
News at a Glance

1. **December issue of “Episodes”**
2. **CGI-IUGS at the first United Nations World Geospatial Information Congress**
3. **News from TecTask commission on Tectonics and Structural Geology**
4. **News from the Heritage Stones Sub-commission (HSS)**
5. **CCOP and IUGS Task Group on Geohazards (TGG) joint seminar**
6. **IUGS International Commission on the History of Geological Sciences (INHIGEO) - Anniversaries**
7. **IUGS activities in the Geological Society Special Publications**

1. December issue of “Episodes”

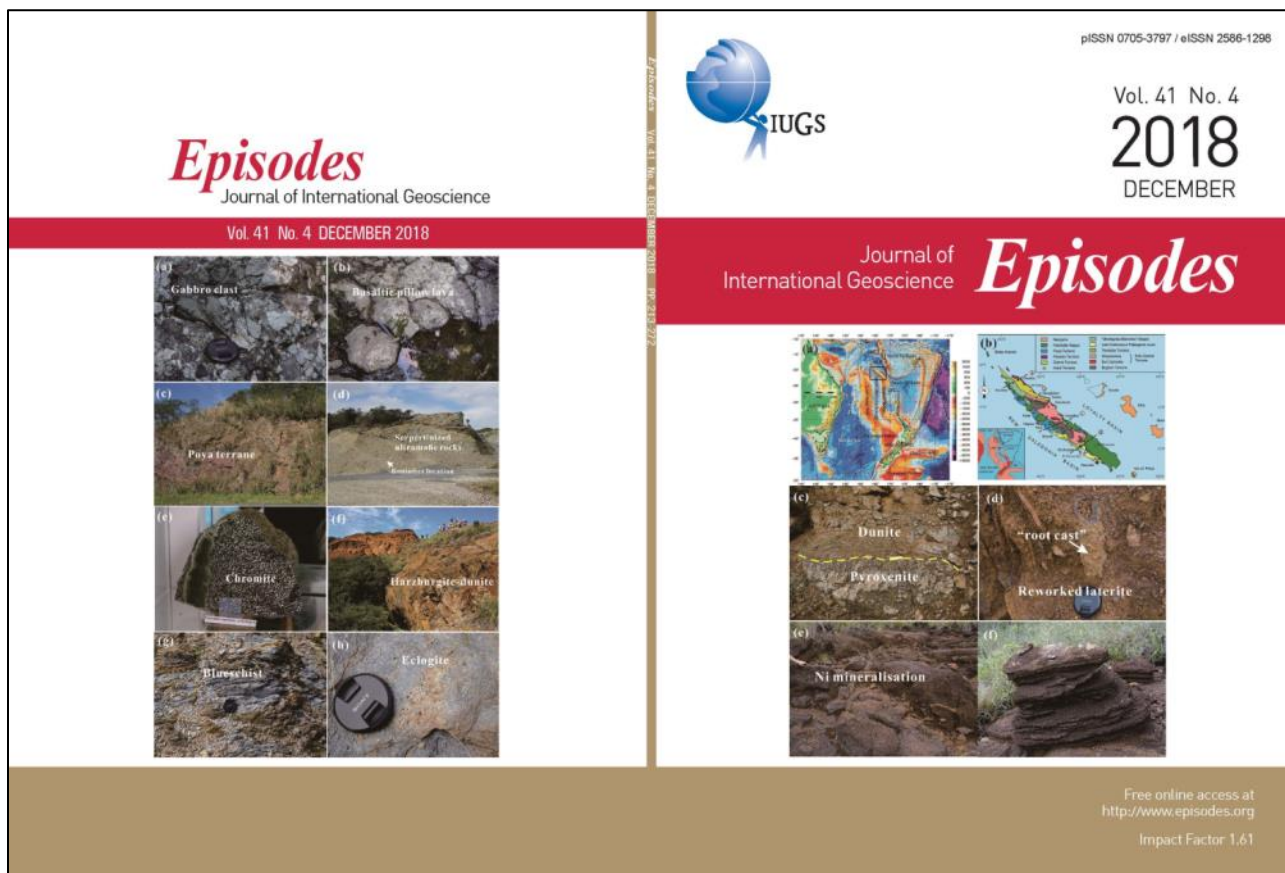
The December issue of “Episodes” has been published on www.episodes.org. It contains three research papers, a review paper, a report from an IGCP project and a profile of recently appointed IUGS Councillor Dr Silvia Peppoloni.

