**Geology as a Key Tool in Dimension Stones Exploration**

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Like any Geological Resource, the Dimension Stones can only be exploited where they occur. How they occur is a reflection of geological history that presided over its formation. Their nature determines the mode of deposit and therefore it’s potential to be exploited as ornamental stone. The geological setting of the Portuguese marbles became a key factor in the optimization of its exploitation, two ductile deformation phases must be consider, which originates the complex folded metamorphic layering. At least three fracturing systems are responsible for the high segmentation of the marbles in fragile deformation conditions and that must also be considered. Together these geological constraints lead to a really low production ratio (3% - 12%). These low efficiency productions emphasized the emergence of the geological knowledge of individual quarries in order to optimize is exploitation. Until recent years, with high prices for the Portuguese marbles the companies haven’t been concerned with the geological knowledge of its quarries, but now that an economic crisis is installed in the sector, basic geological studies in the quarries are mandatory and could save thousands of euros for each company.

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