

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

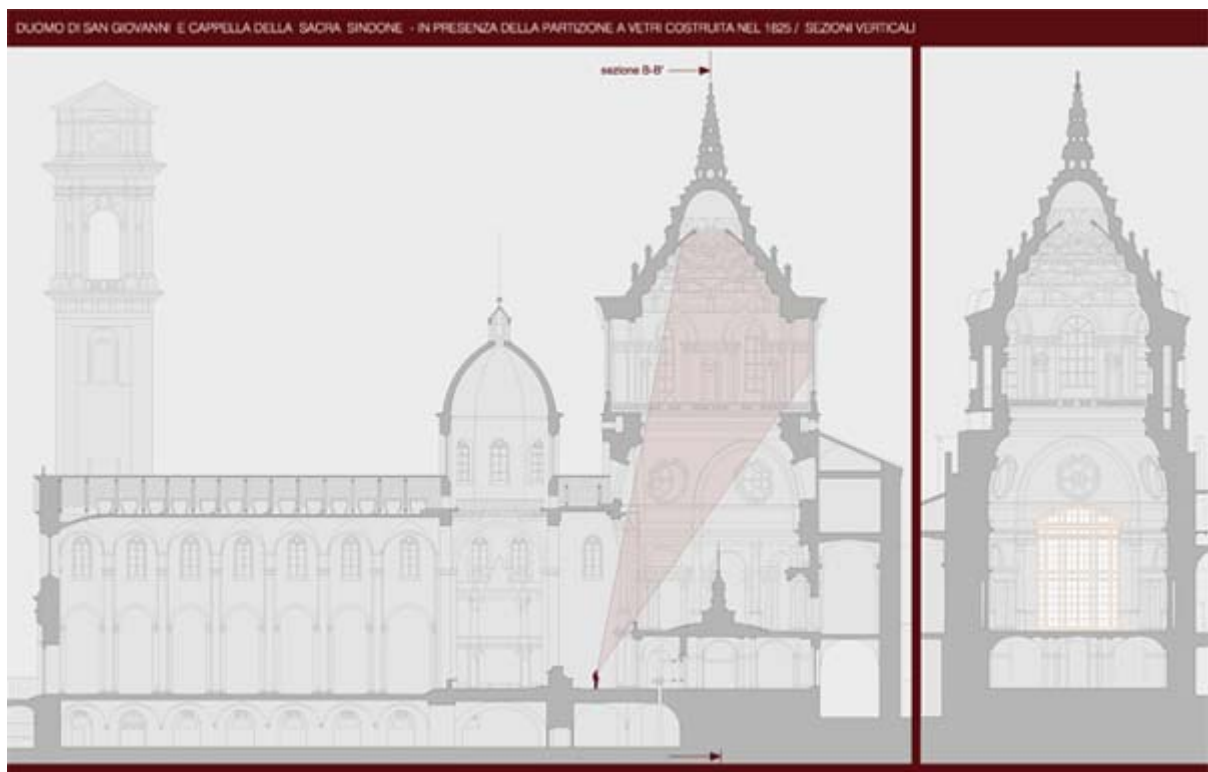
**The opening between the Shroud Chapel and Turin's Cathedral after the 1997 fire. From 19<sup>th</sup> Century *Grande Chiassilone* to new proposals for intervention**

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The Thesis is about the great opening, or *Great Window* (English translation for Italian *Grande Finestrone*), through which Guarini's Chapel of the Holy Shroud opens to San Giovanni Cathedral in Turin. The first part of the Thesis consist of a study of the original condition of the above mentioned *Great Window*, also known as Guarini's *proscenium*, and the architectural elements it is made of: the big arch, the Corinthian columns and the ancient balustrade, the Chapel's curved walls, etc. The whole Thesis starts from contemporary American historian John Beldon Scott's consideration that Achitectoral historians have largely overlooked the importance of Guarini's efforts in controlling horizontal space and visual connection between the two buildings.



