



# **International Commission on Geoheritage**

# **ANUAL REPORT 2021**

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## IUGS Commission on Geoheritage

IUGS International Commission on Geoheritage (IUGS-IGC) was created in 2016 with two sub-commission: 1) Sub-Commission on Sites and Collections, 2) Sub-Commission on Heritage Stones. In 2020 The IUGS Executive Committee decided to dissolve and rejuvenate this Commission with the following 5 clear mandates:

- 1) To review the structure, members and operational guidelines of the existing commission and sub-commissions.
- 2) To create a unique commission working under unified criteria, budget and statutes. Unified webpage.
- 3) To redefine and reactivate the programs of IUGS designation of sites and GSHR.
- 4) To increase the visibility of the commission among Geoheritage community and to strength collaboration with other international organizations, with special emphasis in UNESCO Global Geoparks.
- 5) To search for the possibility to create a new sub-commission on Geo-collections.

### New Commission structure designated in 2020

| IUGS International Commission on Geoheritage  |  |
|---|--|
| Chair: <b>Asier Hilario</b><br>Basque Coast UNESCO Global Geopark, Spain  |  |
| Vice Chair: <b>Angela Ehling</b><br>Bundesanstalt für Geowissenschaften und Rohstoffe. Germany                          | Vice Chair: <b>Zhang Jianping</b><br>China University of Geoscience. China |
| Secretary General: <b>Juana Vegas</b><br>Instituto Geológico y Minero de España. Geological Survey of Spain (IGME-CSIC) |  |

| <u>Sub-commission on Sites and Collections</u>                                  |  |
|---|--|
| Chair: <b>Benjamin van Wyk de Vries</b><br>Clermont Auvergne University. France | Secretary General: <b>Ezzoura Errami</b><br>Chouaib Doukkali University. Morocco |
| <u>Sub-commission on Heritage Stones</u>  |  |
| Chair: <b>Gurmeet Kaur</b><br>Panjab University. India                          | Secretary General: <b>Victor Cardenes</b><br>Oviedo University. Spain            |

## IUGS – ICG Main goals for 2021

In December 2020 and January 2021 the new Commission on Geoheritage met virtually to discuss and agree the main goals for the commission 2020 – 2024 as well as the action plan for 2021.

- To increase the visibility of IUGS in the frame of Geological Heritage. To become a global reference on Geological Heritage at international level.
- To make new unified Statutes that bring together all the sub-commissions to be approved by the IUGS.
- Recruitment and clarification of voting members for both sub-commissions.
- Establishment of clear criteria, methodology and procedures for the IUGS recognition of Global Geosites, and Global Heritage Stones of international significance.
- Establishment of a Working Group leads by Angela Ehling with the main objective of creating a new Sub-Commission on Geo-collections separate from the Sub-Commission on Sites.
- To strength the collaboration of IUGS with UGGP program with the annual assessment and the creation of new and more clear guidelines for the future.

## Summary of the IUGS-ICG 2021 main actions

- Opening of a participatory process among the key representatives of the new commission to create a clear and **agreed strategic plan** with defined actions for the next 4 years.
- **Online X International Symposium of ProGEO** organized by IGME-CSIC (Spain). 7<sup>th</sup> June Opening lecture by Asier Hilario (ICG-IUGS). 10<sup>nd</sup> June 2021 International Commission on Geoheritage online Session: Discussion about main goals and challenges for 2021. Participation of Asier Hilario (ICG) on the IUCN Expert Group on Geoheritage online Session on 9<sup>th</sup> June.
- **IGCP-731 project 2021 called “IUGS Geological Heritage Sites”**. This project will last 3 years and has brought together geological surveys, scientific institutions and UNESCO Global Geoparks from all over the world to work towards the definition and implementation of the new IUGS Global Geosite program.