The research papers deal with:

- formal ratification of the subdivision of the Holocene Series/Epoch (Quaternary System/Period): two new Global Boundary Stratotype Sections and Points (GSSPs) and three new stages/subseries. This is a “groundbreaking” contribution to Holocene stratigraphy;
- an approach to community based landslide risk mitigation in Thailand; and
- the application of the seismic attribute known as “sweetness analysis” to Lower Goru sandstone intervals, of Cretaceous age, in the Sawan gas field, Pakistan.

The review paper examines the main reasons why bioleaching of copper has, so far, had poor yields and discusses possible ways in which to improve yields.

The report of IGCP-649 (Diamonds and recycled mantle) concerns the 2018 international workshop and field trip in Brisbane, Australia, and New Caledonia.



2. CGI-IUGS at the first United Nations World Geospatial Information Congress

The Commission for the Management and Application of Geoscience Information (CGI) of IUGS attended the first United Nations World Geospatial Information Congress (UNWGIC) in Deqing, China on 19-21 Nov. 2018 with the support of the China Geological Survey with the purposes of improving understanding and promotion of geological science and its own

data and information standards of itself and with the Open Geospatial Consortium. Themed “The Geospatial Way to a Better World”, this UNWGIC attracted more than 1000 formal delegates and many exhibition participants from more than 100 countries and regions, geospatial information organizations, and academic and research institutions around the world. Among the many geographic and geospatial organizations, some geological organizations satisfied participants with more and new information and data examples from deep underground and surface geology, which illuminated both the history and recent discoveries about the Earth. The four plenary sessions were: sharing the digital economy; attaining sustainable development; building smart societies; and growing international cooperation. The UNWGIC aimed to advance the potential and usefulness of geospatial information for sustainable development and to tackle global challenges, which will certainly involve much more geological research in the future.

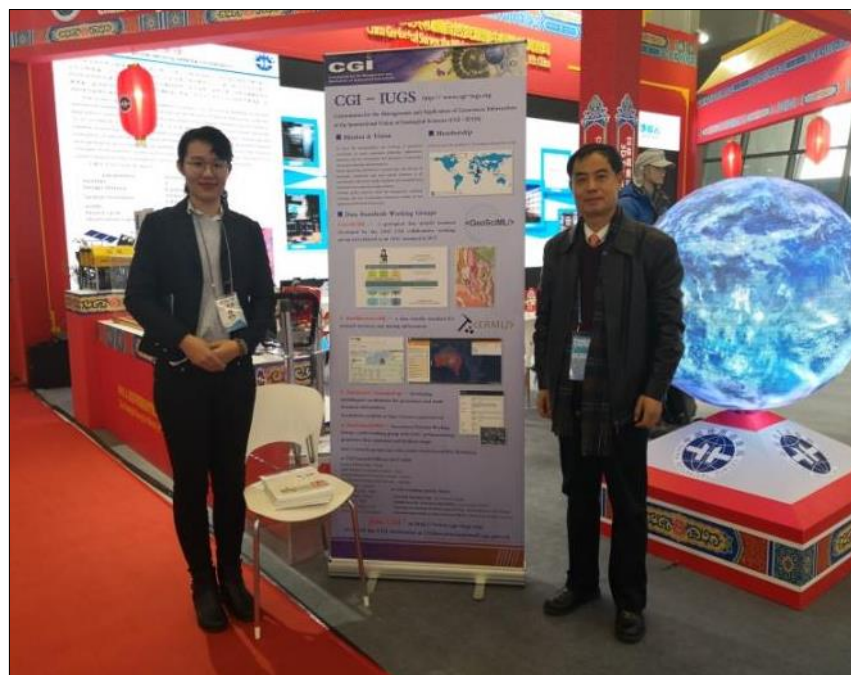


Fig. 1 – CGI-IUGS board of flyer and pamphlets at the UNWGIC event.

