



POLITECNICO  
DI TORINO

# Honors thesis

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Master of Science in Architecture Construction City

*Abstract*

**Urban waterfront and climate change: scenarios for  
Salerno city**

*Tutor/Correlator*

Mauro Berta  
Marta Carla Bottero

*by*

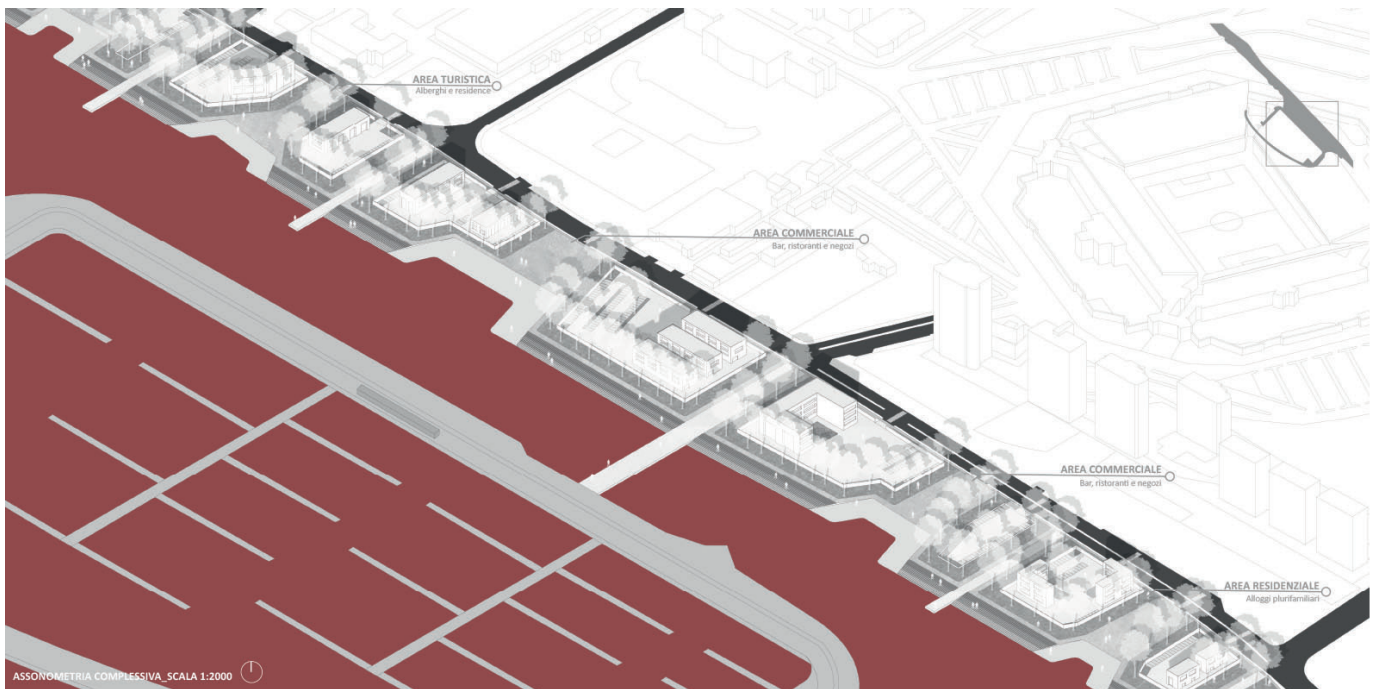
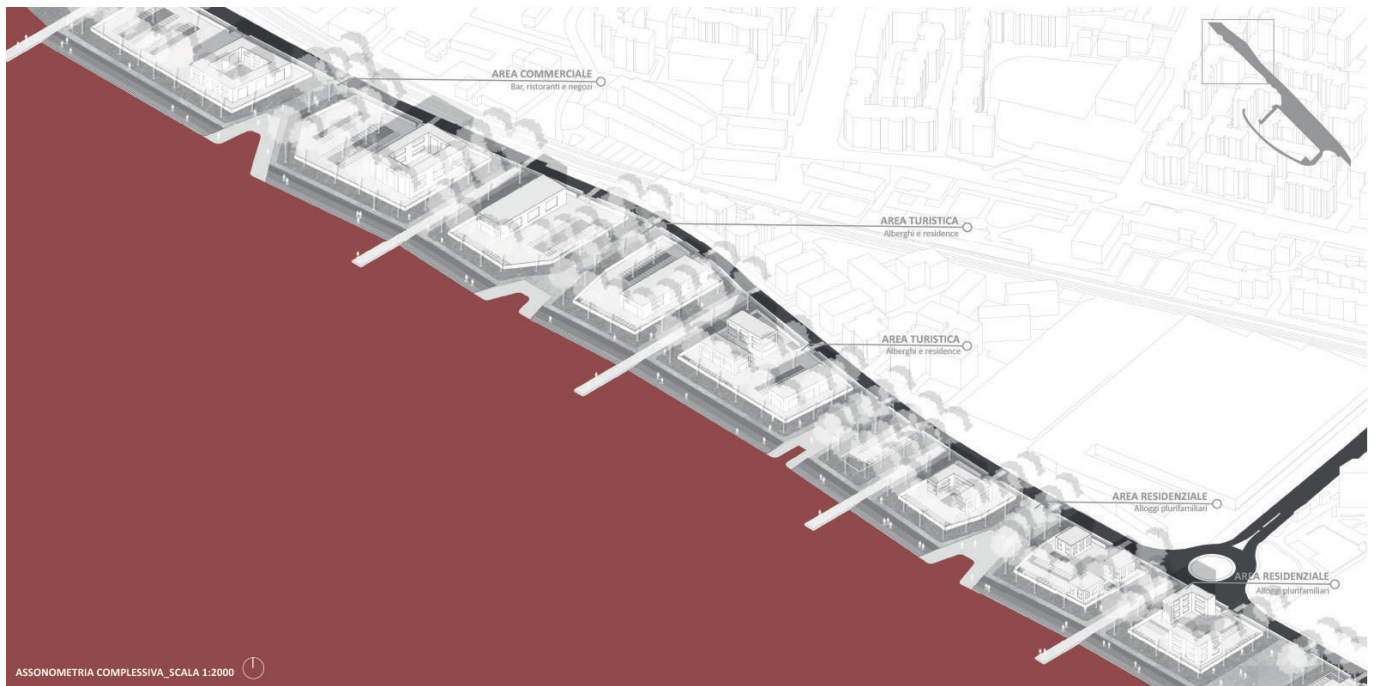
Maria Paola Pagliara  
Giovanna Vicedomini

