



# **MINOO ASSARI**

LANDSCAPE, ENVIRONMENTAL AND URBAN PLANNING

**[Portfolio]**

# University Projects

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2. **Flood Management in Paris, France, 2016**
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# Constructed & Commercial Projects

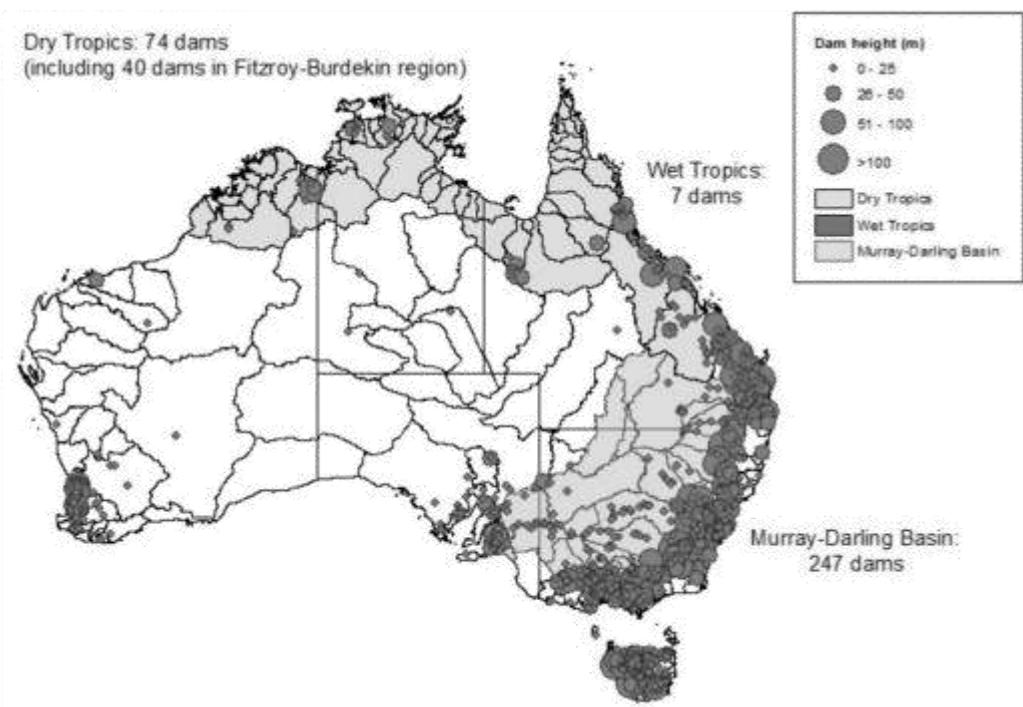
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Tehran University Project, 2016

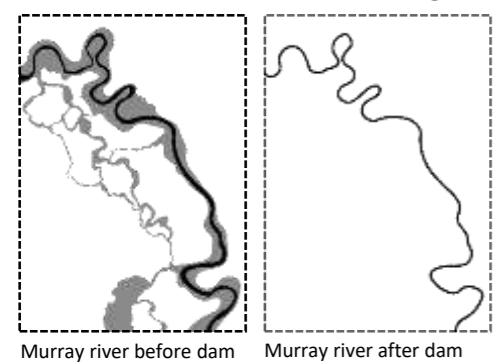
# Sustainable Approach Towards Water Management Strategies

## Australia Dams Map

A glance at meteorology maps within last 20 years demonstrates overall reduction in rainfall, and as a result dry lands have been increased. Dams can be one of the main reasons for this change as they unsustainably modify the natural water cycle through concentrating water in some limited spots and limiting water through narrowing rivers in more greater areas.



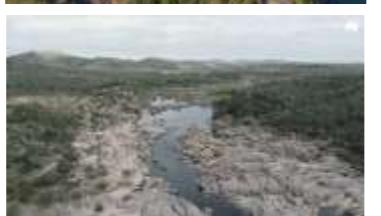
The construction of dams happens in areas with less rainfall where megacities are located, but there is an interaction between dams and aridity of regions. Dams intensify the dryness and aridity intensifies need for water reserving.



