Information and discussion on the ‘Global Heritage Stone Resource’ (GHSR) a new international designation recognising natural stone resources that have achieved widespread utilisation in human culture

This project operates as the “Heritage Stones Subcommission (HSS)” of the “International Union of Geological Sciences” (IUGS) and under “Commission C-10 Building Stones and Ornamental Rocks of the International Association of Engineering Geology and the Environment” (IAEG C-10)

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**Opening Message**

An annual circular in the middle of the year update information of the Heritage Stones Subcommission and activities. This circular complements the annual newsletter that is issued every year, in January. Circulars and Newsletter contain the information registered by the Secretary General and any other information provided by the HSS correspondents. A call requesting information is sent in advance. Correspondents are responsible for the information provided.

After transition from IUGS Task Group to IUGS Subcommission HSS in September 2016, a new board was installed, with designation of an Advisory Panel with volunteers out of the list of correspondents of the HSS (see our web site for composition of the board, their CVs and contact details). New composition of the board will be voted at the 2020 IGC in Delhi, following our Terms of Reference (see web site www.globalheritagestone.com)

As of 30th July, 2018, HSS has 105 active correspondents from 33 countries. Correspondents receive personal information on the HSS activities and are also invited to take part in them as active members, reviewers and any other role involved in the development of such activities. Thanks to those that continuously send information, participate in events, and promote our working group.

**HERITAGE STONES MEETINGS**

**Summary of Past Heritage Stones Meetings**

**EGU 2018**

As every year since 2013, EGU held a session on heritage stones. However, as agreed with our sister subcommission, the Heritage Sites and Collections Subcommission (HSCS), the session was shared with them under the common title:

“Geodiversity and geoheritage: pending and emerging issues and challenges”

I am afraid that HSS correspondents did not feel identified with this session and only Beatrix Moshammer participated, presenting an oral session:

“Applied geological and cultural aspects of Leitha Limestone in Roman times (Middle Miocene, Eastern Austria)”.

The abstract for this contribution can be found at


I personally thank Beatrix for representing the HSS at this session and I apologize, because soon I realized that a joined session with Geoheritage was not a good idea. As a consequence, a debate on the convenience or not to hold other joined sessions in international meetings will be discussed at the I Workshop on Heritage Stones in Salamanca.
Global Stone Congress at Bahía, Brazil.

The Global Stone Congress (GSC) held its 6th meeting in Ilheus (Bahia), Brazil, from 26th to 29th of April. The aim of this Congress was to assemble international participants interested in natural stones, from geologist to architects, designers, engineers, representatives of research and teaching institutions and technological centers linked to the natural stone industry. More than 150 persons attended the Congress which included sessions on Architecture, Technology, Sustainability and Workshops for discussion and to promote debate on current challenges related to natural stones. More information of the meeting can be found at: [http://www.globalstonecongress2018.com.br/presentation.htm](http://www.globalstonecongress2018.com.br/presentation.htm)

ABIROCHAS and CETEM were the main promoters of the GSC. Maria Heloisa Barros de Oliveira Frascá, member of the board of the IUGS HSS, was one of the organizers. Several members of the HSS were invited as speakers, having the opportunity to promote the IUGS activities associated with natural stones. Some other HSS members participated in the Congress with IGCP-637 financial help.

Björn Schouenborg, Piero Primavori and Lola Pereira thank the organizers for the invitation.

Participants of the Global Stone Congress at the Blue Bahía Stone quarry
Next Heritage Stones Meetings

I Workshop on Heritage Stones (SOLD OUT!)
Salamanca 2-4 October 2018,

This meeting will coincide with the 800 anniversary of the University of Salamanca as well as with the 30th anniversary of designation of Salamanca as World Heritage site in 1988. And also! with the European Year of Cultural Heritage.

50 people will meet to discuss the present and future of the GHSR concept and also future initiatives of the group. Oral and poster sessions are scheduled in the program as well as a city tour, a fieldtrip and some social activities for registered participants. The complete program is in ANNEX I. Abstract for contributions at the Workshop can be found at ISSUU as an online publication:

https://issuu.com/mariadolorespereiragomez/docs/compilacion_abstract_reducido

EGU 2019

To be discussed at the Salamanca Workshop

Save your dates for more Heritage Stones Meetings!

IGC 2020, New Delhi, India, 2-8 March 2020

http://www.36igc.org/

Although it looks like ages from now, the 36th IGC is already preparing the scientific program. A session on Rocks through civilizations: Global Heritage Stone Resource, under the theme “Geoscience for Society” has been submitted by our Indian correspondents. As soon as we have more information, we will advertise it through our web page and newsletter. Please, bear in mind that during this IGC the composition of the new board should be elected and ratified, following our ToR.