- **Evaluation of 16 aspiring UGGp** coordinated by Benjamin van Wyk de Vries as Chair of the Sub-commission on Geoheritage Sites and Collections. This is a very important IUGS contribution to the development of UGGp program.
- IUGS-ICG has created a new working group with representatives from 10 countries to **produce the guidelines** and methodology **by which IUGS will assess Geological heritage of International significance of aspiring UGGp**. This clarification has been demanded since long time ago and it is important for the collaboration between IUGS and UNESCO Global Geoparks
- **Annual Meeting of ICG** in Basque Coast UNESCO Global Geopark (Zumaia, Spain). 18-20 November 2021 with the presence of all members of ICG and Stan Finney (SG IUGS).
- **New Statutes of ICG**. New and unified statutes have been produced and approved.
- **A new logo for the ICG** has been created
- **Webpage**. First steps for the creation of the new and unified webpage have been done.
- Creation a **new Sub-Commission on Geo-collections** and renaming of the Sub-Commission on 'Sites and Collections' as 'Geoheritage Sites'

## **Sub-commission on Sites and Collections**

### **Summary**

In 2021 – 2022 the subcommission's activities were reduced due to the COVID restrictions, but several important activities were upheld, and some important milestones accomplished. First there UNESCO Global Geopark reviews were accomplished from January to May, second the IUGS global Geosite project, through the IGCP-731 project was started and put on a solid foundation. These were also discussed at our first Commission face to face meeting in Zumaia in November 2021. The two other IGCP projects attached to the commission (692 Geoheritage for Resilience and 718 Bringing Geoheritage to Life) were very active in webinars and productions, and the two combined to provide for UNESCO a major report on the geoheritage potential of Small Island Developing States.

The membership and working structure of the commission was discussed during the Zumaia meeting, and a more dynamics working structure is being put in place with a wider membership incorporating the IGCP-731 Global Geosite groups, and the Global Geoparks review process. The consolidation of this full structure is a priority for 2022, with the need for an active secretary for the subcommission.

### **IUGS Activities for UNESCO Global Geoparks**

The IUGS carries out a key role, since the creation of UNESCO Global Geoparks in 2015, to provide expert advice, expert reviews and geoscience quality assurance to this prestigious global programme. At the start this role was carried out by the former president, Roland Oberhaensli, with an understood objective that it would be taken over by the Geoheritage Commission.

At Zumaia in November, this was discussed with Stan Finney, and the suggestion that the IUGS would consider amending its statutes to specifically state the role of the IUGS-ICG, and this would also eventually be brought up with UNESCO for the Global Geopark Statutes.

The IUGS duties in providing reviews, consultation and discussion with UNESCO and the global geopark movement is time consuming and requires a global team of dedicated and available geoheritage experts.

The major advances in 2020 has been the complete transfer of activities to the commission and the setting up of an initial working group who can manage the IUGS role in Geoparks. The 2021 advance was to use this structure, and provide at least five balanced reviews for each site. For 2022 this work will continue to consolidate.

### **Geoheritage Significance Reviews 2020 and 2021**

16 new Global Geopark applications were reviewed in 2021. (These reviews were accomplished in April/May 2021).

As the sub-commission aimed to increase and improve reviewing and to provide five desktop reviews for each site, 80 have been done in 2021).

In order to accommodate such work, the sub-commission has created a prototype **Working Group for Global Geoparks** and we shall share the coordination of reviews. The Working group is led by Benjamin van Wyk de Vries, for the moment.

The working group carries out the review process, including finding the reviewers, collating reviews and providing summaries. The passes the finding through the sub-commission and commission to the IUGS Executive before submission to UNESCO.

The coordinator of the group will advise representative of the IUGS on the Global Geopark Council, and attended the Global Geopark Council Meeting, to support the IUGS effort and represent the receive process.

