



Global Heritage Stone

Circular No 5

December 2012

www.globalheritagestone.org

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 Stone Task Group" (HSTG) 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)

OPENING MESSAGE

The Global Heritage Stone project is now formally established with an international Board of Management and Office Bearers that were approved during the 34th International Geological Congress held in Brisbane, Australia in August 2012.

Since our last Circular in March 2012, presentations have also been made at the "Global Stone Congress", in July in Alentejo (Borba), Portugal, at the "Science and Technology for the Conservation of Cultural Heritage" conference (Technoheritage) in Santiago de Compostela, Spain, in October, 2012, and at the CCOP assembly in Malaysia (November) as well as at the Brisbane Congress. A presentation was also planned at the Brazilian Geological Congress.

The inaugural HSTG Business Meeting was also held in Brisbane during which the opportunity was taken to discuss future activities. The minutes of this business meeting are included here together with an image of attendees.

Plans have since been completed for a HSTG meeting and technical session in association with the European Geosciences Union (EGU) General Assembly, to be held in Vienna, Austria from 7-12 April 2013. Another meeting is also planned for Kalamazoo, Michigan in May 2013. More details within.

With approved HSTG Terms of Reference, the first "Interim List" of potential GHSR candidates is now being established. It is attached together with this Circular. Additional suggestions for this list are most welcome. Also in this Circular is a Check List of GHSR characteristics for those working to prepare a research paper and a nomination for GHSR status. Critical assessment of this Check List from Correspondents is welcome.

An HSTG report has recently been submitted for publication to the IUGS journal *Episodes* together with a GHSR nomination of Portland Stone from the United Kingdom. It is hoped that the Portland Stone nomination will serve as an example and model for other GHSR nominations.

As of 1 December 2012 we have 163 members from 40 countries. Please feel free to nominate additional Corresponding Members.

Barry Cooper
Secretary General

HERITAGE STONE CONFERENCE, VIENNA, AUSTRIA, 7-12 APRIL 2013

Over several years, natural stone research has featured at the annual European Geological Union (EGU) conference, held in Vienna.

In 2013 this conference will have a specific session dealing with Heritage Stone designation. This is listed as follows: ERE3.4 - Natural stone research and Heritage Stone Designation
The Session Convener is Lola Pereira whilst Co-Conveners are Brian Marker, Sabina Kramar, Barry Cooper and Björn Schouenborg.

Please see the link: <http://meetingorganizer.copernicus.org/EGU2013/session/12920> for full details including submission of abstracts and offer of papers.

**The deadline for the submission of abstracts is 9 January 2013.
We encourage all those associated with the Global Heritage Stone project to contribute.
HSTG only progresses with participation.**

The full description of the session is as follows.....

At the recent International Geological Congress, the "Heritage Stone Task Group" was created to facilitate formal designation to those natural stone types that have achieved important use and have been accorded significant recognition in human culture. Their recognition will promote public and policy-maker interest in stone built heritage, encourage the use of local natural stone and ensure the availability of the natural stone required for the maintenance of the built heritage and the quality of new buildings. The outcome will be the designation of a "Global Heritage Stone Resource", meaning a natural stone of local, regional or/and other different geographical levels importance. This session encourages contributions for the proposed designation, its application potential and the submission of papers on possible stones from all over the world to be candidates as Global Heritage Stone Resource.

ANOTHER HERITAGE STONE MEETING, KALAMAZOO, MICHIGAN, USA, 2-3 MAY 2013

A conference session closely related to HSTG efforts and entitled "Cultural Geology: Heritage Stone, Buildings, Parks, Exhibits, and More" will be part of the next Geological Society of America (North Central Section) conference in 2-3 May 2013 in Kalamazoo, Michigan. Session Conveners are Nelson Shaffer and Joe Hannibal.

All correspondents are welcome in Kalamazoo, Michigan next May.

