

GEOHERITAGE Newsletter



No. 6, March 2022



The Fagradalsfjall fissure eruption in Reykjanes Geopark, Iceland, produced new features of geoheritage interest and raised both scientific and visitor management challenges. Icelandic geological experts were surprised when the eruption began, and equally surprised that despite intense earthquake activity, the eruption appears not to have been sustained. Icelanders treat these eruptions as 'tourist volcanoes' and like to visit as near as possible to the eruption points and lava flows despite the obvious dangers. The civil protection bodies have had some difficulty in restraining visitors, many of whom regard it as their right to climb on the fragile aa and pahoehoe lavas, destroying their exquisite forms, and throwing rocks onto the surface. (Photo: © Roger Crofts).

Welcome to the WCPA Geoheritage Specialist Group (GSG) Newsletter No. 6. Although unable to hold physical meetings in 2021, the Steering Group held several planning meetings online, and work has started on key activities in the Group's 2021-2024 workplan, including Key Geoheritage Areas and Climate Change. There are also updates on the activities of the Caves and Karst Working Group (CKWG) and implementation of IUCN Resolution WCC-2020-Res-088: Conservation of the natural diversity and natural heritage in mining environments.

Publications during 2021 included an issue of *Parks Stewardship Forum* on 'New perspectives in geoconservation in protected and conserved areas'. Written as a follow-up to the WCPA Best Practice 'Guidelines for Geoconservation in Protected and Conserved Areas', the featured articles examine key topics for protected area managers and others. Several GSG members also contributed to the 'Thematic Study on Revision of Criterion (viii) for World Heritage'.

The Newsletter also contains an update on geoheritage activities in the USA, including the publication from the 'America's Geoheritage Workshop II'; and there is a note on the initiation of interest in including geoconservation in nature conservation programs in Nepal.

As always, contributions to future Newsletters are welcome from the wider membership on IUCN-related geoconservation activities and issues in protected and conserved areas.

Finally, please remember to update your GSG membership for 2021-2025.

John Gordon

Message from the Chair

The last year 2021 was quite a change in my life because I retired from Kangwon National University in Korea where I have served for teaching and research for the past 35 years. I took an assistant professor position in 1986 and have been there almost half my life. I guess I can say that I feel very satisfied from my past life there. Now I am facing another challenge – how to manage the rest of my life ahead. These days I am going to the Polar Research Institute of Korea twice a week to continue my research on paleoclimate. Also, I have been teaching at the guide training programs and publishing Earth science-related articles at Kids Dona Science Magazine since last January.

I am very sorry that not much has changed from last year due to COVID-19. Despite the situation, we managed to have several Steering Committee meetings last year. Even though all the meetings were held online, I felt good that everybody is doing well, and we could have fruitful discussions about our current and future activities. Especially welcome back to a normal Geoheritage life, Enrique.

We held a formal Steering Committee meeting and a special workshop on Key Geoheritage Areas during the 2021 ProGEO meeting organized in Spain. First of all, I would like to express my sincere gratitude to the Spanish organizers for the meeting. It was indeed well arranged and organized. I felt very sorry that we could not meet there but the workshop was quite successful. I am grateful to all the invited speakers (Tim Badman, José Brilha and Nigel Dudley from WCPA GSG and Asier Hilario from IUGS) for their wonderful contributions.

It was a big step and quite a challenge for us to establish the Geoconservation and Climate Change Working Group in GSG as initially proposed by Wesley Hill. After her proposal I thought this working group is necessary to meet our society demands. I have been searching for a Chair of the Working Group, and I am very happy to find the most suitable expert, Dr. Suzette Kimball. I had a very nice chat with Suzette a while ago, and I felt very confident that she will lead this group very well with Wesley.

