



INTERNATIONAL COMMISSION ON THE HISTORY OF GEOLOGICAL SCIENCES (INHIGEO)

PRESIDENT: Assoc. Prof. Barry Cooper Email: barry.cooper@unisa.edu.au
SECRETARY-GENERAL: Ao. Univ.-Prof. Marianne Klemun Email: marianne.klemun@univie.ac.at
EDITOR: Professor William R. Brice (USA) Email: wbrice@pitt.edu

INHIGEO QUARTERLY CIRCULAR 2017, Number 3, September

Dear members and friends,

Welcome to our September 2017 Circular. We are now rapidly approaching our 2017 Annual Conference to be held in Yerevan (Armenia) where we will have about 40 contributions to different topics on the history of earth sciences. We will celebrate the 50th anniversary of INHIGEO. I am delighted to announce that the opening ceremony will include the launching of **our anniversary book - History of Geoscience: Celebrating 50 Years of INHIGEO**; edited by W. Mayer, R.M. Clary, L.F. Azuela, T.S. Mota and S. Wolkowicz (*Geological Society London Special Publications, Series*, London, 2017) at. Our business meeting will take place at the end of the conference on September 15.

Wolf Mayer, who will not be able to attend the meeting for family reasons, will be honoured as honorary senior member on this occasion. Wolf's contributions to the INHIGEO as well as his patient efforts as editor of the annual record and of our anniversary publication are well known to everyone. The board members decided that all these are reasons enough to add him to the roll of honour of our association. Congratulation Wolf and very many thanks for your tremendous work on behalf of INHIGEO.

It is that time of the year to bring INHIGEO members up to date with our plans for the future. **Our next INHIGEO Annual Conference will take place in Mexico City, Mexico, 12-22 November 2018.** Board member Luz Fernanda Azuela as main organiser of this event deserves our thanks and appreciation! The First Circular for our 2018 conference was sent out in August. Our Mexican colleagues will be pleased to receive an **expression of interest as soon as possible (by 15 December 2017 at the latest).** Please return your "expression of interest" to inhigeo@igg.unam.mx

Best wishes to all of you
Marianne Klemun
Secretary General of the INHIGEO

UPCOMING CONFERENCES

MEXICO, INTERNATIONAL COMMISSION ON THE HISTORY OF GEOLOGICAL SCIENCES, 43rd CONFERENCE, 2018

The Mexican Delegation of the International Commission on the History of Geological Sciences is delighted to extend you an invitation to attend to our 43rd INHIGEO Conference, to be held at the **Palace of Mining** in Mexico City, from **November 12th to November 22nd**, 2018.

In a separate document we attached the form “Expression of Interest”, that we request you to fill and return before December 15th, 2017, to inhigeo@igg.unam.mx

CONFERENCE THEMES

- History of vulcanological studies
- Humboldt's influence in earth sciences
- Werner's neptunists in America
- History of mining and oil research
- General contributions on the history of Geology

IMPORTANT DATES:

- December 15th, 2017, deadline for “Expression of Interest” for Conference and Post-Conference trip
- April 15th, 2018, deadline for abstract submission
- May 18th, 2018, notification of acceptance and 2nd Circular
- July 15th, 2018, closure of early bird registration for Conference, Post- Meeting trip, and accompanying participant´s registration
- Registration fees for Conference and Post-Conference trip after July 15th, will be 450 US dollars, and 300 US dollars for accompanying participants.

42nd INHIGEO SYMPOSIUM - YEREVAN, ARMENIA, 12-18 SEPTEMBER 2017

This conference will commemorate the 50th Anniversary of the founding of INHIGEO. It is organised by the Armenian Institute of Geological Sciences and Armenian National Academy of Sciences. A website is available <http://inhigeo2017.geology.am/>
The conference will be held at the Armenian National Academy of Sciences in Yerevan, where the first meeting of INHIGEO was held in 1967.