**Great Water Spot**



**Narrow River**

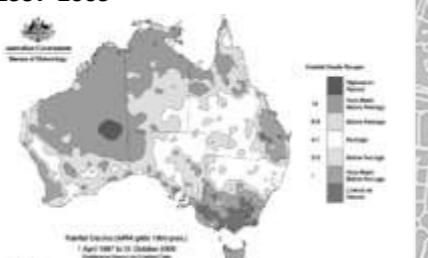


**Dried River**



## Rainfall in Australia

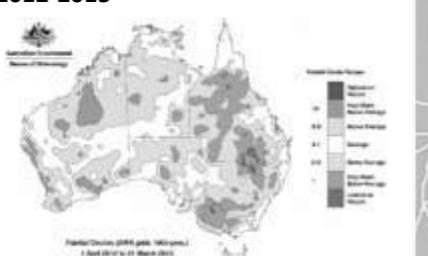
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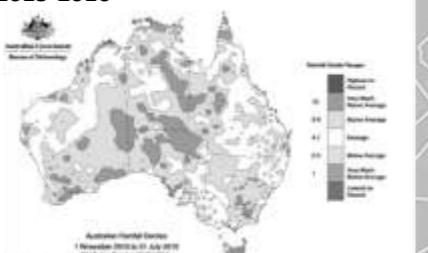
2010-2011