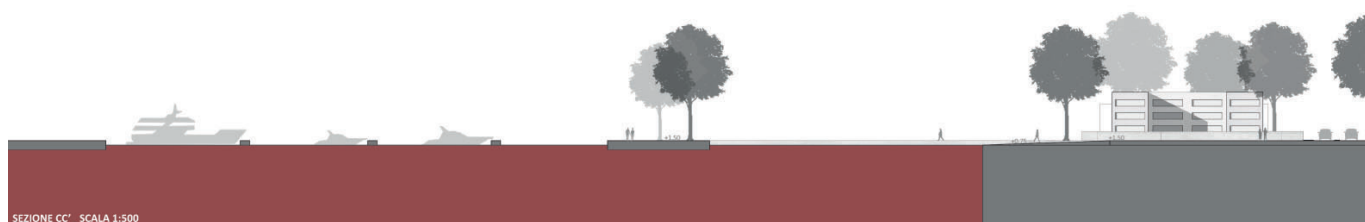
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The following thesis work investigates the sea level rise issue caused by the climate change and how this problem affects the urban waterfronts. The introduction and the first chapter aim to analyze this main issue and how it is increasingly discussed into the public debate which is analyzed at different levels in the following chapters. The second chapter examines, on a global level, the most susceptible countries to the threats of natural events and extreme climatic conditions and how these countries are trying to overcome this problem through various political proposals. The third chapter, focused on the European scale, analyzes the National Adaptation Plans of the cities most at risk, defining the actions and the objectives identified by the international policies to combat the damages caused by the rising sea. The fourth chapter, however, focuses on the national scale and the scientific studies related to the increase of the Mediterranean Sea level, which represents the main "threat" to many Italian coastal areas. In addition to these studies there are graphic elaborations that highlight the extreme negative conditions for four examples of cities, in the absence of mitigation and adaptation interventions. These damages caused by the sea rise in Italy are addressed in the fifth chapter, which describes the latest catastrophic events caused by storm surges and floods. The sixth chapter defines the presence of these problems also in Campania, starting from the sample city of Salerno. Specifically, the area analyzed includes the eastern area of the city, near the new tourist port "Marina d'Arechi". The purpose of the thesis was to represent the future scenarios related to the rising of the sea and how these will affect the urban waterfront. In response to these conditions, a hypothetical scenario was proposed for the coastal area at risk which is defined in the seventh chapter. In parallel with this analysis, an impacts assessment was carried out through the use of the CIE (Community Impact Evaluation) methodology which was defined in the last chapter. These impacts will be considered both within the study area and in the neighboring areas, summarizing all the components that come into play: stakeholders, impacts and future objectives. This methodology appears to be promising and innovative in the context of economic evaluation, since these issues will have greater consequences in the future. In summary, the research work is proposed as an investigation related to a global issue, defined as a "threat" for the urban areas. Awareness of this condition would lead to greater interest and common action, in order to prevent and to limit extreme consequences which are still very much underestimated today.

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For info:

[gjo.vicedomini@gmail.com](mailto:gjo.vicedomini@gmail.com)

[mariapaolapagl@gmail.com](mailto:mariapaolapagl@gmail.com)