on the history of regional geological research in the United States.

*M. Guntau*

### **Bechmark papers: Orogeny and Geosynclines**

Among recently issued Bechmark Papers in Geology, edited by Rhodes FAIRBRIDGE and published by Hutchison ROSS, are *Orogeny and Geosynclines: Concept and Place Within Plate Tectonics*.

*Orogeny* (vol. 62, 344 p., ISBN 0.87933.394.4, 1982, USD 46.00), edited (with commentary) by John DENNIS (California State University at Long Beach) contains "a selection of historically important writings on the causes and mechanisms of mountain building . . . from the mid-nineteenth century to 1972".

*Geosynclines* (vol. 64, 432 p., ISBN 0.87933.410.X, 1982, USD 52.00), edited by Frederic SCHWAB (Washington and Lee University), contains 46 papers which "trace the historical development of the geosyncline concept from mid-nineteenth century until the present, emphasizing how the concept

has been constantly reshaped and broadened to accommodate changing ideas and new observational data."

### **Jerome Cardan**

Helga NIMAN's translation of Markus FIERZ, "*Girolamo Cardano (1510–1576) (Physician, natural philosopher, mathematician, astrologer, interpreter of dreams)*" (Basel and Stuttgart, 1977) has been published by BIRKHÄUSER (202 p., ISBN 3.7643.3057.0 1973, USD 29.50), as one of its "*History of Science Classics*". It is available from Birkhauser Boston, Inc, m PO.Box 3005, Cambridge, MA 02139

CARDAN, who taught at Milan, Pavia, and Bologna before going to Rome in 1570, published "De Lapidibus" as a section of his "*De Subtilitate*" (Nuremberg, 1550; 1554, 1560). Bruno ACCORDI (of Rome University) translated pages 435–514 of CARDAN's work into Italian (*Geol. Romana*, 20.: 125–169) 1981.

### **Linné as a "geologist"**

The University of California Press, Berkeley, has published a translation from the Swedish of "*Linnaeus. The Man and His Work*" (288 p., ISBN 0.520.04568.8, 1983, USD 25.00), edited by Tore FRÄNGSMYR (Uppsala University) who also contributed "*Linnaeus as a geologist*" as one of the volume's four essays. FRÄNGSMYR "discusses some of Linnaeus' geological ideas within the context of the geological controversies of 18<sup>th</sup>-century Sweden and thereby makes sense of some of Linnaeus' lesser known . . . writings".

FRÄNGSMYR also has edited the first number (spring 1984) of the "*Uppsala Newsletter. History of Science*", which discussed recent events in Scandinavia.

### **Darwin as a geologist**

Sandra HERBERT (Princeton NJ) contributed "*Remembering Charles DARWIN as a Geologist*" to "*Charles DARWIN 1809–1882, a Centennial Commemorative*" (392 p., ISBN 0-7099-0759-1, 1983), ed. by Roger G. CHAPMAN and published by Croom Helm Ltd., Beckenham, Kent.

HERBERT considered "DARWIN's debt to geology and his contribution, as assessed in 1909 by contemporaries of DARWIN and LYELL, and in the light of present-day knowledge".



## Mapping Irish Geology

The Royal Dublin Society has published Gordon L. HERRIES-DAVIES' (University of Dublin) "*Sheets of Many Colors. The Mapping of Ireland's Rocks 1750–1890*" (242 p., ISBN 0.86027.014.9, 1983, IRP 15).

DAVIES' narrative keys on the work of the Geological Survey of Ireland and the contributions of many geologists from William Hellier BAILY to Andrew Crombie RAMSAY.

GREENE J. C.: *American science in the age of Jefferson*. — The Iowa State University Press AMES 1984, 484 p., ISBN 0.8138.0101 (in English)

In this comprehensive work on natural sciences in the United States in the age of Thomas JEFFERSON (1743–1826), J. C. GREENE also provides an instructive picture of the achievements made in the fields of geography (p. 118–217), geology (p. 218–252) and palaeontology (p. 277–319), the latter being part of the chapter devoted to zoology. Especially in chapter 9 "*From the Theory of the Earth to Earth Science*" the author clearly brings out important facts about how mineralogy and geology began and developed independently in America, partly under European influence. He refers to the great influence exerted by W. MACLURE (1763–1840) who spread the ideas of the Freiberg mineralogist and geologist A. G. WERNER in America.