STONE2020, Göttingen, Germany, 7-12 September 2020

Our correspondent Luís de Sousa informs on the meeting STONE2020. This meeting will discuss deterioration and conservation of stone and heritage.

http://stone2020.uni-goettingen.de/
The most important HSS publication was a special issue in the journal *Geoheritage*. At the moment, all papers are online and the full volume will be launched at the end of this year. Link to the journal:

https://link.springer.com/journal/12371/onlineFirst/page/3

This special issue is made up of nine papers that were sourced from contributions to sessions on Heritage Stones that were held as part of the European Geosciences Union General Assembly in 2016 and 2017, supplemented with contributions from other international meetings, like the International Geological Congress that took place in Cape Town in 2016.

The list of papers includes:

- **Sardinian Basalt—an Ancient Georesource Still *En Vogue***
  Nicola Careddu, Silvana Maria Grillo
- **Building Stones Can Be of Geoheritage Significance**
  M. Brocx, V. Semeniuk
- **TOURinSTONES: a Free Mobile Application for Promoting Geological Heritage in the City of Torino (NW Italy)**
  Francesca Gambino, Alessandro Borghi, Anna d’Atri, Lorenzo Mariano Gallo…
- **The Historical Importance and Architectonic Relevance of the “Extinct” Arrábida Breccia**
  José Carlos Kullberg, António Prego
- **The Traversella Mining Site as Piemonte Geosite**
  Emanuele Costa, Giovanna Antonella Dino, Piera Benna, Piergiorgio Rossetti
- **Lioz—a Royal Stone in Portugal and a Monumental Stone in Colonial Brazil**
  Zenaide C. G. Silva
- **The Significance of “White Macael” Marble Since Ancient Times: Characteristics of a Candidate as Global Heritage Stone Resource**
  R. Navarro, D. Pereira, A. S. Cruz, G. Carrillo
- **Art Museums: a Good Context for Outreach Activities on Natural Stones and Heritage**
  D. Pereira, P. Perez-Castro
- **Roofing Slate Industry in Spain: History, Geology, and Geoheritage**
  V. Cárdenes, M. Ponce de León, X. A. Rodríguez, A. Rubio-Ordoñez

A guide book is on press to accompany the activities at the I Workshop on Heritage Stones: Salamanca, ciudad de piedra y patrimonio/Salamanca, city of stone and heritage, by D. Pereira, C. González Neila and Ana del Arco.

**Other published papers (information submitted by correspondents):**

Several papers from our correspondents were published in:
OPEN FOR SUBMISSIONS: “Sustainability” Special Publication

In the frame of our I Workshop on Heritage Stones in Salamanca, October 2018, we have launched a special issue that will be accepting paper submissions until June 2019. This special issue is not only for participants in the workshop, but for all correspondents that wish to publish their original work on heritage stones.

The special issue is called: "Natural Stone and Architectural Heritage"

The journal Sustainability is a Q2 journal, with a 2017 impact factor of 2.075. The link to the special issue for submissions is:
http://www.mdpi.com/journal/sustainability/special_issues/nsah

Every correspondent interested in publishing in this Special Issue should look into the details provided through the link.

GHSR initiative

2017 was a great year for the HSS. The first eight stones achieved the recognition as GHSR. Our goal in 2018 is to recognize, at least, the same number of proposals. Several are being evaluated at the moment by the IUGS Executive Committee, final step for the recognition. Several others are being reviewed by external experts. HSS correspondents will be informed on the result in the annual newsletter and the web site.

Our IGCP-637 is progressing, accomplishing the main goals such as development in the GHSR designation and helping our eligible correspondents to participate in thematic meetings. This year’s funding goes completely to partially cover the travelling expenses and/or registration of eligible researchers that will attend the I Workshop on Heritage Stones in Salamanca.

It is our wish to keep using this IUGS-UNESCO funding to support these eligible researchers to participate in our future meetings. To know more about the IGCP-637 visit our site or the UNESCO IGCP page: [http://www.unesco.org/new/en/natural-sciences/environment/earth-sciences/international-geoscience-programme/igcp-projects/earth-resources/project-637-new-2015/](http://www.unesco.org/new/en/natural-sciences/environment/earth-sciences/international-geoscience-programme/igcp-projects/earth-resources/project-637-new-2015/)

In our web site you can see the progress of the IGCP-637 and the information on the achieved GHSR designations.

This project ends in 2019. Continuation or alternatives will be discussed during the open sessions at the I Workshop on Heritage Stones.

Other projects

Our network is advancing in several fronts related to research and promotion of natural stones and heritage. Working together has made possible to arrange few common proposals, some submitted to the European Union, dealing with natural stones, heritage, geoheritage and natural resources in general.


Several members of HSS joined a proposal for ERASMUS+ to study the importance of Raw Materials and sustainable extraction (partners from Italy, Spain, Portugal and Portuguese speaking partners: Angola, Cabo Verde and Mozambique). Funding decision is expected in the following months.