### **Assessment Guidelines for Geoheritage Significance**

In 2017 a Working Group as set up to provide a set of Guidelines for the Assessment of International Significance of Geoheritage in Global Geoparks. This Working Group was superseded by the new IUGS Geoheritage Commission structure, and with Asier Hilario as coordinator, the sub-commission is working with the commission to reach a final implementation of the Guidelines, with strong cross-part support. The final implementation of these guideline may be introduced in 2022, for implementation in the 2023 review process.

### **Global Geosites**

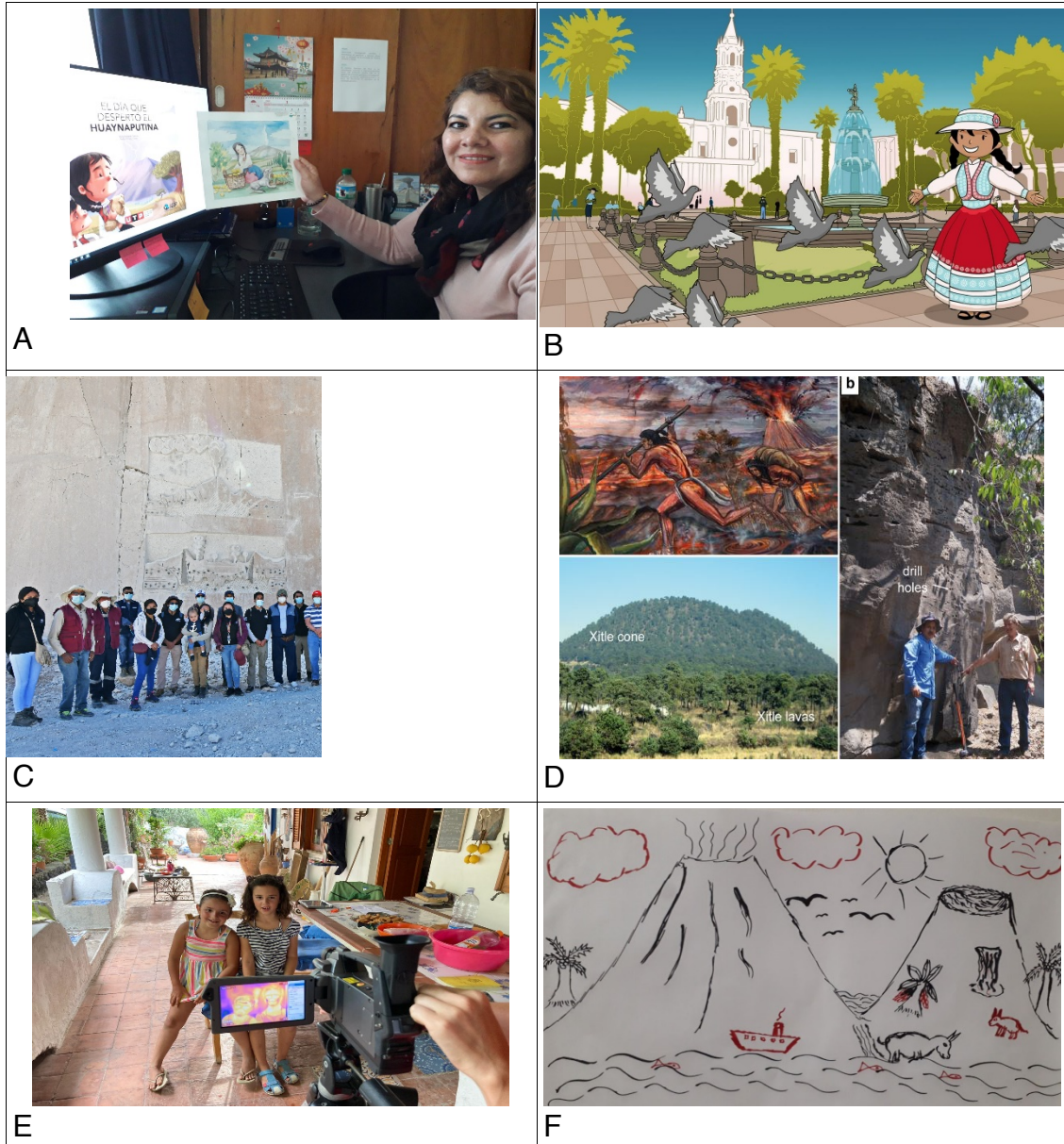
IUGS Global Geosites is now revived with a UNESCO IGCP-731 project, lead by Asier Hilario that was accepted in early 2021. The work on this project has advanced rapidly. The first 100 sites are being actively searched for in a pool of maybe 200 globally representative candidates. The work started in 2021, and is now continuing fast in 2022, with an anticipated first 100 Global Geosites launch in late 2022.

