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

## Ever Islands. Artificial islands in Tel Aviv

by Federica Di Iorio and Chiara Tournour Tutor: Cesare Griffa Co-tutor: Giuseppe Andrea Ferro

Our experience in Israel started after joining the international students competition *Tel Aviv Green: from Garden City to Ecosystem*, sponsored by The Faculty of Architecture of Tel Aviv for the centenary of the foundation of the city. During our stay, from March to April 2009, we had the opportunity to deeply know Tel Aviv, as we could collect of a lot of material and information by means of analysis in situ. Besides, we interviewed the City Engineer and also several architects of the City hall.

This kind of researches showed to us that in these years the city has been trying to get over a challenging issue: the lack of residential zoning necessary to solve the problem of urban overcrowding.

We decided to take it on for our final project, starting from these considerations and keeping in our mind the 2008 urban proposal of the Israelian Government, aimed to expand the city offshore. The subject we chose would be not only a challenge for us, but also and an unusual topic: the design of an artificial archipelago in the South area of Tel Aviv.



We chose the site near the neighbourhood of Manshiya and along the Charles Clore Park's boundary because it was the starting point of our project for the *Tel Aviv Green* competition.

A primary research let us see how this area was lacking in tourist services and entertainment places, in opposition to the North zone and to the other Tel Aviv districts, which had plenty of them.

The project area includes both a portion on the land (which corresponds to the ex-Dolphinarium) and another one in the sea. The first part had to be linked with the preexisting surrounding reality and also give strong connections with the offshore side, in order to avoid the problem of difficult access points.

The idea of creating an archipelago was born from our will to create a sort of social microcosm useful for all kinds of people. There is a sort of paradigm in this concept: on the one hand, the microcosm is something artificial, but at the same time, in the inside we can find something which is natural and also non-natural, built. Artificial platforms, with some buildings on them, are gradually followed by sand islands. We wanted to create an attractive area that could be a valid alternative to the old port in the North.

Therefore, we placed in it beaches, offices, a navy, bars, restaurants, a gym, a cinema and discos.

The shape of the artificial islands and of the bond axes comes from the concept of the wave and the sensation of fluid movement. The buildings are conceived as soft white forms, modeled by the action of the wind like white waves rising from the sea. The white colour reminds of the waves' foam, the moon and the sun reflection on the water, and it is also the color of Tel Aviv, the so called *White City*.

The project culminates with the deepening of one of the seven artificial islands thought. The chosen one is that at the final southern part of the archipelago, the crucial point of the system we wanted to create.

The main building, which rises on this island, hosts on the third floor a disco club, a restaurant, a lounge bar, an auction room and offices. Outside we can find a bar, an open-air dance floor and a spa with a pool.



We also detailed other topics like the structure, the outside wrapping and how to realize an artificial island. Relating to this, we compared a lot of different techniques of realization and did many researches on the subject. At last we found the technique that perfectly suited our situation.

There are many stages in the process of construction of the island, but we can summarize them into the main realization steps:

- Localization of the appropriate area
- Construction of the external boundary with natural permanent rocks
- Positioning of geo-textile hydraulic fill layers which will displace sea water and form the island
- Filling up of the area with the sand previously extracted from a quarry
- Vibro-compaction of the sand
- Placement of permanent breakwater



For further information, e-mail: Federica Di Iorio: federica.diiorio@alice.it Chiara Tournour: chiara.tournour@gmail.com

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