



The built heritage in the Southern Italy: problems of decay and significant properties of the building materials with relation to their durability and conservation
DECAY AND SIGNIFICANT PROPERTIES OF THE BUILDING MATERIALS WITH RELATION TO THEIR DURABILITY AND CONSERVATION

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This paper deals with the use of building materials within the built heritage of the Southern Italy, their decay problems and the research of stone parameters material to their durability. The study documents the most common and widespread stone building materials and their forms of decay within the historical-architectural heritage, as well as in the archaeological artifacts. The heavy presence of the decay forms related to granular disgregation and loss of powder material from the surface suggest an high susceptibility of such materials to the disruptive processes induced by water penetration and salt crystallisation. The study of the stone properties and artificial ageing tests in laboratory, carried out by comparing several lithologies, are aimed to understand their response to the decay with relation to the petrophysical and compositional features, with the final purpose to identify durability parameters, usefull for choosing the appropriate conservation measures. In order to this final purpose, further elements of evaluation are drawn by the activity in progress, concerning the monitoring of the conservation treatments carried out on the Baroque heritage of Lecce town (Southern Italy) during the last decades.