I was sorry again that I could not attend the World Conservation Congress in France last September. Even though I could not travel abroad, I had opportunities to introduce our GSG activities through several webinars, such as the 1st 24H Webinar (Globinar on Transformational Impacts of Information Technology on World Heritage) in January 2021, the 19th International Symposium on Vulcanospeleology in Sicily in September 2021, the Online Thematic Seminar on Management Challenges of Internationally Designated Areas, the ACKMA (Australasian Cave and Karst Management Association) Conference in November 2021 and the Workshop on Geoconservation (PCTMCDB) by the Government of Nepal in December 2021. I hope to attend some meetings in person this year. Fingers crossed.

Keep safe until we meet again in person. All the best to all of you.

Kyung Sik Woo

Geoconservation and Climate Change Working Group

Wesley Hill Co-Chair
Suzette Kimball Co-Chair

The WCPA Geoheritage Specialist Group (GSG) aims to facilitate and promote geoconservation within the work of the WCPA and to provide expert advice and guidance on geoheritage insofar as it relates to the establishment and effective management of protected and conserved areas.

Geoconservation is defined as actions and measures taken to preserve significant geoheritage sites and interests for the future. Climate change is a key issue affecting both geoheritage and biodiversity within protected and conserved areas. Because of the many interactions and interdependencies between geodiversity and biodiversity, climate change action plans for nature conservation require an integrated approach. To help address these issues, GSG is establishing a Geoconservation and Climate Change Working Group (GCCWG) to bring specialized expertise and contributions from within the disciplines of the geosciences to IUCN and WCPA climate change discussions and forums. The GCCWG plans to contribute to, and as needed assist with, the goals of the WCPA Protected Areas and Climate Change Specialist Group (PACCSG) to bridge with the geoscience disciplines and expand the global conversation.

Climate change affects global temperature and precipitation patterns. These effects, in turn, can influence the intensity and frequency of extreme environmental events, such as forest fires, hurricanes, heat waves, floods, droughts and oceanic processes.

The GCCWG can help to expand the knowledge-base and capacity of Protected Area Managers to respond to climate-related issues by raising awareness of the inter-linked systems of the bio- and geo-realms and the need to view them holistically within protected and conserved areas. IUCN and the WCPA can therefore call upon this specialized Working Group to bring the geoconservation perspective into the broader biodiversity and climate change discussions under such themes as:

- Desertification and aridity;
- Coastal geomorphology;
- Hydrology and flood zones;
- Geomorphology and changing landscapes;
- Geologic hazards;
- Karst and underground water systems;
- Mining and rare Earth minerals;
- Glaciology;
- Intensification of catastrophic events.

[Dr. Suzette M. Kimball](#) will be joining the WCPA Geoheritage Specialist Group (GSG) to Co-Chair this Working Group with Ms. Wesley Hill. Suzette Kimball is an American coastal geologist and environmental scientist who served as the 16th Director of the United States Geological Survey (USGS) under U.S. President Barack Obama.

This new GSG Working Group is currently developing its Terms of Reference and work plan, and will reach out to the IUCN community this Spring to call for membership and involvement.

Key Geoheritage Areas

Jose Brilha

This project is still at a very early stage of planning. A small working group of GSG members is preparing a draft scoping document, including the main aims, definitions, criteria to select areas and governance. When concluded, this draft will be circulated for review and to involve relevant partners.

Update on IUCN Resolution WCC-2020-Res-088 Conservation of the Natural Diversity and Natural Heritage in Mining Environments

Enrique Díaz-Martínez

Geological Survey of Spain (IGME), Spanish National Research Council (CSIC)