CONFERENCE PROGRAM (PRELIMINARY VERSION)

**13-15 September, ROUND HALL OF PRESIDIUUM OF THE NATIONAL ACADEMY
OF SCIENCES OF THE REPUBLIC OF ARMENIA
13 SEPTEMBER**

08:00-09:00 REGISTRATION

09:00-10:30 Introduction and Welcome address by

Prime Minister of Armenia, Karen Karapetyan

President of the National Academy of Sciences of Armenia, Academician Radik Martirosyan

Academician of the National Academy of Sciences of Armenia, head of INHIGEO-2017
Organizing Committee, Academician Ruben Jrbashyan

President of INHIGEO, Associate Prof. Barry Cooper

(Presentation: The beginnings of INHIGEO)

Head of Department for the History of Geology of Geological Institute of the Russian
Academy of Sciences, Dr. Irena Malakhova

**10.30 -11.00 Anniversary book launch - History of Geoscience: Celebrating 50 Years of
INHIGEO; Edited by W. Mayer, R.M. Clary, L.F. Azuela, T.S. Mota and S. Wolkowicz
(Geological Society London Special Publications, Series, London, 2017)**

Master of Ceremonies: Barry Cooper (President of INHIGEO)

Marianne Klemun (Secretary General of INHIGEO) - History of Geology and History of
Science in a global frame

Presenter of the book: Teresa Salome Mota -The INHIGEO 50th Anniversary Volume:
a Post-Scriptum

11:00-11:30 Coffee break

Session I

11:30-11:50 G. Malkhasyan. Edward Malkhasyan - the first INHIGEO member in Armenia

11:50-12:10 Kh. Meliksetian. Prehistoric use of copper ores and obsidian in the southern Caucasus

12:10-12:30 A. Piliposyan. *Kh. Meliksetian, A. Zaqyan, D. Berger, E. Pernicka.* Tranzit trade
of tin in ancient Near East in Bronze Age and Armenian Highland

12:30-12:50 A. Avagyan, L.Sahakyan, M.Martirosyan, T.Atalyan, A. Hayrapetyan.

Palaeoseismological evidences of strong earthquake repetition in Shirak basin

12:50-13:50 Lunch break

Session II

13:50-14:10 G. Gabrielyants, V. Poroskun. The history of scientific foundations of oil exploration
(battle of ideas, theories and concepts)

14:10-14:30 R. Jrbashyan, G. Khomizuri. History of geological knowledge in the works of medieval
Armenian authors

14:30-14:50 R. Melkonyan. Institute of Geological Sciences of the NAS of the RA in the history of
geology in Armenia

14:50-15:10 A. Avanesyan. An overview of the history of geological mapping in Armenia

- 15:10-15:30 H. Melik-Adamyán.** Research in the Crimea, the Caucasus and Armenia by Armenian geologist N. I. Karakash
- 15:30-15:50 G. Grigoryan, S. Avagyan.** The role of geological museum after Hovhannes Karapetyan of IGS NAS RA in the history of geology
- 15:50-16:10 A. Grigoryan, H. Melik-Adamyán.** Contribution of European paleontologists to the study of Paleozoic deposits of the Armenian Highlands (XIXc)
- 16:10-16:30 K. Vardanyan, G. Hovsepyan.** The history of Geological Survey of the Republic of Armenia

16:30-17:00 Coffee break

Session III

- 17:00-17:20 E. Vaccari.** Between insiders and outsiders: INHIGEO and the history of geology in Italy
- 17:20-17:40 M. Yajima.** Geological and Palaeontological Studies by Teiichi Kobayashi (1901-1997)
- 17:40-18:00 C. Cohen.** Deluge, Diluvialists and Diluvium in early Geology, From Leibniz to Cuvier and beyond
- 18:00-18:20 E. Hamm.** Mountains, Romantics, Geology
- 18:20-18:40 G. Godard.** The Accademia dei Lincei and the early geology around the year 1630
- 18:40-19:00 I. Malakhova.** Some features of the history of geology in Russia