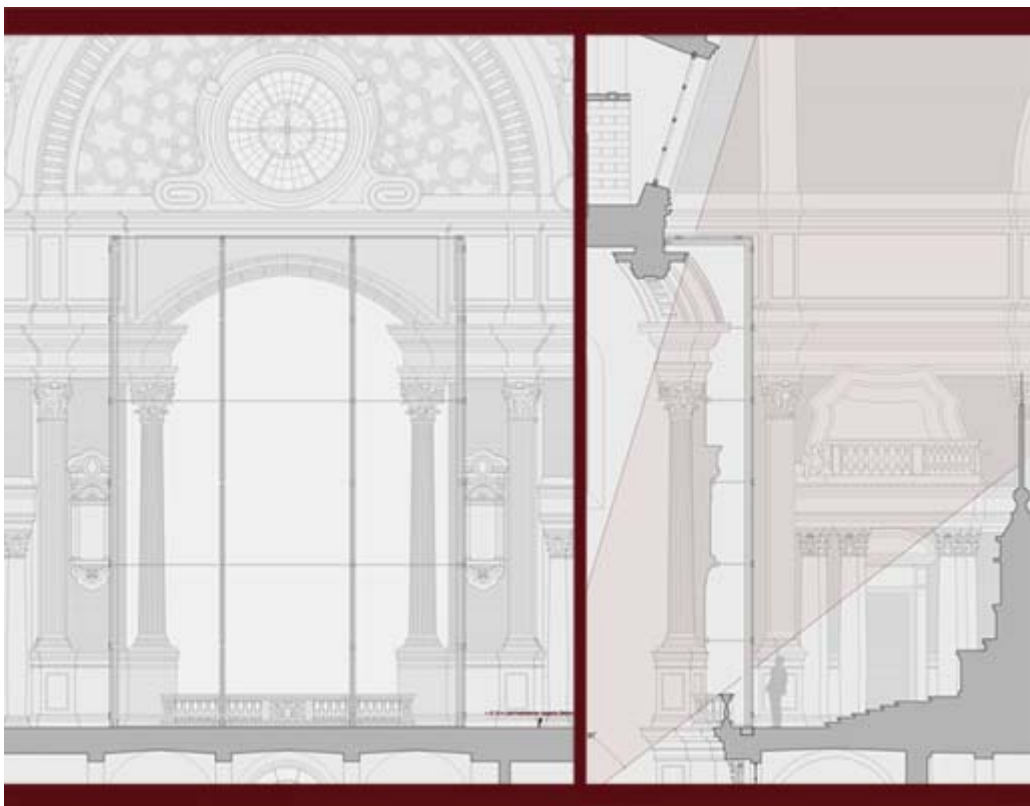
*San Giovanni Cathedral/Chapel of the Holy Shroud. On the left: longitudinal section; on the right: cross section of the Chapel (original scale 1:200)*

It then continues with a deep analysis of the glass partition, called *Grande Chiassilone* in ancient dialect, which was introduced in 1825, after the duke Carlo Felice expressed the desire to have the *Great Window* closed. The large glass partition was built according to First Royal Architect Carlo Randoni's design. As John Beldon Scott points out the *Grande Chiassilone's* big structure, made of walnut and iron coming from Aosta, distorted Guarini's original spatial project, preventing, with its thick acrosses, the vision of the chapel from the choir of the church. It is important to underline that the *Grande Chiassilone* has never been specifically analyzed up to today. Therefore the study of the partition has been divided into three phases: a first phase of relief of the remaining stump (carried out within the restoration site), a second phase of archival survey (which led to obtaining unpublished material relating to materials, elements, construction techniques and timetables ) and a third phase for comparison and assumptions.



*View Toward the Chapel of the Holy Shroud from the Nave of the Cathedral.  
Reconstruction of the front elevation of the 19th Century glass partition (original scale 1:50)*

The second part of the Thesis is about new proposals for intervention. A short time after the great fire, an international debate on possibilities for intervention and restoration of the baroque masterpiece began. The delicate case of Guarini's *Great Window* is quite particular in the "as it was, where it was" restoration promoted by Superintendence for Architectural Heritage of Piedmont. Today, after the disastrous fire broke out inside the Chapel in April 1997, almost half of the partition (which was originally about 13 meters high) is burnt. So a plan for intervention is necessary: problems linked to air movement (the Chapel has a strong "chimney effect") make a division between the two buildings necessary for the re-opening of the complex. After analyzing many hypothesis (conservation of the stump as witness of the great fire if 1997, reconstruction of the *Grande Chiassilone ad pristinum*, introduction of an air curtain between the two buildings, etc...), it was decided to try and design a new glass partition using contemporary technologies.



*Proposal for intervention: a new glass partition in structural glass. On the left: front view from the Chapel; on the right: section of the Chapel (original scale 1:50)*

The project follows the principle to replace the lost structures with new ones and it attempts to find a resolution with technology and language of our time. The guidelines of the project of the new partition, made in structural glass, are based on the data collected during the analysis phase. As for the structure it was decided that the new a partition should be as little invasive as possible. As regards the visual connection between the two buildings the new partition should restore, as much as possible, the visual interpenetration once affected by the introduction of the ancient partition in the first half of nineteenth century. For this reason the proposal was drafted taking into account the impressive view of Chapel's dome that can be enjoyed from the presbytery of the church, the most important observation point. The design proposal represents a first hypothesis for a point of great importance that the managers of the restoration site, which up to today is still in progress, will have to deal with.

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