The book is particularly important due to the parallel presentation of the historical development of astronomy, earth science, chemistry, botany, zoology, anthropology, archaeology and comparative linguistics. The reader gains a good insight into the development of natural history in the period of the American Enlightenment. GREENE's book is an important contribution to the overcoming of Eurocentrism in the history of science at the transition from the 18<sup>th</sup> to the 19<sup>th</sup> century.

*M. Guntau*

DUDICH E. (ed.) 1984: *Contributions to the History of Geological Mapping. Proceedings of the Xth INHIGEO Symposium, August 16–22 1982, Budapest, Hungary*. 442. p, Akadémiai Kiadó, Budapest, ISBN 963.05.3616.1 (in English)

This volume contains altogether 65 contributions (41 full papers and 24 abstracts) sent for the INHIGEO Symposium on the "*Development of Geological Mapping and Geocartography in Connection with Progress in Geological Thought*", held in 1982. With this collection of papers the scientific develop-

ment in this important field of geological research in history gets a detailed representation and proper acknowledgement.

Thematically, the papers can be classed into four groups: 1. The main trends of development of geological maps (12), 2. The history of the geological mapping of different countries and regions (21), 3. The birth and characteristic features of special-purpose applied geological maps (23), 4. The role and activity of outstanding personalities in the development of geological mapping (8).

In most papers the authors present their ideas and knowledge about the various topics in a condensed form supplemented by numerous illustrations and references.

The main part of the book is devoted to the development of geological mapping in Europe. Unfortunately, the great experience of geologists from America is totally under-represented in this volume, due to the small number of contributions (G. L. FRANCO, Cuba; J. C. GREENE, USA).

The editor thoroughly prepared the great number of papers for publication with the aid of the Publishing House of the Hungarian Academy of Sciences, and succeeded in bringing it out a few months before the 27<sup>th</sup> Session of the IGC in Moscow and the XI<sup>th</sup> INHIGEO Symposium joined to it.

There has been no book so far describing the history of geological mapping in comparable size and quality. Hence it is an important contribution to the achievement of the goals of INHIGEO.

*M. Guntau*

GUNTAU M. 1984: *Abraham Gottlob Werner. (Biographies of prominent scientists, engineers and physicians, vol. 75)*. Leipzig, BSG B. G. Teubner Verlagsgesellschaft, 120 p. 12 fig. (in German).

Prof. M. GUNTAU (Rostock) presents in six chapters the life and oeuvre of A. G. WERNER (1749–1817), his 40-year work at the Freiberg College of Mines (founded 1765), his geological and mineralogical works and his ideas about the world. The author relied upon the abundant international literature on WERNER and on the thorough evaluation of WERNER's heritage comprising more than 80 volumes of manuscripts. He succeeded in fitting WERNER into the contemporary context of Enlightenment and capitalist development in Germany at the turn of the 18<sup>th</sup> and 19<sup>th</sup> centuries. M. GUNTAU takes into consideration not only WERNER's scientific achievements, but also points out their connections with his ideas about the world



and society in general and about the social development of Saxony in particular.

A life chronology of A. G. WERNER, a comprehensive list of references selected with much care, and a register of persons are added to this remarkable work warmly recommended to everybody interested.

*E. Fabian*

VELDKAMP J. 1984: *History of geophysical research in the Netherlands and its former Overseas Territories*. (Verhandelingen Koninklijke Nederlandse Akademie van Wetenschappen, afd. Natuurkunde 1st series, deel 32). 139 p, 54 fig., North Holland Publ. Cy. Amsterdam—Oxford—New York

This is a more elaborate version in English of a work in the Dutch language reviewed in NEWSLETTER 16, p. 56. It gives an excellent survey of mainly 20th-century research on geomagnetism, seismology, etc., performed in the Netherlands and the Netherlands East Indies (now Indonesia) and the Netherlands West Indies (the Netherlands Antilles and Netherlands Guyana, now Surinam).

In the preface the author reminds us that the 22<sup>nd</sup> Session of the International Geological Congress at New Delhi (1964) led to the foundation of INHIGEO, which stimulated the foundation of the Netherlands Academy Commission on the History of Geological Sciences, which invited him to write this book.

