Global Heritage Stone
Circular No 7
October 2013
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)

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OPENING MESSAGE

Much has happened since Circular No 6 was issued last March.

Since then HSTG has had a very successful inaugural conference in Vienna in association with the General Assembly of the European Geosciences Union (EGU) in Vienna with 31 papers and posters presented at the one day session on 12 April.

It was so successful in fact that the project was featured by the British Broadcasting Commission (BBC) which can be viewed and read at www.bbc.co.uk/news/science-environment-22097403 and www.bbc.co.uk/news/science-environment-22102933.

All Board members attending the conference also met informally one evening and discussed future plans for the Group. In addition there was a discussion session for all conference participants at the end of oral presentations.

Most notably, the Geological Society of London (GSL) requested that HSTG submit a publication proposal based on heritage stone presentations made at the conference. This has since been done with participants being contacted and a proposal being approved for 20 papers. This publication proposal has been made possible as a consequence of a Memorandum of Understanding between IUGS and the GSL.
Details of the proposed volume and its contents are provided in a separate section below.

The European Geoscience Union has since encouraged us to have a similar session at the EGU General Assembly in 2014. This has been agreed even though our major conference will be held in Turin, Italy, 15-18 September 2014, as a session at the 12th Congress of International Association of Engineering Geology and the Environment, our sponsor.

Since our last Circular, our website www.globalheritagestone.org has also been significantly revised with our GHSR and GHSP Check Lists being provided to the general public for the first time.

An HSTG progress report has also been published in Episodes 36: 8-10. It provides details of our formal establishment to the wider geological profession.

In addition, a paper entitled “Portland Stone: A nomination for ‘Global Heritage Stone Resource’ from the United Kingdom” by Terry Hughes, Graham Lott, Michael Poultney and Barry Cooper has been published in September in Episodes 36: 221-226. This is available at www.episodes.co.in/contents/2013/september/pp221-226.pdf

It is hoped that this second paper will provide a useful model for future GHSR nominations. It will be forwarded to the HSTG Board for consideration of its GHSR nomination over the next few months.

Our numbers of correspondents continue to increase. As of 1 October 2013 we have 203 members from 46 countries. Please feel free to nominate additional HSTG Corresponding Members.

Barry Cooper
Secretary General

2013 VIENNA CONFERENCE VOLUME – GEOLOGICAL SOCIETY OF LONDON

Working Title:
“Heritage Stone: An Introduction”

Editors:
Dolores Pereira (Corresponding Editor), Brian Marker, Sabina Kramar,
Barry Cooper, Björn Schouenborg

Aims of the Book

The book is planned as the first of several volumes over the next few years that discuss, document and propose formal GHSR designations.
Proposed Content

1. Barry Cooper  
The "Global Heritage Stone Resource": Past, Present and Future

2. Brian Marker  
Basis for application of criteria for definition of Global Heritage Stone

3. Björn Schouenborg, Jenny Andersson & Mattias Göransson  
Natural stones of historic and future importance in Sweden

4. Tom Heldal & Rolv Dahl  
Global stone heritage: larvikite, Norway

5. Sabina Kramar, Mojca Bedjanič, Breda Mirtič, Ana Mladenović, Boštjan Rožič, Dragomir Skaberne, & Nina Zupančič  
The Significance of Podpeč limestone in the Cultural Heritage of Slovenia

6. Andrey Bulakh  
Building and Ornamental Stone in the History of St Petersburg Architecture

7. Anders Wikström & Dolores Pereira  
The Kolmården serpentinite marble in Sweden, a building stone found at many levels in the society.

8. Afat Serjani & Sabina Kramar  
Drëpulë Stone and Gjirokastër World Heritage in Albania

9. Luis Lopes & Ruben Martins  
Portuguese Marbles as Stone Heritage

10. Angela Almeida & Arlindo Begonha  
Contribution of Portuguese two-mica granites to stone built heritage

11. Jana Horak, Terry Hughes & Graham Lott  
Welsh Slate: A Candidate for Global Heritage Stone Status

12. Rafael Navarro, Dolores Pereira, Carlos Rodríguez-Navarro & Eduardo Sebastián-Pardo  
Sierra Nevada serpentinites. An important element in the architectonic heritage of Granada (Spain).