One of the major achievements on geoconservation from the latest IUCN Congress (Marseille, 2020-2021) was the approval of Resolution WCC-2020-Res-088, dealing with the conservation of the natural diversity and natural heritage in mining environments. The original motion was written and proposed to the geoconservation community by a scientific organization: the Spanish Society for the Conservation of Geological and Mining Heritage (SEDPGyM). This organization has been active for several decades since it was founded in 1995, and even if most of its activity has focused on mining heritage, geoconservation has had, and still has, a very important role. SEDPGyM became a member of IUCN in 2015, and some of us are members of this society and also working in parallel on geoconservation from the Geoheritage Commission (CPG) of the Geological Society of Spain (SGE, member of IUCN since 2008), from ProGEO (member of IUCN since 2011), and more recently from the Geoheritage Specialist Group (GSG) of IUCN (formally within WCPA since 2013). For those willing to practise their Spanish, the web portal of SEDPGyM (<http://www.sedpgym.es/>) is quite encyclopaedic on mining heritage and the activities developed by the society. There is lots of information, particularly within the society's quarterly journal *De Re Metallica* (the name is from the XVI century German book on mining and smelting), as well as in the yearly books with proceedings of its annual international congresses, both freely available on the web. The 19th congress will be held in Cuevas de Almanzora, Spain, September 29 – October 2, 2022 (see: <http://www.sedpgym.es/actividades/congresos/>).

Part of the development of Resolution 88 during recent years with the COVID pandemic has been through webinars. One of them took place in December 2020 (<https://www.youtube.com/watch?v=Tk3Xhpy532o>), a few months after its approval, hosted by the Spanish branch of LafargeHolcim, a multinational business related with large-scale mining and the restoration of the areas developed. The objective of these webinars is to keep active and involve as many people and organizations as possible in the development of the resolution. There are many good examples on natural heritage and natural diversity related to mining areas, and there is a lot to do to promote geoconservation in those areas (see photos).

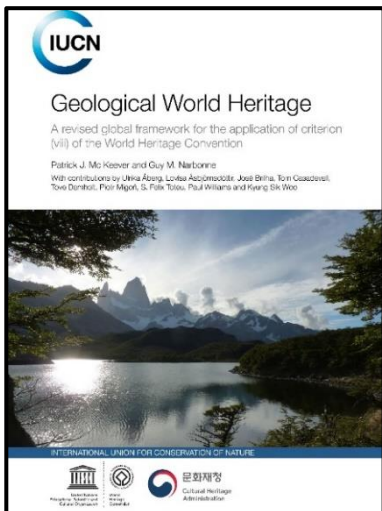


Geoheritage value enhancement at the pozzolana (lapilli) active mine of Cerro Gordo (Ciudad Real, Spain). The open pit is located on a national geosite (LIG) with code TM146 (<http://info.igme.es/ielig/LIGInfo.aspx?codigo=TM146>): a Pliocene-Pleistocene volcano, with maar features and sources of CO₂ emission. The site is being developed while guided visits take place.

This is precisely the reason why a working group on geoheritage in mining areas is currently being formed within the GSG: to propose, advance and develop initiatives for geoconservation in mining areas, which should help identify best-practice examples and make sound recommendations for proper geoconservation in mining areas. It is for these objectives that we expect fruitful collaboration between the three geoconservation IUCN members (ProGEO, SEDPGyM and SGE) and the GSG.

Thematic Study on Revision of Criterion (viii) for World Heritage

In 2005, IUCN published a report entitled *Geological World Heritage: A Global Framework* (Dingwall et al., 2005). The aim of that report was to discuss and advise on the role of the World Heritage Convention in recognising and protecting geological and geomorphological heritage. The aim of the present report is to fully revise and update the 2005 report and to look at the potential impact of the new UNESCO Global Geopark designation on future inscriptions to the World Heritage List under criterion (viii). This aim has been achieved through a thorough review of the 2005 report, and in particular the thematic approach to geology that the report used. This has led to the proposal of a rationalised set of 11 themes to guide the application of criterion (viii). The report also examines the processes of comparative analysis and questions of site integrity in relation to properties listed for geological and geomorphological values.



Five members of the WCPA Geoheritage Specialist Group were involved in this project and contributed some chapters and expert advice.