In particular the research performed by Vening MEINESZ in the Malaysian Archipelago and that by other Netherlanders in the Caribbean as well as that on geomagnetism are of great importance. (In the Netherlands geophysics is fully recognized as part of the geological sciences.)

*R. Hooykaas*

D. C. WARD & A. V. CAROZZI, 1984: *Geology emerging. A catalogue illustrating the history of geology (1500–1850) from a Collection in the Library of the University of Illinois, at Urbana-Champaign*. 565 p., 107 pl. Available from the Graduate School of Library & Info. Science Publications off., 249 Armory Bldg, 505 E. Armory Street, Champaign, IL 61820, USD 35.00

The Geology Librarian and the Professor of Geology at the University of Illinois have compiled a catalogue of the large collection of early books on geology and mineralogy owned by their university. Books in natural history, travelling, theology etc. containing also geological theories and conceptions

have been included. Later works of geologists whose productive period was before 1850 as well as post-1850 editions of works written before that limiting year are also inserted. Moreover, a small group of journal articles marking the first introduction of fundamental concepts also found place in the catalogue. This judicious method of collecting makes the book highly instructive.

In the Introduction (p. 4–32) an illuminating guide helps one to find the way among the 2380 items listed. The high degree of completeness of the Urbana University Library is astonishing.

Perhaps the most striking feature of the book is represented by the 107 full-page reproductions of title pages, which the authors felt that readers might like to see as "*indicative of the intellectual climate of the times*". The Present reviews, at least, fully agrees with this viewpoint. We may add that the publication has been made possible through the generosity of Mildred and the late George WHITE, whose dedication to the historiography of geology (as well as their personal amiability) are remembered by all those who attended the earlier INHIGEO meetings.

*R. Hooykaas*



## INFORMATION

*Short biographies of new INHIGEO members elected in 1984*  
are available from the Secretary General upon request

### *Full Member*

Switzerland                      Masson H.

### *Corresponding Members*

China	Wen Guang
France	Gohau G. G. R. M. Laurent G.
GDR	Fabian E.
Israel	Ginzburg D.
Italy	Accordi B. (not complete) Morello N.
Spain	Sequeiros L.
Switzerland	Trümpy R.
United Kingdom	Torrens H. S.
USA	Bork K. B. Brush St. G. Dott R. H. Jr. Gregory J. T. Hazen R. M. Rabbitt M. C. Taylor K. L.
USSR	Mekhtiev Sh. F. Romanovsky S. I.

### **Prize "Eugene Wegmann" to Professor F. Ellenberger**

The Geological Society of France decided to found a Prize named after E. WEGMANN, dedicated to the History of Geology.

Prof. F. ELLENBERGER was the first to be awarded this prize. As J. GOGUEL put it in the Bull. Soc. géol. France 1984, N°4, there could have been no doubt about the first laureate of the Eugene WEGMANN Prize. Prof. ELLENBERGER is, among others, corresponding member of INHIGEO,

founder and "animateur" of the "*Commission française de l'histoire de la géologie*" (COFRHIGEO), organizer of the geo-historical excursion to the volcanic landscape of Auvergne during the 26th Session of the International Geological Congress (Paris 1980), eminent historian of French geological cartography.

On behalf of the Board and all members of INHIGEO, we send him here-with our hearty congratulations on this occasion.

G. Y. CRAIG—E. DUDICH



## FORTHCOMING EVENTS

### History of Sedimentology

#### *Canberra, Australia*

August 24–30 1986

International Sedimentological Congress including an INHIGEO-sponsored session on "*Sedimentology – the historical and philosophical perspective*".

For further details write to

Dr. B. J. COOPER  
Geoscience History Group  
c/o SA Department of Mines and Energy  
P.O. Box 151  
Eastwood  
South Australia 5063, Australia

#### *Pisa, Italy*

September 1987

It has been proposed to held the 13<sup>th</sup> Symposium of INHIGEO in Pisa. The provisional title of the Symposium is "*Rocks, Fossils and History*", covering the topics of the history of palaeontology and stratigraphy.

Details will follow the final agreement.

## ADDRESS CHANGES AND AMENDMENTS

### *Full members*

Dr. Ursula B. Marvin  
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X



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