

DIAGNOSTICA E SPERIMENTAZIONE PER IL RESTAURO DELLE SUPERFICI STORICIZZATE: IL CANTIERE DELLA CHIESA DI SAN GIOVANNI A CARBONARA A NAPOLI

Diagnostic and experimentation for the conservation of historical surfaces: the restoration of the church of San Giovanni a Carbonara in Naples

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Abstract

The church of San Giovanni a Carbonara is one of the major examples of angevian and renaissance architectures of the city of Naples. It benefited from the patronage of the monarchs and the most important noble families of the city, who commissioned its enrichment with exquisite architectural decorations, sculptures, frescoes and tiled floors. Accessible only through an elegant curved stair by the famous architect Sanfelice, the church dominates the homonymous via San Giovanni a Carbonara, a wide and busy road tangential to the compact centre of the ancient city. Traffic and pollution are only two of the many degradation factors that have been identified during the recent works of restoration carried out between 2021 and 2022 by the Italian state.

Affected by the Allied bombing in 1943, which caused the destruction of the roof and several damages to its walls and portals, the church has since been restored more than once, but the outcomes of such works have not always stood the test of time. The direct exposition to sun, wind and rainwater has deeply affected the conservation of natural and artificial stones, resulting in the widespread presence of biodeterioration phenomena, salts efflorescences, exfoliations of cortical layers, pulverisations of mortars, black crusts and so on.

The paper provides an accurate account of the conservation work recently concluded, which has been based on an in-depth diagnostic campaign executed both in lab - in order to identify the composition of the historical materials, of the black crusts and of the micro-organisms – and *in situ*, aiming at uncovering the remains of the most historical layers. The outcomes of the diagnostic campaign and the feasibility tests that have been consequently carried out are presented in relation to the conservation choices taken by architect and restorer, emphasising the crucial role that diagnostic and experimentation have in the identification of the best strategies of intervention for each unique monument.

Keywords: *conservation, restoration, tuff, marble, diagnostic*