



**Politecnico
di Torino**

Honors Thesis

Master of Science in Sustainable Architecture

FOR THE SUSTAINABILITY DESIGN

Abstract

The applicability of climatic analysis and urban metabolism model into design process with a case study in Copenhagen: REFSHALEØEN

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July 2022

Testo abstract (4000 caratteri max) (Century Gothic 12, interlinea 16 pt). Usare lo stile "Testo Abstract".

Max 3 immagini da 96 dpj.

It is not difficult to recognize how our world has changed dramatically over the past few years. Climate change, pandemic or some other social factors could be mentioned as the reasons behind this change, leading to another consequence of how can we adjust our way of living into this "new normal state" or in other words, how can we design a new living environment that can adapt to foreseeable problems and mitigate the negative tendencies globally. The purpose of this research was to investigate the applicability of climatic analysis and urban metabolism model in the process of architectural design. The project site is located in the Danish capital Copenhagen called Refshaleøen which previously used to be an old shipyard and heavy industrial area. Those activities were closed from 1996 and since then, new life and business have been developed from that historical background creating a new unique and inspirational community that we can see today. However, it seems that beside the on-going activities, the infrastructures and the environment of the area are still far behind the needs and the potentials it deserves. In order to create a new city district with mixed uses of housing, businesses and permanent activities according to the vision of Claus Hovmøller Jensen - The director of urban planning and development of Refshaleøen, this project was carried out to realize the feasibility of that transformation. With the advisors from environmental technology, urban planning, architecture studio and my own working experiences in Copenhagen, we hope that the study can bring some good analyses and solutions as well as it might illustrate a possible future of Refshaleøen.

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