



POLITECNICO
DI TORINO

Honors thesis

Master of Science in Architecture Construction City

Abstract

THE IDEAL CITY POST COVID.

The potential of architecture as a device

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by

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September 2020

The outbreak of SARS-CoV-2 pandemic during last quart of 2019 in China highlighted some 21st century weaknesses in the era of globalization and sometimes overlooked. According to the WHO, the current pandemic may not remain an isolated case in the next future, as it is connected to the several issues caused by air pollution and ongoing climate change.

This thesis aims to discuss the role of architecture in the next years, addressing the inadequacy of buildings and cities rediscovered during the pandemic. The thesis proposes a new solution model to the majority of the problems identified by focusing on three related themes: an urban strategy, a new housing solution and an existing residential buildings adaptation. The three design steps are applied to real cases in the city of Turin.

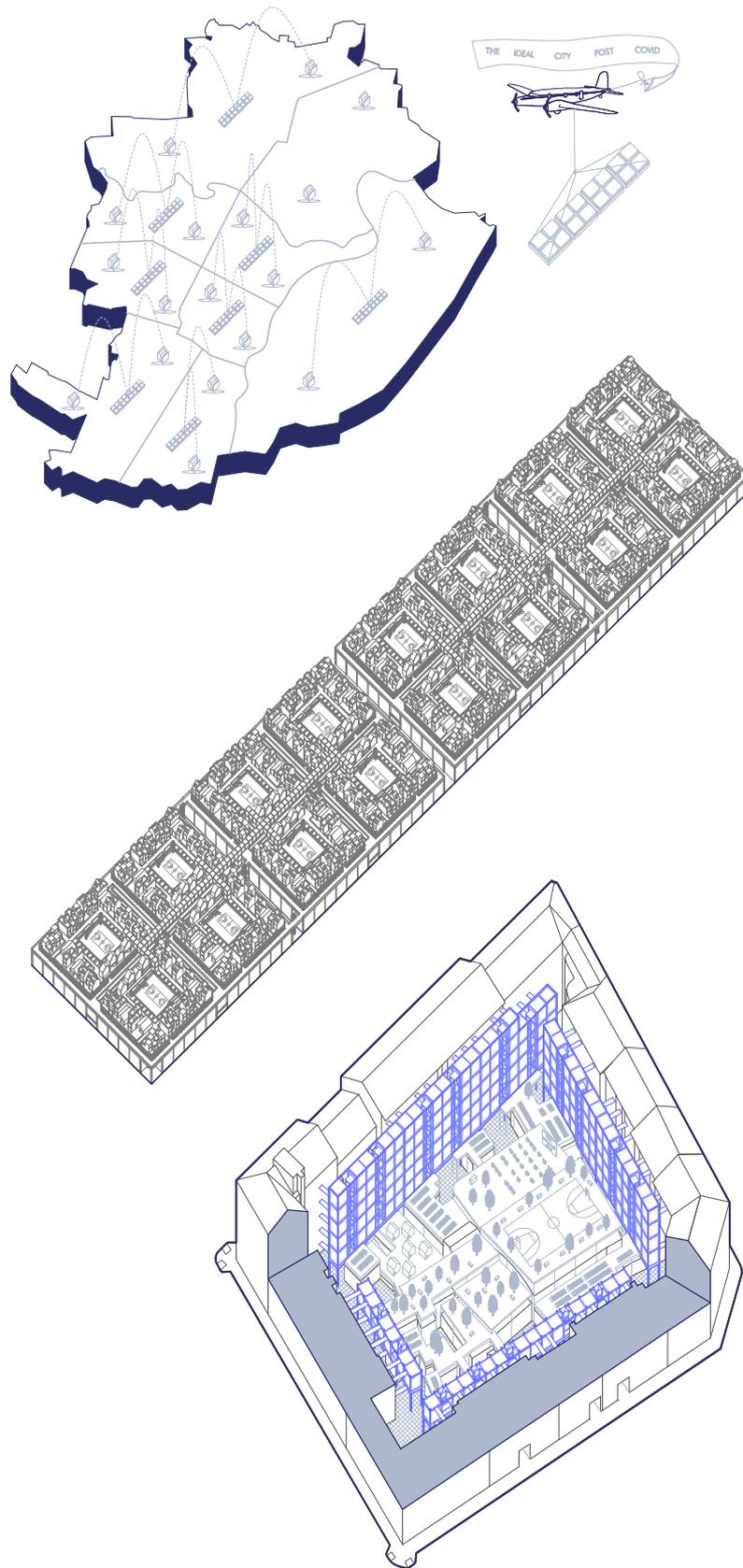
The first theme is to implement an efficient urban strategy in order to reduce large displacements. It takes place with the subdivision of the cities into several autonomous areas, equipped with dedicated spaces to solve the four major problems emerged during the pandemic: a research and diagnosis center, an emergency space, a healthcare and pharmaceutical devices production space and a safe production and retail food supply space.

The second theme provides an innovative housing solution that ensures the social, psychological and physical health of the inhabitants that could be forced to spend more than normal time at home. The housing solution is achieved through rebuild the districts life and enhance the value of the neighborhood, considered able in maintaining a good quality of life even in times of emergency.

The proposed housing solution and the necessary spaces related to the urban strategy are both inserted in a new architecture used as a device composed by three levels. The first level is dedicated to urban functions spaces, which acquire fundamental importance to serve even upper levels. The second and the third levels constitute the housing solution: the second includes social activities and the third is housing dedicated. Every planned space and connection is designed to avoid the possible infections by maximizing outdoor spaces and optimizing the application of technology. Also, the building is designed to be circular and sustainable.

The third theme consists of a design's idea to adapt existing residential buildings, to the proposed new solution. The most common issue identified in several existing buildings is related to the limited available space per inhabitant preventing good standard of life. Consequently, it is proposed an optimized housing solution similar to the one applied to the new architectural model.

The result of this thesis is the creation of an ideal city which is based on new architectural typologies presented as a possible solution to the ongoing pandemic, from the macro-urban scale to the housing scale. At the same time, the thesis is an invitation to benefit from pandemic as a further incentive, towards a change that has been awaited for years, to solve issues related to climate change, scarcity of resources and social aspects in the globalized city context.



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