



Country / City TEHRAN, IRAN  
University / School UNIVERSITY OF PALERMO / DEPARTMENT OF ARCHITECTURE  
Academic year 2018 - 2019  
Title of the project TEHRAN WATERSCAPE - LANDSCAPE AND URBAN REGENERATION ALONG MAGHSOUBEYK CANAL  
Authors Giuditta LO TAURO

## TECHNICAL DOSSIER

Title of the project TEHRAN WATERSCAPES - Landscape and urban regeneration along Maghsoubeyk canal  
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Title of the course MASTER'S DEGREE IN ARCHITECTURE  
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Department/Section/Program of belonging ARCHITECTURE / MASTER IN ARCHITECTURE  
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The subject of this research and project is the river landscape of the city of Tehran which, although born as a plain city, has always dealt with water supply, be it underground or superficial. Tehran's urban landscape is a metaphor for its duplicity: on one side, to the north the majestic Alborz mountain range, from which seven water streams flow, on the other, to the south, the desert. Specifically, Maghsoubeyk canal, resulting from the union of two rivers – Darband and Golabdareh – which flows for almost 6 km between district 1 and district 3 in the north of Tehran, represents the case study of this research. Relevant from an urban point of view, because it is the link between the network of historical settlements: a unique case among all the waterways in the city, as an integral part of an urban agglomeration that surrounds and rejects it at the same time, still relegating it to mere channel whose presence is manifested only by the sporadic sound of waterflow that emerges among the redundant clamor of the horns.

As a result, the aim of this work is to design a public network between two focal points, Tajrish square in district 1 and Zargandeh in district 3, connected through the canal flowing between a landscape system that makes this now forgotten waterway a landmark, a green corridor that untangles the smog blanket of the highly polluted Iranian capital.



# CLIMATE CHANGE AGAIN

11th International Biennial Landscape Barcelona

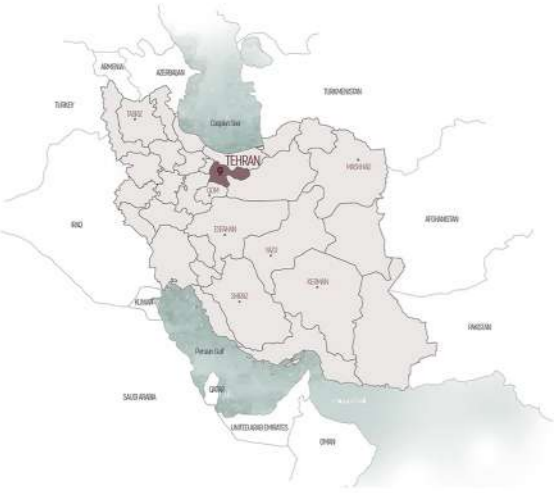
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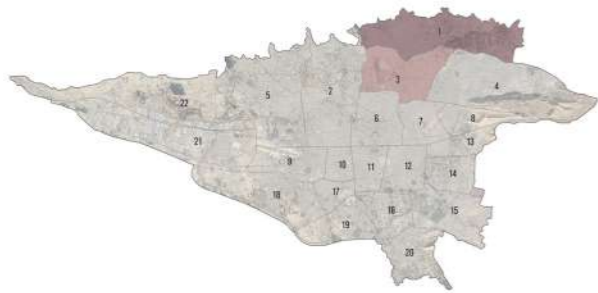
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Barcelona September 2020  
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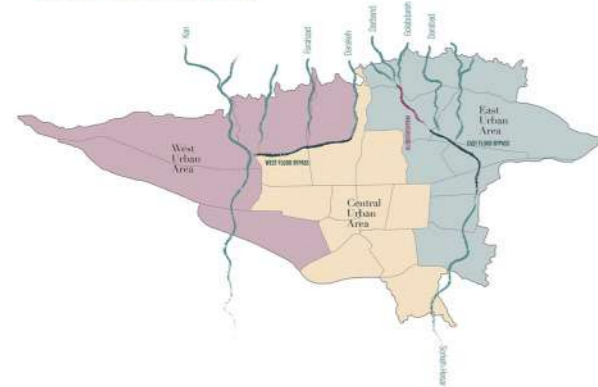
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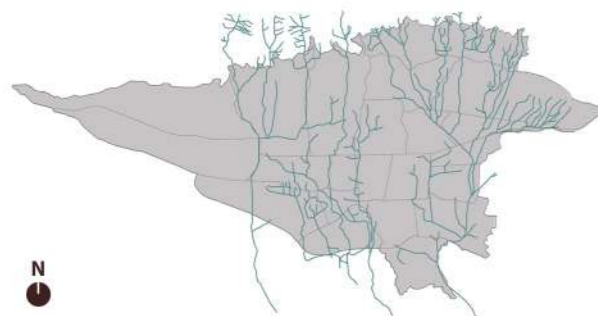
## DISTRICTS



