Politecnico di Torino

Honors Thesis

Master's Degree Architecture for Sustainability.

Abstract

Architecture facing crisis.
Confronting vulnerability in Tokyo

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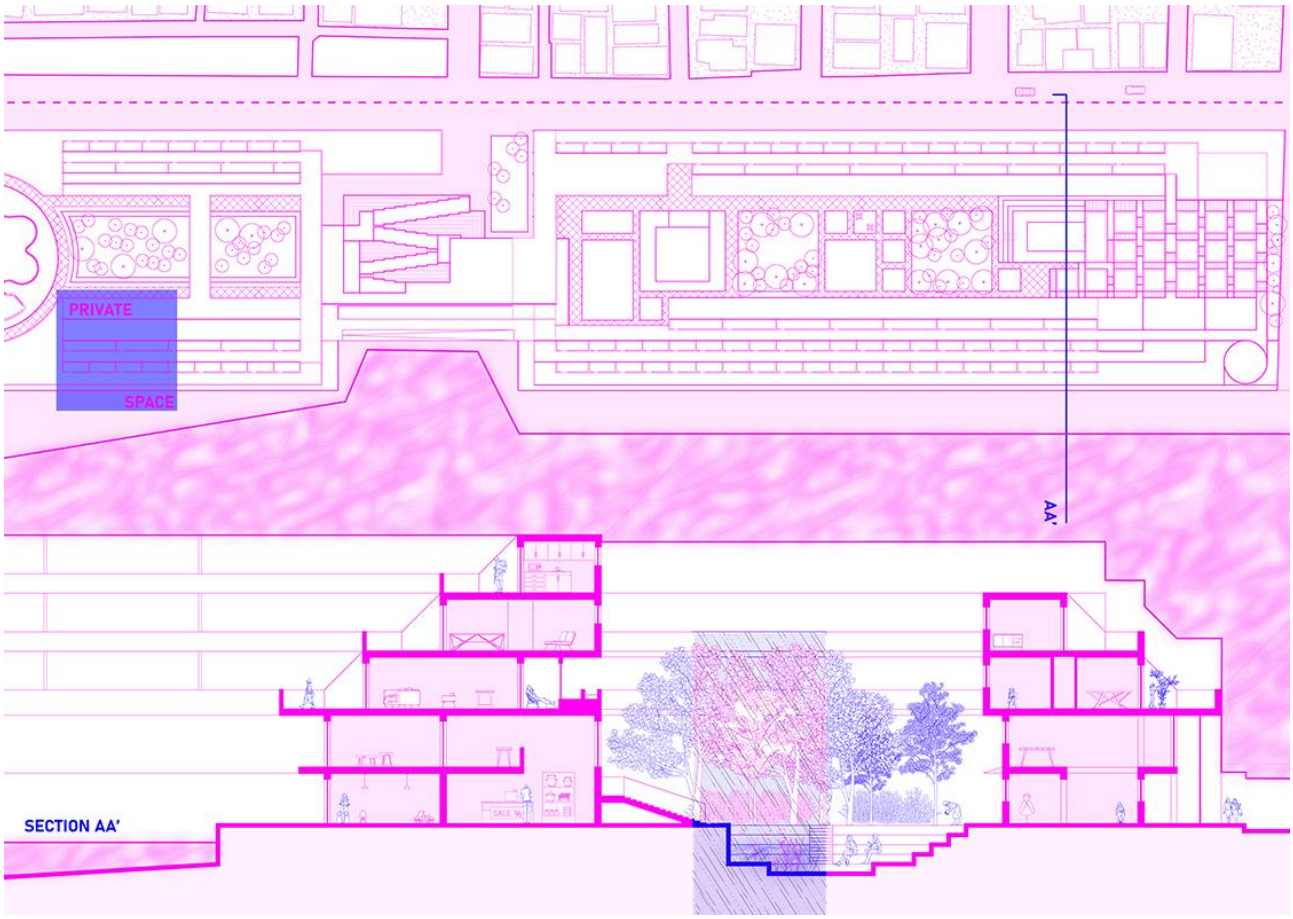
The thesis moves from an hypothesis: if architecture radically tackles crisis, it may not only offer an otherwise perspective on the ways of inhabiting, but also reflect on the very tools and objectives of the discipline itself. Revolving around this issue, the research focuses on the case of Tokyo, a case that exemplary shows this phenomenon of mutual influence because of its changing vulnerability. Whilst Tokyo's crisis and urgencies deeply transformed throughout the last century, architecture engaged differently with the challenges of the city, moving from offering utopian territorial design alternatives to silently responding to limited domestic needs. First, architecture developed strong imaginative capacities with Metabolism when it faced the post-war demographic and environmental crisis, deeply impacting the cultural debate and local development. Far from responding to the challenges of water and climate change, architecture today instead works at other scales, is little able to dialogue with other disciplines, and the development of the city is mainly defined by technical solutionism. After investigating both post-war architectural responses to the crisis, based on utopian envisioning, and engineering responses to current issues, based on separation and infrastructure, the thesis confronts a scenario in which Technics fails, and proposes an otherwise to the present by imagining a city that lives with water. The thesis is divided into three parts. The first one deals with the crisis faced by the city of Tokyo after WW2: population growth, earthquakes and the environment. More specifically, this part offers an in-depth investigation of the Metabolism movement by analysing first-hand manifestos, exploring the abundant literature and critically considering the movement's architectural legacy.

