



# Global Heritage Stone Resource (GHSR) designation

<http://globalheritagestone.com/>

# Global Heritage Stone Resource

GHSR is a new IUGS geological standard, developed by the IUGS Heritage Stones Subcommittee (HSS) and accepted in 2017.

**Concept:** GHSR is a natural stone, used in the construction of historic buildings and monuments over an extended period of time (sometimes centuries...) that should be recognized with maximum interest for its use in the restoration of those buildings, even if quarries are not active anymore.

# Requisites to be a GHSR:

- Cooper et al. 2013 (Episodes): Check-list for Heritage Stone designation
- Portland stone as GHSR, by T. Hughes et al. 2013 (Episodes)
- Brian R. Marker (2015): Procedures and criteria for the definition of GHSR

At least:

- Historic use for a period of at least 50 years.
- Wide-ranging geographic application.
- Utilisation in significant public or industrial projects.
- Common recognition as a cultural icon, potentially including association with national identity or a significant individual contribution to architecture.
- Ongoing availability of material for quarrying.
- Potential benefits (cultural, scientific, architectural, environmental and/or commercial) arising from GHSR designation.



# Procedure:

- Submit proposal (by any HSS correspondent, but recommended by HSS board member)
- Coordination of proposal (by any HSS correspondent, but recommended by HSS board member)
- Invitation to two external reviewers:
  - Published paper
  - GHSR template
- Reviews to Board for approval
- HSS SG reports to IUGS EC for final designation

At present, GHSR Project is being developed under the umbrella of an UNESCO IGCP project



# Designated GHSRs (at Dec. 2018)

Portland Stone from UK: Portland

Portland Stone. Final Report for Global Heritage Stone Resource



Larvikite from Norway

Larvikite. Final Report for Global Heritage Stone Resource



Petit granit from Belgium: Petit Granit Episodes

Petit Granit. Final Report for Global Heritage Stone Resource



Podpeč limestone from Slovenia

Podpeč limestone. Final Report for Global Heritage Stone Resource



Carrara marble, from Italy

Carrara marble. Final Report for Global Heritage Stone Resource



Hollandia gneiss, from Sweden

Hollandia Gneiss. Final Report for Global Heritage Stone Resource

- Portland Stone from UK
- Larvikite from Norway
- Petit granit from Belgium
- Podpêc Limestone from Slovenia
- Carrara Marble, from Italy
- Hallandia Gneiss, from Sweden
- Villamayor Stone from Spain
- Estremoz Marble from Portugal
- Lede Stone from Belgium
- Piedra Mar del Plata from Argentina
- Welsh Slate from UK
- Lioz Limestone from Portugal
- Kolmarden Serpentine Marble from Sweden
- Jacobsville Sandstone from USA
- Maltese Globigerina limestone



# An example:

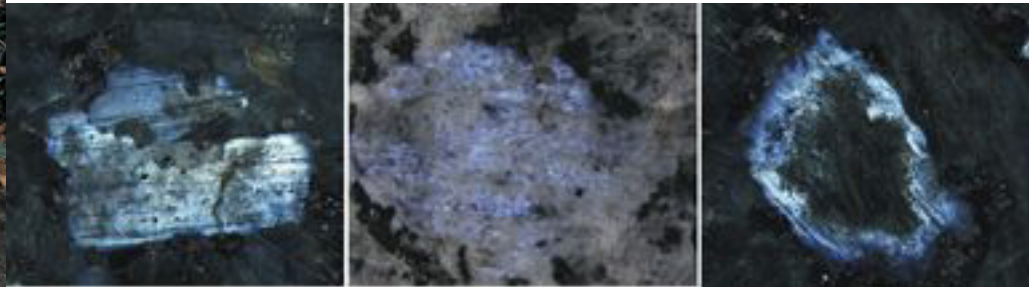
Suggested formal name

**Larvikite**

Primary literature pertaining to this GHSR nomination

***Global stone heritage: Larvikite, Norway***

**Tom Heldal et al. In: Pereira et al. (eds) 2015. Global Heritage Stone: Towards International Recognition of Building and Ornamental Stones. Geological Society, London, Special Publications, 407, 21–34.**



**Pictures by Tom Heldal**



# IUGS Ratification letters: final step for designation



[www.iugs.org](http://www.iugs.org)

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December 4, 2017

Dr. Lola Pereira  
Secretary General - IUGS Heritage Stone Subcommittee

Dear Dr. Pereira.