The deadline for abstracts is 5 February 2013. More information can be found at <http://www.geosociety.org/sections/nc/2013mtg/techprog.htm>.

HSTG will co-sponsor this session.

FUTURE CONFERENCES, 2014 AND LATER

A 2014 conference is envisaged as a session of the XII IAEG conference to be held in Turin, Italy, 15-18 September 2014. A session entitled: “Building stones & Ornamental rocks: resource evaluation, technical assessment, heritage designation” has been proposed.

A 2015 conference is being planned for North America (USA or Canada) by Joe Hannibal, Brian Pratt and Nelson Shaffer.

The 2016 conference will likely be linked with the 35th International Geological Congress to be held in Cape Town, South Africa, 27 August – 4 September 2016.

INTERIM / STANDING LIST

With formal HSTG establishment, creation of an interim list of potential GHSRs becomes a major HSTG objective. There are likely to be hundreds of potential GHSRs around the world that could be listed.

Such an interim list has not been formally created until now however the HSTG Secretary General now has the specified role of keeping and maintaining such a list as well as a register of approved GHSRs. Consequently creation of an interim list is important so that we know where to direct our future efforts.

The interim list is just that, a list (in an Excel File) that is arranged alphabetically by country with summary details of a potential name, geological age, heritage aspect, contact person, action status, etc. It provides only a tentative guide for future prioritising of our efforts.

The attached Excel File file is the first HSTG attempt of achieving this.

Your comments and proposals for additions to our first interim list of GHSRs are needed and welcome.

Given his Australian affinities your Secretary General has intentionally suggested some natural stone types from Australia.

Following placement on the interim list, the following general procedures for subsequent GHSR designation are suggested:

- Use a Check List (see next section) to gather the essential defining information of each GHSR nominee.
- Prepare a research paper around this essential information with an introduction, review of the nominee, together with a concluding statement which compares this nomination with other potential GHSRs.
- Publish the GHSR nomination as a research paper in a peer reviewed technical Journal.

This publication can then be assessed by the HSTG Board and the nominated stone approved, if deemed acceptable.

Obviously this procedure is subject to change based on practical experience.

Research articles are possible in *Episodes* (the IUGS Journal), *Geoheritage*, *Journal of Architectural Heritage* or other peer reviewed journal with a distinctive tendency towards construction and architectural heritage topics. Special volumes are an alternative publication outlet.

CHECK LIST FOR GHSR DESIGNATION

Over the past 2 years, work has commenced on four GHSR nominations which are at different stages in being developed into research papers for publication. These are Portland Stone (UK), Welsh Slate (UK), Podpeč Limestone (Slovenia) and Piedra Pajarilla (Spain).

In order to commence this work a concise “Check List” of essential information was requested and provided.

Based on this experience, it is now recommended that all nominated GHSRs should have a concise standard statement of its unique features, as suggested by this “Check List” which can then be included within a research paper proposing GHSR status.

The Check List shown in the box below is here provided to all interested correspondents and is open for comment, revision and hopefully general approval.

This Check List can readily be used as a guide in a preparing a presentation for the coming conference in Vienna next in April 2013.

CHECKLIST
FOR
“GLOBAL HERITAGE STONE RESOURCE”
DESIGNATION

(December 2012)

Formal Name for this proposed “Global Heritage Stone Resource”:
(This should be the commonly used name)

Origin of Name (optional):

Stratigraphic (or Geological) Name:

Other Names:

(This may include the names given to different types or variants of the designated stone)

Commercial Designations:

(This should list any additional common commercial names that are used to market the designated stone)

Area of Occurrence:

(This means the geographic area where the designated stone occurs in nature, a general map also needed for publication)

Principal Location of Quarry or Quarries:

(This should specify active and abandoned quarries of the designated stone and their location. A detailed map may be necessary. One or several typical locations may be specified as a type quarry in the same way as a geological type section)

Geological Age and Geological Setting:

