POLITECNICO DI TORINO FIRST SCHOOL OF ARCHITECTURE Master of Science in Architecture (Construction) *Honors theses*

A CONSERVATORY FOR L'AQUILA.

Architectural and structural recovery of the S.Agostino's convent in the historical centre of the city

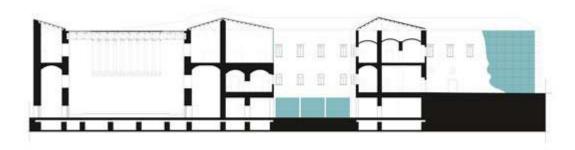
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The thesis concerned with a conservatory design in the historical centre of L'Aquila, devastated by the 2009 earthquake.

The research starts with an historical reconstruction of the city's process of formation, underlining peculiarities due to an exceptional political and ideological contest, without precedent in Italy. After a mention to the seismic history of L'Aquila, the text analyses the 2009 earthquake, both from the scientific and from the consequences on built point of view: a dramatic picture emerges, that brings to light a series of errors in the planning and construction of buildings, both historical and modern ones.

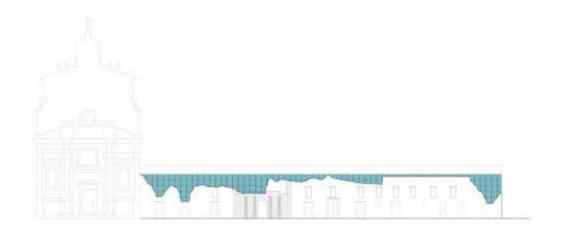
The specific ambit where the project develops is that one of the S.Agostino convent, well known as the Govern Palace. The complex is the result of an architectural and functional evolution that comes to an end around the XIX century; after having underlined the fundamental compositional aspects (system, alignments, courses), the thesis continues with a preliminary earthquake's damages analysis.

The project concerned, in the first instance, with the process of anti-seismic adaptation of the building: the adopted technological choice is that one of the isolation to the base, considered the most effective solution. Exploiting the natural slope of the land and the necessity of a digging under the entire surface for the insertion of the seismic isolated plan, the project views the formation of a new basement, where takes place great part of didactic spaces and the auditorium of 800 seats. Moreover, the work puts besides a construction analysis of the realizzative phase, with relative calculation of the number of micropiles necessary for the digging and a preliminary esteem of the costs of the intervention.



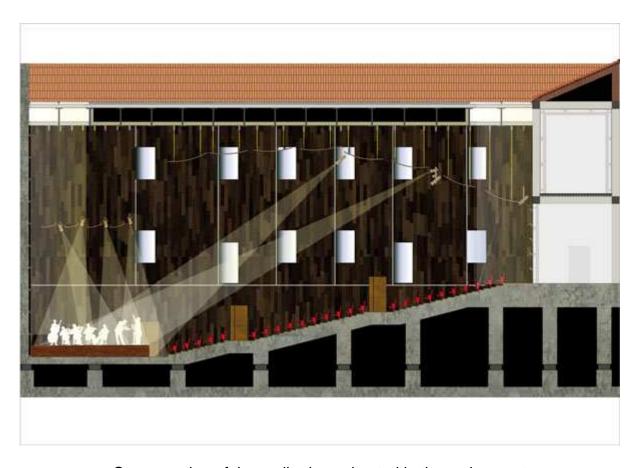
Plane design section

The general principle applied is that one of the maintenance of the original identity of the complex: great importance is given to the system and to the inner courses, that allow the immediate identification of the conventual origin of the building. However to the anastylosis, the research prefers the innovative restoration: the choice isn't that one to reconstruct all from the debris, but to complete some of the parts collapsed with a contemporary language, even if respectful of the original. To support this approach there's the insufficient compositional quality of the facades and the evident nineteenth-century distributive adaptations of the interior, that prove to be fatal in the latest earthquake. The language is that one of the transparency: a glass curtain constitutes a second skin in the collapsed areas of the urban fronts, reducing the original wall to a theatrical wing.



The urban front

Reinterpreting the courtyards' role and changing it into the wider meaning of "plaza", the project gives a new value to the open spaces of the building, giving them a new specificity; the core of the complex is into the major court and it's the auditorium.



Cross-section of the auditorium, situated in the major court

In conclusion, the thesis tries to extrapolate from the design experience a general approach for the reconstruction theme. First of all, the steady synergy and the continuous interchange between the competences allows to built a solid base to sustain the project; fundamental was the research of a contact with the city, both from a conceptual and from a physical point of view: L'Aquila and its urban structure are, in fact, the first immaterial good to preserve. From the study case is emerged as the block dimension has a good dialogue with the context, just because it represents the formative rule of the urban structure and can be an heterogeneous field of work, even if restricted. From the design point of view, instead, the work tries to find a "negotiation" with the historical memory, keeping the elements that constitute a value for the building, to the detriment of other ones that represent a weakness, both structurally and architecturally.

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