ProGEO NEWS
ProGEO 2024
n. 1-2
international association for the conservation of geological heritage
ISSN 2184-8300

# Italian ProGEO members

## activities during spring 2024

by: **Irene Maria Bollati**, [irene.bollati@unimi.it]
**Alessia Pica,**
**Laura Melelli,**
**Mario Bentivenga,**
**Antonello Fiore,**
**Stefano Margiotta**

During Spring 2024, two crucial events took place in Italy, and that have seen the Italian ProGEO member participation.

After the election of Irene M. Bollati as national representative in 2021/2022, replacing the previous one, Mario Bentivenga, an in-person meeting with a possible connection from remote has been organized on 15th May in Rome. During the meeting several topics of discussion emerged, thanks also to the participation of the Vice President for the Europe Region, and coordinator of the South-Western Europe Regional Group, Manu Monge-Ganuzas. His contribution was focused on presenting ProGEO structure and activities to the Italian members, its functioning and the possible interaction among people in different regions. He also presented the Key Geoheritage Areas in preparation under the auspices of IUCN. Monge-Ganuzas offered several tips for discussion, among which the most crucial is the promulgation of a shared law for the protection of geological heritage. In Italy, indeed, the protection is delegated to regional administration, and a national law is still missing. Italian members agreed with the need of pushing for a common law based on common and shared principles, maybe starting from the European Community, to push it at national and local levels. Another topic of discussion was the Italian inventory of geosites that is undergoing a renewal, through a deep check of all the records, and through the implementation of multimedia content for enriching the remote visitor experience. The inventory is managed by the Italian Institute for Environmental Protection and Research (ISPRA), and it receives inputs from regions and amateurs. During the meeting in Rome, other important actions were planned. The ProGEO national representative will collect information from the Italian members to put them in contact for event organization and potential scientific collaborations. Moreover, she will contact the different Italian associations active in the field of geological heritage conservation and promotion to boost collaborations and coordination. Among them, SIGEA (Italian Association of Environmental Geology), has always maintained strict relations with ProGEO, hosting and supporting the organization of ProGEO symposiums in Italy.

SIGEA National Congress in the Salve (Lecce, Apulia region)

SIGEA organized the second important event of 2024. The SIGEA National Congress was held on 14-15-16 June 2024 in Salve (Apulia Region), at Palazzo Carida – Ramirez (Figure 1). The theme was "I paesaggi e beni geologici, patrimonio culturale e patrimonio immateriale" (Landscapes and geological assets, cultural heritage and immaterial heritage) (https://sigea-aps.it/eventi/i-paesaggi-e-beni-geologici-giugno-2024/).

During the congress, scientific sessions and field trips were organized. The pre-conference field trip was held on 14th June within the Salve village, where a karst sinkhole used in the past as a dump with serious pollution issues was converted in a geomorphological thematic park for school students to understand the landscape evolution in relation to human impact.

In the future it may become a real open-air laboratory for school students of the area. The post-conference field trip was held on 16th June along the Salento coast to discuss geological heritage and coastal evolution and hazards. Among the opening keynote speakers on 14th June, including Elisa Brustia from the Italian Institute for Environmental Protection and Research (ISPRA) and Aniello Aloia from the Italian Forum of UNESCO Global Geoparks, Irene M. Bollati presented ProGEO activities to the participants, inviting them to join the association to share ideas and initiatives. On 15th June, the scientific speeches started with contributions from all the Italian territory, showing a very active framework on different topics, from the monitoring of geological heritage evolution in different morphogenetic and morphoclimatic environments, to the collection of memories of landscape evolution in collaboration with local populations, through the proposals for preservation of very specific categories of geoheritage, like water springs or karst caves. A specific session was dedicated to geology landscapes, wine and literature in Southern Italy. All the scientific contributions are collected in a special volume of *Geologia dell'ambiente,* available freely in Italian at https://sigea-aps.it/wp-content/uploads/2024/06/GDA_2-2024_supp.pdf

Fieldtrips in the Salve municipality and along the Apulian Coast (Lecce)

In 2024, several will be the initiatives, for instance, as thematic scientific sessions at the National Congress of the Italian Geological Society (Bari, 2nd-6th September 2024), or in the framework of the XII Edition of the "Earth Planet week" (https://www.settimanaterra.org/), that will take place on 6th-13th October 2024 all around Italy, through specific events also in relation to the International Geodiversity Day taking place in 6th October 2024.

Finally, as a partner country within the ProGEO Regional Group of South-Western Europe, we are also planning the next edition of the ProGEO Virtual Conference on Geoconservation in South-Western Europe in 2025. Stay tuned!