(Information on geological setting is optional but may include details of sedimentary basin/ fold belt, tectonic domain, igneous activity etc that place the designated stone in a wider geological perspective)

Petrographic Name:

(Technical name of stone as determined by geological assessment)

Primary Colour(s) and Aesthetics of Stone

(This include major colours, colour variations and descriptions of ways that a stone may be used aesthetically)

Natural Variability:

(Comment here on any natural changes in the designated stone)

Composition (optional):

(This should add any distinguishing mineralogical characteristics)

Geotechnical Properties:

(The characteristics listed below provide a guide only, some of which may be omitted, whilst others deemed important may be included)

<i>Water Absorption(%)</i>	<i>Density (kg/m³)</i>
<i>Porosity (%)</i>	<i>Compressive Strength – Dry (MPa)</i>
<i>Flexural Strength –Dry (MPa)</i>	<i>Salt Crystallisation (%)</i>
<i>Saturation Coefficient</i>	

Suitability:

(This should provide an assessment on how the stone has been utilised, for example: cut building blocks, sculpting stone, roofing, monuments, polished decorative use, technological objects etc. A comment on stone quality may be useful for example sculpting stone that provides international reference)

Vulnerability and Maintenance of Supply:

(This should assess the availability of stone supply for future use and for the renovation/ extension of existing buildings and monuments, as well as the possibility of constraints on supply through conservation measures or resource depletion or other factors)

Historic Use and Geographic Area of Utilisation:

(This should provide a brief general statement on the historic and geographic use of the stone especially in significant heritage or archaeological applications)

Buildings:

(This should provide an extensive list the significant buildings, monuments, sculptures etc, especially the most famous including dates of construction if available)

Related Heritage Issues

(This should include information on significant heritage issues that affect the designated stone for example, alternative heritage listing of buildings or quarry areas associated with the stone, supporting museums, sculpture parks etc.)

Other Designations (optional)

(Here it can be proposed that the stone may be assigned additional designations, for example the epithet ‘Classic World granite/marble/etc’, ‘Global Ornamental Stone’, ‘International Decorative Stone Icon’ etc.)

Related Dimension Stones

(Discuss here any other dimension stones that are closely related geographically, geologically or utilised together with this stone. Under current draft rules it is possible to propose separately a “Global Heritage Stone Province” that links several “Global Heritage Stone Resources”)

Principal Literature related to the Designated Stone

(list major scientific papers, books and popular literature dealing with the designated stone)

Images

(images, historic photos and line illustrations necessary for presentation and publication)

BRISBANE HSTG BUSINESS MEETING MINUTES**Report of the first Meeting of the Heritage Stone Task Group (HSTG), 9 August 2012, Brisbane, Australia commencing at 1900**

Participants:

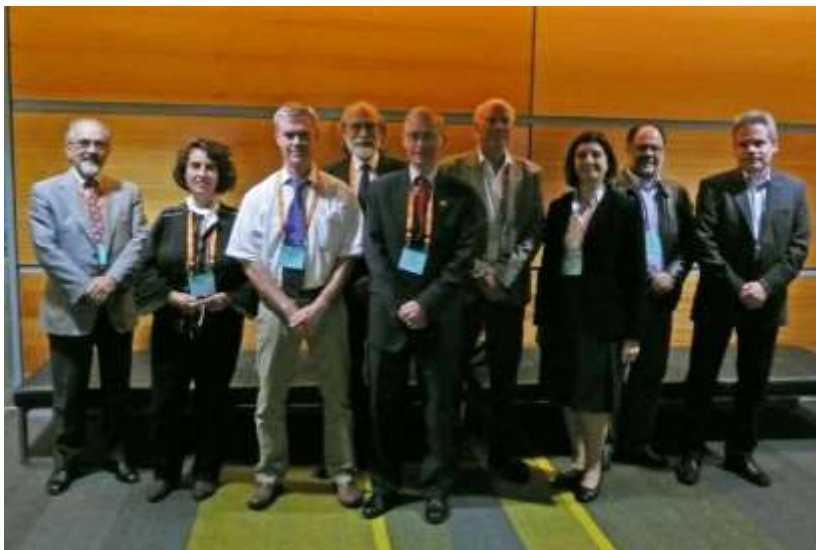
José Kullberg (PT), Lola Pereira (ES), Björn Schouenborg (SE), Brian Marker (UK), Barry Cooper (AU), Phil Paige Green (ZA), Atiye Tugrul (TR), Rogério Rocha (PT), Rolv Dahl (NO)