13. Dolores Pereira, Ana Gimeno & Santiago del Barrio  
Piedra Pajarilla: A candidate for nomination as Global Heritage Stone Resource from Spain

14. Rafael Fort, Mónica Álvarez de Buergo, MªJosé Varas-Muriel & Elena Mercedes Pérez-Monserrat  
Colmenar limestone as a resource for built heritage
15. Alessandro Borghi, Valentina Berra, Anna d'Atri, Giovanna Antonella Dino, Mariano Gallo & Luca Martire
Stone materials employed in monumental buildings in the historical centre of Turin (Piedmont - NW Italy)

16. Alessandro Cavallo & Givoanna Antonella Dino
Dimension stone exploitation and cultural heritage in the Verbano-Cusio-Ossola district - Piedmont, northern Italy

17. Nicola Careddu & Silvana Grillo
Rosa Beta granite (Sardinian pink Granite): A heritage stone of international significance from Italy

18. R. Přikryl & A. Stastna
Opuka as the traditional natural stone from the Bohemian Cretaceous Basin (Czech Republic): a review to its genesis, composition, properties, and uses.

19. Mateja Golež
Traces of the heritage arising from the Macelj Sandstone, Slovenia

20. Piero Primavori, Paola Blasi & Paola Marina
Global heritage recognition of the Cararra Marble and Roman Travertine in Italy

Submission Date

Papers have been requested by 15 December 2013 with peer review to follow.

**HERITAGE STONE CONFERENCE - TURIN, ITALY – SEPTEMBER 2014**

The 2014 heritage stone conference has been planned as part of the XII IAEG conference to be held in Turin, Italy, 15-18 September 2014.

Heritage Stone is part of Session 5.3 entitled: “Building Stones & Ornamental Rocks: Resource evaluation, Technical assessment, Heritage designation”.

The deadline for offers of papers has already passed and a volume of papers is now being compiled that will be available at the conference.

Papers being considered for the conference include:


4. V.K. Sharma. Dimensional stone (heritage stone) and their characterization in the monuments of central India.


8. Tatiana Durmekova, Peter Ruzicka, Miroslav Hain, Maria Caplovicova & Lubomir Bagel. Changes in marbles quality after sodium sulphate crystallization and long-lasting freeze-thaw testing.


10. Paavo Härmä, Olavi Selonen & Hannu Luodes. The Wiborg Granite Batholith - the main production area for natural granite in Finland.


15. Rafael Navarro, Josefina Sánchez-Valverde & Jose M. Baltuille. The natural stone in the historic buildings of the city of Granada (South of Spain). Features of a possible candidate for the designation of "Global Heritage Stone province".


17. Björn Schouenborg & Linus Brander. On the production control of dimension stone as a consequence of CE-marking requirements.

18. Richard Přikryl, Martin Vavro & Jakub Gajda. Locally produced soapstone as a source of scarce sculptural material: a case study from northern Moravia (Czech Republic).
19. Richard Přikryl, Martin Čada & Miroslav Raus. Arkoses and akosic sandstones from the molasse of Variscan orogene in the Bohemian Massif (Czech Republic) as important natural stone: testing of material and exploration of abandoned quarries potential.


22. Rossana Bellopede & Paola Marini. Size effect in flexural strength test on dimension stones.


24. Nike Luodes, Hannu Luodes, Heikki Pirinen & Paavo Härmä. Methods to evaluate the natural stone weathering condition in selected historical buildings within the project "Efficient use of natural stone in the Leningrad region and south-east Finland.


27. Sara Fasana. Traditional stone roofs; characterization of stone slates surfaces for covering stability.

28. Luís Sousa & José Lourenço. Building stone evaluation applied to the weathered granites - the case of Amarelo Real (north Portugal).


30. Ian Thomas & Barry Cooper. Hierarchical approaches toward safeguarding heritage building stone resources in England and Wales.

**OTHER HERITAGE STONE MEETINGS**

Following the success of the 2013 Heritage Stone session, the European Geoscience Union (EGU) is encouraging us to offer a similar session entitled “Natural stone research and Heritage stone designation” at the EGU General Assembly in Vienna 27 April-2 May 2014. Please see [www.egu2014.eu/home.html](http://www.egu2014.eu/home.html) for details. Abstracts can already be submitted and the deadline date for abstract submission is 16 January 2014. Heritage Stone is listed under the Energy Resources & Environment (ERE) section of the programme.
The 5th “Global Stone Congress” is also currently planned in Antalya, Turkey from 22-25 October 2014. Please watch www.globalstone2014.org/ for further details. The deadline for abstract submission is 25 April 2014, while the early registration deadline is 23 May 2014.