Irene Maria Bollati, University of Milan
Alessia Pica, Sapienza University of Rome
Laura Melelli, University of Perugia
Mario Bentivenga, SIGEA - Società Italiana di Geologia Ambientale
Antonello Fiore, SIGEA - Società Italiana di Geologia Ambientale
Stefano Margiotta, SIGEA - Società Italiana di Geologia Ambientale

# Crystals

## Geoheritage significance

by: **Margaret Brocx** [ m.brocx@outlook.com ]
**Vic Semeniuk**

Crystals are very common and, aside from regions of its molten interior, the Earth can be considered to be a crystalline planet with many types of crystals, expressed as thousands of mineral varieties, occurring in diverse environments. Some of these crystals are of geoheritage significance because of their size, composition, shape, zoning, reaction rims, mineral inclusions, fluid and gas inclusions, twinning, dislocations, exsolution, the unusual occurrence or rarity of a crystal attribute, and their form of aggregation, such as desert roses, or "druses". If macroscale geological features are assessed as important in unravelling Earth history, and afforded geoheritage significance, then importance should also be given to crystals where similar principles and patterns are present though generally at smaller scales. Some notable crystals of geoheritage significance are the zircon crystals of Jack Hills (the oldest crystals on Earth), giant gypsum in Mexico and in Spain, large well-formed pyrite in Spain, snowball garnets from various locations, and Iceland spar from its type locality. Some notable crystal occurrences of geoheritage significance are illustrated in Figure 1; some environments of crystal formation, crystal external features, and a range of crystal internal features are shown in Figure 2.

Weighell & Torfason (2002) provided a list of significant geological phenomena that would be worthy of geoconservation: 1. places where a geological feature, rock type, type specimen of a plant or fossil, or crystal was first recognized and described (i.e., type localities); 2. historically significant sites where original contributions to the understanding of geological processes or principles were inspired; 3. textbook examples of geological features and processes; 4. palaeontological localities and other sites that contain scientifically significant stages in the evolution of the fossil record; 5. features created by wind, water, ice, weathering and mass wasting; 6. caves and karst topography; 7. hot springs, artesian springs and aquifers; 8. geological features that offer research or educational opportunities; 9. outstanding examples of significant stages in Earth's evolutionary history; 10. the variety of related and significant geological features within a small geographical area; 11. mines and mining districts that have geological or historical significance; 12. geological curiosities such as meteorites, non-volcanic craters etc.; 13. unique or uncommon rock or mineral sites; 14. geological features, formations and landscapes that have exceptional natural beauty with existing or potential recreational uses; and 15. rock and mineral specimen collection sites with existing or potential recreational uses or educational value.

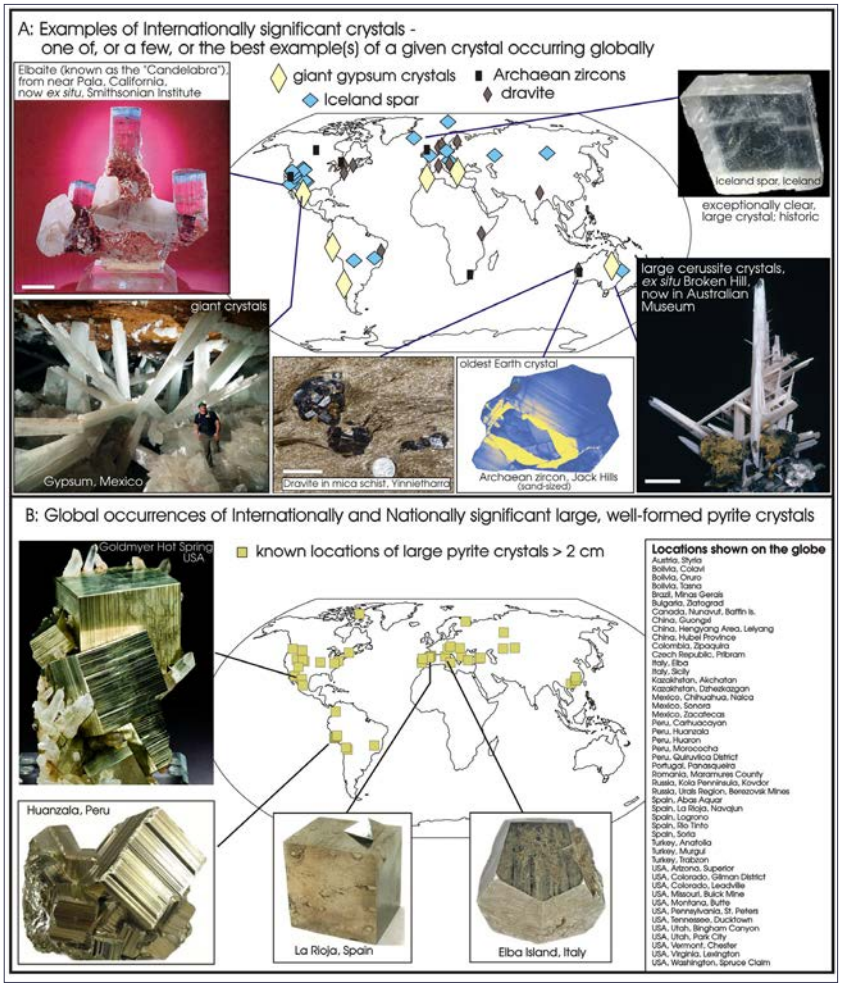



Figure 1— A. Selected internationally significant crystal/mineral occurrences in a global context (scale bar is 5 cm). B. Global occurrence of internationally and nationally significant large, well-formed pyrite crystals (i.e. > 2 cm in size), with examples from some well-known locations

