

buildings in Granada such as the Monastery of San Jerónimo, the Cathedral or the Royal Chapel. These buildings show strong alteration phenomenon due to crystallization in sodium sulphate, magnesium and sodium nitrate.

The work has conducted to the carrying out of salt crystallization tests in laboratory, which simulate alteration processes due to salt crystallization in the bases on historic buildings' walls. "Later –says Ruiz Agudo-, we prepared a method for the implementation of the treatment developed in practical cases of ornamental stone materials conservation. Finally, in a last phase of development of the research project, we applied such treatment in pilot areas on the Monastery of San Jerónimo (Granada), where there had been important problems due to salt crystallization".

The final result of the research work proposes the application of low-cost additives, which have proved to be very effective in the fight against the problems of ornamental porous materials. On the other hand, the research work "involves a methodology to deal with the study of damage caused by salts and the selection of the most adequate type of additive for a specific substrate and type of salt. The object of the methodology is the study of the problem in situ, in order to carry out laboratory tests that allow to select the concentration, pH and the most appropriate application method and finally to go back to the building to test the treatment in pilot areas, which permits to guarantee the success in the application of salt crystallization inhibitors inside stony materials, as we have proved in San Jerónimo".

The research work is part of the SALTCONTROL project, financed by the 6th framework Programme of the EU for the period 2004-2007. Together with the University of Granada, other organisms have participated in the project: the University of Münster (Germany), the University of Gant (Belgium), the University College of London, the University of Patras in Greece, the Technical University of Prague, the Architecture Conservation Centre TNO of Holland, the Andalusian Institute of National Heritage and the Technical University of Eindhoven.

SALTCONTROL's results have been successfully applied in the Monastery of San Jerónimo (Granada-Spain) and the Fortress of Teresina (Prague, Czech Republic).

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