## POLITECNICO DI TORINO SECOND SCHOOL OF ARCHITECTURE Master of Science in Architecture <u>Honors theses</u>

**Building the "Borgo Medievale" in Turin: technical skills and devices** by Andrea Ghigo Tutor: Annalisa Dameri

The aim of the thesis was to delve into building techniques concerning the *Borgo Medievale del Valentino* in Turin – apparently a 15<sup>th</sup> century village, as a matter of fact built in the late 19<sup>th</sup> century –, in the wider context of the Great Exhibitions, from the Universal ones to the national ones which took place in the former Italian capital city, also analyzing the reasons why Neomedievism developed especially in Piedmont.



Many reasons led up to the habit of building historical-architectural reconstructions (for example the *Rue de Nations* built in Paris in 1878) throughout Exhibitions; however, they lacked in stylistic coherence and were built with absolute aesthetic arbitrariness, because only the builder's imagination determined their appearance (such as "medieval", "Spanish", "exotic"...).

The *Borgo Medievale*, built in Turin between 1882 and 1884 as the antique art exhibition in the "Esposizione Generale Italiana" (1884), represents both a peculiar case and a new kind of historical reconstruction. Alfredo d'Andrade and the other members of the department responsible for the Antique Art Exhibition (so-called *Sezione Storia dell'Arte*) decided to follow the idea of real models instead of inventing: their intention was to realize a "real" medieval village beside the river Po beginning from studying, making surveys and "copying" existing Piedmontese medieval buildings, adhering to town planning regulations as well. The purpose was, clearly, to avoid the arbitrariness and confusion of the past Exhibitions.



Any research done by the Commission about inspiring models, however, has had a triple, rigorous, intention: first of all it was intended to illustrate 15<sup>th</sup> century Piedmontese architecture to the Exhibition visitors; secondly, it contained the modern idea of ancient building safeguard; last but not least, its basics was a precise philological quest based on historical documentation and on surveys campaigns.

Adherence to real models, consequently, was pursued by the *Borgo*'s planners even in building materials: stone, wood and bricks. On the other hand, there was a strong need to build quickly (in order to complete the *Borgo* before the Exhibition opened on 26<sup>th</sup> April 1884) and without wasting money. Traditional (and medieval) building techniques, nevertheless, would have taken too much time and would have been too expensive and, as a matter of fact, would have been in contrast with the Commission requirements.

As you can still read in the minutes of the staff meetings (*Verbali delle Adunanze*) stored at the Modern Art Gallery of Turin (*GAM Torino*) in the *Fondo d'Andrade*, *Riccardo Brayda* (structural engineer of the building) developed, in order to provide a solution to these problems, some new technical devices. From a technical point of view he planned a building technique based on a modular structure formed by arches and pillars or using old railway lines as beams; concerning building materials, he often employed artificial stone (patented by the Turinese engineer *Cimbro Gelati*) instead of using natural stone, which is, of course, more expensive and more laborious to obtain; moreover, some elements such as ornamental bricks, capitals, ..., were produced industrially but beginning from the specimen of *real* pieces. In short, Commission's real challenge consisted in keeping rapidity and cheapness in building without losing the ideas of a formal philological quest and of reconstruction based on real models.



The analysis of the structural elements used to build the *Borgo Medievale* of Turin, which is the principal aim of the thesis, consists in an explanation of the carrying structure of the *Borgo's Rocca* (the castle of the village) and of the most important devices developed by the Commission in order to build quickly and in a historically faithful way. The thesis contains also some references to problems born during the building process and concerning the originality of the *Borgo Medievale* in comparison with the real models.

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