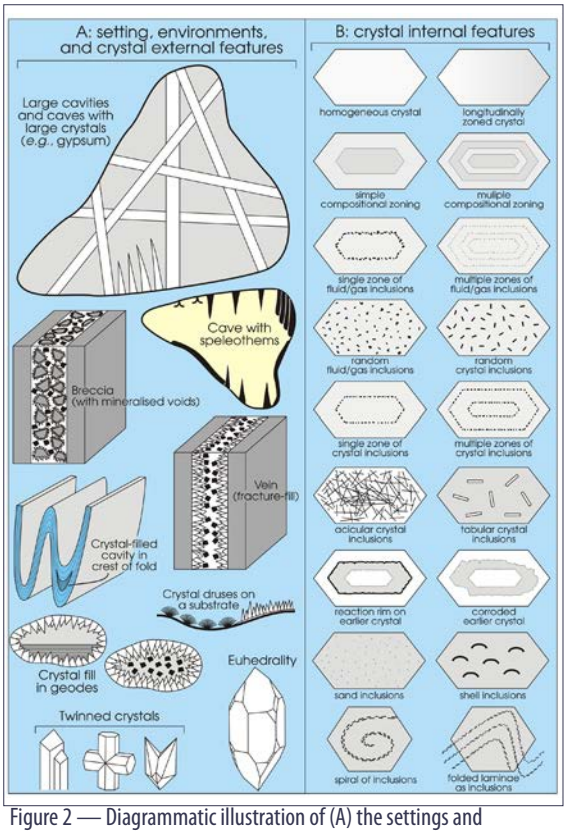



Figure 2 — Diagrammatic illustration of (A) the settings and environments of crystal occurrences, and some external crystal features, and (B) the range of internal crystal features that potentially are of geoheritage significance.

This list captures the large majority of sites that would have geoheritage significance globally - points 1, 2, 3, 8, 9, 10, 14 and 15 apply to crystals and minerals.

The science of crystals is complex, due to the wide variation and diversity of minerals, crystal types, sizes, paragenesis, and geological setting; and, in terms of geoheritage, the history of localities and any endeavours oriented to preserving globally and nationally important crystal/mineral sites and posing interesting questions worthy of further research. Therefore, while in general there has been emphasis on larger-scale aspects of geology for geoheritage and geoconservation, the purpose of this article is to introduce the concept of crystals, in their own right, as features of potential geoheritage significance worthy of recognition and protection through geoconservation.

For more details on the geoheritage significance of crystals and citation of images see Brocx & Semeniuk (2010).

REFERENCES:

Brocx M 2024. Geoheritage significance of crystals The Australian Geologist

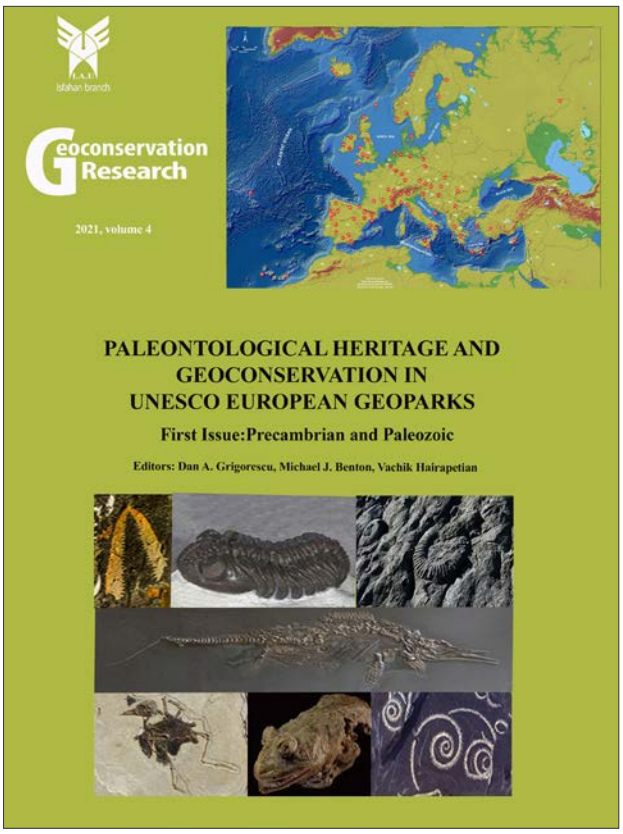
Brocx M & Semeniuk V 2010. The geoheritage significance of crystals. Geology Today 26: 216-225.

Weighell T & Torfason H 2002. Geological and Geomorphological Conservation: a Review of Global European and National Programmes. Paper read at Working Group on the Geological Heritage 13 September 2002, Strasbourg.