A 2015 heritage stone 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 GHSR LIST (REVISED OCTOBER 2013)

Since our last Circular several additions have made to our interim or standing list of potential GHSRs.

The attached Excel File is the current Interim GHSR List.

Please remember that our 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.

Comments and proposals for additions to our Interim GHSR List are always welcome

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

- Use the Check List, that is provided at our website www.globalheritagestone.org to gather the essential defining information of each GHSR nominee. A summary checklist has also been published in Cooper et al (2013a, b)*.


- 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. A model for this is provided by :-


- Publish the GHSR nomination as a research paper in a peer reviewed technical Journal or heritage stone symposium volume.

This publication can then be assessed by the HSTG Board and the nominated stone approved, if deemed acceptable.
Research articles are possible in Episodes (the IUGS Journal), Geoheritage, Journal of Architectural Heritage or other peer reviewed journals with a distinctive tendency towards construction and architectural heritage topics. Special volumes, such as that planned in association with the Geological Society of London, are an alternative publication outlet.

**CHECKLIST FOR GLOBAL HERITAGE STONE PROVINCE (GHSP)**

Early in the development of the Global Heritage Stone project it became clear that more than one internationally significant stone type could occur in the same region and that these could also be associated and related geologically. The Cararra Marble region in north western Tuscany in Italy is an obvious case in point.

As a consequence in our last Circular a draft GHSP Checklist was offered for critical comment.

Since the last Circular comments have been received and a revised GHSP Check List has been placed on the Global Heritage Stone website together with the GHSR Check List

The most notable GHSP Check List revision has been the recognition of the possibility that natural stones that are unrelated geologically may be linked in a GHSP definition notably if they are associated geographically as well as part of human heritage. For example a granite and sandstone may be associated geographically in a GHSP and be utilised together in a city that has world heritage status.

The revised GHSP Check List is provided in the Box below.

<table>
<thead>
<tr>
<th>CHECKLIST FOR “GLOBAL HERITAGE STONE PROVINCE” CITATION</th>
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<td>(Revised October 2013)</td>
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| Formal Name for this proposed “Global Heritage Stone Province”:
  (This should be the commonly used name)                   |
| Origin of Name (optional):                                |
| Other Names:                                              |
  (This may include other names given to the designated province) |
| Area of Occurrence:                                       |
  (This specifies the geographic area where the designated province occurs) |
| List of constituent “Global Heritage Stone Resource” designations that are included within this designated Province:
  (This lists those stone types within the province for which a separate formal description as a designated ‘Global Heritage Stone Resource’ has been prepared) |
| List of other known constituent heritage stone types, not otherwise designated, with assessment of international/national/regional status that are also included within this designated Province:
  (This lists other heritage stone types having international, national or regional significance) |
| Geological Setting:                                       |
  (Information on geology that places the designated province in a wider geological perspective) |
Unifying characteristics within this province:
(Information that specifies the unifying features of heritage stone within the province)

Natural variation of geology within this province:
(Information on any natural changes within the designated province)

Vulnerability:
(This should assess the overall availability of stone types in the province for future use and the constraints on supply)

Historic Use and Geographic Area of Utilisation:
(This should provide a brief summary statement on the historic and geographic use of the stone from designated province)

Construction:
(This should provide an exemplary list of the most significant use of specified stone from this province)

Principal Literature related to the Designated Stone Province:
(List major scientific papers, books and popular literature dealing with the designated province)

Any other items:

A LOGO FOR HSTG

HSTG Vice President Southern Europe, Lola Pereira has received a few comments on the proposed HSTG logo. A revised design is shown below.

If no other comments are received over the next few weeks, it will become our official logo to be used on this Circular and other HSTG publications.

NEW HSTG CORRESPONDING MEMBERS

Since our last Circular the following people have been added to our list of HSTG Corresponding Members. Please welcome all these stone enthusiasts to the world of heritage stone.

Australia
Geoff Quick
Vera Hammer
Thomas Hofmann
Maria Heinrich
Beatrix Moshammer

Andreas Rohatsch
Kerbert Summesberger

Cyprus
Ioannis Ioannou
France
Philippe Taquet
Greece
Andreas Maggananas

Canada
Antony Berger
China
(Mrs) Xuemei Yun

Italy
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. As of 1 October 2013 we have 203 corresponding members from 46 countries.

HSTG BOARD MEMBERS, 2012-2016

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