I am pleased to inform you that the IUGS Executive Committee has approved unanimously all six Global Heritage Stone Resources proposals that you submitted. Thus, the proposals for the Carrara, Hallandia gneiss, Larvikite, Petit Granit, Podpec limestone, and Portland stone GHSR are ratified.

Congratulations. These are the first GHSR proposals to be received by and ratified by the IUGS Executive Committee. I commend you and the Heritage Stone Subcommittee for outstanding work over many years to bring this new IUGS standard to fruition. The IUGS EC looks forward to receiving more GHSR proposals as they are developed.

Sincerely,

Stanley C. Finney  
Secretary General, International Union of Geological Sciences

cc: Björn Schouenborg, Chair - IUGS Commission on GeoHeritage; Chair -  
Heritage Stone Resource Subcommittee



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January 4, 2019

Dr. Lola Pereira  
Secretary General - IUGS Heritage Stone Subcommittee

Dear Dr. Pereira.

I am pleased to inform you that the IUGS Executive Committee has approved unanimously all seven Global Heritage Stone Resources proposals that you submitted in July 2018. Thus, the proposals for the Maltese Globigerina Limestone, Lede stone, Jacobsville Sandstone, Kolmården serpentine marble, Lioz, Piedra Mar del Plata, and Welsh slate GHSR are ratified.

Congratulations on these achievements

Sincerely,

Stanley C. Finney  
Secretary General, International Union of Geological Sciences

cc: Björn Schouenborg, Chair - IUGS Commission on GeoHeritage; Chair -  
Heritage Stone Resource Subcommittee  
IUGS Secretariat

## Villamayor stone: GHSR designation

Global Heritage Stone Resource (GHSR) is a concept developed by the Heritage Stones Subcommittee (HSS), a working group of the International Union of Geological Science (IUGS). This designation can be achieved after following a strict evaluation procedure. The designation aims to develop internationally accepted standard approaches to the reporting of technical and aesthetic characteristics of natural stones used for repair and maintenance of historic buildings, monuments and structures as well as for new construction.

The GHSR standard helps to increase awareness of the potential uses of various important stones and provide important information for those engaged in using stone for repair and maintenance. Stones that have been used in heritage construction and sculptural masterpieces, as well as in utilitarian (yet culturally important) applications are obvious candidates for GHSR status.



The "Rich" façade of the University building



Historic quarry of Villamayor stone



Extraction of blocks of Villamayor sandstone

To deserve the status of GHSR, the stone has to meet, at least, the following requirements:

- Wide-ranging geographic application and/or historic use for a period of at least 50 years, but preferable centuries.
- The potential candidate dimension stone should also have been utilised in significant public or industrial projects
- There should be wide recognition of the stone for its cultural importance, including association with identity or a significant contribution to architecture at international, national, regional or local level.
- It is beneficial that stone remains available in quarries, even if these quarries are not active anymore.

Clearly, Villamayor sandstone accomplishes all the requirements.



Thanks to the ease of carving when wet, the golden stone acquired the beautiful shapes we can now admire in façades of historic buildings in Salamanca, representing the Plateresque style.



Today, sandstone is marketed as slabs, but during the construction on Salamanca buildings, it was extracted and transported as blocks.

Villamayor sandstone is very wet when it is quarried, which makes the task easier. Taking advantage of this feature, stonecutters hewed the stone in the quarry and then brought it to the city. As a result, the cost of transporting the stone was lower, as it weighed less. Over time Villamayor sandstone loses moisture, becoming hard and robust.

**Villamayor sandstone** is one of the first natural stones recognized as Global Heritage Stone Resource, achieving its designation in 2017 after the approval of the IUGS Executive Committee ([www.globalheritagestone.com](http://www.globalheritagestone.com))

# GHSR is a scientific recognition ONLY!

- The interest of this geological standard is related to the preservation of Cultural and Architectonic Heritage.
- This will contribute to the sustainable development of cities and sites.

