

POLITECNICO DI TORINO  
SECOND SCHOOL OF ARCHITECTURE  
Master of Science in Architecture  
*Honors theses*

**Theater on the water in Chivasso**

by Niccolò Serione

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The work stems from the wish to realize a project that represents the end of my university studies in the most exhaustive way.

I addressed the design of a **theater** and an **aquarium river** in a suburban area with the intent to provide some ideas for resolving critical issues confronting the area. The project is located in a portion of territory south in the outskirts of Chivasso which falls under the jurisdiction of the municipality and the Ente Parco Fluviale del Po.

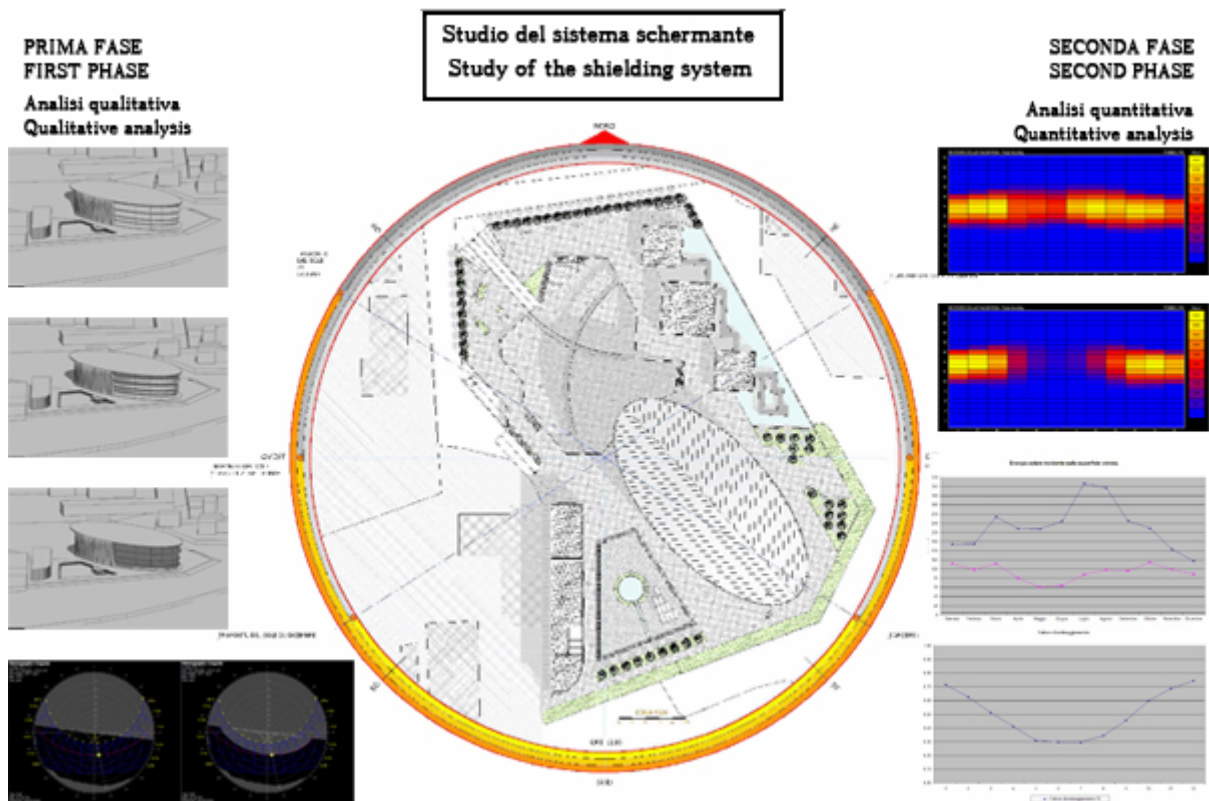
I paid attention to urban issues and social issues that public activities like these exercise on the territory, focusing the attention on the integration of the buildings with the context and on aspects of urban design and usability during the hours of the night, with the drafting of a project of external lighting.



I approached the study of the evolution that characterized the theater buildings, trying to learn from the lessons of the past in order to revive and interpret the main themes that characterized them.