McKeever, P.J. and Narbonne, G.M. (2021). *Geological World Heritage: a revised global framework for the application of criterion (viii) of the World Heritage Convention*. Gland, Switzerland: IUCN.

<https://portals.iucn.org/library/node/49575>

New Perspectives in Geoconservation in Protected and Conserved Areas

Roger Crofts

The conservation of geoheritage is still not fully integrated into protected and conserved area management. Many features, such as caves and springs, volcanoes and other landforms, and paleontological sites are all important to care for, both in their own right and as part of ‘nature’s stage’: the physical environment in which species exist. Important recent advances in geoconservation may be about to change that. The twelve featured theme articles in the new issue of *Parks Stewardship Forum* take stock of where things stand, summarise recent developments, and discuss the challenges that must still be met to make geoconservation an integral part of nature conservation — and, in some cases, cultural heritage management.



The papers are written by members of the IUCN WCPA Geoheritage Specialist Group as a follow-up to the Best Practice Guideline on Geoconservation. An overview of progress and challenges by Crofts opens the set of papers, followed by an assessment celebrating 50 years of geoconservation by Brilha. Four papers examine the implications of changing the setting in which geoconservation takes place: Gray makes links to the Ecosystem Approach, Gordon and colleagues articulate the ‘nature’s stage’ approach, Gordon and colleagues set out the challenges of climate change for geoconservation, and Gray and Crofts consider the links to the Sustainable Development Goals. In getting the message over, Tormey articulates new approaches to communicating geoconservation. The final section deals with new approaches in different settings: Gunn for caves and karst, Tormey and Casadevall for volcanic landscapes, Larwood and colleagues for palaeontological features, Goudie for desert environments and Migoñ for rock landscapes.

The papers can be freely accessed at: <https://escholarship.org/uc/psf/38/1>

IUCN WCPA Best Practice 'Guidelines for Geoconservation in Protected and Conserved Areas'

Crofts, R., Gordon, J.E., Brilha, J., Gray, M., Gunn, J., Larwood, J., Santucci, V.L., Tormey, D., and Worboys, G.L. (2020). *Guidelines for geoconservation in protected and conserved areas*. Best Practice Protected Area Guidelines Series No. 31. Gland, Switzerland: IUCN.

This publication, initially launched in English in November 2020, is now available in French, Portuguese and German versions, and a Spanish version is also in preparation. It is free to access and available from: <https://doi.org/10.2305/IUCN.CH.2020.PAG.31.en>

Report from the Caves and Karst Working Group (CKWG)

John Gunn (Chair) & Baerbel Vogel (Secretary)

The Cave & Karst Working Group (CKWG) was formally established at the 2nd GSG International Workshop on Geoheritage which was held on the Isle of Vilm, Germany, in 2018. At the meeting the CKWG was given two primary goals:

- 1) revision of IUCN Guidelines for Cave and Karst Protection first published in 1997;
- 2) producing a report on Caves and Karst in international protected areas other than WHS, specifically UNESCO Global Geoparks, MAB Biosphere Reserves and Ramsar sites.

The first of these goals has been almost completed as the text for the 2nd edition of the Guidelines has been completed and work on the final layout is ongoing. The document has been edited by David Gillieson, John Gunn, Augusto Auler and Terry Bolger, with contributions from ten other members of the CKWG and from the President of the International Show Caves Association (ISCA). It is being published by the International Union of Speleology (UIS), with support from the IUCN, and it has been agreed that the logos of both organisations will appear on the cover. The Guidelines are a contribution to the UIS International Year of Caves and Karst (IYCK), originally planned for 2021 but extended into 2022 due to the problems posed by the Covid-19 pandemic. It is planned that the document will be formally launched at the 18th International Congress of Speleology which will be held in Savoie Mont-Blanc, France, from 24 to 31 July (see <https://uis2021.speleos.fr/> for further information). However, it may be available to download before that date and further details will be given when the final arrangements are confirmed.