3. News from TecTask commission on Tectonics and Structural Geology

Outcropedia: an online public database of the photos of beautiful outcrops and geological field trips

The TecTask commission on Tectonics and Structural Geology renewed the website of OUTCROPEDIA (<http://outcropedia.tectask.org/>) where you can upload your photos and use them for teaching or research (Fig. 2).

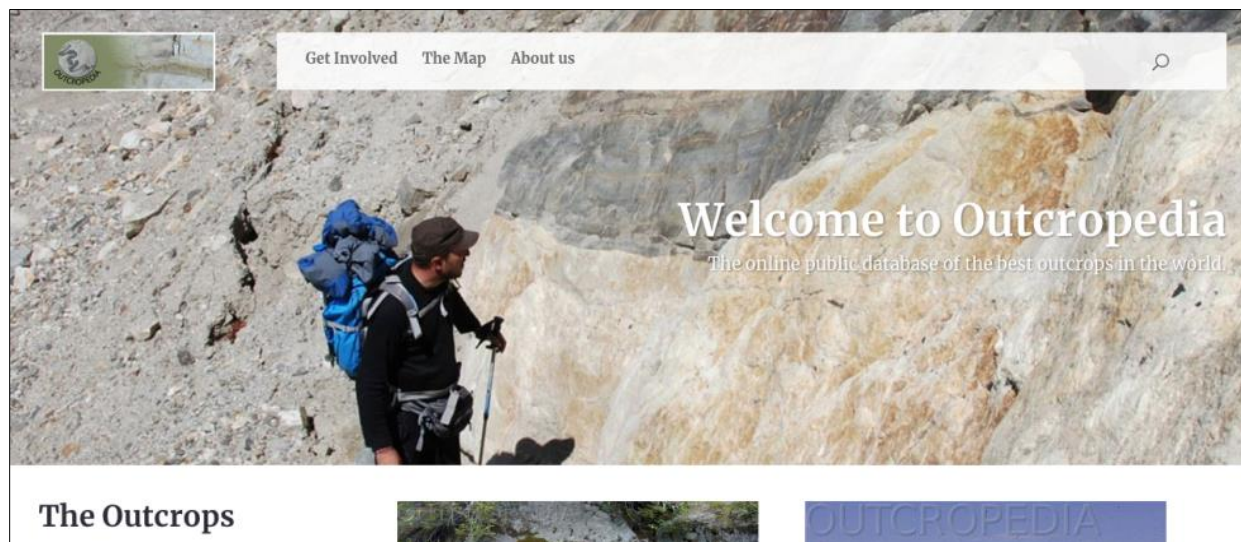


Fig. 2 - Screenshot of the Outcropedia webpage.

Outcropedia is an online public database dedicated to fieldwork with the aim of providing a central, online public database of the most important and magnificent geological outcrops in the World. The curators are: Anna Chanou, Manuel De Paz and Rodolfo Carosi. Outcropedia is one of the activities TecTask, which is the Commission on Tectonics and Structural Geology of the International Union of Geological Sciences (IUGS). The photos are now displayed in a larger window and they are subdivided into several categories to facilitate both the view and search: boudinage, faults, folds, foliations, fractures, joints and veins, lineations, metamorphic rocks, primary structure, sedimentary and magmatics, and shear zones.

