Honors thesis

COURSE OF
Sustainable Architecture

Abstract

HBIM models for the enhancement and the management of the cultural heritage. The case study of the Granada School of Architecture.

Tutor
Massimiliano Lo Turco

by
Piergiorgio Parisi

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The present work is the outcome from the collaboration between the Politecnico di Torino and the Escuela Técnica Superior de Arquitectura of Granada, with the aim of identifying the most efficient operating methodology that can be used for the study, analysis, and management of the Cultural Heritage. The selected case study is the School of Architecture’s seat in Granada (ETSAG), that recently has been the subject of a requalification and restoration from the architect V. L. Cotelo. The building has a story of more than five centuries: the tracks, the signs of the time have been sensibly analyzed from the architects team in order to propose an intervention aimed at respecting the tradition and enhancing the artefact, where the cultural/historical/architectural elements are approached with a really forwarding look and attention for the conservation. In a so various and heterogeneous context, a BIM-oriented approach is an innovation issue: the ability to hierarchically and semantically classify the data – both the graphic and the alpha-numeric ones – that characterize the building is essential to set more aware interventions; in addition to this, there is the possibility to connect Facility Management activities linked to the parametric model. The research aspires to set up a 3D model made by semantic-aware objects, that are able to keep memory of a multitude of information, allowing the possibility to foresee future implementations.