The second goal is partially complete, in that databases have been produced listing cave and karst sites in each of the four UNESCO PAs: Biosphere Reserves, Ramsar sites, UNESCO Global Geoparks and World Heritage Properties. The databases for carbonate and evaporite karst were presented in "Gunn J, 2021. Karst groundwater in UNESCO protected areas: a global overview, *Hydrogeology Journal*, 29(1), 297-314", which was published as a contribution to the work of the CKWG. Since then, UNESCO PAs with volcanokarst/lava caves and with karst on other rocks have been added to the database, and consideration is being given as to whether the outcomes should be a formal report or a further paper in an academic journal. One difficulty is that any publication will be out of date by the time it appears as new PAs containing caves and karst are designated each year. A good example is the Xiangxi UNESCO Global



Geopark, China, which was one of 15 new UGGp approved by UNESCO's Executive Board on 10 July 2020.

Viewpoint in the spectacular karst of the Dehang Valley, Xiangxi UNESCO Global Geopark (Photo: © John Gunn).

A further challenge is that although PAs can be identified that are known to contain caves and/or karst surface landforms the areal extent of karst in these and other protected areas, and the extent of cave and karst geodiversity, are rarely documented. Hence, there is a clear need for inventories to inform geoconservation and to identify geoheritage in PAs designated for cultural, ecological or other reasons. This was highlighted to UNESCO by CKWG Chair, John Gunn, who gave an invited talk on *Caves and karst in UNESCO protected areas* at a meeting to celebrate IYCK which was held at the UNESCO Headquarters in Paris on 13 September 2021. This event was recorded and is available on the UIS You Tube channel: <https://www.youtube.com/channel/UCzSiErLj5x6viNbvAdehDvA>.

Goals for the 2021 -2024 period have yet to be agreed but are likely to include measures to advance IUCN Resolutions 074 (*Geoheritage and Protected Areas*) and 088 (*Conservation of the Natural Diversity and Natural Heritage in Mining Environments*), both of which are particularly relevant to karst areas. In addition, once the guidelines for the recognition of KGAs have been agreed, the CKWG will make recommendations as to those cave and karst sites that meet the KGA criteria.

International Geodiversity Day Approved by UNESCO

Murray Gray

Queen Mary University of London

On 22 November 2021, the 41st General Conference of UNESCO approved the establishment of International Geodiversity Day (IGD). This was the last stage in an 18-month campaign to achieve this initiative. Over 75 countries were supporting the Day and several spoke in favour at the Conference. The first IGD will be held on 6 October 2022, and we encourage geoscience organisations from around the world to start planning activities for this day. Already, the Association for Geoconservation, Hong Kong (AGHK) is organising a series of evening lectures through the rest of this year focusing on the geodiversity of continents, and a special issue of the *International Journal of Geoheritage and Parks* is being planned.

You can read more on the website: <http://www.geodiversityday.org>

WCPA and GSG Membership Update

Wesley Hill

WCPA asks all of its members to 're-apply' during this membership renewal period, 2021-2025. Please check your IUCN WCPA membership status and re-apply if you have not already done so. Follow these links: <https://portals.iucn.org/commissions/apply> and <https://www.iucn.org/commissions/world-commission-protected-areas/get-involved>

Please update your membership in the **IUCN WCPA Geoheritage, Caves, Karst, and Protected Areas group**.

Geoheritage Activities in the USA in 2021

Tom Casadevall

For the past decade, the U.S. National Committee's Advisory Group for Geoheritage (AG) has organized numerous initiatives and supports any U.S. community that is interested in learning about geoheritage and geoconservation and how to apply those concepts to their specific localities. The AG's geoheritage activities have been focused on organizing technical sessions and providing advice to communities. During 2021, the Advisory Group engaged in and supported a variety of activities. These include:

International Geodiversity Day (October 6, 2022): The AG provided a letter of support for the establishment of International Geodiversity Day. In June 2021, UNESCO accepted the proposal for International Geodiversity Day (IGD). The first IGD will be held on October 6, 2022.