Note that a section dedicated to Field trips (named GeoTours) has been now added to the new website (please contact rodolfo.carosi@unito.it and/or salvatore.iaccarino@unito.it for details on submission) (Figs 3 and 4).

Please, circulate this information and feel free to help us by submitting photos and geotours!

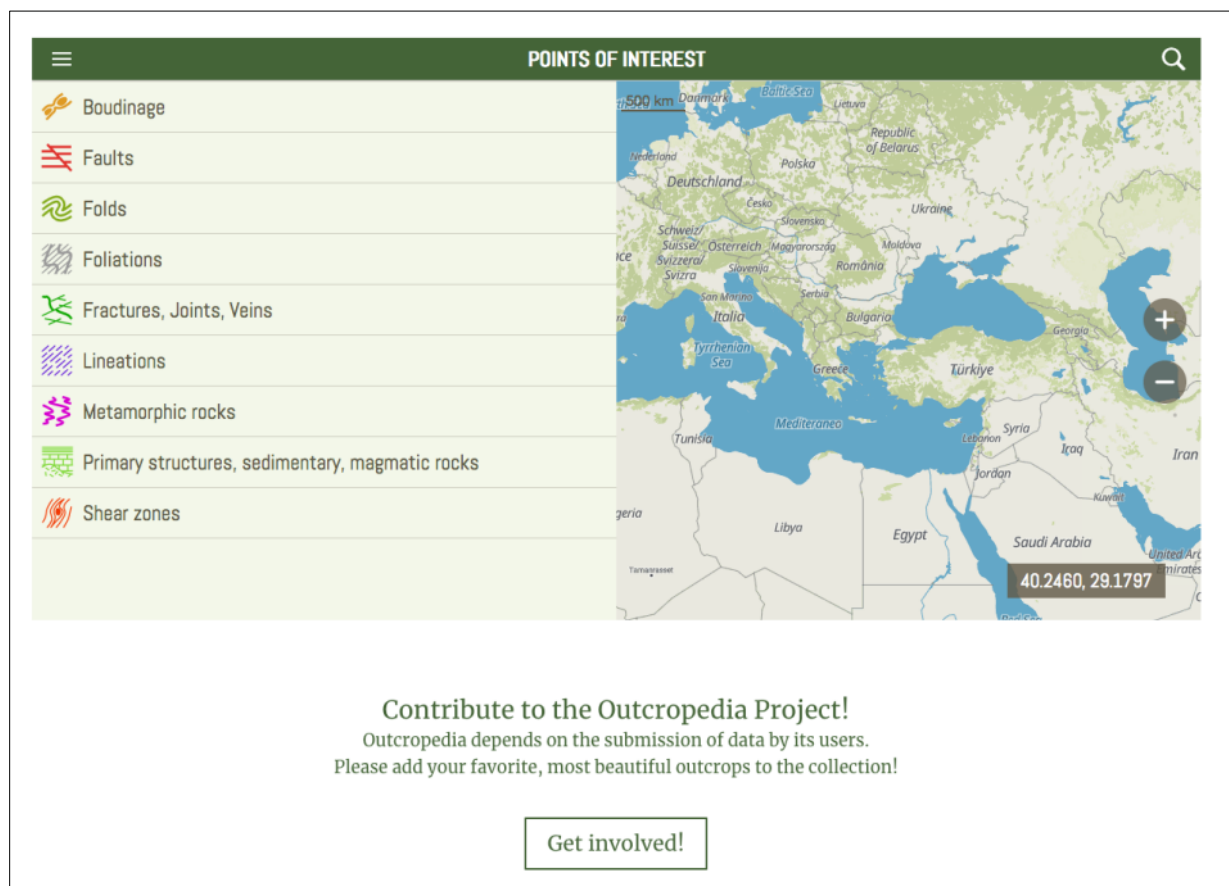


Fig. 3 - Screenshot of the Outcropedia page with the list of the points of interest divided into categories.



