

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

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**Retrain through the environmental sustainability of the architectural choices  
Nicotera beach- the new waterfront**

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The subject for the development of the thesis has the aim of requalifying the city seaside of Nicotera, a resort located on the south Tyrrhenian coast of Vibo Valentia province. Within the architectonic solutions, the development of the work evaluates the environmental feasibility of the same, which is a mandatory condition in order to achieve the first objectives for the project proposal and in agreement with the applied protocol of sustainable environment, not to mention P.R.G.C and the indications reported in the competition announcement of “ideas for the requalification of seawalk and close ways”, published from the Municipality of Nicotera.

Within the elaboration of the final plan, the carried out job supports the sustainability environment as an instrument of development of the architectonic choices, together with an accurate and multi-subject analysis examining and developing, not only the plan from the pure compositive and building point of view, but also finding a further point of interest inside its various energetic, structural and mathematical applications (such as cellular automatons usage for distribution analysis)

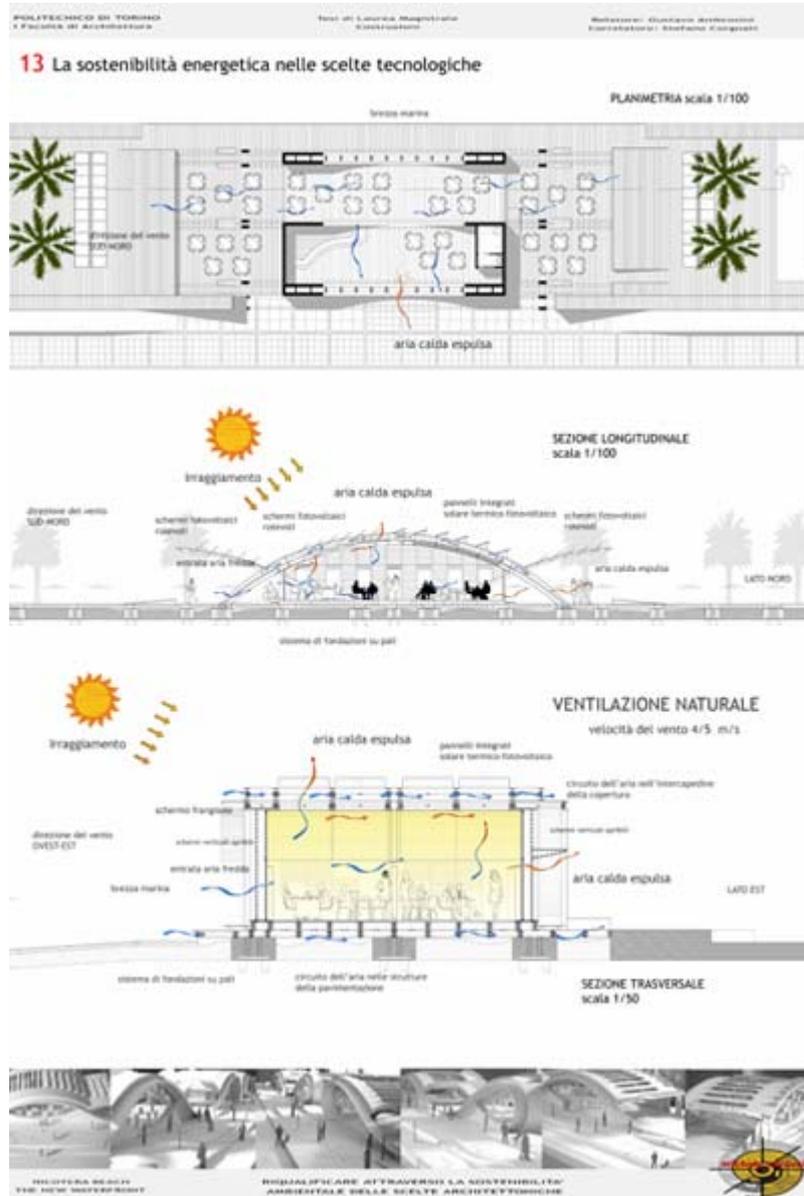
The project reinvents the old concept of attendance of spaces, places, and activities once taken place all along the waterfront, without distorting the usage of destinations but by redefining them, at least partially, and strengthen them, giving more emphasis, energy and prominence to their affordable living and time spending, getting then a wider intensity and identity also through calling out elements such as a cycling-pedestrian area having a new recreational vocation mainly addressed to amusement. In such a direction, the old layout has been rethought turning the road from a practicable way to a pedestrian platform for leisure and walks at different heights, without penalizing the city transit in its integrity, but discovering in the new one-way lane north to south, a strength element for the road network and the quality of the place.