Workshop: "America's Geoheritage Workshop II: Identifying, Developing, and Preserving America's Natural Legacy." Part I of the workshop consisted of a distinguished speakers' webinar series of eight sessions held in September - December 2020 and included the participation of 30 national and international speakers. These webinars gained the attention of 1153 participants when broadcast live. To date, archived webinar recordings have been watched by 450 people from across the globe. The list of speakers, titles, and video recordings of the webinars are posted at:

<https://www.nationalacademies.org/our-work/americas-geoheritage-ii-a-workshop>

Part II of the workshop was held in January 2021 as a Writing Workshop. It included 101 participants who were divided into twelve working groups covering many topics, including a global vision for geoheritage and relation of U.S. initiatives to international programs; a survey of geoheritage activities in the U.S. (federal agencies and state geological surveys); culture and sense of place; science; geotourism; and issues related to teaching education from kindergarten to post-secondary levels. An additional six informal groups were added once the workshop had begun. These explored topics from geoheritage and the arts to geoheritage and social media. The list of focus groups and reports of group findings are at this link: <https://www.nationalacademies.org/event/01-10-2021/americas-geoheritage-workshop-ii-identifying-developing-and-preserving-americas-natural-legacy-part-ii-geoheritage-virtual-writing-workshop>

In addition to National Science Foundation funding, this workshop was supported by the National Park Service and the U.S. Geological Survey and was co-sponsored by the Association of American State Geologists, American Geosciences Institute, Geological Society of America, National Association of Geoscience Teachers, and the National Earth Science Teachers Association. The proceedings, *America's Geoheritage II: Identifying, Developing, and Preserving America's Natural Legacy: Proceedings of a Workshop*, was published in electronic format in September 2021 and is freely available online at <https://nap.edu/26316>. To date, this report has been downloaded nearly 1000 times. Of those, about 40% were downloaded internationally, which speaks of the interest in American geoheritage abroad. On the suggestion of workshop participants, the NAS created a listserv to keep the geoheritage community connected. We have approximately 160 subscribers, and the list continues to grow.

USNC/GS Advisory Group members organized and presented lectures at the following meetings:

**GSA Annual Meeting, Portland, Oregon (October 10-13, 2021): Pardee Symposium
Geoheritage: Celebrating our Past, Protecting our Future**

(<https://gsa.confex.com/gsa/2021AM/meetingapp.cgi/Session/51721>). This Pardee symposium was a direct outgrowth from the America's Geoheritage II workshop. The Pardee session objectives are also formalized in a GSA Today publication (Andrews, W., and Clary, R. 2021: Geoheritage: Geology of the community, for the community, by the community: GSA Today, v. 31, no. 8, p. 16-17).

**GSA Annual Meeting, Portland, Oregon (October 10-13, 2021): Pardee Symposium
Geoscience and Society: Action and Interdisciplinary Engagement on Local and Global Scales**

(<https://gsa.confex.com/gsa/2021AM/meetingapp.cgi/Session/51773>). Ester Szein presented 'Geoheritage: an interdisciplinary approach towards sustainability', an invited talk co-authored with David Mogk, and presented a poster entitled 'America's Geoheritage Workshop II: Identifying, Developing, and Preserving America's Natural Legacy--Workshop Proceedings'. <https://gsa.confex.com/gsa/2021AM/meetingapp.cgi/Paper/370283>

Latin American Geological and Mining Survey (ASGMI) workshop on Geoheritage, held virtually November 16-17, 2021. Tom Casadevall gave a presentation on U.S. geoheritage. The workshop was recorded and may be viewed at: <https://asgmi.org/taller-internacional-el-rol-de-los-servicios-geologicos-en-la-valorizacion-del-patrimonio-geologico/>

For more information about the U.S. Advisory Group for Geoheritage and Geoparks, please contact Tom Casadevall at tcasadev@gmail.com.