Fig. 4 - Example of an uploaded GeoTour to the Variscan basement of Sardinia (Italy).

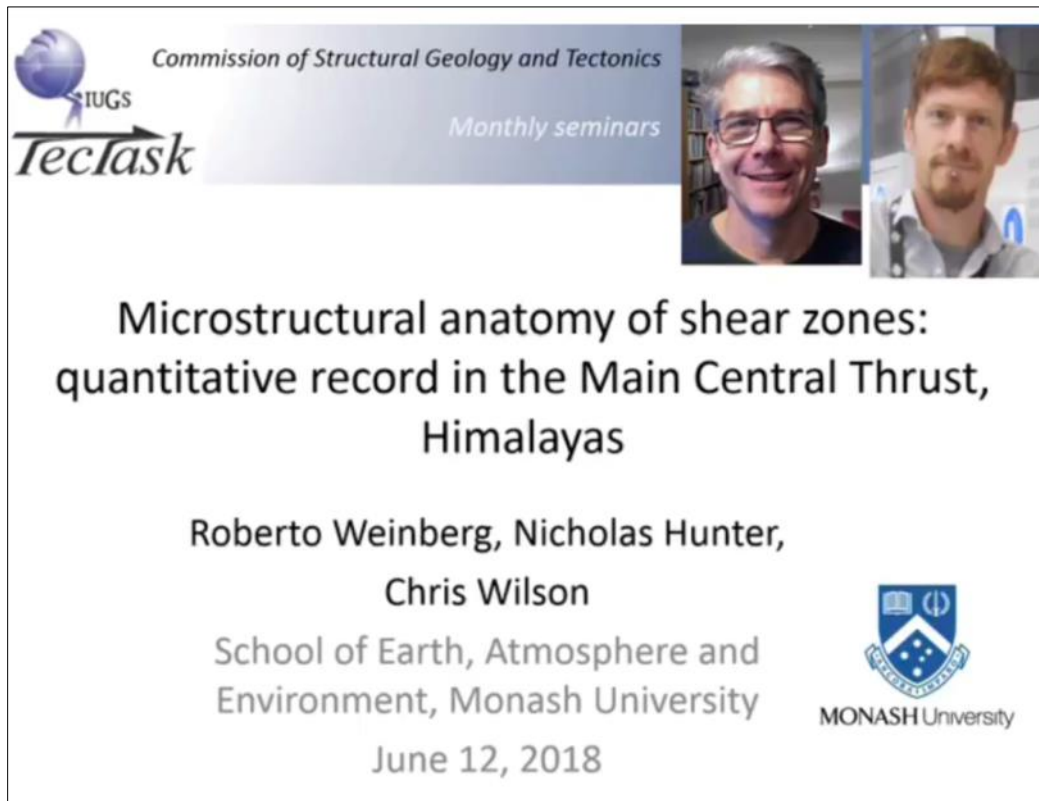
Monthly seminars on Structural Geology and Tectonics (SG and T)

TecTask has organized a series of invited monthly seminars on hot topics on Structural Geology and Tectonics. The seminars are uploaded monthly on the YouTube channel of TecTask (Fig. 5):

<https://www.youtube.com/channel/UCXFYiccBYXw85bneuMm4Xgg>

The SG and T community appreciates the videos very much with more than 3100 views and nearly 170 subscribers (data up to 26 November 2018).

Enjoy the talks!



Commission of Structural Geology and Tectonics
IUGS
TecTask
Monthly seminars

Microstructural anatomy of shear zones:
quantitative record in the Main Central Thrust,
Himalayas

Roberto Weinberg, Nicholas Hunter,
Chris Wilson
School of Earth, Atmosphere and
Environment, Monash University
June 12, 2018


MONASH University

Fig. 5 - Screenshot of the TecTask YouTube channel showing the seminar by R. Weinberg, N Hunter and C. Wilson.