Margaret Brocx, Murdoch University, Australia
Vic Semeniuk, Murdoch University, Australia

# Paleontological heritage and geoconservation
## Information on the publication

by: **Dan Grigorescu**
[ danalgrigorescu@gmail.com ]




The two issues of the special volume of Geoconservation Research Journal, 2021, vol. 4 entitled "Paleontological heritage and geoconservation in UNESCO European Geoparks", edited by Dan A. Grigorescu, Michael J. Benton and Vachik Hairapetian (https://gcr.isfahan.iau.ir/) include 64 articles and introductory notes. The authors are geologists and managers from 37 geoparks, as well as professional paleontologists outside the geoparks. This publication is an example of partnerships that strengthen cooperation between geopark members and scientific and educational institutions.

The articles present the geoparks' paleontological values: fossil plants, invertebrate and vertebrate animals, fossil tracks, different modes of conservation, including "miracles" (Messel Pit, The Causses du Quercy), fossiliferous and stratigraphical geosites, frequently followed by the interpretation of evolutionary events and paleoenvironmental conditions. All the articles present specific approaches to geoconservation, closely intertwined with geoeducation and geotourism. The practical activities developed with children and students, as well as the cooperation with the local communities in promoting the natural heritage, are mentioned in numerous articles.

The articles are ordered in geochronologic succession: the first issue is dedicated to Precambrian and Paleozoic, and the second issue to Mesozoic and Cenozoic, the 720 pages of the volume offering thus an overview on the geobiological history of life based on the best of the geology and paleontology of Europe, placed in a global context.

The volume is the result of the European Geoparks Network thematic group "Fossils".

Dan Grigorescu, University of Bucharest, Romania

# Second life of former quarries
## A case study from southern Poland

by: **Ewa Głowniak**
[ eglownia@uw.edu.pl ]

The Jurassic marl and limestone quarry in the village of Wrzosowa dates back to the early 19th century. Practically inactive since 1936, with a short period of moderate reactivation after the Second World War, it is now part of the natural landscape of the community of Poczesna (Silesian Voivodeship, southern Poland). It lies on the top of a hill with a magnificent view of the limestone rocks of the Krakow-Częstochowa Jurassic Highlands. Although it is not far from Częstochowa, it is a secluded place, occasionally visited by amateur fossil collectors and dog walkers.

The site is of great interest to professional geologists studying Jurassic formations. This is evidenced by the conference excursions organised here, accompanying international events, such as, for example, the International Jurassic Congress in Krakow in 2006 organised under the auspices of the International Subcommission of the Jurassic System.

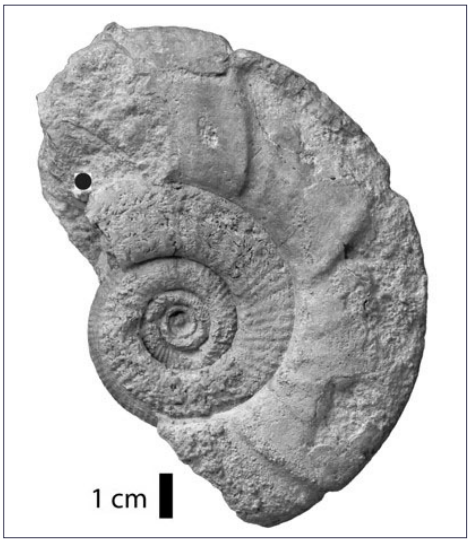
The Wrzosowa quarry is a textbook example of the succession of Jurassic rock formations. Late Jurassic limestones and marls rich in calcite (CaC03) overlie Middle Jurassic formations rich in iron ions (Fe+3). The latter form a several-metre-high package of hard calcareous siliceous rocks overlying black clays rich in siderite.

Lower Oxfordian carbonate successison overlying the Callovian calcareous and siliceous rocks in the former quarry of Wrzosowa. Photograph by Anna Jezierska-

Both rock formations, the Middle and the Late Jurassic, played an important industrial, cultural and social role in Wrzosowa during the last century. This is evidenced by the quarry itself, which was established at the end of the 19th century to supply limestone raw material for the production of Portland cement in the Wrzosowa Cement Plant, built at the beginning of the 20th century.

The terms 'Middle' or 'Late' Jurassic refer to the time and sequence of formation of individual rock formations, i.e. their stratigraphic age. It is determined by the evolutionary changes in the fossil species of organisms. Determining the age of strata requires the careful collection of fossils from numbered and measured strata. Ideally, all these strata should be well exposed, have an undisturbed sequence and be rich in fossils. This is exactly the case in the Wrzosowa quarry. The stratigraphic age of the rocks exposed here is the turn of the Callovian and Oxfordian stages. These names imply that the absolute age of these rocks is about 160 million years.

Anyone who has been to this quarry knows that fossils are abundant here. They represent a diverse group of marine organisms, such as sponges, brachiopods, echinoderms and molluscs. Many of these animal groups are familiar to us from modern seas and oceans, although they are represented by different species from 160 million years ago. This is not the case for ammonites or belemnites, which are completely extinct groups of molluscs. Both groups became extinct about 65 million years ago. It is interesting to note that ammonite fossils are a source of information about the age of formation of the Jurassic strata. There, in the section of the Wrzosowa quarry, it is easy to study.