14 SEPTEMBER

Session IV

- 09:00-09:20 J. Zhang.** The Localization of modern geology in China: A case study of Chinese geological journals (1919 to 1948)
- 09:20-09:40 J. Mattes.** Between the Organic and Inorganic: Concepts of an Animated Earth in The Debates on Cave Minerals in Early Modern Europe
- 09:40-10:00 L. Liang.** The Formation, Dissemination and its Backgrounds of the Theory “the Climatic Aridity in Northern China and the Sands trending Southward” (1870-1949)
- 10:00-10:20 L. Azuela, R. A. Vega.** Geology in the public sphere in Mexico (1840-1876)
- 10:20-10:40 M. Klemun.** How the Caucasus became ‘our’ Caucasus: from geology to alpinism

10:40-11:10 Coffee break

Session V

- 11:10-11:30 M. Povarennykh.** Changeover of mineralogical paradigms during the 350-year period of the existence of mineralogy as a science
- 11:30-11:50 P. Richet.** 1751-1798: The sudden beginnings of volcanology
- 11:50-12:10 P. Konečný.** Between Cameralism and Natural Science: Wernerian Geognosy and Exploration of Mineral Resources in Hungarian Mining Administration during the first half of the 19th Century
- 12:10-12:30 R. Clary, T. Sharpe.** The furthest end of the earth: The role of geological research in Antarctic exploration, 1895-1922

12:30-13:30 Lunch break

Session VI

- 13:30-13:50 S. Wołkowicz, K. Wołkowicz, M. Graniczny, H. Urban.** Evolution of geological map of Poland in the 19th century
- 13:50-14:10 S. Rowland.** Mikhail Lomonosov’s unusual mid-eighteenth-century view on the beneficent effect of earthquakes on human civilization
- 14:10-14:30 A. Kazarian.** The challenge of geochemical earthquake prediction- History of the problem

14:30-15:00 Coffee break

Session VII

- 15:00-15:20 Kh.El Ghalbi.** Emerald mines in the Arab–Islamic heritage. Unknown texts in modern writing of mining history

- 15:20-15:40 M. Adiuku-Brown, O. Adiuku-Brown.** The impact of ancient knowledge of stones and metals on Africa
- 15:40-16:00 R. Schwab, Kh. Meliksetian, S. Kraus, E. Pernicka.** Extraordinary arsenic-rich alloys used for jewellery in Bronze Age Armenia
- 16:00-16:20 A. Rideaud, B. Helly.** Ancient Buildings and Seismic Cultures: The cases in Armenia
- 16:20-16:40 C. Guerra.** The Dog's Grotto: Geological inquiries for a mysterious gas (18th-19th centuries)
- 16:40-17:00 A. Carneiro, P. Urze.** Nery Delgado (1835-1908): The diplomatic dimension of a geologist's career
- 17:00-17:20 A. Wojcik.** Aleksander Michalski (1855-1904) and his contribution to the development of the geological map of European Russia (1892)
- 17:20-17:40 B. Cooper, J. Jago.** Robert Bedford (1874-1951): A unique contributor to international geology from the Australian outback
- 17:40-18:00 D. Sack.** C.A.M. king, pioneering (woman) geomorphologist
- 18:00-18:20 E. Minina.** The Abamelek-Lazarevs and ural platinum
- 18:20-18:40 H. Urban, M. Graniczny, K. Wolkowicz, S. Wolkowicz.** Professor Edward Rühle (1905 – 1988), creator of the Polish modern geological cartography
- 18:40-19:00 J. Yin.** Professor Qiusheng Zhang (In Memory of the 30th Anniversary of His Passing)

15 SEPTEMBER

Session VIII

- 09:00-09:20 J. Diemer.** Fossils, maps, museums and collaboration: keys to success in Murchison's 1845 field campaign in Sweden.
- 09:20-09:40 K. Wolkowicz, M. Graniczny, S. Wolkowicz, H. Urban.** Splendors and shadows which is about the life of Jan Wyżykowski (1917 – 1976) and the discovery of the “great copper” in Poland
- 09:40-10:00 L. Kolbantsev.** Vladimir Lodochnikov and Russian Petrographic Schools
- 10:00-10:20 M. Napolitani.** Building Earth Sciences through Mineral Collections. The Mineralogy Museum of the Parisian École des Mines, from the Curiosity Cabinet to the Science Museum (1783-1803)
- 10:20-10:40 M. Pantaloni, F. Console, F. M. Petti.** On the trail of Hermann Abich in Italy: a journey through the Italian volcanoes
- 10:40- 11:00 M. M. Lopes.** Contributions to marine geology in Brazil: the works of Orville Adalbert Derby (1851-1915), Richard Rathbun (1852-1918) and John Casper Branner (1851-1922)