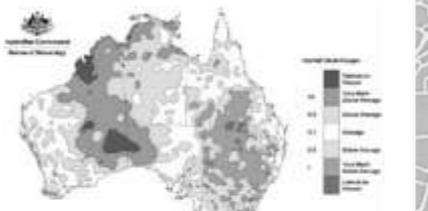
2012-2015



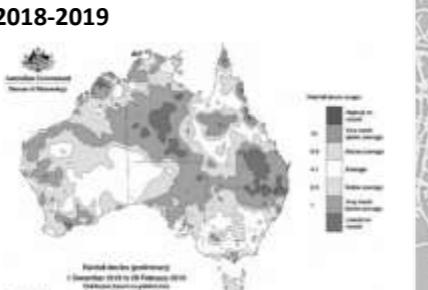
2015-2016



2016-2018



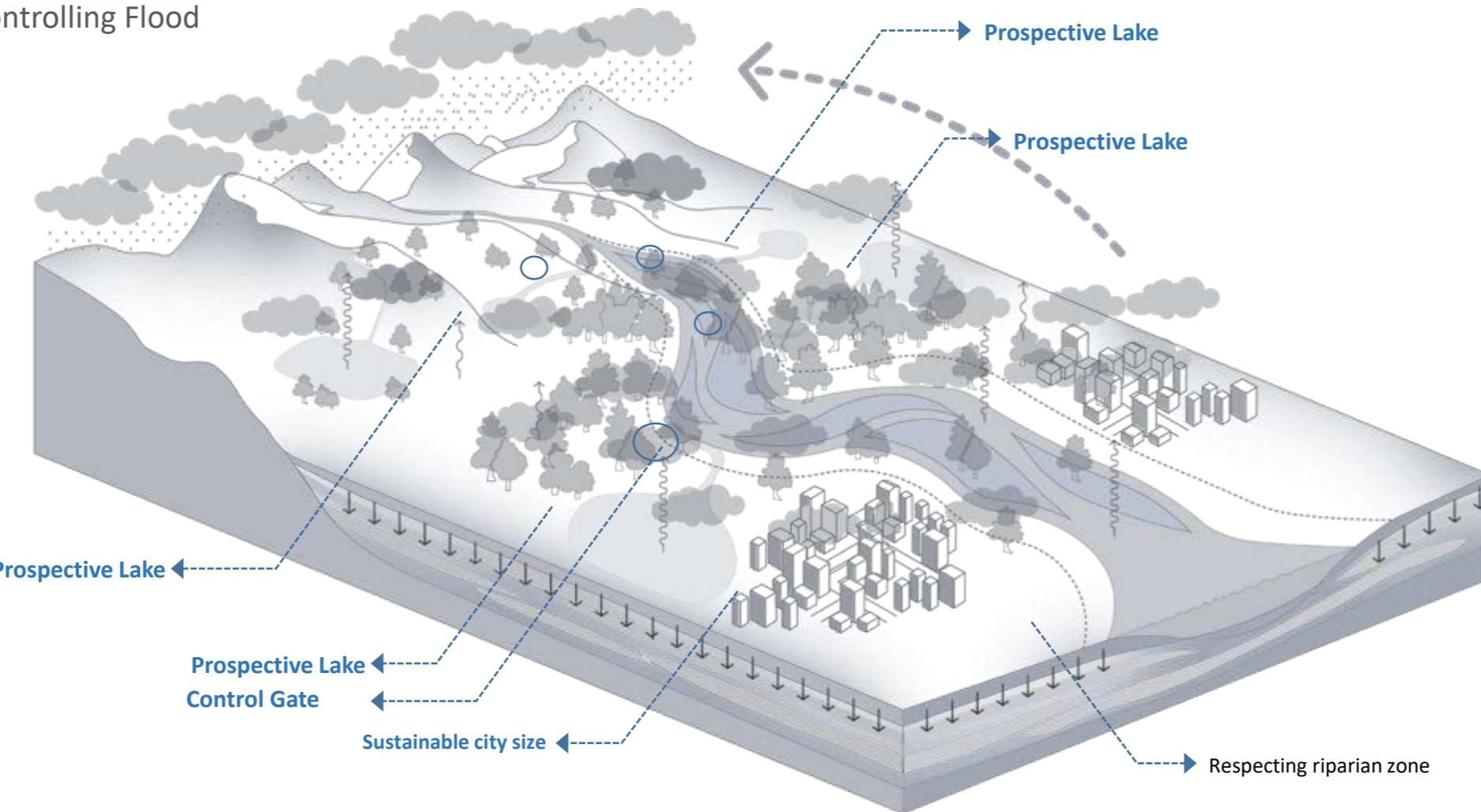
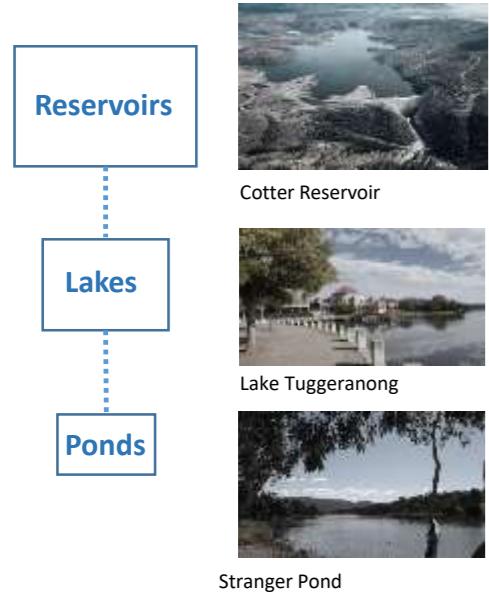
2018-2019



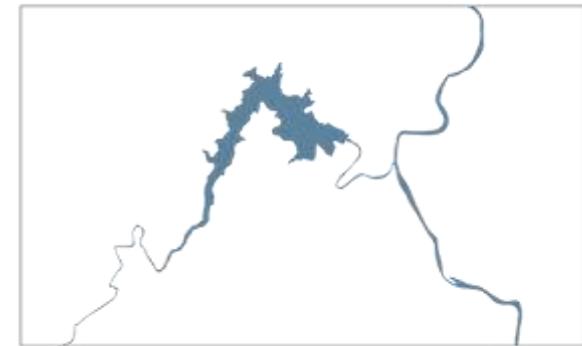
# Prospective Landscape Model of Sustainable Water Management Infrastructure For Supplying water and Controlling Flood

## Australia Water Spots

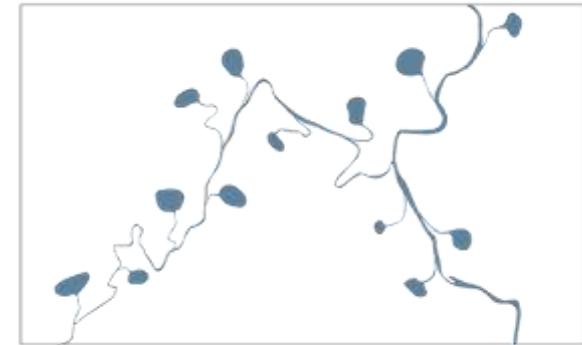
Water spots can be found in three scales in Australia: Reservoirs (Dams), Lakes and Ponds and they are connected by Rivers. As reserving water in large scale wreak havoc on environment and results in unsustainability, inspiring from the concept of ponds rather than dams can be suggested as a sustainable method of supplying water and controlling flood.