*Prososphinctes consociatus* (Bukowski) – lectotype from Częstochow

The richness and diversity of the fossils in this quarry make it possible to study not only the age of the rocks. Suffice it to mention that it was here that the extremely rare phenomenon (bio-event) of a mass reproduction of a single species of ammonite of the genus Prososphinctes (Family Perisphinctidae), classified as a form with Tethyan roots, was discovered and interpreted for the first time by the author of this article. This has made it possible to show that the sea basin that existed here about 160 million years ago had an open connection with the Tethys Ocean. The Wrzosowa quarry is currently the best section in Poland and Europe for this rare bioevent.

The examples presented here show the importance of the geological significance of this more than 100-year-old quarry in Wrzosowa. For this reason, the staff and students of the Faculty of Geology at the University of Warsaw systematically carry out scientific research and educational activities here. They have the permission of the local municipality, which is the legal owner of the site. It should be noted that each year the students begin their work by painstakingly scraping away layers buried by amateur fossil collecting and natural slope processes. They refresh the numbers painted on the layers of rock to correctly complete the database each year.

The author of this article has been working for many years with the local authorities of the Poczesna Commune to raise awareness of the scientific and educational value of the site and its development potential for the local community. She also works with the Ecological Club at the primary school of Wrzosowa and with local NGOs to ensure that the site is legally protected and that its geological and natural values are effectively managed.

Discussions are ongoing.

During the annual fieldwork, students learn stratigraphic and palaeontological methods and how to interpret ancient sedimentary environments based on their own observations and measurements at the section.

REFERENCES:

Głowniak, E. 2012. The Perisphinctid genus Prososphinctes SCHINDEWOLF (Ammonoidea, subfamily Prososphinctinae nov.): an indicator of palaeoecological changes in the Early Oxfordian Submediterranean sea of southern Poland. Neues Jahrbuch für Geologie und Paläontologie, Abhandlungen, 264 (2), 117–179.

All photographs are by the author unless otherwise indicated.

Ewa Głowniak, University of Warsaw

# ProGEO and Heritage Stones Subcommission

## a reciprocal association

by: **Margaret Brocx** [ m.brocx@outlook.com ]

At the ProGEO Executive Committee meeting held on 11th June 2024, it was agreed to form a reciprocal association with the Heritage Stones Subcommission (HSS).

The Heritage Stones Subcommission (HSS) forms part of the International Commission on Geoheritage (ICG), together with the Subcommissions on Geoheritage Sites and Heritage GeoCollections. The ICG is, in turn, a scientific commission established by the International Union of Geological Sciences (IUGS). The ICG and its subcommissions aim to actively collaborate and seek partnerships with other IUGS subcommissions, commissions, organisations and networks at all scales, from local to global, which are active within the field of geoheritage and related disciplines. ProGEO is an international organisation, affiliated with the IUGS, and a member of the IUCN (International Union for Conservation of Nature). It was resolved that the exchange of information on our respective initiatives (ProGEO and HSS) would be of benefit to the wider geological community involved in geoconservation.

The historical use of natural stone can be a major contributor to understanding past civilizations and how different civilizations evolved over the millennia, from antiquity to the present. The geological attributes of the stones, which have survived for millennia and enrich our cultural heritage, should be documented and studied for present and future generations. The identification of stone-built monuments and historical quarries of important stones are one of the mandates of this subcommission. This will lead to awareness and dissemination of information on stones (ex-situ geomaterials), thus promoting education and research in this and related fields. The main objectives of IUGS-HSS are to identify, propose and coordinate designation of 'IUGS-Heritage stones' and develop an inventory of globally significant Heritage Stones (HS) using standardised criteria. In this context, the idea of designation and the work of the subcommission will be actively disseminated to all countries of the world to encourage natural stone activists to publicize natural stones from their countries.

This exciting reciprocal arrangement falls within the objectives of ProGEO, which are:

- To promote the conservation of the rich heritage of landscape, rock, fossil and mineral sites.
- To inform a wider public of the importance of this heritage, and of its relevance to modern society.
- To advise those responsible for protecting our geoheritage.
- To organise and participate in research into all aspects of planning, science, management and interpretation that are relevant to geoconservation.
- To involve countries worldwide in the exchange of ideas and information and taking a full part in conservation in a global setting, including the formulation of conventions and legislation.
- To act towards a global list of outstanding geological sites, thus enabling full support to be given to the work of other international bodies, as well as to national initiatives towards site protection.
- To achieve an integrated approach to nature conservation, promoting a holistic approach to the conservation of biological and geological phenomena.

For additional information on the HSS and the criteria for submitting an application for registering a Heritage Stone on the Global Heritage Stone Inventory, see DEFINITION / STANDARDS STONES - IUGS (iugs-geoheritage.org)

To share ProGEO endorsed activities with HSS members, email Margaret Brocx m.brocx@outlook.com

Margaret Brocx, Murdoch University, Australia

# Professor Zofia Alexandrowicz (1930-2024)

remembered

by: **Ewa Głowniak**
[ eglownia@uw.edu.pl ]

Zofia Alexandrowicz

It is with great regret that we inform you that Professor Zofia Alexandrowicz, member and co-founder of the ProGEO organisation, founder and long-time coordinator of the Central European Working Group, and member of the Editorial Board of Geoheritage, passed away on 20 June 2024. Throughout her professional life, and up until the last year of her life, she was committed to the promotion and protection of inanimate nature.