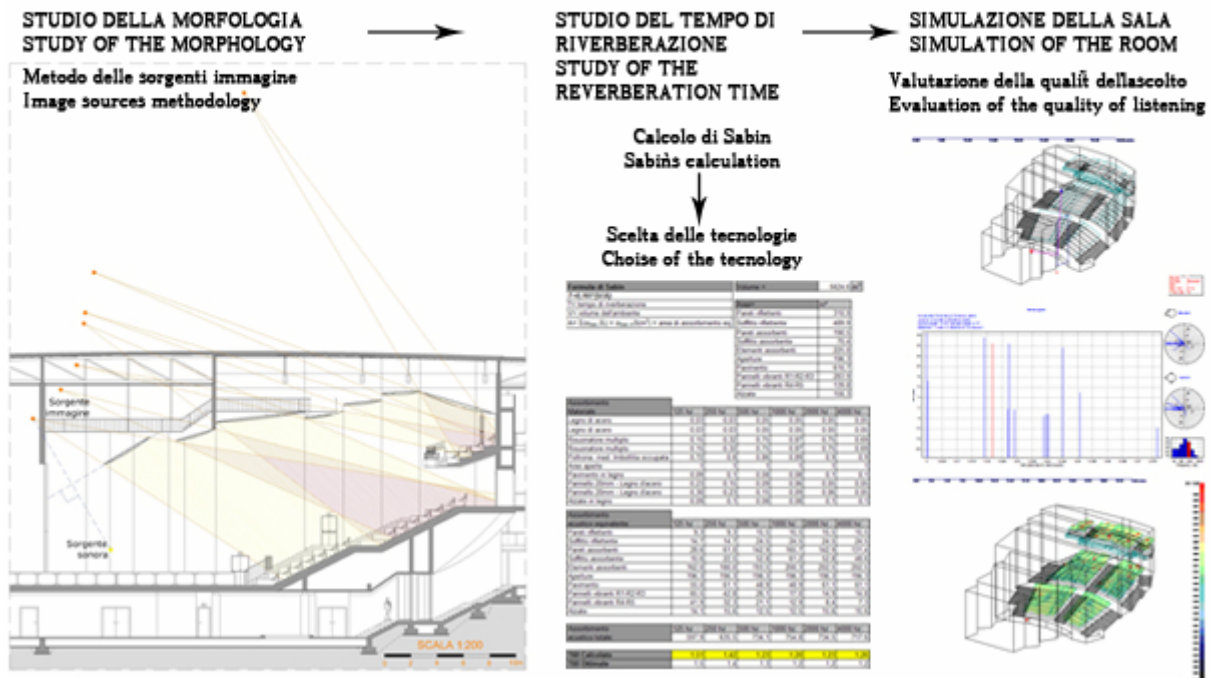
The project consists of a series of buildings above a elevated "plate" which represents the connective tissue between them. The "plate" takes its shape according to the guidelines of the area. On the plate there are ambients that are used as stopping points or passage points, with a view to facilitate the perceptual experience to visitors. Buildings near the built lots reproduce the morphology of the installations, the guidelines and the orientation of already existing buildings. The sum of these guidelines has his fulcrum in an inearthed square forward which come small business activities. The irregular shape of the square contrasts with the pure shape of theater. The theater building is characterized by a simple morphology, derived from an elliptical cylinder.

Theater presents in its south-east side a glazed area that demarcates the foyer which opens at 180 ° towards the landscape. I approached the study of a shielding system that can reduce the overheating of the space during the summer months, I calculated the performance of the system and its "shading factor" using an appropriate software.



I also deepened the study of acoustic performance of the theater room defining the geometry of the space through the system of image sources. Then I chosed the appropriate technology in order to obtain an optimal value of the reverberation time of the ambient using the Sabin's calculation. I then made some simulations using specific software that allowed me to calculate all the parameters describing the behaviour of the space, making sure that the room was suitable for listening to spoken performances and for listening to chamber music.

**Studio del comportamento acustico della sala**  
**Study of acoustic performance of the theater room**



As for the design of the ambients of the river aquarium , I suggested the establishment of a museum that could help the citizens to learn about the habitat of the river. Buildings that make up the aquarium are placed above a tub of water and connected by walkways that stress the importance of water, the element that characterizes the project. This importance is even more highlighted by the creation of a bright sign in the river that marks its presence during the night. The methodology that I followed reflects my wish to learn and to design buildings, considering all the aspects inherent to them, in the hope of repeating this approach in my future work experiences.

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