Dams generate very big water spots which upset water structure balance. They act as cancerous tumors and disturb the functionality of natural environment.

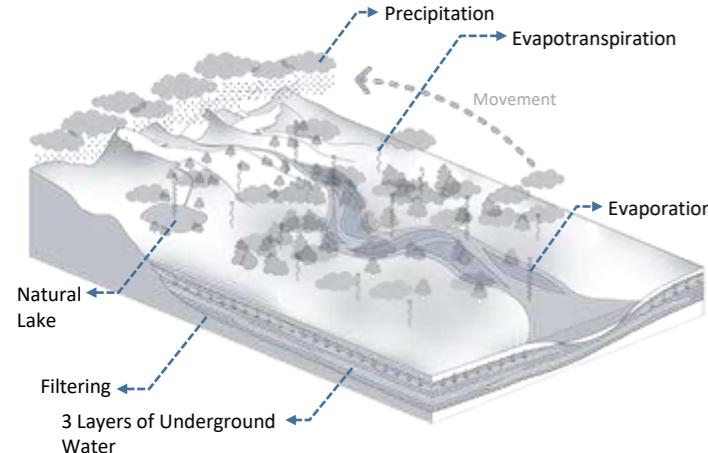


What if we had connection of small ponds rather than Cotter Dam on Cotter river?

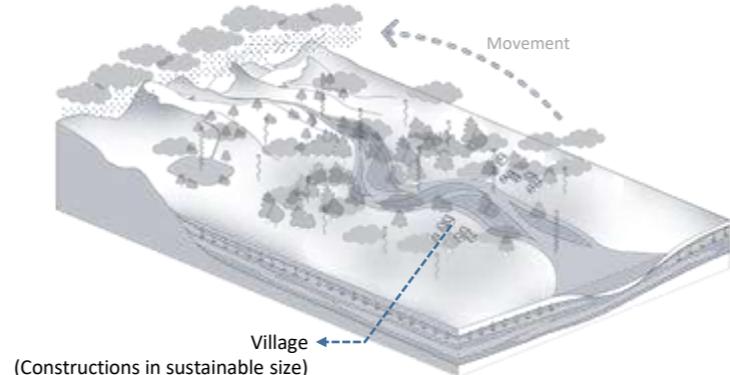


If the spots be divided in smaller spots and be repeated in whole linear of the river, a more equivalent and sustainable change happens to the water structure. Furthermore, the volume of water running out of river can be controlled through control gates.

## Natural Water Cycle

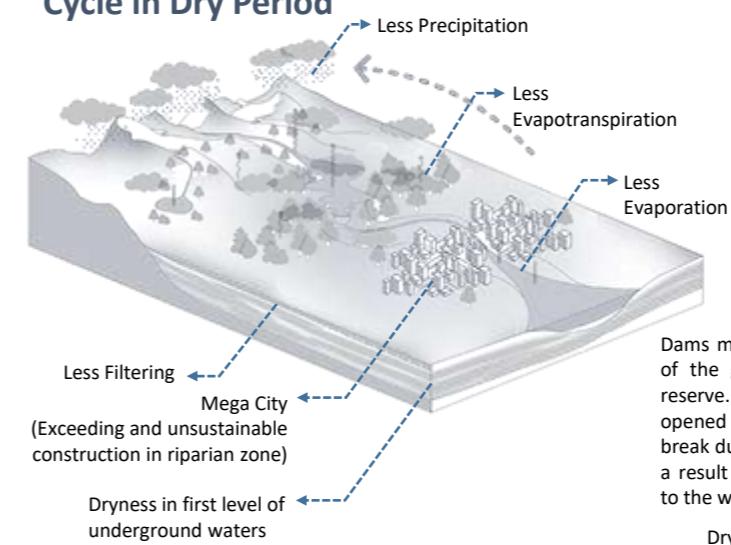


## Sustainable Water Cycle in Rural Context



Keeping the balance of natural water cycle is of paramount importance for natural recourse preservation. Rivers for lands are like blood vessels for human body. Rivers balance should be kept in order to having a sustainable natural water and several factors including city size, quantity and size of man-made supplying facilities such as Dams and the construction growth are involved.