## WATER STREAMS



## DRAINING SYSTEM



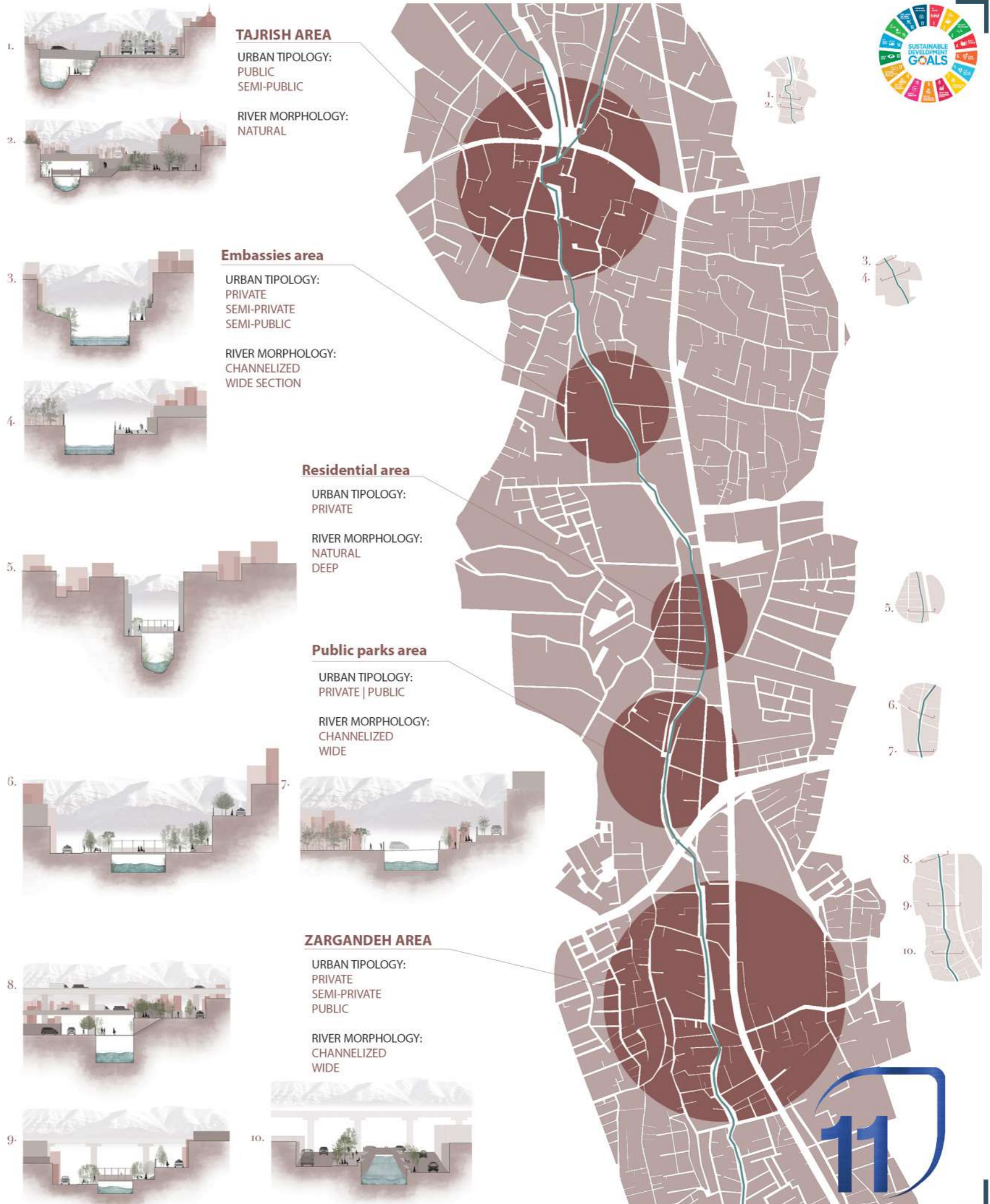
## THE CITY

**Tehran**, capital city of the Islamic Republic of Iran, can be defined here as a full-fledged megalopolis: with its **22 districts** which host more than 11 million inhabitants - 15 million considering the metropolitan area - and the 730 sq km of extension, it is the largest city in Iran and one of the largest capitals of the Middle East. The peculiarity of the city certainly lies in its geographical location: it extends for about 18 km from the slopes of the Alborz mountains to 1800 meters above sea level in the north, reaching 1200 meters in the central plain up to 900 meters above sea level in the south, with a slope of 13.5 m/ per km<sup>1</sup>. This topographical trend has made it possible to drain water almost naturally. Tehran waterscape is composed by **seven water streams**, from west to east: Kan (perennial), Farahzad (seasonal), Darake (seasonal), Darband (almost perennial), Gholabdarreh (almost perennial), Darabad (almost perennial) and Sorkeh- hesar (seasonal).



## THE SITE

**Maghsoudbeyk canal**, is a water stream resulting from the union between Darband and Golabdareh rivers, located in the north of Tehran from Tajrish (district 1) to Mirdamad (district 3) for about 5.7 km. The uniqueness of the site is represented by its being at the same time a river landscape but urbanistically dense. The analysis of the urban landscape of the site is illustrated with progressive sections that show the **urban context and use of space**, be it private or public, in relation with the **morphology of the water stream**, be it channelized or natural. As a result, the design process then focuses on **Tajrish** area and **Zargandeh** area.





