



Natural calcareous sandstones resources for conservation of El Salvador Church (Seville, Spain)

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The church of “El Salvador” is one of the most representative buildings in baroque style of the historical heritage in Seville (Spain). Being built up during the XVIII A.D., It is located over one of the most important mosque in Al-Andalus (IX A.D.), which in turn is on the remnants of the roman forum (II–I B.C.). Some remains of both structures still survive in the monument.

Weathering processes and earthquakes events (e.g. Lisbon earthquake, XVIII A.D.), brought about a high degree of decay in all its ornaments and structure, leading to a deeply degradation of its porous calcareous sandstones. These reasons have given rise to development of works on conservation and restoration till nowadays.

The aim of this paper is a comparative study of the calcareous sandstones in quarries and the monument as guarantee for conservation of the monument.

The different types of calcareous sandstones used in the monument came from historical quarries being documented in Llaguno y Amirola (1900). White calcareous sandstones from Espera (Cadiz) were used in the façade, while in arcs, pillars and half column, calcareous sandstones from Estepa (Seville) and El Puerto de Santa María (Cadiz) have been employed.

The quarries and outcrops studied in this work, belong to the basins of Neogene age, appearing in the southern margin of the Guadalquivir depression (SW of Spain). It is the foreland basin of the Subbetic nappes, which opens directly to the Atlantic ocean

in the gulf of Cadiz.

The characterization of building and natural calcareous sandstones is being performed by: sedimentological and stratigraphic studies, chemical analysis, thin sections, SEM and XRD.

Acknowledgments: Authors thank the archbishopric of Seville and Mr. F. Mendoza (architect of plan director) to facilitate the work in the monument. Financial support is from Ministerio de Educación y Ciencia (projects: MAT2004-04498 and BTE2003-02916). HHF acknowledges to the MEC (BES-2005-8443).