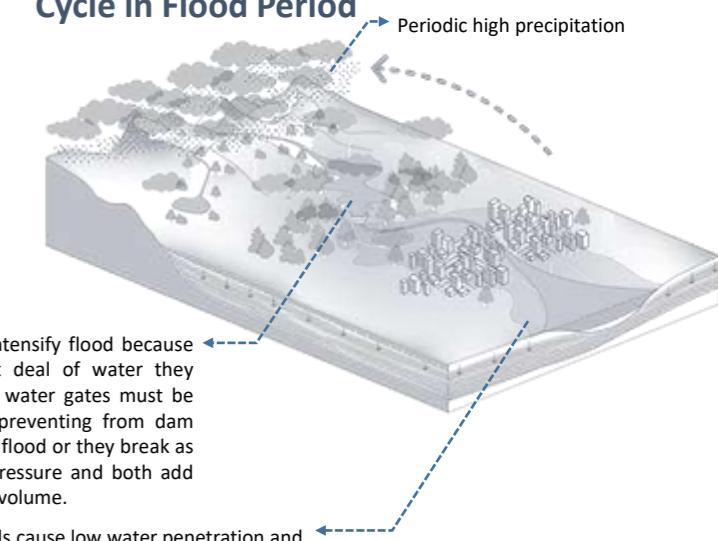
## Urbanism, Dams & Unsustainable Water Cycle in Dry Period



Dams may intensify flood because of the great deal of water they reserve. The water gates must be opened for preventing from dam break during flood or they break as a result of pressure and both add to the water volume.

Dry clogs cause low water penetration and remain more surface water.

## Urbanism, Dams & Unsustainable Water Cycle in Flood Period



Versailles University, 2016

## Flood Management in Paris

Location: Paris, France

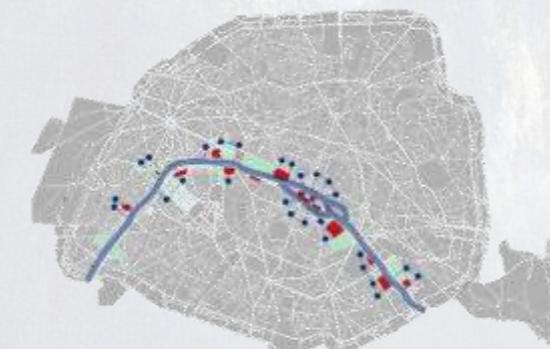
Paris has been witnessing flood since its birth and this issue should be seriously discussed since the most important buildings in Paris including Museums, Notre-Dame, Eiffel and etc. are located on river side while the green and penetrative lands are not responsive to the big mass of flooding water. Moreover, Seine River bank is of concrete and making river bank more penetrative is a controversial issue as the concrete river bank is the main attraction of Paris. The flood water will be transferred to urban Lakes, Ponds and fountains inside the city through underground Channels.



The island, city center of the historical core of the city is highlighted in red.



Important buildings and green penetrative lands are demonstrated in this map.



Lakes: Flood water is transferred to urban Lakes through underground water.