4. News from the Heritage Stones Sub-commission (HSS)

A new achievement

The main goal of the IUGS HSS is to recognize those stones that have been used for many years, preferable centuries, in the construction of the architectonic heritage and which meet the requirements of the IUGS geological standard of Global Heritage Stone Resource. Designations of seven stones have been approved by the IUGS Executive Council this year: Lioz limestone from Portugal; Lede stone from Belgium; Lower Globigerina limestone from Malta; Jacobsville stone from the USA; Kolmarden serpentine “marble” from Sweden; and



Welsh slate from Wales; and Piedra Mar del Plata from Argentine. These bring the total number of approved GHSR designations to 15. More information can be found at:

www.globalheritagestone.com

Next meeting

The IUGS HSS has organized a session at EGU 2019, Vienna, 7-12 April:

ERE7.2/EOS11.2: Heritage Stones: construction and restoration materials for sustainable development

The Conveners (Lola Pereira, Gurmeet Kaur and Heloisa Frascá) encourage contributions for the proposed thematic issue: natural stones and heritage and the potential application and information on possible stones from all over the world. We will also consider contributions on issues related to the importance of using original natural stones in the restoration and conservation of historical buildings, and other issues associated with Geoheritage such as historical quarries and quarry landscape. This session will also emphasize the importance of Heritage Stones in the preservation of World Heritage sites.

Alongside this session, a business meeting has been organized (SPM11). Although the concept of Global Heritage Stone Resource has been used for several years now, more debate is needed to make sure that we are using the term correctly with implications for World Heritage Sites and other architectural heritage issues. The future of the sub-commission will also be discussed in advance of the renewal of the HSS executive and board at the IGC 2020 in Delhi.

More information at: <https://meetingorganizer.copernicus.org/EGU2019/session/30599>

5. CCOP and IUGS Task Group on Geohazards (TGG) joint seminar

The CCOP and IUGS Task Group on Geohazards (TGG) organized a seminar on the 30th October, 2018 in conjunction with the 54th CCOP Annual Session held in Busan, Korea. Seven papers from Finland, Japan, Korea, Myanmar, Thailand and Vietnam were presented. The papers have been uploaded on the TGG website below.

<http://iugstgg.lab.irides.tohoku.ac.jp/archives/228>

Approx. 20 people from the CCOP member countries and the cooperating countries and organizations attended this seminar and discussed geohazard research and disaster risk reduction.



Fig. 6 - CCOP and IUGS Task Group on Geohazards (TGG) joint seminar.

6. IUGS International Commission on the History of Geological Sciences (INHIGEO) - Anniversaries

Charlotte Murchison (1788-1869): a woman not allowed into the classroom but who worked in the field 230 years ago

For hundreds of years, even into the last quarter of the twentieth century, the history of geology has been dominated by male figures and prominent male protagonists. Women were barred from university posts until 1920, and apart from some exceptions, geology has developed without the involvement of half of humankind, as history handbooks point out. This is true when considering that academic careers were not accessible for women. However, it is not accurate because of the fact that women in their private lives took on the roles of “assistants” to their husbands. In the nineteenth century managing a household was solely in the hands of women, and only a few wives had the privilege to support their husbands’ scientific work privately. Many of these women were well educated, particularly in foreign languages. They translated texts for their husbands and arranged collections in their kitchens.

Despite having no access to academic institutions, some women, especially in Great Britain, were self-trained and developed their knowledge further by sharing their husbands’ interests. One of them was Charlotte Murchison (1788-1869), who was married to the well-known geologist Roderick Murchison. She accompanied her husband and Charles Lyell on a long journey to Paris in 1828, during which Charlotte assisted her husband and conducted independent fieldwork. Charles Lyell was impressed by her knowledge on fossils and her enthusiasm:

Usually, “we have generally begun work at 6 o’clock & neither heat nor fatigue have stopped us, [not even for] an hour. Mrs. M. is very diligent, sketching, labelling specimen & making out shells in which last she is an invaluable assistant.” (quoted after Kölbl-Ebert 1997: 41).



