



POLITECNICO
DI TORINO

Honors thesis

MASTER DEGREE COURSE IN ARCHITECTURE FOR
SUSTAINABLE DESIGN

Abstract

The Livehouse Milazzo.

**A social and sustainable project work to make the
Capo Milazzo lighthouse in Sicily live again.**

Tutor

Professor Carla Bartolozzi

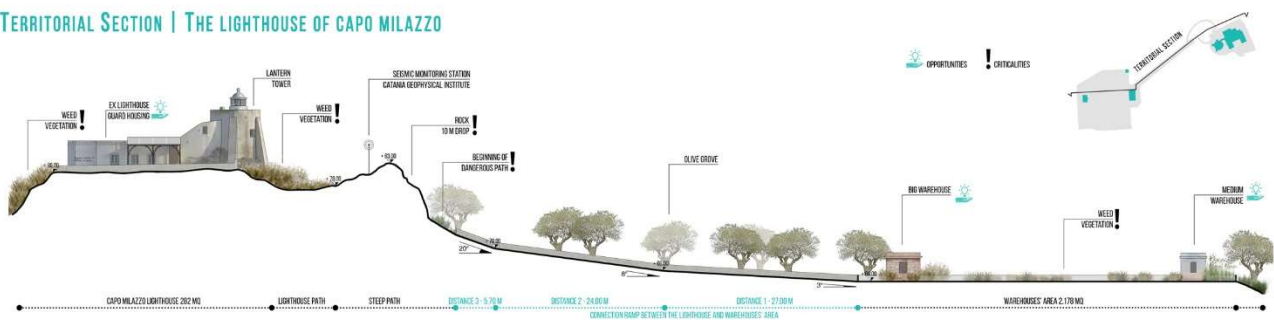
by

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The thesis concerns one of the most current and fascinating themes of maritime military architecture: the recovery and enhancement of Italian lighthouses from a «green» slant. Lighthouses are buildings for the shipping use and they can be found along the most suggestive seacoasts of the Italian peninsula. The project is aimed to the Capo Milazzo Lighthouse, an important tourist destination in Northern Sicily, which is well known for its historical, geological and zoo-naturalistic features and the future Marine Protected Area. The goals of the thesis are many. On the one hand it becomes a tool to spread the problems afflicting the signals. Nowadays they are uninhabited and degraded because of the new technologies and automation systems that have made the lighthouse's guardian unnecessary. On the other hand, the thesis supports the «Valore Paese Fari» project, an initiative launched by the «Agenzia del Demanio» in cooperation with the «Difesa Servizi», which involves the conversion of some Italian lighthouses into tourism-receptive and/or cultural and social structures in the wake of many foreign countries. The lighthouses also convey the nature-architecture couple: they are located on islands or headlands, becoming examples of off-grid structures, which synthesize some principles of sustainable architecture.

TERRITORIAL SECTION | THE LIGHTHOUSE OF CAPO MILAZZO



CAPO MILAZZO | RINELLA BAY



The Lighthouse of Capo Milazzo, which was inserted in the second edition of the project «Valore Paese Fari» in 2016, is a building of a remarkable historical and landscape value

that establishes a visual relationship with the nearby Aeolian Islands, Unesco Heritage since 2000.

Activated in 1853, the lighthouse was originally a coastal observation tower dating from the 1500's. Reinforced in the 19th century, the tower was connected by a corridor to a rural home converted for the use of the lighthouse keepers. The building, which has been expanded and modified, is now connected to an area characterized by three warehouses.

The drafting of the thesis has required a preliminary research in Turin, Genoa and Sicily, and a profitable teamwork, which have guaranteed a technical and in-depth method. The collaboration with the following authorities has been very important: the Hydrographic Institute of the Navy of Genoa, the Command «Marifari» of Messina and the B. Lucifero Foundation of S. Nicolò of Capo Milazzo, the last one was directly involved in the thesis because of its interest to acquire the lighthouse. In addition, the witnesses of who lived inside the Lighthouse and the cooperation with local experts have allowed the insertion of the building in a specific architectural, social, cultural and natural context.

3D MODEL | AGISOFT PHOTOSCAN



The work is made of an analytic section and a design one in small and large scale. Both are enriched with explanatory or unreleased focus, including: the historical reconstruction of the Milazzo Harbor's Lighthouse, which does not exist today; the study of Aeolian sustainable architecture and its comparison with the Capo Milazzo Lighthouse; and memories of one of the sons of Capo Milazzo's guardian. At the end 14 reduced drawing boards annex. The analytic section examines the Lighthouse in its local context and studies its infrastructural, historical, military and architectural connections. The second section combines the metric relief of the building with a photogrammetric relief made with the help of the drone and the Agisoft Photoscan software. Then the 3D model obtained is inserted in the Google Earth software. Both potentialities and criticalities of the lighthouse and of the context are taken into account.



The thesis ends showing three possible recovery scenarios according to different intervention scales. A masterplan project that reconnects the Lighthouse to the Cape and to the existing paths using new forms of eco mobility; than it develops the present activities and transforms emergencies into opportunities. The second scenary introduces new functions in the warehouses and reorganizes the area creating a public space for citizens and tourists.

Finally the recovery project of the Lighthouse: the project means to turn the Lighthouse into a place to live in order to become a social and cultural landmark, a base for indoor/outdoor events and activities involving the territory in a small and large scale according to two areas: a public one and a private one.

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