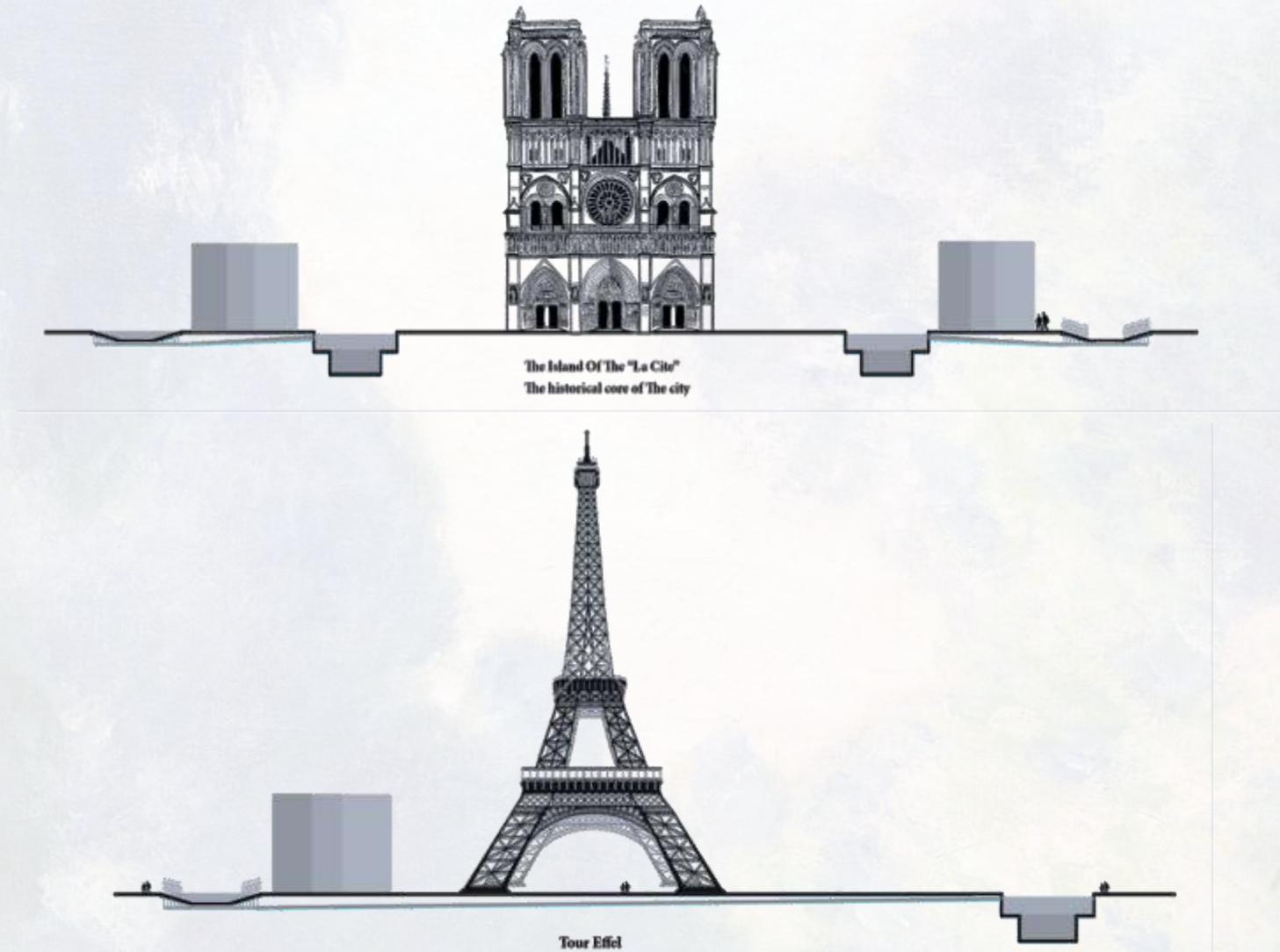


Ponds: Based on the mass of flood, ponds may remain empty of flood water.