Geoconservation in the Nepalese Nature Conservation Programs

A webinar on 'Relevance of geo-conservation in the Nepalese nature conservation programs' was held on 24 December 2021 and included presentations from GSG members Kyung Sik Woo and Emmanuel Reynard. While geoconservation has been growing globally in recent years, the geoconservation approach is new for Nepal. The aim of the webinar, organised by the Government of Nepal President Chure Terai Madesh Conservation Development Board, was to learn from representatives of national and international organisations about the relevance of geoconservation in nature conservation programs Nepal.

Geological conservation approaches have not yet been internalised in Nepal's nature conservation policies and programs. Environmental protection has focused on conserving biological nature, especially forests and biodiversity, with the dominant view that abiotic nature is automatically protected after preserving biotic nature. The biotic nature is based on the abiotic nature such as atmosphere, water, and land. Further, our culture has also been formed from interactions with the same abiotic and biotic nature for hundreds of thousands of years. Therefore, it is necessary to conserve both biotic and abiotic nature and our culture to achieve the goal of sustainable environmental conservation. For some time now, the

formulation and implementation of policy and programs on climate change, which has been a part of abiotic nature, has already brought positive results in this country. However, conservation of geodiversity, including rocks, minerals, fossils, different landforms, and topography, has not been systematically discussed for conservation linking to nature-based tourism for the livelihoods and local economy.

The Government of Nepal formed the Chure Tarai Madhesh Conservation Development Board to conserve the Chure area, which is being exploited for its abiotic nature. Thus, the board has just started discussions to internalise the principles of geoconservation in its program. During this fiscal year, the board has a plan for a feasibility study to establish a geopark that covers the lower catchment of Tinahu River in Lumbini province, where the remnants of teeth of pre-human *Ramapithecus* have been found. This area also has two major geological thrusts, Main Frontal Thrust between Terai plain and Chure hill and Main Boundary Thrust between Chure hill and Mahabharat mountain range. Furthermore, it comprises the plain area with many hidden archaeological sites of the ancient Kapilbastu kingdom, where Gautam Buddha was born and raised, including other surrounding areas of natural and cultural heritage.

(Text adapted from the webinar information).

VI Brazilian Symposium on Geological Heritage, August 20 to 27, 2022

Maria da Glória Garcia (mgmgarcia@usp.br)

Eleven years ago, the I Symposium on Geological Heritage (SBPG) took place in Rio de Janeiro. The event crowned pioneering experiences regarding the dissemination of geosciences and the valorisation of the geological heritage in the country, such as the Brazilian Commission of Geological and Paleobiological Sites (SIGEP), created in 1997, and the Geological Paths Project, which began in 2001. Four events followed in subsequent years, in which topics related to geoconservation have been discussed in all their breadth.

In 2022, the VI SBPG, which is sponsored by the Brazilian Association for the Defense of Geological and Mining Heritage (AGeoBR), will be held in São Paulo. Initially scheduled for 2021, it has the central theme, 'Conservation of geodiversity and geological heritage: our legacy for future generations'. These ideas bring a common feeling, which is the need to reconnect people with the natural environment and meet the challenges regarding pressing issues related to nature conservation.



The event's logo was chosen with the participation of members of AGeoBR. As Honorary President, Dr. Carlos Schobbenhaus, from the Geological Survey of Brazil (SGB/CPRM), receives the tribute of all who have worked for geoconservation in the country for

so long. The event also raises concerns about gender representation and geographic context, standing side by side with the equity policies that have permeated events around the world. In addition, sustainable practices will set the tone for the reuse and recycling of materials.

Additional information can be found in our website: <https://6sbpg.igc.usp.br/>

Other Forthcoming Meetings

- **ProGEO SW European Regional Working Group: 1st Virtual Conference on Geoconservation, March 30-31, 2022**

The ProGEO SW European Regional Working Group was founded in 2010, gathering members from France, Italy, Portugal, and Spain. This ProGEO Group invites everyone interested in the geoheritage and geoconservation of SW Europe to participate in the Conference, which will be held on the Zoom platform.

