

News at a Glance

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1. News from the International Commission on Stratigraphy (ICS)

The International Commission on Stratigraphy continues to define and refine the Geological Time Scale. The International Chronostratigraphic Chart includes a number of "gold spikes" where stage boundaries have been voted with at least a 60% majority by a subcommission and by the commission, and ratified by the executive committee of IUGS. The defining levels for these boundaries are referred to as a Global Stratotype Section and Point and represent the one place in the world where you can point with certainty at a time boundary. Everywhere else, we correlate this level with some degree of uncertainty. Considerable effort is required from many geoscientists to arrive at these decisions and therefore a ratified GSSP is celebrated. In this issue, ICS is pleased to announce important progress by the Subcommission on Cretaceous Stratigraphy. First, a proposal to define the base-Valanginian Stage (Lower Cretaceous Series) at 19.23 metres within the Vergol Section near Montbrun-les-Bains, Drôme, France recently received a unanimous positive vote by ICS voting members. The proposal was prepared by a long list of researchers led by Stéphane Reboulet (Univ. Lyon, France) and Miguel Company (Univ. de Granada, Spain). The proposal has been forwarded to the IUGS Executive Committee for ratification. Secondly, a ratified GSSP for the base-Barremian Stage (Lower Cretaceous) was celebrated on Saturday November 9th (photos below) at the Rio Argos section at Caravaca de la Cruz, Murcia Province, Spain. A presentation was made at the auditorium of the Caravaca de la Cruz House of Culture. This was followed by the "gold spike" ceremony along the Argos River near the El Molino del Rio Inn.



Figure a. From left to right; Miguel Company (local organizer and Chair of Barremian working group, Maria Rose Petrizzo (IUGS Vice President), Ian Jarvis (Cretaceous Subcommission Chair), and Elisabetta Erba (ICS Chair). b) close up of the "gold disk" for base-Barremian Stage at the base of bed 171.



2. News from the IUGS Initiative on Forensic Geology (IFG)

Dark Heritage Prospection

The IUGS-IFG Chair, Dr Laurance Donnelly, is collaborating with forensic archaeologists and forensic geophysicists at the University of Bradford, Department of Archaeology and Forensic Sciences, to develop and advance 'Dark Heritage Prospection'. This combines archaeological prospection and geoforensic search to reveal and preserve objects, features, sites and landscapes that might otherwise be forgotten with regards to the heritage of humanity. Examples include the searches at and imaging of the Nazi Treblinka Death Camp in Poland, and builds upon forensic geology that was initiated, with the support of IUGS-IFG, at the University of Warsaw, in 2020.



Figures: Geophysical searches taking place to delineate the infrastructure and graves of the Nazi, Treblinka Death Camp, in Poland (source: Dr Michael Pisz, the University of Bradford, Department of Archaeology and Forensic Sciences).

IUGS-IFG 15 Years Anniversary Conference, Rome, Italy, 21-23 May 2025: Request for Photographs and Videos

IUGS-IFG is compiling photographs and videos that show IUGS-IFG events and activities since its inauguration in 2011, and the establishment of the first IUGS-IFG working group on forensic geology in 2009. Your photographs and videos could be included to produce an informative record, capturing the historic milestones and memories from IUGS-IFGs amazing journey so far. Please upload your photographs and videos to the shared folder at your convenience using the link: https://ldrv.ms/f/s!AsrTd01Cyyfxk dIAQtxSPJIY0073g

If you would like to include a watermark, signatures, credits or logo on the photogarphs, this can be achieved freely by using the following link.

IUGS

https://watermark.ws/?gad_source=1&gclid=Cj0KCQiAouG5BhDBARIsAOc08RRrU1FdsuHUD4brdC MlqiFoKJhkqcklrjzP5YCH3IuGilZN3kFJyvkaApTXEALw_wcB

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3. <u>News from the International Commission on History of Geological Sciences</u> (INHIGEO)

1. INHIGEO Anniversaries – a new contribution

Occasion: Pentti Eelis Eskola died 60 years ago

Authors: Alexis Plunder (France) and Gaston Godard (France)

Title: Metamorphic facies: the birth of a concept

Born in Finland in 1883 Pentti Eelis Eskola described the parageneses (i.e., the mineral equilibrium assemblages in a rock) of the metamorphic rocks from the Orijärvi region (Finland) as being ruled by simple laws related to the bulk rock chemistry (Eskola, 1914). His findings would lead to a new concept – Metamorphic Facies.

Please open the link to know more: http://www.inhigeo.com/anniversaries.html



Figure: Pentti Eelis Eskola (1883–1964).

