Geophysical Research Abstracts Vol. 19, EGU2017-9019, 2017 EGU General Assembly 2017 © Author(s) 2017. CC Attribution 3.0 License.



## The Portuguese Lioz, a Monumental Limestone

Zenaide Silva

Faculty of Sciences and Technology, Nova University of Lisbon, Caparica, Portugal

The Portuguese Lioz, a Monumental Limestone Zenaide C.G. SILVA GeoBioTec, FCT-UNL, Portugal

Lioz is a microcrystalline limestone which occurs in Portugal and outcrops in the Lisbon area and its neighboring counties Oeiras, Pero Pinheiro, Lameiras. The rock is whitish to light and dark pink and contains 120 million years old rudists fossils. This fossiliferous content imprints a decorative aspect to the rock contributing to its very wide use as construction material and its favorite use in churches and official monuments making it the Royal Stone in Portugal along the XVII and XVIII centuries. Lisbon has the best exposition of Lioz as a fundamental stone in several monuments, the best examples being the Jeronimos Monastery, the Belém Tower, the Cultural Center in Belém and many old churches spread in Lisbon area. Among the latter the Jesuit Church of São Roque is a special example. The fact that the rock stratigraphic sequence allows the different rock colors as white, light and dark pink and a yellow facies variety in a local occurrence (Negrais yellow) makes it a special source for decorative patterns that can be found in a few churches in Lisbon, Évora, Mafra exhibiting "embutidos" technique, of indian origin and inspired on contemporaneous Italian churches. Mafra is the place where a monumental architectural set, composed by three integrated constructions, was built in the XVIII century by king D.João V using Lioz limestone as the main rock material, in all available colors. Along the XVII and XVIII centuries, the rock was transported to some portuguese colonies, mainly as ballast to improve the navigability of the boats, and used at the destinations as construction material for monuments, official buildings and churches. Brazil and especially Salvador, in Bahia, is the best example of that, where Lioz is beautifully exposed in monuments and as true art in many churches where the Portuguese or Italian influences are very strong. All these facts make the Portuguese Lioz Limestone as very representative of the Heritage present in Portugal and its old colonies abroad. These facts are documented and illustrated in the presentation.

Zenaide CG Silva, GeoBioTec Research Center, Faculdade de Ciências e Tecnologia, Nova University of Lisboa, Portugal. zcs@fct.unl.pt