



## **Salamanca sandstone: a good GHSR not suitable for all construction purposes.**

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Salamanca sandstone, which in fact is an opal-cemented formation of sandstones and conglomerates, was used in the construction of many historical buildings of Salamanca old city, as well as other places nearby. Salamanca is recognized as World Heritage site since 1988, precisely because the homogeneous architecture and the use of local natural resources, as the Salamanca sandstone, the Villamayor sandstone and some local granites. The reason for using the sedimentary stone was the easy access of the resource, as the city is built on top of the Salamanca sandstone Formation, a late Cretaceous-early Palaeocene deposit. This formation consists of siliciclastic successions that were deposited in braided fluvial systems. These materials are derived from a deeply weathered Variscan basement showing ferruginous alteration that adds an aesthetic value to the global view of the natural stone. However, after several centuries, the stone has started to show serious problems due to water absorption, mainly in those places where it was used as basement of the buildings. Restoration of historical buildings should consider the use of the same original material when replacement is requested. But when this original material has been demonstrated to be not appropriate for long-term constructions, a matching and preferable natural stone should be used for replacement. There is such possibility in Salamanca and this has not have to mean the disregard of the Salamanca sandstone for other uses. The natural stone has been used for interior use and for sculpture with quality results. We present the Salamanca sandstone as a possible candidate to be taken into account as GHSR, supported by complete characterization and use recommendation.