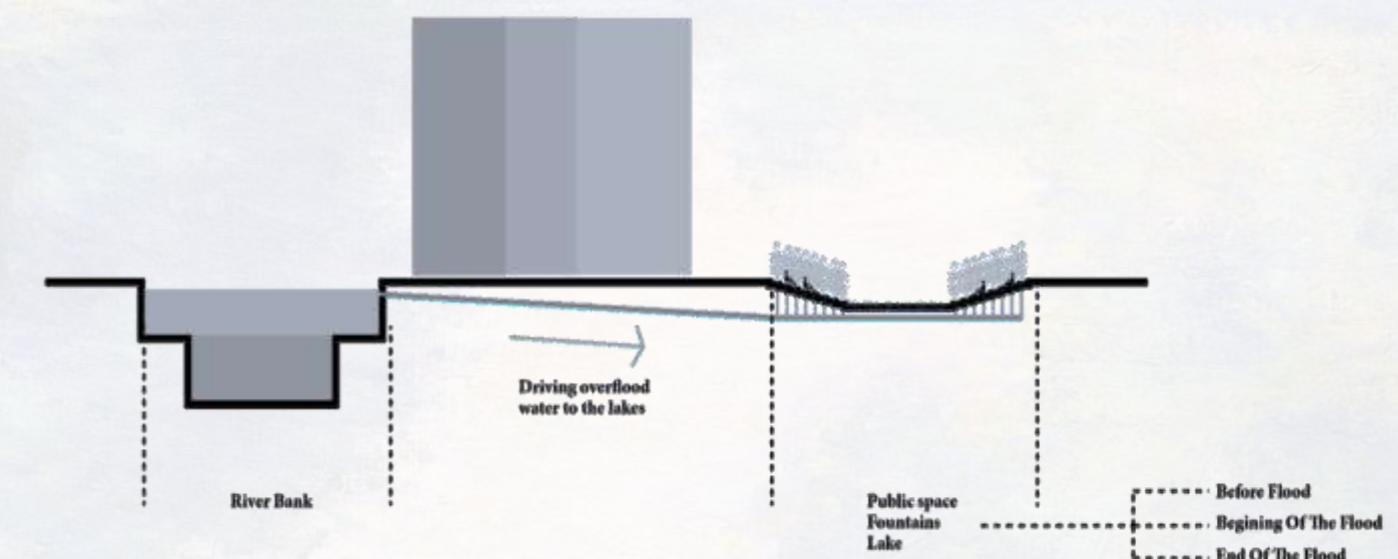


### Lakes, Ponds and Flood Fountains

Lakes, ponds and fountains, are connected through a network of water. The most serious floods result in working fountains.



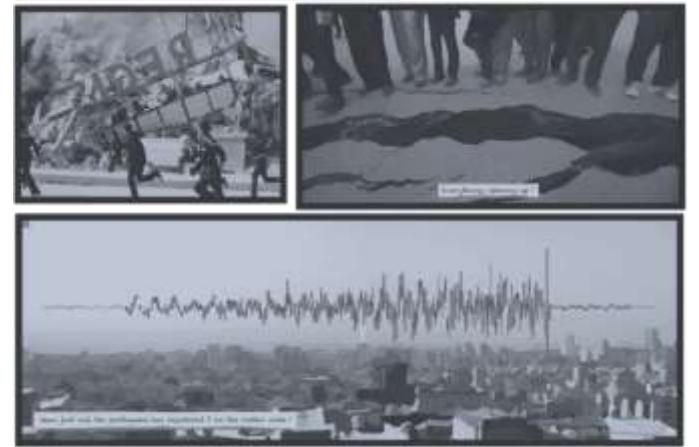
The flood water will be transferred to urban Lakes, Ponds and fountains inside the city through underground Channels. Lakes and ponds just have low level of water in non flood situation and they work as performative landscapes, but during the flood they gradually start to be filled and the fountains work.