Fig. 7 - 'The Light of Science' a satirical cartoon by Henry T De La Beche (1832). Charlotte Murchison shines the light of science, dispelling the darkness which covered the world (<https://trowelblazers.com/charlotte-murchison/>)

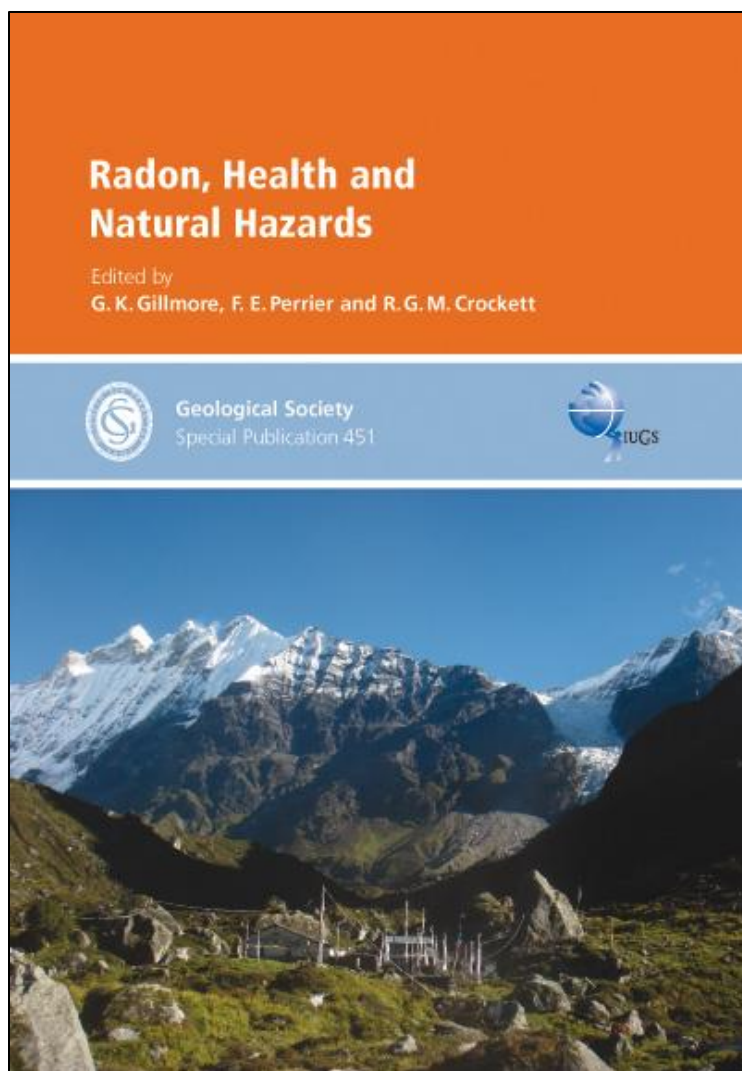


Fig. 8 - Charlotte Murchison, her husband, Sir Charles Lyell, Lyell's clerk George Hall, and an unidentified gentleman travelling in southern France in 1828 as illustrated in Henry Faul & Carol Faul, *It began with a stone. A History of geology from the Stones Age to the Age of Plate Tectonics*, New York: John Wiley & Sons, 1983, p. 128, fig. 8.1. [Public Domain].

Two years later, when Charles Lyell was appointed first professor of geology at King's College, London, a number of women asked for permission to attend his lectures. Lyell explicitly refused, not even allowing Mrs Murchison to attend, because he thought that women in the classroom would be "unacademic". Some women ignored the ban thereby triggering a public debate and, as a result, the university council decided that women were to be admitted to the entire course. A friend of Charlotte's, Mrs Somerville, wrote in a letter: So you can see that we are making quite an impact "on the laws of learned societies, reform is nothing" compared to this (quoted after Kölbl-Ebert 1997: 41).