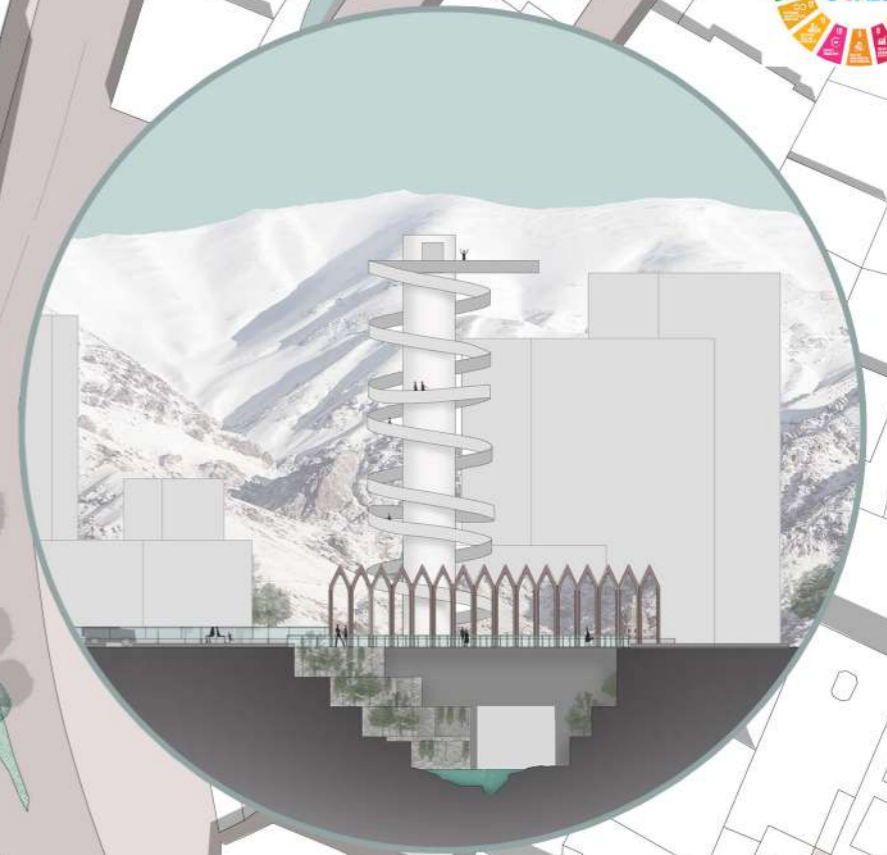
### RIVER CONNECTIONS DIAGRAM



### TAJRISH

Tajrish Square is the second most important commercial **hub** of the city after the historic center of Tehran, not only for its strategic position in the north but also for the infrastructural connection with roads and highways to the rest of the city. In the area of Tajrish Square there are two cultural attractors of high city importance: Imamzadeh Saleh and Tajrish Bazaar. The largest limit of the area is given by the presence of high noise and automotive pollution, as well as the **negation of the presence of the river** and a poor enhancement of historical elements. What makes the area unique is the high altitude; the square is located at **1612 meters** above sea level from which, to the north, you can enjoy the panoramic backdrop given by the mountain range, while to the south you can benefit from the view of the city which unfolds up to the plain.

### SECTION ON THE EXCAVATION



### TAJRISH SQ. BEFORE DESIGN



### STRATEGIES FOR TAJRISH: A NEW LANDMARK



Alborz mountain view on the north



Panoramic tower



View above the city to the south