11:00-11:30 Coffee break

Session IX

- 11:30-11:50 M. Kölbl-Ebert.** Closing the iron curtain: How geologists in Germany experienced the beginnings of the Cold War era
- 11:50-12:10 N. Bryanchaninova, I. Vtorov, A. Makeyev.** Transcaucasian academic expedition (1927-1930) led by F. Loewinson-Lessing
- 12:10-12:30 Ph. Taquet.** Joseph Pentland and Georges Cuvier: A French - British Entente cordiale
- 12:30-12:50 Sh. Master.** South African geologist Alex L. Du Toit, pioneer of continental drift, in the Caucasus (17th IGC, July, 1937) - diaries and photographs of an excursion

12:50-13:50 Lunch break

Session X

- 13:50-14:10 S. Figueirôa.** A ‘Hidden figure’: Oscar Nerval De Gouvêa (1856-1915), Mineralogy & Medicine in Brazil

14:10-14:30 S. Nathan. James Hector (1834-1907) and the birth of the New Zealand geological survey

14:30-14:50 T. Ivanova, E. Poludetkina. Academician Sergey Sergeevich Smirnov – outstanding Soviet geologist and mineralogist

14:50-15:20 Coffee break

Session XI

15:20-15:40 T. Salome Mota. Francisco Luís Pereira de Sousa (1870—1931): the scientific life of a ‘everyday man of science’ in Portugal in the beginning of the 20th century

15:40-16:00 T. Yamada. The meaning of museums: The background of the geologist Teiichi Kobayashi’s ‘geoscience’ conception in the 1940s

16:00-16:20 Z. Bessudnova. The heritage of the author of the first Russian monograph on the history of geology Grigory E. Shchurovsky in the collections of Vernadsky State Geological Museum

16:20-18:00 POSTER SESSION

E. Matvienko, A. Alekseev, M. Povarenykh. Problems of restoration of cultural heritage monuments from the point of view of a geologist

G. Grigoryan, G. Khomizuri, M. Misakyan. L. A. Spendiarov Prize

Gh. Galoyan. History of geological studies of Mesozoic ophiolites of the Lesser Caucasus (Armenia, Karabakh)

H. Hovakimyan. Historical overview of diatom records from Sisianpalaolake (Armenia)

H. Melik-Adamyanyan, Kh. Khachanov. Initial stages of mining and geological studies of the ancient Armenian region of Artsakh

I. Malakhova, I. Vtorov. It began with Yerevan

L. Kolbantsev, Z. Bessudnova, Personalities of INHIGEO: from Madrid (2010) to Cape Town (2016)

M. Martirosyan, A. Avagyan, A. Karakhanyan, S. Vardanyan, S. Balasanyan, T. Grigoryan. Paleoseismological studies of the eastern part of Karkar-Tsghuk pull-apart of Pambak-Sevan-Syunik active fault

R. Melkonyan, L. Atayan. The outstanding mineralogist and petrologist Vladimir Nikita Lodochnikov (Vardan Mkrtych Gayakchyan)

S. Vardanyan, R. Mirijanyan, H. Hovakimyan. Interpretations of geological structures of Vedi - Yeghegnadzor area over the past century

Sh. Master. Geomorphological theory in 10th century Basra (Iraq): The epistles of the brethren of purity (Ikhwan Al-Safa), in geographical context

M. Graniczny, S. Wolkowicz, H. Urban, K. Wolkowicz. Jan Samsonowicz (1888 – 1959) outstanding Polish explorer and educator of the several generations of geologists

T. Atalyan, A. Avagyan, D. Arakelyan, M. Martirosyan. Geological impact on St. Hovhannes Karapet Monastery

18:00 INHIGEO business meeting

20:00 Conference dinner at Pandok Yerevan Restaurant

INHIGEO SYMPOSIA 2019-2021

INHIGEO Annual Conferences for this period are scheduled as follows.