She had family and professional ties to the city of Krakow, Poland. Here, at the AGH University of Science and Technology, she obtained a Master's degree in geology. She started working at the Institute of Nature Conservation of the Polish Academy of Sciences in Krakow, where she passed through all the stages of her scientific career, obtaining her doctorate (1965) and habilitation (1978) and holding the highest positions in this scientific institution: associate professor (1993) and full professor (1997). In 1993 she was awarded the independent academic title of Professor (the highest in Poland) by the President of the Republic of Poland, Lech Wałęsa.

Zofia Alexandrowicz began her research under the supervision of Prof. Walery Goetel - an eminent Polish geologist and palaeontologist, the founder of sozology - a science concerned with the conservation of nature and its resources. Zofia Alexandrowicz's research interests include stratigraphic geology, with publications on the stratigraphy of Carboniferous and Cretaceous formations based on foraminifera, and issues of inanimate nature conservation. Her notable achievements in the latter field include, for example, mapping the distribution of dune forms in the largest inland area of volatile sands of the Pleistocene epoch in southern Poland called Pustynia Błędowska (Engl. Fatamorgana Desert) and a diverse studies of sandstone rock formations in the Carpathian Mountains of the Beskidy Mountains and in the foothills of the Carpathian Mountains in southern Poland. To the latter, she devoted a comprehensive scientific monograph. She is known to the younger generation of geologists as the explorer of the Crystal Grottoes in the Wieliczka Salt Mine, which were declared a nature reserve in 2000 thanks to her scientific research. She was the main co-author of a monographic book on the site, awarded by the Polish Ministry of the Environment. She has authored or co-authored 250 scientific and popular publications and maps.

Zofia Alexandrowicz was a respected authority on environmental protection in Poland and Europe. She was a member of various high Polish scientific and government bodies, for example, Member of the State Council for Nature Conservation, as well as the scientific councils of Wolin National Park and Magura National Park. She has received the highest state honours and awards, including the Science Award from the Ministry of the Environment (2003).

Above all, she is known as one of the initiators of the creation of an international cooperation network for the protection of Europe's geological heritage. A movement that quickly took the form of ProGEO - now an international organisation with a global reach. She was a founding member of ProGEO, which was held during the first international symposium in Digne, France, in 1991. From 1995 to 2010 she chaired the ProGEO Central European Working Group and was its national representative in Poland, as well as being a member of the ProGEO Executive Committee. During this time, she organised two international conferences of the Central European Working Group in Kraków, Poland: in 1997 and 2003, in cooperation with the Polish National Geological Institute. The proceedings of both conferences, including abstracts and papers, have been published in English in geological journals.

When the honour of organising the 9th International ProGEO Symposium in 2018 fell to Poland, Professor Zofia Alexandrowicz supported us with her knowledge and experience. Unable to attend the Symposium in person for health reasons, these are her words of welcome to the Symposium participants:

ProGEO Central Europe Working Group Conference in Kraków in 1997. Professors: Zofia (second row, in blue jacket) and Stefan (left above) Alexandrowicz in front of the entrance to the Hotel Kazimierz in Ojców. Also: Józef Partyka (Director of Ojców National Park), Bill Wimbledon, Carl Eric Johansson, Todor Todorov, Natalia Gerasimenko, Janina Otęska-Budzyn, Vidas Mikulenas, Andrei Ivchenko, Radoslav Nakov, Jan Urban and others (unidentified). Courtesy of Jan Urban

*"To the Participants of the IX International ProGEO Symposium*

*I would like to welcome all the participants to the IX International ProGEO Symposium and express my deep regret that I am unable to be present at this event. I thank the organisers for their efforts in preparing the Symposium and for the honour of making me an honorary member.*

*Let me remind you that geo-protection (formerly known as the protection of inanimate nature) has always been a valuable branch of nature conservation in Poland. A large number of outstanding geologists and geographers, in addition to their work in their respective fields, have endeavoured to protect objects beyond the immediate study. In the course of this symposium, you will have the opportunity to see some traces (and evidence) of these activities. From my own personal experience, I would like to recall the achievements of just three people:*

*- Professor Stanisław Małkowski, who in the 1920s studied the theoretical issues of protecting geological monuments and published his views in a Polish scientific journal, the only one in the world devoted exclusively to the protection of inanimate nature;*

*- Professor Walery Goetel, my tutor, who was active in international associations, initiated the idea of transboundary national parks, participated in the creation of Polish national parks and nature reserves, and created the concept of sociology as a discipline of the science of protection and rational use of natural resources;*

*- Professor Stefan Kozłowski, with whom I worked for a long time, was the initiator of the network of landscape parks in Poland and introduced the concept of protecting geodiversity.*

*On behalf of the Central Europe Working Group of ProGEO, I propagated new tasks for the progressive development of geo-protection, which were taken up in the proceedings of successive symposia and workshops, and tried to see them implemented in Poland. Of all the meetings, I remember with great emotion the first international symposium in Digne, France, in 1991. The large number of participants from all over the world created an atmosphere of great enthusiasm for the idea of protecting the geological heritage. I wish you a similar experience during the 9th ProGEO Symposium.*

*Zofia Alexandrowicz"*

We bid farewell to this wise and charismatic woman who played a leading role in the protection of Poland's geological heritage in dialogue with the countries of Europe at the time of its democratic transformation at the turn of the 21st century.

