



POLITECNICO
DI TORINO

Honors thesis

COURSE OF ARCHITECTURE FOR THE SUSTAINABILITY
DESIGN

Abstract

LIVING SMALL.

**The “Future House: Micro House” competition and the
project in Ponte Mosca area in Turin.**

Tutor

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by

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December 2017

The motivation for this dissertation was obtained while participating in the competition "Future House: Micro House", which was organized in April 2017 by Bennett of Future House Organization. The aim was to not only design a new prototype of a micro house, but to also identify critical elements of the location where the project will be inserted.

Initially, existing literature was studied in order to understand how the concept of micro house evolved throughout history. Technological innovations related to this specific problem were explored as well. Then, a feasibility analysis was performed in order to identify the usefulness of implementing such houses. Furthermore, using relevant data provided by ISTAT (National Institute of Statistics), trends showcasing family evolution and the change in their lifestyle were analysed. It was observed that in Italy, there's a clear tendency for people preferring smaller houses to live in as a result of family downsizing. Finally, the development of micro houses in the last few decades was investigated and existing examples needed for the initial idea were documented and analysed.

The competition required us to conceptualize a design that could respond to certain problems at the site of insertion, along with the possibility of constructing a prototype in the near future. Choosing Ponte Mosca, Turin as the construction site not only gave the opportunity to study how micro houses could become a solution to social problems of an urban neighbourhood consisting of multiple ethnic groups, but also, at the same time, it gave an insight on the strategic position of the site, which is located near important public spots. That, along with the presence of natural elements, such as river Dora, allowed the formation of physical and visual link amongst the various groups dwelling over there.

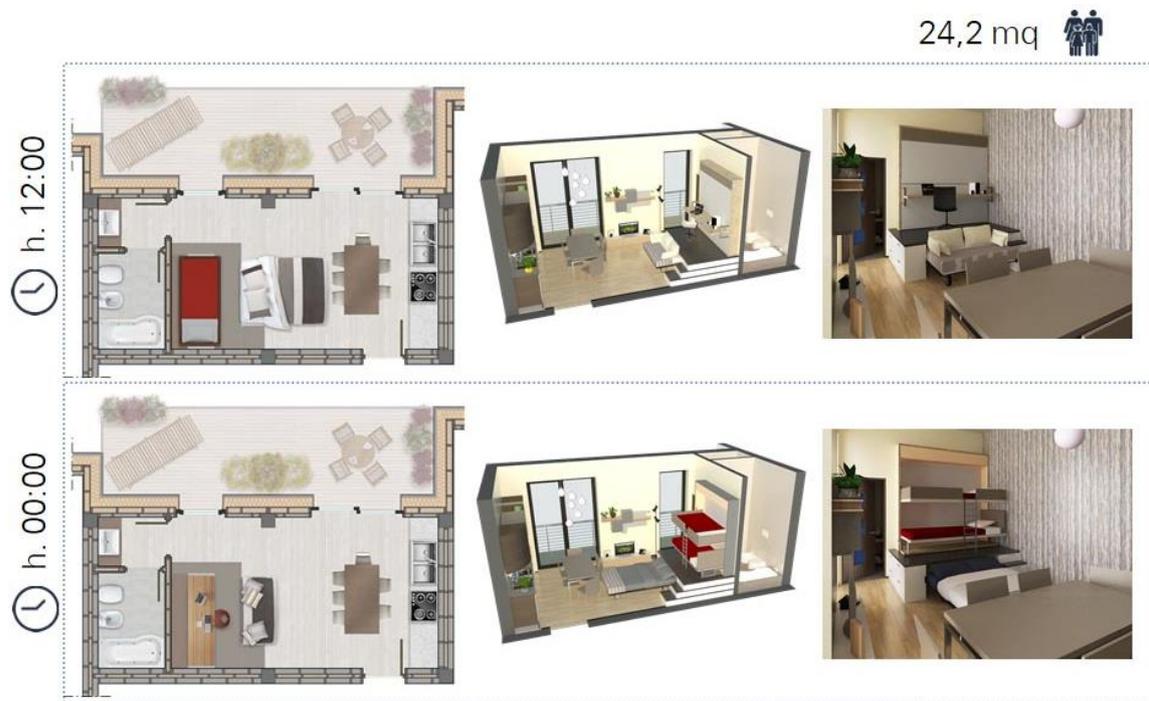
When the competition came to an end, the preliminary idea wasn't crowned the winner. Therefore, an analysis of the winning project was conducted in order to identify the shortcomings of this project. The critical analysis was done both in an objective and subjective manner with the jury. After identifying the problems, new elements were added and the design was modified in order to cater for those shortcomings.

This thesis therefore focuses on the identification of the effective necessity of this new type of residence in Italy and the analysis of the results of the ideas presented in the competition. The finalised design is very flexible and looks promising. It can be configured in different situations, consisting of different housing units assembled together in various combinations according to the size of the selected site.

In conclusion, the micro house designed in this research can effectively become a new prototype for the house of the future. In fact, micro house appears to be a subject of study which has garnered a lot of interest in the recent years as an answer to temporary as well as permanent needs for a housing.



Picture 1. Project masterplan in Ponte Mosca area in Turin.



Picture 2. Example of a unit module, with the differentiation of the use of spaces during the day. From left to right, Plan, 3D cross-section, internal rendering.



Picture 3. Exterior rendering of the square in the project area with the two typologies of buildings studied, block and tower (respectively on the left and on the right).

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