- 2018 – 43rd INHIGEO Conference, 12-22 November, Mexico City
- 2019 – 44th INHIGEO Symposium Como/Varese, Italy
- 2020 – 45th INHIGEO Symposium New Delhi, India (in association with the 36th International Geological Congress) 2-8 March 2020
 1. History of Museums and Collecting Practices
 2. Colonial Geology

3. Textbooks and Handbooks of the History of Geology
 4. Enlightenment, Earth Sciences and Travels
 5. General Contributions to the History of Geology
- 2021 – 46th INHIGEO Symposium, Poland

IUHPST/DHST Topics (International Union of History and Philosophy of Science and Technology) / (Division of History of Science and Technology)

The General Assembly of IUHPST/DHST took place on two days of the congress. I attended the assembly as a representative of the INHIGEO.

Barry Cooper was approved by the assembly as our new president.

The nomination for **Greg Good as assessor** was successful. He got the majority of votes and is now one of six assessors. Congratulations to Greg and best wishes to him in his new function!

We have now closer ties to the IUHPST/DHST than ever before.

Congress

The 25th INTERNATIONAL CONGRESS ON THE HISTORY OF SCIENCE AND TECHNOLOGY (25ICHST) – RIO DE JANEIRO (BRAZIL), took place in 23-29 July 2017 on the Praia Vermelha campus of the Federal University of Rio de Janeiro (UFRJ). The overall conference theme was “Science, Technology and Medicine between the Global and the Local”(website is <http://www.ichst2017.sbhc.org.br/>)

INHIGEO-Members presented two symposia at this congress and both of them were very successful.

“Black Gold”: History, Exploration & Exploitation of Oil and Gas in National and International Contexts”. Convenors were Silvia F. de M Figueirôa, Brian Frehner, Drielli Peyerl and Gregory Good.

Abstract:

The goal of this symposium is to gather researchers to discuss different scientific and technological aspects of the history of the oil and gas industry. The search for oil began in the nineteenth century with the first drills made in Azerbaijan and in the United States. This intense search for a substance that would be one of the most important energy sources, was, many times, based on skill as well as luck, resulting in knowledge and in the development of prospecting and exploration technologies. The increasing demand for oil generated greater expertise in geological science, in other areas such as micropaleontology, stratigraphy or sedimentology and informed other disciplines such as geophysics and geochemistry. These contributions made possible not only the discovery of new oil fields but also new applications and methods of exploration. Unquestionably, beyond the exclusively scientific and technological aspects, an industry that grew to such size impacted with the political, economic, social, cultural, environmental and diplomatic aspects of history. This session aims to discuss such transformations in different scales, from local to global, and to expand the field of knowledge by among colleagues from different countries, areas and with different approaches.

Maria Margaret Lopes (Universidade de Brasília): *Petroleum and Alcohol: new energy perspectives for Brazil in 1922 -*

Marianne Klemun (Department for History, University of Vienna): *From Local to Global: The Petroleum Geologist Hans Höfer von Heimhalt between Empires, Economies and Epistemologies -*

Brian Frehner (University of Missouri, Kansas City): *Seismic Prospecting in North America –*

Silvia Fernanda de Mendonça Figueirôa (University of Campinas - UNICAMP), Julia Chinellato Tulimoski de Oliveira (ARANZ Geo Limited): *The history of oil exploration in the State of São Paulo before the foundation of Petrobras (1872-1953)*.
Gregory Good (American Institute of Physics): *Rutherford's Practical Geophysicists: Patrick MS Blackett and Teddy Bullard, Reconsidered* –
Drielli Peyerl (Unicamp) *Technique and exploration: the beginning of micropaleontology in brazilian oil industry* –

"Multiple Spaces: Mapping Communication via Letters between Naturalists and Geologists".
Convenors are Marianne Klemun and Johannes Mattes.