On behalf of the Polish ProGEO Group

Ewa Głowniak, University of Warsaw, Poland

# Participatory Geoconservation

## workshop

by: **Mauricio Faraone** [ progeolac@gmail.com ]

To commemorate the World Environment Day, celebrated globally on June 5, a Workshop on Participatory Geoconservation in the Latin American and the Caribbean (LAC) region was held online on Friday June 7, 2024. The idea of the event was to present case studies of conservation of geological sites with the participation of communities, and holistically including the integration of biodiversity and geodiversity.

The event featured speakers from Mexico, Chile and Brazil, and attendees from across the LAC region. The first presentation showcased La Ruta de la Amistad ('The route of friendship'), an initiative to design a touristic route that included former abandoned monuments built for the Olympic Games in Mexico in 1968. This project also included the restoration of geological sites such as quarries, the assessment of geodiversity – mainly volcanic – and the biodiversity associated with these lavas. The study considered ecosystem services, the association of biodiversity and geodiversity, and highlighted the volcanic character of the Mexico City megalopolis.

The second presentation showcased two case studies in Brazilian coastal areas. The first one focused on coastal sites and climatic events in the context of the Costões e Lagunas Aspiring Geopark in Rio de Janeiro. This study combined a methodology including geodiversity mapping, ecosystem services assessment, morphological analysis of coastline evolution, and the documentation of threatened natural and cultural sites. This exceptionally interdisciplinary research included an outreach component and aimed to build a comprehensive and inclusive understanding of the problem of coastal erosion by recording both scientific narratives and local and indigenous perspectives, which were disseminated as a podcast. The second case study was about hydro-geo-ethics. This initiative aimed to recover the water history of a Quilombo – a settlement of people of African descent in Brazil – valorise water sources as cultural heritage sites and develop equitable and inclusive water supply protocols. This case study was another example of an interdisciplinary and transversal approach, where a community with African heritage is connected to their land thanks to geological bedrock that is also found in Africa. It's an excellent example of hydro-geo-ethics that also celebrates the ethnic diversity of Latin America.

The third presentation, from Brazil, discussed education and citizen science, as well as various experiences of participatory science, community inclusion, guide training, and the creation of support networks in Fernando de Noronha Archipelago and in Chapada dos Veadeiros National Park. These actions are interconnected by the relationship between geo and biodiversity and the concepts of geoethics and geoeducation.

The last presentation came from La Giganta Park, a private reserve located in the Aconcagua Valley, in Central Chile, which takes its name from a hill near the Aconcagua River whose headwaters originate in the Andes Mountains. Various conservation activities carried out in a highly biodiverse, under-protected ecosystem facing latent threats were discussed. The relationship between geodiversity and biodiversity was also explicitly highlighted. The geological highlights of the region, which serve as an open book for studying different branches of the Geosciences, were emphasised.

This approximately two-hour workshop brought together different countries, seven different speakers, and successfully commemorated, through some very inspiring talks, the World Environment Day, and celebrated the biological, geological and cultural diversity of the LAC region.

The choice of this date by the ProGEO LAC Committee was not accidental, as it was intended to highlight the importance of geodiversity in the context of environmental protection with engaging and interdisciplinary case studies that would also demonstrate the intrinsic relationship between geodiversity and biodiversity in some of the most biodiverse localities in the world. A great way to celebrate the environment in 2024!

The event was in Spanish and Portuguese. The recording is available on the YouTube channel of the Brazilian Association for the Defense of Geological and Mining Heritage (AGeoBR) in the following link: https://www.youtube.com/watch?v=0T97T_IhkB8

On behalf of the ProGEO LAC Committee

Juan Esteban Quintero Marin, Maria da Gloria Motta Garcia, Mauricio Faraone Pimienta