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4. News from the Commission on Global Geochemical Baselines (CGGB)

Webinars "Sample Preparation: Key Stage to Generate Geochemical Information" and the "Third International Student Conference on Medical Geology and Environmental Health – Europe Edition"

IUGS

The Geochemistry Expert Group of the <u>Ibero-American Association of Geological and Mining Surveys</u> (<u>ASGMI-GEG</u>) organised on the 13th and 14th of November 2024 the second webinar in the series "*Geochemical Knowledge for Societal Use*" with the title "*Sample Preparation: Key Stage to Generate Geochemical Information*", which was coordinated by the <u>Instituto Hondureño de Geología y Minas</u>. This webinar offered a valuable opportunity to discuss sample preparation techniques and standard procedures in various matrices and sampling environments as key to the quality of geochemical data and their application in areas such as environmental planning and sustainable development.

The guest speakers were Prof. Hassina Mouri, IUGS President, who congratulated the ASGMI-GEG for this initiative; Dr. Alecos Demetriades, Chair of IUGS Commission on Global Geochemical Baselines, presenting the sample preparation of rock, soil, stream sediment, overbank and floodplain sediments described in the <u>IUGS Manual of Standard Methods</u>; Dr. Anna Ladenberger, Deputy Chair of <u>EuroGeoSurveys Geochemistry Expert Group</u>, who presented the geochemical sample preparation methods of the Geological Survey of Sweden, and Dr. Kate Campbell (USA Geological Survey), who delivered a presentation on the "*Geochemistry of Mining Wastes: Characterisation and Analysis for Metal Recovery*", which is currently a hot topic. It was a great pleasure to have a presentation by the Director General of the <u>Mexican Geological Survey</u>, Flor de María Harp Iturribarría, M.Sc., who is a specialist in Quality Control in Sample Preparation. The experiences in sample preparation of the different ASGMI geological surveys were presented by its members, i.e., preparation of (i) Rock by <u>Ecuador</u> and <u>Portugal</u>, (ii) Soil by <u>Perú</u>, and (iii) Sediments by <u>Argentina</u>, <u>Brazil</u>, <u>Chile</u> and <u>Honduras</u>. The webinar presentations are available on YouTube in two parts: <u>Day 1</u> and <u>Day 2</u>.

The Commission also supported the four-day <u>3rd International Student Conference on Medical Geology</u> and Environmental Health – Europe Edition (26–29 November 2024), which was organised by Ph.D. students and early career researchers with minor assistance from members of the <u>Society of Environmental</u> <u>Geochemistry Health</u>, and the <u>International Medical Geology Association</u>. In total, there were 5 virtual keynote presentations, 38 oral presentations and 2 workshops. The two workshops with the titles "<u>Shared</u> <u>Vocabulary: Communication Between Geo-Health Scientists</u>" and "<u>Preparing Manuscripts for</u> <u>Publication in International Journals</u>" were given by Prof. Robert B. Finkelman, and Dr. Alecos Demetriades, respectively. The <u>IUGS Manual of Standard Methods</u> was mentioned by Artemis Kontomichalou and Stefania Koutsourea in their presentations "<u>Preliminary results of soil geochemical</u> <u>baseline pilot study in Hellas</u>" and "<u>Separation and recovery of natural & anthropogenic organic</u> <u>polymers in soils of Attica, Greece</u>", respectively, as both students are supervised by Prof. Ariadne Argyraki, Commission's Public Relations and Finance officer.

5. News from the International Commission on Geoheritage (ICG)

The first IUGS GEO-COLLECTIONS have been announced

The year 2024 was the starting point for the subcommission's first call for applications for "IUGS Geo-Collection" status. The applications were each evaluated by three reviewers and ranked according to an objective grading system. In the end, 11 applications were among the submissions that received excellent ratings from all reviewers.

IUGS

During the fifth ordinary session of the IUGS Council meeting on August 28th, the International Commission on Geoheritage presented the achievements of our subcommission and the 'First 11' IUGS Geo-Collections were ratified. Thus, our first mission is accomplished.

The ratified proposals are for the Sprigg Ediacaran Fossil Collection, South Australian Museum, Australia; the Meteorite Collection of the Natural History Museum Vienna, Austria; the d'Orbigny Collection, Paris, France; the Dmanisi Collection, Georgia; the Mineralogical Collections of the TU Bergakademie-Freiberg (Mining Academy), Germany; the Pikermian collection of the Athens Museum of Paleontology and Geology, Greece; the Valdarno Pliocene and Pleistocene mammals, Italy; the Japanese Antarctic Meteorite Collection, Japan; the Plio-Pleistocene Paleontology Section, Ditsong National Museum of Natural History, South Africa; the Permanent collection of the Museum of Human Evolution, human remains from the paleontological and archaeological sites of the Sierra de Atapuerca, Spain; and the Thomas A. Greene Geological Collection, United States.

Detailed information about IUGS geo-collections can be consulted in our website: www.iugs-geoheritage.org.