Self-confident women, such as Charlotte Murchison, served as role models for the following generations. But, it was not until the twentieth century that women not only handled hammer, pen and spoon, but were permitted to be responsible for their own research.

7. IUGS activities in the Geological Society Special Publications



The Geological Society Special Publications (GSSP) series includes books arising from IUGS activities. The IUGS has a formal Memorandum of Understanding with the Geological Society of London (GSL) under which the Society has a right of first refusal of books arising from IUGS activities at conferences, meetings, etc. The GSL Publishing House will soon begin posting accepted manuscripts online for articles in Special Publications volumes within around two weeks of each article being finalized and accepted. Therefore the publication of sets of papers coming from IUGS activities in GSSP books should first be offered to GSL although, if declined

by the GSL, they can then be offered to any other editorial house. GSSP articles are included in the Web of Science (Books Citation Index), Scopus, Google Scholar and GeoRef."



EDITORS' NOTES:

CONTRIBUTING TO THE IUGS E-BULLETIN, WEBSITE AND SOCIAL MEDIA

IUGS wishes to better co-ordinate public cation of information on **news, events and achievements** arising from IUGS activities (**not science reports or papers**). All IUGS Commissions, Task Groups, Initiatives and IGCP projects are requested to provide a steady flow of material. Contributions from Adhering Bodies will also be welcomed.

To aid co-ordination and standardization, IUGS has introduced a preferred format and a monthly timetable.

Format of submitted material:

Contributors should provide:

For the E-Bulletin: 2 or 3 sentences with between 1 and 3 illustrations (photographs, diagrams etc.) with captions as separate .jpg, .gif or .png files with a resolution of 150 dpi; optimally accompanied, by:

For the web site: a concise text of about 0.5 to 1 A4 page (up to about 600-700 words), if possible providing a web-link (e.g. to an IUGS activity website).

The short text in the E-Bulletin will be hyperlinked to any longer text which will be placed on the IUGS website. Items that are not in reasonably good English will be returned for improvement. Others will be edited for use of English if necessary. If proposed contributions are too long, they will be returned for shortening. All images must, if necessary, be copyright-cleared before submission.

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:

silvia.peppoloni@ingv.it (E-Bulletin Editor-in-Chief)
giuseppe.dicapua@ingv.it (Webmaster)
gurmeet28374@gmail.com (Social Media Manager)



Timetable:

The idealized timetable for the E-Bulletin is:

1. IUGS sends a reminder to leaders of activities in the last week of each month;
2. Contributions should be provided by the 16th day of that month (**items arriving after that date cannot be included in the next monthly issue**);
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 Team will aim to compile that month's E-Bulletin by the 25th day 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 before, the last day of each month;
6. Long versions of material will be posted on the IUGS Website in coordination with the publication of the relevant E-Bulletin.

This timetable will be varied, as necessary, to allow for public holidays that affect the E-Bulletin Team and IUGS Secretariat such as Christmas and Chinese New Year.

NOTES

- If you require notices, information on publications, etc. to be considered for inclusion in forthcoming IUGS e-bulletins, please mail to silvia.peppoloni@ingv.it.
- Please check the IUGS [Calendar of Events](#) for upcoming scientific meetings this coming month. If you require information on international conferences, meetings, etc. to be considered for inclusion in this Calendar please mail to: giuseppe.dicapua@ingv.it
- To be added to or removed from the IUGS e-bulletin distribution list, please <mailto:iugs.beijing@gmail.com> or secretariat@iugs.org.
- Follow the IUGS on Social Media! We are on [Facebook](#), [Twitter](#), [LinkedIn](#) and [Google+](#).
- Check the IUGS web site: <http://www.iugs.org/>

Edited by:

Dr. Silvia Peppoloni (IUGS, INGV), and Dr. Brian Marker (IUGS)

www.iugs.org