



## Portugues Marbles as Stone Heritage

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The main objective of this paper is to present and justify the reasons for the worldwide recognition of Portuguese Marbles as Stone Heritage. These marbles are also known as “Estremoz Marble” since was the first county were exploited.

In the Estremoz Anticline marbles occupy an intermediate stratigraphic position being part of a volcano-sedimentary sequence of Cambrian age. The anticlinal structure has a Precambrian core and the younger rocks aged Devonian Period. This sequence has deformed by the Variscan Orogeny, which performed twice with different intensities both in ductile and brittle tension fields. The early Alpine Cycle also acts in the region and cause more fracturing of the marble. Practically in all the quarries is possible to perceive the spatial-temporal continuity of the deformation where one can describe a complete Wilson Cycle. Together all these geological features imprint the marbles beautiful aesthetic patterns that can be highlighted when used as dimension stone.

Nowadays most of the quarries are placed in the counties of Borba and mainly in Vila Viçosa. This last city claims for itself the “Capital of the Marble” title and named the marble as “White Gold”.

In fact, according to the historical record, the marbles were quarried in Portuguese Alentejo’s Province since the fourth century BC.

Locally these geological materials are available easily accessible. Exhibit physical properties that allow the fabrication of structural and decorative elements and so were used since humans settled in the region and developed a structured Society.

In the Roman period, the pieces of art made with Estremoz Marbles were exported abroad and today are represented in Museums and Archaeological Sites throughout Europe and North Africa countries.

The Portuguese Marbles and Limestones, transformed into altars, stairways, columns, statues and pieces of wall cladding, were carried as ballast in the holds of ships. At the destination the Portuguese People had built numerous churches which today can be found in Brazil but also along the South American and African coasts.

Currently the global market of Modern Dimension Stones Industry allows Portuguese Marbles to be present in buildings, architectural pieces and works of arts all over the World.

Despite almost continuous mining activity in the region it’s notice that there was no depletion of raw material, in fact almost every varieties of marble have enough reserves to sustain the mining activity is several hundreds of years.

The Alentejo whitewashed houses are a hallmark of the unique landscape that can only have been developed by the availability of marbles to produce quicklime.

In cities and villages, the built heritage based on the marble is very rich and is always present, meanwhile the surrounding countryside is marked by intense mining activity living side by side with rural industries, namely wheatfields, groves, orchards and vineyards; therefore the region has unique characteristics allowing the development of integrated industrial tourism routes.

The Portuguese Marbles are a key factor for local sustainable development and it’s leading the region to new opportunities of industrial, scientific and technological culture, pointing to a successful future.