### **International Geosciences Programme projects 692 – Geoheritage for Geohazard Resilience and project 718 - Bringing Geology and Geoheritage to Life (figure 1).**

The Geohazards for Resilience project was accepted in 2019 and is the first Geoheritage IGCP project dedicated to geosites and natural hazards. Bringing Geology and Geoheritage to life is a new project proposed in 2020 and accepted in 2021.

Geohazards for Resilience has created a global network of geoheritage site projects that deal with geoheritage aspects of the resilience to natural hazards. A Website, email listserv and global webinars have been set up and the projects started in the following countries. Several papers have been published in 2020 and two in 2022, and many conference presentations.

Over 2021 the project organised numerous webinars (twice a month) connecting geoheritage workers across the globe to be found on [www.geopoderes.com](http://www.geopoderes.com). These are continuing in 2022.



**Figure 1) IUGS-IGCP 692 – Geoheritage for Resilience** and the sub commission have been active in many sites. **A.** Production of a picture story book for volcanic resilience in southern Peru with Instituto Geofísico del Perú (Luisa Macedo); **B.** Animated film of the origin of the white Sillar rock of Arequipa with INGEMET, Peru; **C.** Inauguration of the Engraving of the geological history of the Sillar in the sillar quarries (Sept 2021). **D.** Image from article by Guilbaud et al. 2021 on the geoheritage of the UNAM lavas, Mexico City. **E.** Young inhabitants of Vulcano, Isole Eolie, participating in a workshop of infra-red photography with monitoring scientists. **F.** Inhabitant's vision of the Isla de Ometepe, Nicaragua from an IGCP Geoheritage for Resilience workshop in Sept 2020.



## Heritage Stone Sub-commission

Heritage Stones Subcommission came into being at the 35th IGC in Cape Town, South Africa, in the year 2016.

The new board of HSS comprises of:

Vice-Chair (ICG): Angela Ehling

Chair: Gurmeet Kaur (India)

Secretary General: Victor Cardenes (Spain)

The Voting members: 20 covering experts from different continents.

The primary goal of the HS Subcommission is to facilitate formal designation of natural stones, as “IUGS Heritage Stone”, an internationally recognised heritage stone designation granted by IUGS. In the year 2020 and 2021 no stones have been designated as the guidelines and procedure for designation of IUGS-heritage stone is underway.

The HSS goals for 2021 have been set with the most important goal of reviewing the guidelines and procedure for designation of IUGS-Heritage Stone. The work is under progress and soon the guidelines and procedure will be published on the new ICG webpage.

In December 2021, the HSS approached the 20 voting members to discuss the procedure and guidelines for IUGS-Heritage Stone designation. Once the procedure of designation is finalised, the main tasks of the voting members of HSS will be related to the review of stone proposals and their designation as IUGS-HS.

### **Notable activities and achievements in 2021:**

#### **II Workshop on Heritage Stones**

The II International Workshop on Heritage Stones took place, on 5-7 October 2021, at Politecnico di Torino. The workshop was supported by IUGS, UNESCO-IGCP- 637. The Workshop had the active participation of scientists and stakeholders from India, Norway, Portugal, Poland, Romanian, Spain, Germany, Hungary, Italy, Egypt, Slovenia, Brazil, Columbia, Morocco, Argentina. The three-day program saw the participation of 31 people in presence and 29 in virtual mode.