- 1 The current Chairman of IAEG C10 Dimension Stone and Ornamental Rocks and HSTG President, Björn Schouenborg, opened the meeting and welcomed all participants to the very first official meeting of the Heritage Stone Task group (HSTG).
- 2 Prior to the meeting, Barry Cooper, HSTG Secretary General, had informed and invited people to participate in the Group and also to comment on the suggested list of Board members (Enclosure 1). The Board members are now appointed for the period 2012 – 2016.
- 3 Barry Cooper summarised the previous activities between 2008 and 2012:
 - A Working Group was formed at the International Geological; Congress in Oslo in 2008 during a meeting of IAEG C-10. By July 2012, 118 people from 33 countries involved.
 - The first Circular was published in May 2009 with subsequent Circulars in September 2010, June 2011 and March 2012.
 - First Draft “Terms of Reference” were provided in First Circular in May 2009 with approval of Final Draft by IUGS Council in Brisbane in 2012.
 - A website was created in August 2009. <http://www.globalheritagestone.org/>. HSTG is also described on the IAEG homepage for C 10 on Dimension stones: http://www.iaeg.info/index.php/commissions/cat_view/109-iaeg-commissions/57-iaeg-commission-10-building-stones-and-ornamental-rocks
 - An introductory article was published by IUGS in their journal *Episodes* in March 2010 and this led the group to have, not only affiliation with IAEG, but also with IUGS which was recognised in February 2011.
 - HSTG established as a Task Group within IUGS in addition to association with IAEG C-10 with approval and initial funding at the IUGS Executive Committee in San Sebastian, Spain in February 2012.
 - During 2011 a positive dialogue was begun with UNESCO World Heritage, the International Council on Monuments and Sites (ICOMOS), the International

Council for the Study of Restoration and Preservation of Cultural property (ICCROM).

- Presentations of the HSTG have been made on several occasions: The following occasions were mentioned: Global Stone Congress, Alicante, Spain (2010), IAEG conference, Auckland NZ (2010), EGU, Vienna, AU (2011), Global Stone Congress, Borba, Portugal (2012).
 - HSTG activities have also been annually reported to the IAEG Secretariat by Björn and Barry.

 - Draft citations have been proposed and researched by British geologists specifically
 - Portland Stone
 - Welsh Slate
 - A study has also been made on Salamanca, Spain, led by Lola Pereira focusing on Piedra Pajarilla, Martinamor granite, Salamanca sandstone, Villamayor sandstone
4. Future activities
- Future meetings were discussed and it was decided to try to organise a session during the next EGU conference in Vienna in April 2013. Lola Pereira took on the responsibility to liaise with the organisers.
 - The possibility to develop a Newsletter was discussed and it was proposed to start with one volume per year.
 - The HSTG homepage was considered and it was decided to restructure it into a website for attracting new members as well as filing our documents. Members were invited to present ideas for a new lay-out.
 - As HSTG Secretary General, Barry Cooper agreed to prepare a report to all Board members as soon as possible which would consider as much as possible all future group work.
 - The next official HSTG meeting will likely be held in association with the EGU conference in April 2013.
5. In conclusion, the Chairman thanked everybody for their presence and their contributions then closed the meeting.



