

MATERIAL CULTURE AND TECHNOLOGICAL INNOVATION FOR HERITAGE REGENERATION AND MAINTENANCE

the case of the canopied vault of the Saints Peter and Paul Cathedral in Sessa Aurunca (CE)

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Abstract.

The study of the Saints Peter and Paul Cathedral in Sessa Aurunca (CE), conducted with the support of laser scanning, has delivered a complete and faithful mapping of all the technological elements of the monumental complex: a precious and complex database on which to base the restoration project selectively.

The digital management process of the survey, applied to the entire Cathedral and contiguous spaces, made it possible to obtain a unified and complete representation of the monument, which until now had been mapped in parts that were not always congruent with each other. Precision instrumentation has made it possible to read plane deformations, wall thicknesses and the quality of the materials of each individual component.

This contribution presents the focus on the roofing of the central nave. The results of the technological and material survey revealed features that were neither visible nor immediately perceptible and, in any case, not present in the archive surveys. From a methodological point of view, the intervention was carried out starting from an anamnesis of the technological elements that outlined the concept of the intervention ascribable to the sphere of the "government" of the historical built heritage, whose first purpose, in this case, was the improvement of the technological and environmental performance for both the material (physical) and immaterial (knowledge) conservation of the asset. The acquisition of information on the exact morphology of the artefact, and the collection and digitisation of the interventions, procedures and materials used, merged in a database, allow for the control of the interventions carried out for conservation restoration and, in continuity with these, the planning of ordinary maintenance.

Keywords: *process innovation, digital management, technological design, canopy vault, maintenance work plan*