Two keynote lectures were given respectively by- Prof. Lorenzo Lazzarini (Università IUAV Venezia) and Dr. Gurmeet Kaur (Chair-HSS).

To know more, open the link below:

[https://www.diati.polito.it/en/outreach/dissemination\\_and\\_public\\_engagement/workshop\\_on\\_heritage\\_stones](https://www.diati.polito.it/en/outreach/dissemination_and_public_engagement/workshop_on_heritage_stones)

#### **Special Issue in Episodes**

Dedicated to Heritage Stones was published in Episodes in March 2021 (<http://www.episodes.org/main.html>).

### Virtual EGU 2021 (vEGU21)

The HSS virtually organised the Session ERE5.1 *Global Heritage Stone Resource: The sustainable way forward*, in April 2021. The session was convened by Gurmeet Kaur, Victor Cardenes, Eliane Del Lama and Giovanna Antonella Dino.

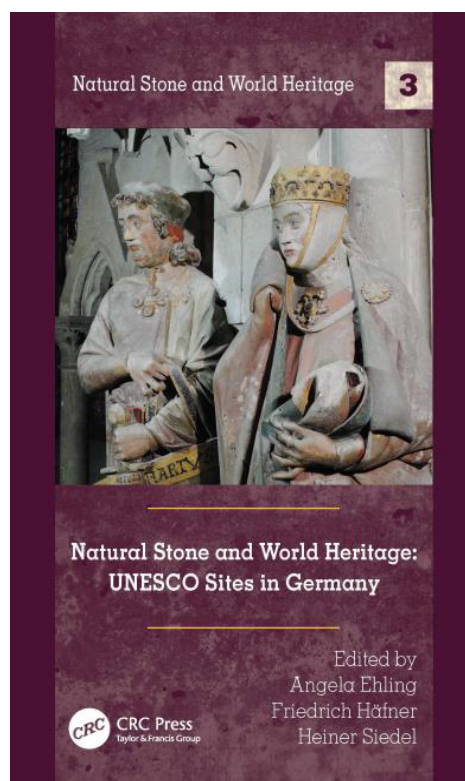
### GEOHERITAGE (Springer) Special Issue in progress

It is in preparation in the journal *Geoheritage*: SI on *Global Heritage Stone Resource: The sustainable way forward* is underway. This SI comprises of selected papers from the EGU 2021 session.

### Recent publications

*Natural Stone and World Heritage: UNESCO Sites in Germany*

Edited by Angela Ehling, BGR, Berlin, Germany, Friedrich Häfner and Heiner Siedel, TU Dresden, Germany. Series: Natural Stone and World Heritage



## IUGS-ICG. Financial Report 2021

### 1. Income received in 2021

| <b>INCOME 2021</b> | <b>Amount €</b> |
|--------------------|-----------------|
| IUGS 2021          | 3854            |
| Remain ICG-2020    | 5700            |
| <b>Total 2021</b>  | <b>9554</b>     |

**Total .....10.811 USD**

### 2. Expenditures in 2021

| <b>Concept</b>   | <b>total €</b> |
|--|----------------|
| EGU meeting 2021 (Heritage Stones Sub-commission, Special Session)             | 210            |
| Travel cost: ICG Meeting Zumaia-2021   | 2.270          |
| Hotel, meals & transfers: ICG Meeting Zumaia-                                  | 3.034          |
| Travel & accommodation IUGS EC. Paris, March 2022                              | 1.300          |
| Webpage <a href="http://www.iugs-geoheritage.com">www.iugs-geoheritage.com</a> | 2.740          |
| <b>TOTAL</b>   | <b>9.554</b>   |

**Total ..... 10.811 USD**