Several members of the HSS joined a consortium, coordinated by L. Pereira at the University of Salamanca, to work in natural resources (partners from Italy, Spain and Portugal).

Other content submitted by our correspondents.

Our correspondent David Freire informs on a video that has won a prize in an outreach contest. The video has subtitles in English and mentions the GHSR initiative.

[https://www.youtube.com/watch?v=AX-5kVDtXY4](https://www.youtube.com/watch?v=AX-5kVDtXY4)
Obituary

Don Byerly, Professor Emeritus of the Earth and Planetary Sciences Department, University of Tennessee, Knoxville, passed away on April 25, 2018. Don was a valued colleague, an honored teacher, and an untiring advocate for the earth sciences. He was the author of *The Last Billion Years: A Geologic History of Tennessee* (2013) and a major contributor to the exhibition *Rock of Ages: East Tennessee’s Marble Legacy, Museum of East Tennessee History* (November 2016-May 2017). He was also author of the paper:


Born in Wilmington, Delaware, he received an A.B. degree in Geology from the College of Wooster, Ohio and earned M.S. and Ph.D. degrees at the University of Tennessee, Knoxville. His specialty was Engineering/Environmental Geology. He received many teaching awards and was a Fellow of the Geological Society of America.
How to register as HSS correspondent. New General Data Protection Regulation (GDPR)

HSS correspondents are researchers willing to actively being involved in the research and diffusion of natural stones for construction and/or restoration. Specifically on Heritage Stones. To be a HSS the interested parties will have to send a message to the Secretary General (Lola Pereira: mdp@usal.es) explicitly allowing her to use his/her email for communication on HSS subjects.

We are following the General Data Protection Regulation (GDPR), which has taken effect in Europe in May 2018. The GDPR improves transparency and data privacy rights of individuals. As a HSS correspondent you have always the right to cancel your registration in our subcommission. Your email address will only be used to communicate through the HSS network and will not be share with any other person or institution without your consent.

Please, let us know if at any moment you want your name removed from our correspondents list.

We will keep updating this list with newcomers that show interest in working with us, but we will also remove those names that never exchange any ideas or feedback for a long time. The goal of the HSS is to become the liveliest network on natural stones and heritage!

It is helpful if we know more about our Correspondents and their interests, so feel free of sending me, as Secretary General, information on your work on natural stones and heritage, so we can count on you if publications, meetings and/or research projects are prepared.

PLEASE ADDRESS ALL CORRESPONDENCE TO THE HSS SECRETARY GENERAL, WHO IS ALSO EDITOR AND COMPILER OF THIS CIRCULAR

Lola Pereira: mdp@usal.es
I Workshop on Heritage Stones
Salamanca, 2-4 October 2018
Day 1 (October 2nd)
9:00-10:00 Registration (Building: Hospedería Fonseca)
10:00-10:15 Welcome. Chair of HSS Björn Schouenborg
10:15-10:45 Introduction (GHSR, IGCP, etc...) Lola Pereira.
10:45-11:00 Debate
11:00- 12:00 Coffee Break*

Invited Presentations: (12:00-13:30)
- Prof. Roland Oberhänsli (past IUGS president): "Mineralogy - detective for restoration"
- Prof. Ezzoura Errami (African Geoparks Network coordinator): "Stone heritage between use and patrimonialisation: Examples from Morocco".

14:00-15:30 Lunch* (Building I+D+i, Calle Espejo.)
(setting up posters)
16:00- 17:00 Round table
17:00- 19:00 Poster session
Coffee and refreshments will be served during poster session

Day 2 (October 3rd)
Theme sessions (Building: Hospedería Fonseca)
9:00- 9:30
1) Granites and "granites" (Introduction: Giovanna Dino; speakers: Zenaide Silva and Tom Heldal):

9:30- 10:30
2) Marble versus limestones (Introduction: Björn Schouenborg; speakers: JoAnn Cassar and Piero Primavori):

10:30-11:30
3) Slates for roofing and more (Introduction: Lola Pereira; speakers: Victor Cárdenes):

11:30- 12:30 Coffee break* Cafetería Hospedería Fonseca
14:00- 15:30 Lunch* (Facultad de Ciencias. Salamanca Stones collection)

City tour:
Afternoon: Tour around historical Salamanca by touristic train* (around 30 minutes) followed by walking city tour with our own guides from the organizing committee.

Day 3 (October 4th)
Visits to historic and active quarries*
Departure: 9:00 Colegio Fonseca
- Villamayor sandstone quarry (historical) (coffee and refreshments offered by Villamayor council)
- Los Santos granite quarry (active)
Lunch* (around 14:00)
- Martinamor granite quarry (historical)
- Arapiles opal cemented conglomerate (historical). Related historical site.

Estimated arrival time in Salamanca: 19:00
21:00 Farewell Dinner*

* Activities for registered participants only.