| Date | Event type: | City and country | Event title | Will ProGEO logo be used: | Main organizers | Website link | Remarks |
|---|---|---|---|---|---|---|---|
| **FEBRUARY 2024** | | | | | | | |
| 15th - 17th | W | Conferences and fieldwork at different localities in the Murcia Region, Spain. Transport by bus included in price. | First Field Workshop on Geoheritage Conservation in Mining Environments of Murcia Region (I Jornadas de Campo sobre la Conservación del Patrimonio Geológico en Entornos Mineros de la Región de Murcia) | No | presidencia.sedpgym@gmail.com | http://www.sedpgym.es/actividades/congresos/249-i-jornadas-de-campo-sobre-la-conservacion-del-patrimonio-geologico-en-entornos-mineros-de-la-region-de-murcia | Includes both conferences and guided fieldtrips. Official language: Spanish. ProGEO members organize the event. |
| **APRIL 2024** | | | | | | | |
| 15th - 19th | C | Cultural Center of the General Directorate of Mineral Research and Exploration, Ankara / Türkiye | 76. Geological Congress of Türkiye with International Participation | | tolgacan@cu.edu.tr 76tjk@mo.org.tr | https://tjk.jmo.org.tr/index.php?kod=1606&g=en | The seventy-sixth Geological Congress of Türkiye, the most established and respected scientific organization in the field of Earth sciences in Türkiye since 1947, will be held at the Cultural Center of the MTA General Directorate, between 15-19 April 2024, with the main theme of "Disaster Resilient Cities". |
| **MAY 2024** | | | | | | | |
| 10th-11th | C | Monte Barro Park, Italian Alps | Antonio Stoppani –dalla scienza alla divulgazione | No | Asociazione Italiana di Geologia e Turismo | https://geologiaeturismo.it/activity/stoppani-dalla-scienza-alla-divulgazione/ | Two-days event with talk/poster session and an excursion |
| 11th - 12th | AE | More than 50 locations (every province in Spain, plus some islands) | Geolodía (Geology Day) | Yes | Geological Society of Spain (Sociedad Geológica de España). sge@usal.es | https://geolodia.es/ | Mostly guided fieldtrips, but also conferences and workshops. ProGEO is organizer in some of the activities. |
| 15th | M | Rome (Italy) | Italian ProGEO National Group Meeting | Yes | ProGEO National Representative I.M. Bollati | | |
| 20th-25th | W | Jičín (Czech Republic) | Volcandpark 2024 | No | Czek Geological Survey | www.volcandpark2024.geocon.eu http://volcandpark2024.com/ | An event to bring together experts in valuation, protection, education and management of volcanic areas. |
| **JUNE 2024** | | | | | | | |
| 7th | W | Online, countries of the Latin American and the Caribbean | Workshop on Participatory Geoconservation for commemorating the World Environment Day | Yes | ProGEO LAC Regional Working Group | https://www.youtube.com/watch?v=0T97T_lHkB8 | Two-hour workshop with 7 oral presentations from Brazil, Chile and Mexico |
| 14th-16th | S | Salve (Puglia, Italy) | National Congress SIGEA "I paesaggi e beni geologici, patrimonio culturale e patrimonio immateriale" | Yes | SIGEA - Italian Association of Environmental Geology | https://sigea-aps.it/eventi/i-paesaggi-e-beni-geologici-patrimonio-culturale-e-patrimonio-immateriale-salve-le-14-15-e-16-giugno-2024/ | Oral presentation |
| **JULY 2024** | | | | | | | |
| 2nd -6th | S | Ávila, Spain | XI Geological Congress of Spain (2024) | No | Spanish Geological Society - Geoheritage Commission | https://congresogeologicosge.es/ | Geoheritage Session |
| **AUGUST 2024** | | | | | | | |
| 25th - 31th | S | Busan, Republic of Korea | 1. Session T27-4: Geoconservation and Geoheritage: geodiversity underpinning natural systems (Led by ProGEO). | Yes | Conveners: Kevin Page, John Gordon; Co-conveners: José Brilha, Maria da Glória Motta Garcia, | https://www.igc2024korea.org/ | The 37th International Geological Congress, Busan |
| | W | | 2. Short Course/Workshop: "Geoheritage and geoconservation as applied geosciences: principles, methods, and challenges" | | Manu Monge-Ganuzas | progeo@progeo.ngo | |
| **SEPTEMBER 2024** | | | | | | | |
| 3rd-5th | S | Bari (Puglia, Italy) | Sessions T6 to T11 under the umbrella "Cultural Heritage and Geoheritage" | Missing information | Italian Geological Society and Italian Mineralogy and Petrology Society | https://www.geoscienze.org/bari2024/ | Congresso Congiunto SGI-SIMP 2024 "GEOLOGY FOR A SUSTAINABLE MANAGEMENT OF OUR PLANET" |
| 22nd-25th | C | Anaheim, California USA | T40: Human Dimensions of Geoheritage | No | Geological Society of America annual meeting : T40 Conveners Christina DeVera and Tim Henderson, abstracts due 18 June | https://community.geosociety.org/gsa2024/program/technical/topical | Conference "Geological Society of America Connects 2024" |

Next issue of ProGEO NEWS (deadline)

October 30th, 2024

Please send contributions to ProGEO NEWS. Members are interested in things that happen all over the world, your experiences, activities, science, geosites, geoconservation and geotourism efforts!

october 30

ProGEO NEWS are available in the ProGEO site (under publications) www.progeo.ngo

ProGEO NEWS issued with information about ProGEO and its activities.

Editor-in-chief: João Rocha • joaorocha@uc.pt • ISSN 2184-8300

Please send your contributions (unformatted word file). Photographs, maps and figures should be sent as separated files (preferentially not included in the word file).

If longer texts are needed, please contact the editor.