In spring 2025, the subcommission will start the next call for proposals for IUGS-Geocollections. This will be announced via the National Committees (as done for the "Sites") and additional national/international societies to reach also countries not well represented by national committees. Intermediate deadlines will be: early summer 2025 deadline for applications; late fall 2025 complete the reviews; winter 2025-2026 the voting members elect the candidates; spring 2026 nomination.



Figuer: Natural History Museum, Vienna, Austria



6. News from the IUGS-Commission on Geoethics (CG)

a) Task Group on AI in Geosciences

The IUGS Commission on Geoethics has established a new Task Group to address issues related to the use of Artificial Intelligence (AI) in geosciences. Its primary objective is to draft a White Paper offering insights and suggestions for the geoscience community. This new Task Group is formed by four members (fig. 1): Paul Cleverley (Chair, United Kingdom), Mrinalini Kochupillai (Germany/India), Mark Lindsay (Australia), Emma Ruttkamp-Bloem (South Africa). Giuseppe Di Capua is the contact person of the IUGS-CG Governing Board.

Read more: https://www.geoethics.org/tg-cg-ai-geosciences



Figure: Members of the new Task Group on AI in Geosciences of the IUGS Commission on Geoethics.

b) The IAPG has a new Executive Council

The International Association for Promoting Geoethics (IAPG) has approved a new organizational chart. The members of the new Executive Council are the following (from 1 November 2024) – fig. 2: Silvia Peppoloni (President); Elizabeth Rovere (Vice President); Peter T. Bobrowsky (Vice President); Giuseppe Di Capua (Secretary General and Treasurer); Vincent S. Cronin (Continental Coordinator – North America); Marita Ahumada (Continental Coordinator – South America); Ezzoura Errami (Continental Coordinator – Africa); Vitor Correia (Continental Coordinator – Europe); Surya Parkash (Continental Coordinator – Asia); Matthew Hughes (Continental Coordinator – Oceania). Read more: https://www.geoethics.org/executive-council



Figure: Members of the new Executive Council of the IAPG (IUGS affiliated from 2013).

c) <u>Geoethics in Colombia</u>

The IAPG has established a new national section in Colombia. This section is chaired by Clemencia Gomez, Associate Professor at the Universidad Nacional de Colombia from 2017. IAPG-Colombia is the 37th national section of the IAPG. Read more: <u>https://www.geoethics.org/post/welcome-to-iapg-colombia</u>

d) <u>Podcast: Navigating Geoethics – Balancing Science and Responsibility in Geosciences</u>

The Society of Exploration Geophysicists (SEG) released the podcast of the interview to Giuseppe Di Capua (Treasurer and Secretary of the IUGS Commission on Geoethics; IAPG Secretary General and Treasurer). Read more and listen the podcast: <u>https://www.geoethics.org/post/podcast-navigating-geoethics-balancing-science-and-responsibility-in-geosciences</u>



For the IUGS website: A one-page concise text (up to about 500 words), if possible providing a weblink (e.g. to an IUGS activity website). **Each contribution to the IUGS e-Bulletin, website and/or social media should be marked as to which target medium or media it should be published in. Each contribution should be sent, at the same time, to the following addresses:**

gurmeet28374@gmail.com (Editor, e-Bulletin) giuseppe.dicapua@ingv.it (Webmaster) yamirka.rojas@ifg.uni-kiel.de (Editor, Social Media) iugs.socialmedia@gmail.com (Social Media)

Time Frame for submissions to the e-Bulletin:

- 1. IUGS sends a reminder to leaders of activities in the middle of each month.
- 2. Contributions should be provided by the end of every month.
- **3.** IUGS will evaluate all submitted items in terms of urgency and will allocate these to the next monthly issue or a later issue and will also check that these comply with IUGS policy for publications and ethics;
- **4.** The IUGS Publications Committee Team will aim to compile monthly e-Bulletin by the end of the month and send it to the IUGS Secretariat;
- **5.** The IUGS Secretariat will dispatch the e-Bulletin to the IUGS Community on, or in the first week of every month.

This time frame may vary due to public holidays that affect the e-Bulletin Team and IUGS Secretariat such as Christmas and Chinese New Year.

NOTES

• Please check the IUGS <u>Calendar of Events</u> for upcoming scientific meetings. If you require information on international conferences, meetings, etc. to be considered for inclusion in this Calendar please mail to: <u>giuseppe.dicapua@ingv.it</u>

• To be added to or removed from the IUGS e-Bulletin distribution list, please mail to: iugs.beijing@gmail.com or secretariat@iugs.org

• Follow the IUGS on Social Media! We are on Facebook, Twitter, and LinkedIn.

• Check the IUGS website: <u>http://www.iugs.org/</u>

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