Excavation in order to make usable and visible the connection point of the two rivers, Darband and Gholabdareh

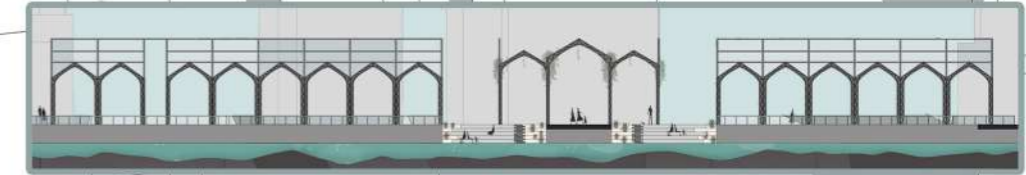
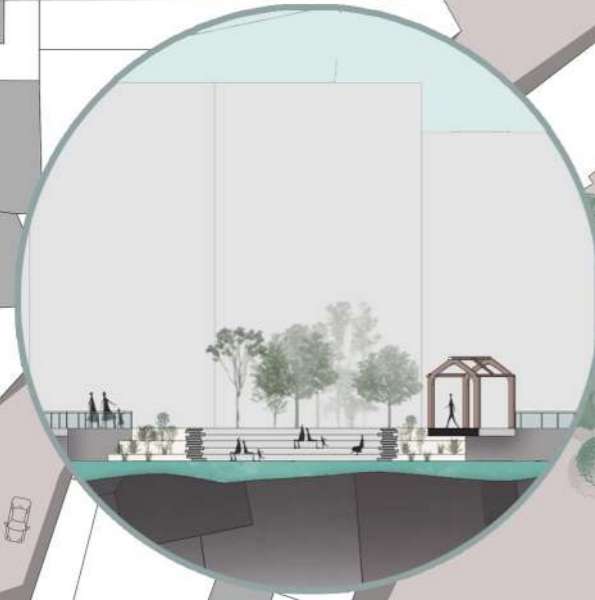


Urban park on different levels in order to enhance the perception of the existence of Maghsoudbeyk canal



SECTION ON THE RIVER TO THE PIER

VIEWS OF THE MARKET IN RELATIONSHIP WITH THE WATER STREAM



ZARGANDEH SQ, BEFORE DESIGN

STRATEGIES FOR ZARGANDEH: A SOCIAL MARKET

ZARGANDEH

Zargandeh district is located in Tehran district 3 and, together with Tajrish, is one of the ancient villages that stood on the banks of the river in the north of Tehran, while the city extended on the plain. Extending in a slight hilly promontory, the urban structure of the Zargandeh district is made of narrow and very steep streets. The main intended uses are residential and office use, and there are not many commercial uses, except for the existing fruit and vegetable market. The main cultural attractors of the area are Zargandeh park and Imamzadeh Ismaili, with the monument to the unknown fallen in the Iran-Iraq war.



- Vegetable and fruit market
- Quarter center - public space
- Greenhouse
- Linear park along the river
- Shared urban orchards fed by the river water