



POLITECNICO  
DI TORINO

# Honors thesis

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COURSE OF ARCHITECTURE CONSTRUCTION CITY

*Abstract*

**Enviromental design and urban planning for the resilient  
approach: blue-green infrastructures in Tsukuda, Tokyo**

*Tutor*

Alessandro Mazzotta  
Claudia Cassatella  
Akiko Iida

*by*

Lorenzo Fante

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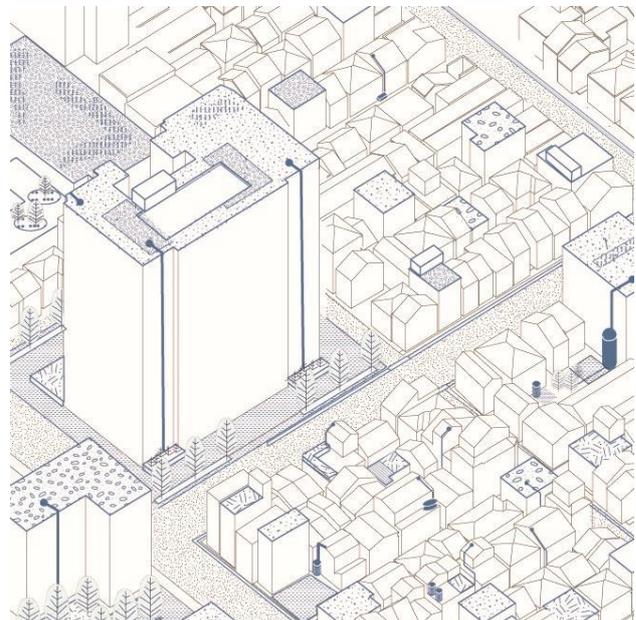
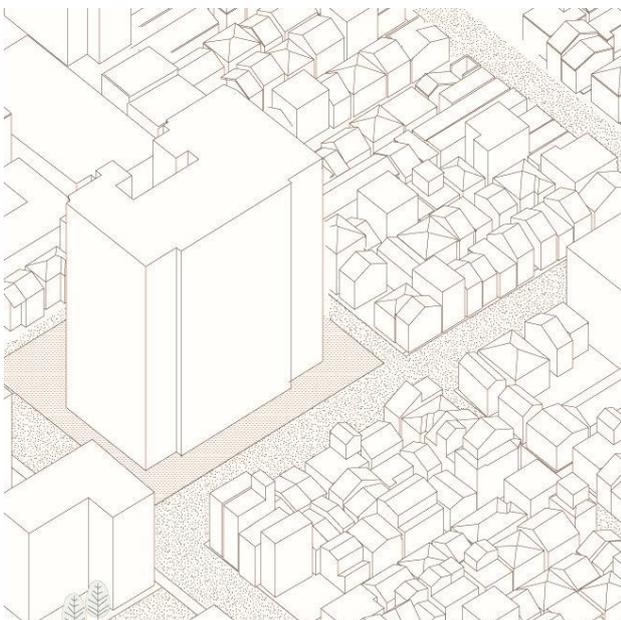
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The water-sensitive approach, which no longer considers urban and runoff waters as an element to be immediately removed from the city, but as a potential resource on an environmental and formal level, is increasingly gaining ground in architectural and urban planning practices both in Europe and in the United States. This approach is still at its beginnings in the Japanese and Tokyo context, still linked to interventions with a strong economic and environmental impact, relegating water to an occasional background in the urban environment, or, at best, to a simple decorative element.

There still are a few plans that consider the hydraulic cycle in a holistic sense, going beyond the mere engineering vision, often characterized by an approach that does not take into account local specificities and ways of inhabiting. The thesis work, developed between Italy and Japan, with a period of research for thesis abroad carried out at the University of Tokyo in the spring of 2019, tries to develop a proposal in this regard.

The process has been developed in three parts: the first part of historical research on the role of water in Edo-Tokyo and on contemporary plans and projects that concern it; the second has focused on the analysis of two areas, different for urban and social composition, Tsukuda-Tsukishima and Kugayama-Kitakarasuyama, trying to identify the most characteristic elements.

Finally, following the classification of the instruments, two masterplans have been developed, declined in five urban “taxonomies” of a possible water-sensitive Tokyo, and further project located in a district of Tsukuda. The neighbourhood’s specific features are exploited to integrate a series of green and blue infrastructures, not with an aprioristic approach, determined by the simple need and availability of spaces, but declined according to local morphology and context. The project potentially involves multiple stakeholders, including public bodies, governments and residents, proposing a possible alternative vision of the future of Tokyo’s traditional dense neighbourhoods.





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For further information please contact:  
Lorenzo Fante  
[lorenzo.fante995@gmail.com](mailto:lorenzo.fante995@gmail.com)