Plan 7/16: removal of the sea planimetry of the functions and the new undergoing ways the intervention of retraining urban, rural and architectural of the site in Nicotera

Thus, areas where to take breaks have been removed from the waterfront to more detached locations properly defined, but at the same time, close enough to be reached by foot. The intervention in its integrity, heads to confer the place a better and a legal landscaped insertion in line with natural and orographic resources without losing the focus on the environmental sustainability, but also to comply with the research of activities which can guarantee a greater vitality and accessibility to the characteristics of the place, through a flexible architectonic language being able to conceive the whole structure as an attraction element for local and seasonal tourism during different periods of the year.

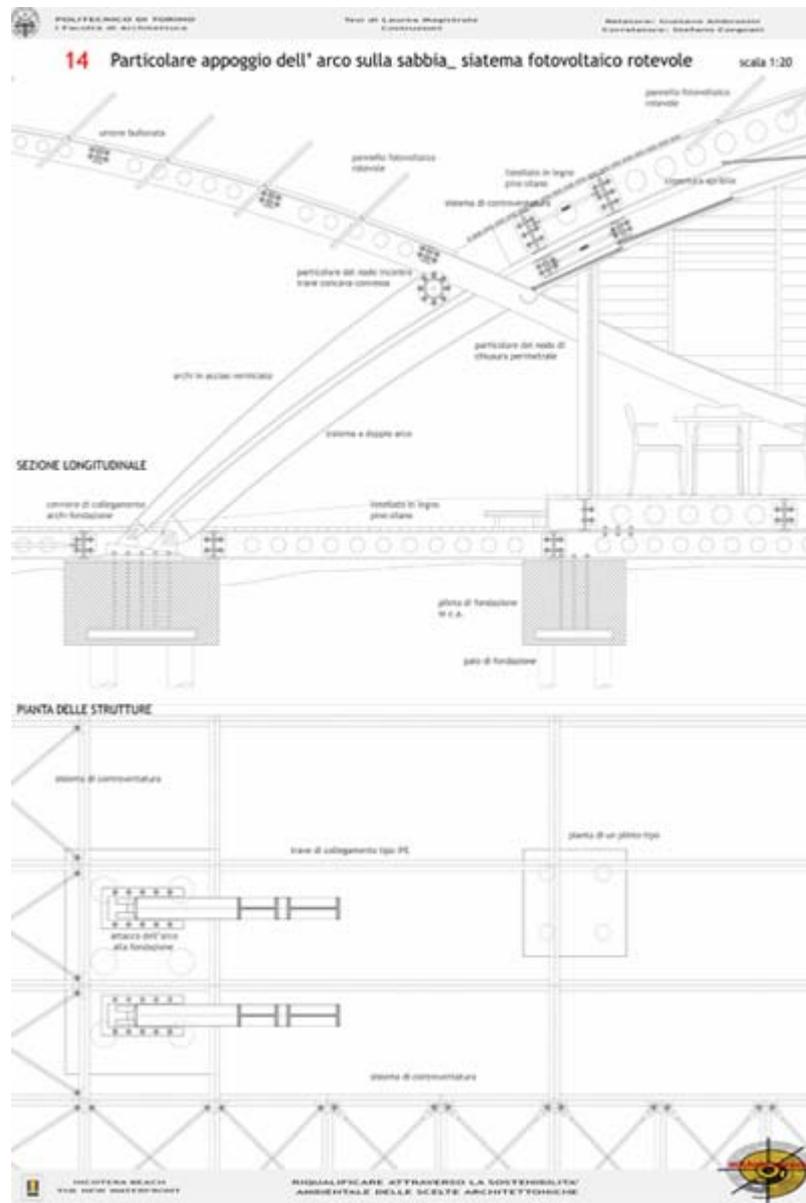
In this perspective, the new bathing facilities acquire a significant role as they turn into places being in the position to fulfill consumer's requirements at their best, now based on a new cultural evolution of their historical usage, and by taking into account different addresses in its development, not only young people, but different entities showing various conditions: families, elderlies, disable, exc...



Plan 13/16: architectural and energy representation of a bathing undergoing type widening in the environmental sustainability choices structure

At last, a wide study on the usage of renewable energetic resources has been addressed to energetic and economic sustainability of integrated photovoltaic systems applied to architecture, Count-energy method by which the development of the plan has found its application through new bathing facilities, using their external skin as an active element in order to take benefit of natural resources at their best:

solar energy for the production of electric power, and natural ventilation to comfort internal temperature to various structures.



Plan 14/16: detail of the structural struttura-struttura links and soil structure, let alone of the technological elements, photovoltaic panels and perimetrical closing systems

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