Abstract:

Hardly any medium is as functional for the communication between naturalists than the exchange of letters. Since early modern times it allowed for complex interactions between various producers of knowledge. Serving as a form of spatial mobility, correspondence accelerated exchange by establishing cultures of understanding and linking concepts of different contexts. For decades, historical research has examined these networks, subsuming them under the term “network society”. Especially, systemic processes such as the transfer and aggregation of knowledge became visible through the study of relationships in these networks.

Contrary to the assumption of recent research that social systems generally suppress the relevance of space between the intersections of learned networks, our session addresses the spatial aspects of these relationships, so far simply defined as a “vacuum” between (sub)centers of scientific research. According to Bourdieu’s concept of the social acquisition of space, these layers are determined by practices that map the correspondents’ fictional topography. Only through the distribution of meaning primarily undefined spaces become real and physically objectified.

In this context, it is assumed that the real and fictional topographical aspects of letter-based communication consist of different dimensions. 1) Firstly, communication always takes place in specific geographical settings. In particular during travels, the naturalists or geologists were used to appropriate these areas and related them to each other through correspondence. Analyzing these settings, spatial structures of activities, which map the dominance of specific places, become visible. 2) Furthermore, spatial settings can also be established through social practices related to a real topography. It makes quite a difference which fields of knowledge develop a network of communication. Contacts between scholarly institutions, which channeled social space and established self-related spatial references between countries and even continents, are another interesting aspect. 3) In addition, letter-based communication is also used to reflect the spatial multi-dimensionality of its medium. For example, letters between two scholars can negotiate the dimensions of closeness and distance in their personal interaction. 4) Finally, the spatial references of correspondences are overlaid by symbolic connoted dimensions that are related to the exchanged epistemic objects, artifacts and topographically determined pools of knowledge. For instance, language barriers can also be understood in a symbolic-spatial sense.

All in all, our session addresses topographical aspects that cannot be clearly defined in regional, national, global or physical-geographical terms. In particular, it is necessary to analyze the complex dimensions of overlying spatial settings or semantic references.

Francesco Luzzini (Max Planck Institute for the History of Science): *Antonio Vallisneri (1661-1730) and the Rise of Naturalistic Experimentalism. A European Debate*.

Johannes Mattes (Department of History, University of Vienna) *Mapping Narratives, Making Politics: Discourses on Space and Identity in the Correspondence of the Serbian Geoscientist Jovan Cvijić* -

Ezio Vaccari (University of Insubria): *Geological correspondences in an 18th century scientific journal: the Giornale d'Italia (1764-1796)*

Marina Loskutova (National Research University -Higher School of Economics, St. Petersburg)- *St. Petersburg Academy of Sciences, its correspondents and the production of space of the Russiaempire in the 1760s-1790*

Kurt Schmutzer *d: Fragments of distant lands: Johann Natterers Letters from Brazil, 1817-1835.* -

Toshihiro Yamada (University of Tokyo): *Multi-layered Mapping in the Memory of Japanese Geologists at their Colonial Settings* -

Katalin Straner (European University Institute) *Science in Exile: Natural History and the Hungarian Emigration Network in Correspondence 1849-1867* –

Comment to all three sessions by Marcelo Fabián Figueroa

INHIGEO BUSINESS MEETING, YEREVAN, ARMENIA– PROVISIONAL AGENDA

(September 15, 18.00, Academy of Sciences of the Republic of Armenia)

1. Welcome
2. Regrets/Apologies
3. Arrangement of the Agenda (requests for modification)
4. Minutes of the Previous Meeting, Cape Town, South Africa (2016)
5. Discussion / Matters arising
6. President's Report
7. Discussion / Matters arising
8. Secretary-General's Report
9. Discussion / Matters arising
10. Editor's Report
11. Discussion / Matters arising from the Editor's Report
12. IUGS Topics
Contributions to "Episodes"
Report from our *Episodes* Coordinator, Karen Cook.
13. IUHPST/DHST Topics (International Union of History and Philosophy of Science and Technology) / (Division of History of Science and Technology)
14. Future Meetings of the Commission
15. Finalization of 2017 Ballot.
16. Vote of thanks to our hosts.