The main aims of the conference are to provide southwestern European geoconservationists with the opportunity to share their work and research activities with other members of the geocommunity, and to strengthen collaboration between operators in the four countries.

The conference attendance is free of charge and open to everyone, not only to ProGEO members, but registration is mandatory. Please, register here before 28 March, 2022:

<https://docs.google.com/forms/d/e/1FAIpQLScrsLZykdpBhIVpfhVqEZSqmgZX6V4y82XbAz0Qr68vaYnN-g/viewform>

- **European Geosciences Union (EGU) General Assembly, Vienna, May 23–27, 2022**

This meeting includes a session on ‘Geodiversity and Geosystem Services of Drainage Basins: from Assessment to Enhancement’. Further information is available at:

<https://meetingorganizer.copernicus.org/EGU22/session/43939>

- **Oxford Geoheritage Virtual Conference 2022 (OxGVC 2022), June 6-9, 2022**

The organisers welcome contributions from all fields of geoheritage including geoconservation, management, classification, geodiversity, legislation, geoparks, geotourism, geoheritage and cultural heritage, and interpretation. The deadline for abstract submissions is 1 April.

Further information is available at: <https://www.oxgvc.co.uk/>

- **10th International Conference of the International Association of Geomorphologists (IAG), Coimbra (Portugal), September 12-16, 2022**

The Conference is organized by [IAG](#) and [Portuguese Association of Geomorphologists \(APGeom\)](#) and co-organized by the Centre of Studies in Geography and Spatial Planning (CEGOT), the Department of Geography and Tourism (University of Coimbra), and the Department of Earth Sciences (University of Coimbra). The theme of the Conference is ‘Geomorphology and Global Change’, and Session ICG2022-24 is on ‘Geoheritage, Cultural Geomorphology and Geotourism’. Further information is available at:

<https://meetingorganizer.copernicus.org/ICG2022/session/44362>

Other Recent Publications of Geoheritage Interest

Earth Heritage Magazine

Issues 55 and 56 of Earth Heritage Magazine were published during 2021. The magazine includes news and popular articles on geoconservation and is freely available online at: www.earthheritage.org.uk

Useful Links

IUCN-WCPA Geoheritage Specialist Group: <https://www.iucn.org/commissions/world-commission-protected-areas/our-work/geoheritage>

The European Geoparks Network: <http://www.europeangeoparks.org/>

Asia Pacific Geoparks Network: <http://asiapacificgeoparks.org/>

Global Network of National Geoparks: <http://www.globalgeopark.org/>

UNESCO Earth Sciences: <http://www.unesco.org/new/en/natural-sciences/environment/earth-sciences/global-geoparks/>

ProGEO (The European Association for the Conservation of the Geological Heritage): <http://www.progeo.ngo/>

International Union of Geological Sciences (IUGS): <https://www.iugs.org/commissions>

IUCN WCPA Geoheritage Specialist Group

The Geoheritage Specialist Group (GSG) provides specialist advice and guidance on all aspects of geodiversity and geoheritage in relation to the establishment and effective management of protected areas, and to support the integration of geodiversity into all relevant IUCN programmes.

Further information about the GSG is available at: <https://www.iucn.org/commissions/world-commission-protected-areas/our-work/geoheritage>

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To become a member of GSG, geoheritage experts must be members of the WCPA.

GSG also maintains a list of 'advisors' in the wider geoheritage community, who are not WCPA/GSG members. If you would like to be included on this list and to receive details of announcements and copies of the Newsletter, please send an email to Wesley Hill, including your full contact details (address, email, country, and your geoheritage interests).

The GSG Newsletter is compiled by John Gordon. Please send contributions to: jgordon0914@gmail.com