The second one deals with the current crisis that Tokyo faces: climate challenges related to water, sea level rise and subsidence. In detail, this section explores the data framework and describes the main answers and solutions provided by engineering to control nature, and supports the study with dialogues and interviews. The third part deals with a scenario in which Technics and Engineering fail. Instead of trying to technically limit and control water or utopically move the city elsewhere, the research explores a scenario of coexistence. By focusing on the area of Koto, the project evolves from neighbourhood to detail design confronting the idea of living with water. Confronting vulnerability radically highlights the need for a collaborative effort in architectural practice, and a strong commitment to a non-mechanical approach to design. This requires deep reflection and collective commitment, so that architecture not only responds to emergencies but anticipates risks, creating spaces that are flexible, sustainable, and inclusive for future generations. Addressing vulnerability in a radical way highlights the need for a collaborative effort in architectural practice and a strong commitment to a non-mechanical approach to design practice. This requires deep reflection and a collective commitment so that architecture does not just respond to emergencies but anticipates risks, creating flexible, sustainable and inclusive spaces for future generations.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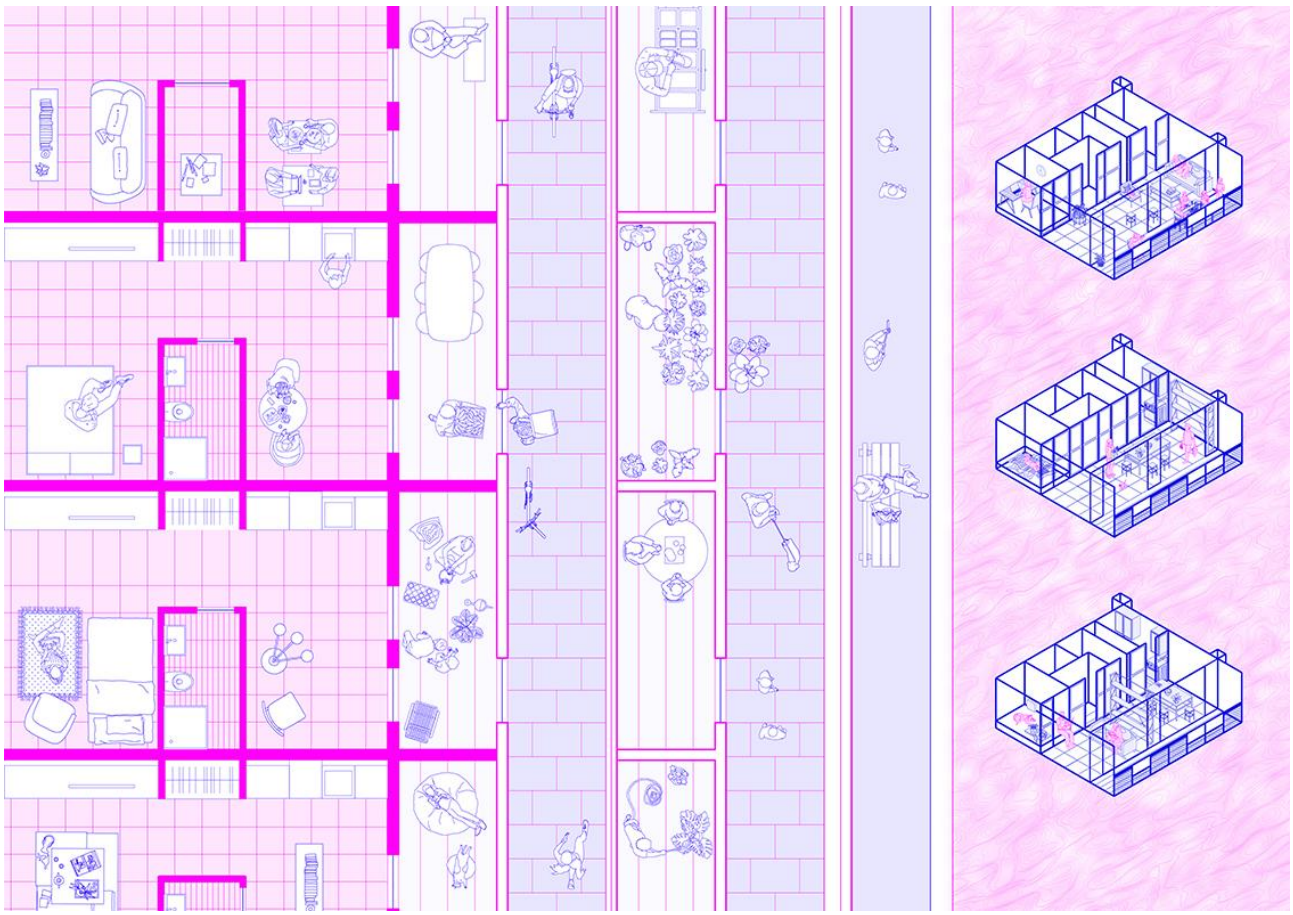

