

# Diagnosis, characterization and restoration of the internal renders of Santíssimo Sacramento church in Lisbon

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## Abstract

The *Santíssimo Sacramento* Convent in the Alcântara quarter of Lisbon is one of the most important ecclesiastical structures of the *Filipino Period* (1580- 1640), showing an innovative architectural layout. An intervention aiming at the repair and restoration of the interior plasters of the Santíssimo Sacramento Church was performed in 2009 and 2010. To support the restoration plan, a physical, mechanical and chemical-mineralogical characterization of the internal plasters of the church was carried out. In this paper the main results are presented, such as various types of plasters, mortars, stuccos and pigments; and also the nature of the main anomalies were identified and characterized. The results obtained contributed to the identification of the main decorative programs characterized by the use of different materials and techniques. The mortars are in very good condition, being composed of aerial calcitic lime with quartzitic and basaltic aggregates. The stuccos are comprised by gypsum and non-hydraulic lime, while the decorative layers features lime with some precious pigments, such as ultramarine (*lapislazzuli*) and gold-foil gildings. The plaster conservation and restoration works were performed with compatible repair materials selected according to the physical-chemical characterization and on the evaluation of the conservation state.

**Keywords:** plasters, mortars, stuccos, pigments, characterisation, restoration