HSTG inaugural meeting: From left - José Kullberg, Lola Pereira, Björn Schouenborg, Brian Marker, Barry Cooper, Phil Paige Green, Atiye Tugrul, Rogério Rocha, Rolv Dahl

NETWORK OF HSTG CORRESPONDING MEMBERS

The following experts, arranged in countries, are on our current email list

<i>Argentina</i>	<i>Chile</i>	Jayananda Mudalappa
Silvina Marfil	Paul Horrey	Kottapali Murty
<i>Armenia</i>	<i>China</i>	Vinod Sharma
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Gourgen Malkhasyan	Changdong Li	<i>Italy</i>
<i>Australia</i>	Jianlin Wang	Paola Blassi
Carol Bacon	Xiaoqing Yuan	Domenico Calcaterra
Fred Baynes	<i>Croatia</i>	Nicola Careddu
David Branagan	Hrvoje Posilovic	Alessandra Formia
Margaret Brocx	Ivan Tomašić	Anna Frangipane
Ryan Chen	<i>Czech Republic</i>	Carlo Alberto Garzonio
Barry Cooper	Miroslava Gregerova	Sabrina Gultieri
Peter Crozier	Richard Prikryl	Michele Macchiarola
Steve Ford	Jan Valek	Paola Marini
Bernie Joyce	<i>Denmark</i>	Elena Pecchione
Robert King	Bent Grelk	Piero Primovori
Richard Lloyd	<i>Egypt</i>	Stefano Regalia
Wolf Mayer	Magdi Atya	Vincenzo Simeone
Deborah Morgan	<i>Finland</i>	Piero Tiano
Vic Semeniuk	Nike Luodes	Marcos Zerbinatti
John Siemon	Hannu Luodes	<i>Japan</i>
David Starr	Mika Räisänen	Masayo Fujita
Sue Turner	Akseli Torppa	Hirokazu Kato
David Warren-Gash	<i>France</i>	Manabu Takahashi
Susan White	Bernard Bonin	Shunji Yokoyama
<i>Belgium</i>	Jean-Didier Mertz	<i>Korea</i>
Veerle Cnudde	Pierre Potherat	Ju-Yong Kim
Roland Dressen	Veronique Verges-	<i>Malaysia</i>
Jan Elsen	Belmin	Kadderi Md Desa
Eric Groessens	<i>Germany</i>	Abd Ghani Rafek
Dominique Nicaise	Martina Kölbl-Ebert	<i>Malta</i>
Francis Tourneur	Jochem Lepper	JoAnn Cassar
<i>Brazil</i>	Axel Renno	<i>Mexico</i>
Antônio Gilberto Costa	<i>Greece</i>	Ikuo Kusuhara
Maria Heloisa de Oliveira	Basile Christaras	<i>Netherlands</i>
Frasca	Dionisis Koumoutsakos	John Jagt
Fabiano Cabanas Navarro	K. Laskaridis	<i>New Zealand</i>
Fabio Isidorio Trinidad	Maria Founti	Bruce Hayward
Pereira	Georgios Xeidakis	Uttam Pradham
<i>Canada</i>	<i>Hungary</i>	<i>Norway</i>
Gerard Middleton	Ákos Török	Kari Aslaken Aasly
Randall Miller	<i>India</i>	Rolv Dahl
Brian Pratt	Arindam Basu	Tom Heldal

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Portugal
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 Antonio Bastos de Pinho
 Lidia Catarino
 Luis Chambel
 José Carlos Kullberg
 Luis Lopez
 Ruben Martins
 Isabel M. Ratola Duarte
 Pedro Santarem Andrada
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 Valentina Cetean
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 Andrei Bulakh
Slovenia
 Mojca Bedjanič
 Sabina Kramar
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 James May
 Nelson Shaffer
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Do you know of other people or organisations that are interested in HSTG work?
 Please let us know, so they can be added to our list of correspondents.

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