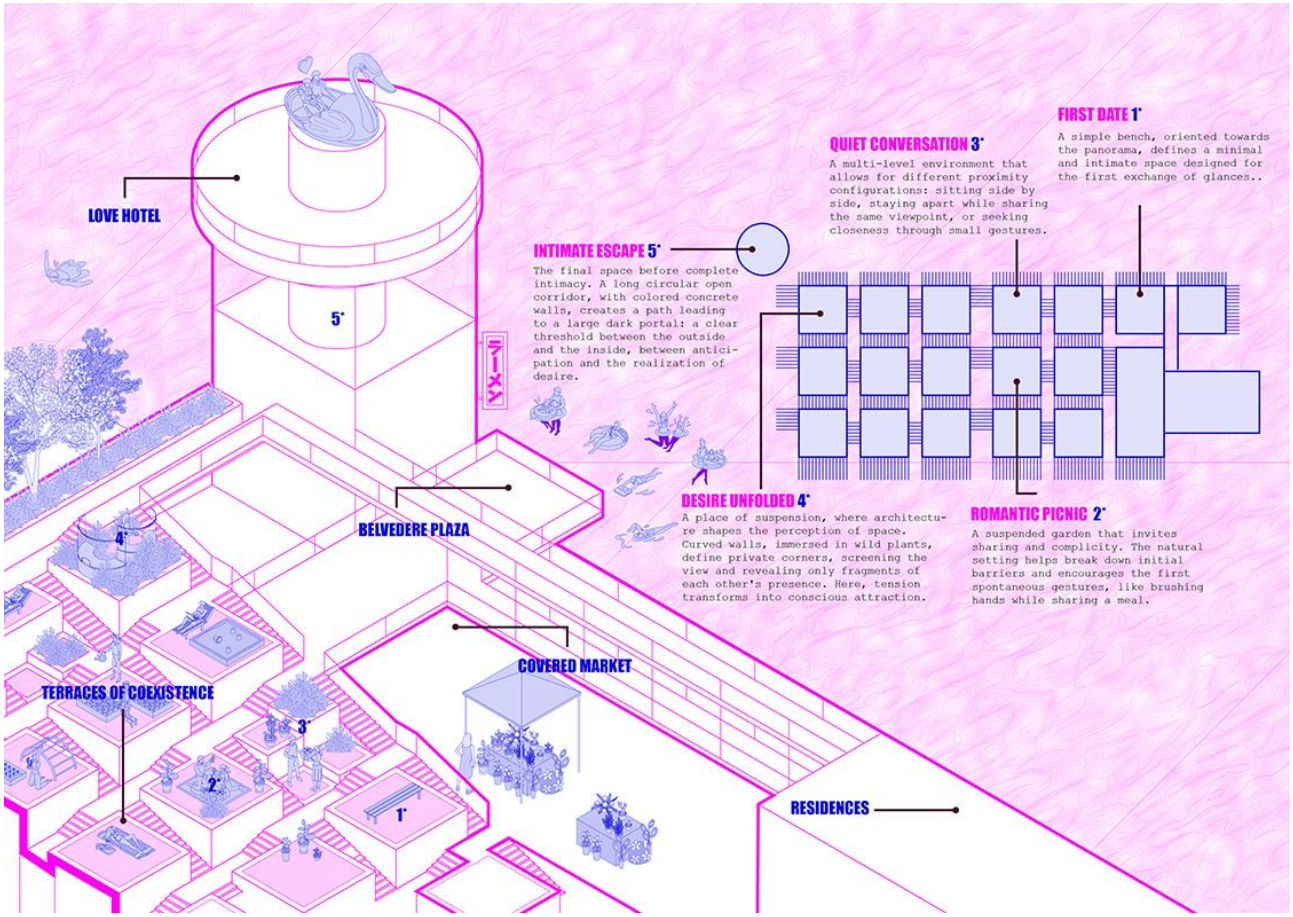

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