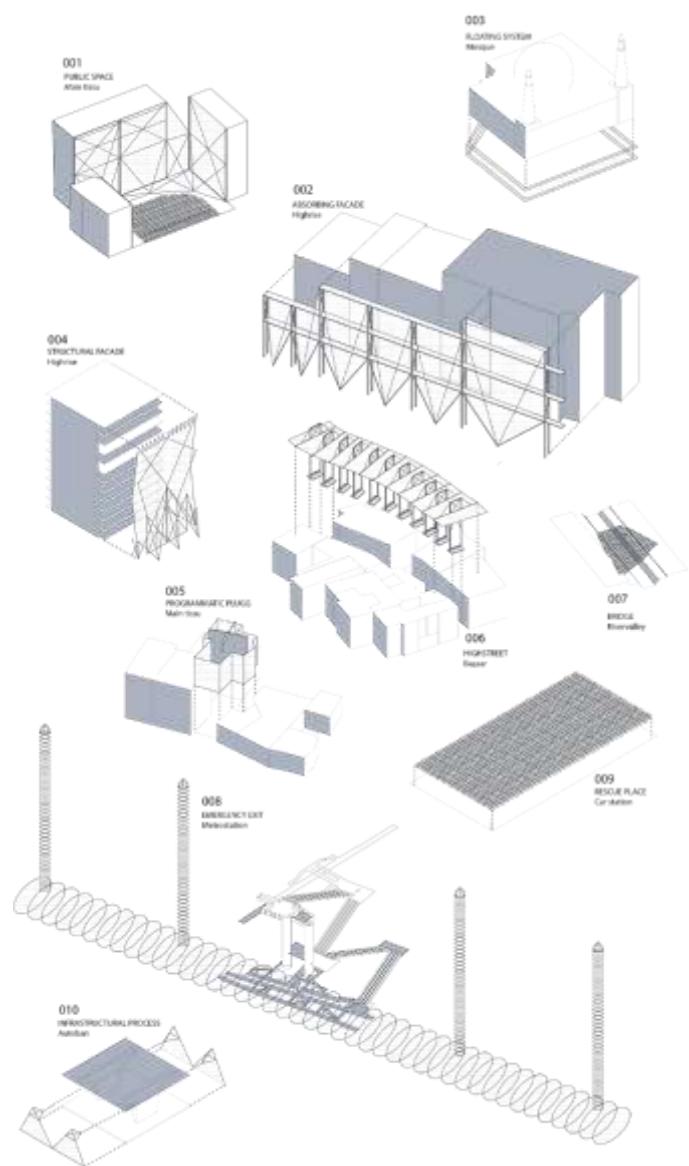
- Lakes
- Ponds
- Fountains

## Versailles University, 2016 Image of a Seismic City

Location: Tajrish Sq., Tehran, Iran

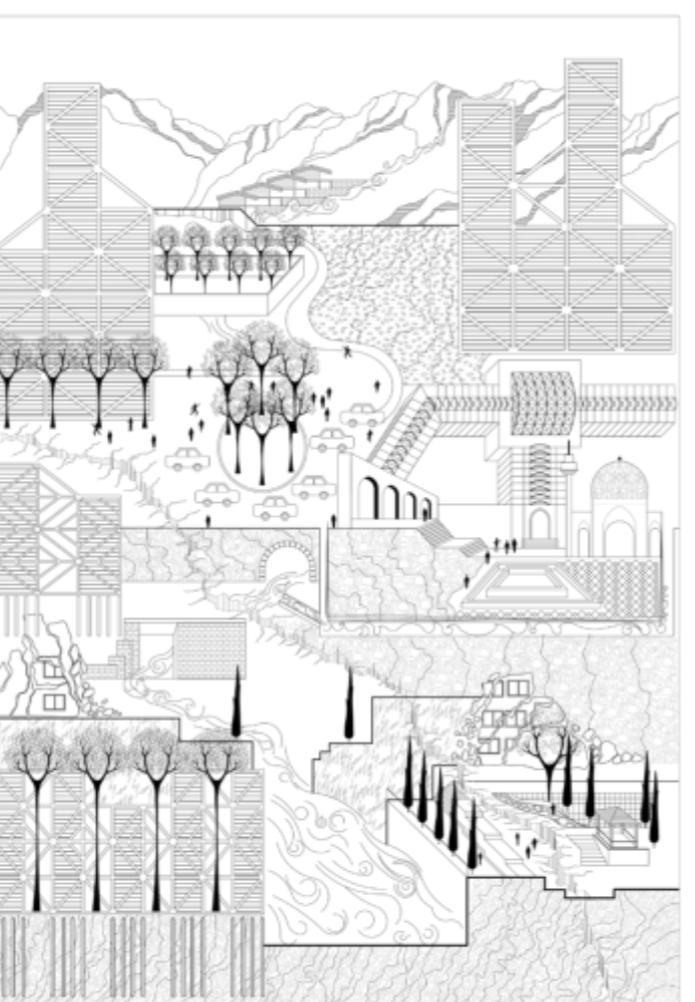


Retrofitting Systems



Tehran is a seismic site and it should be retrofitted in different layers and scales based on seismic building codes. There are different systems that can be used for strengthening different types of buildings including small-scale residential buildings, large-scale official and commercial buildings, emergency centers and hospitals, governmental & security buildings as well as religious and cultural centers. The systems embrace from braces, dampers, base isolation, urban shelters and etc.

Earthquake is a vulnerability and a threat which can turn to a opportunity and a strong feature that can give meaning to city image. Retrofitting systems which have disturbed the city image for decades, can be developed and managed in a way to turn to aesthetic elements.



Fictitious image of Tajrish telling earthquake story in Tehran: a deep fault passing north of Tehran and old non-retrofitted buildings eradication during earthquake, buildings that are strengthened by braces with Iranian patterns, walls with mountain stone layers and the floating shrine which is specifically strengthen through base isolation system .



Tehran University, Faculty of Fine Arts  
Master Thesis Project, 2016

Grade: A+

## Green Bridge Urban Landscape Design

Location: Tehran, Iran

### Design Ideas



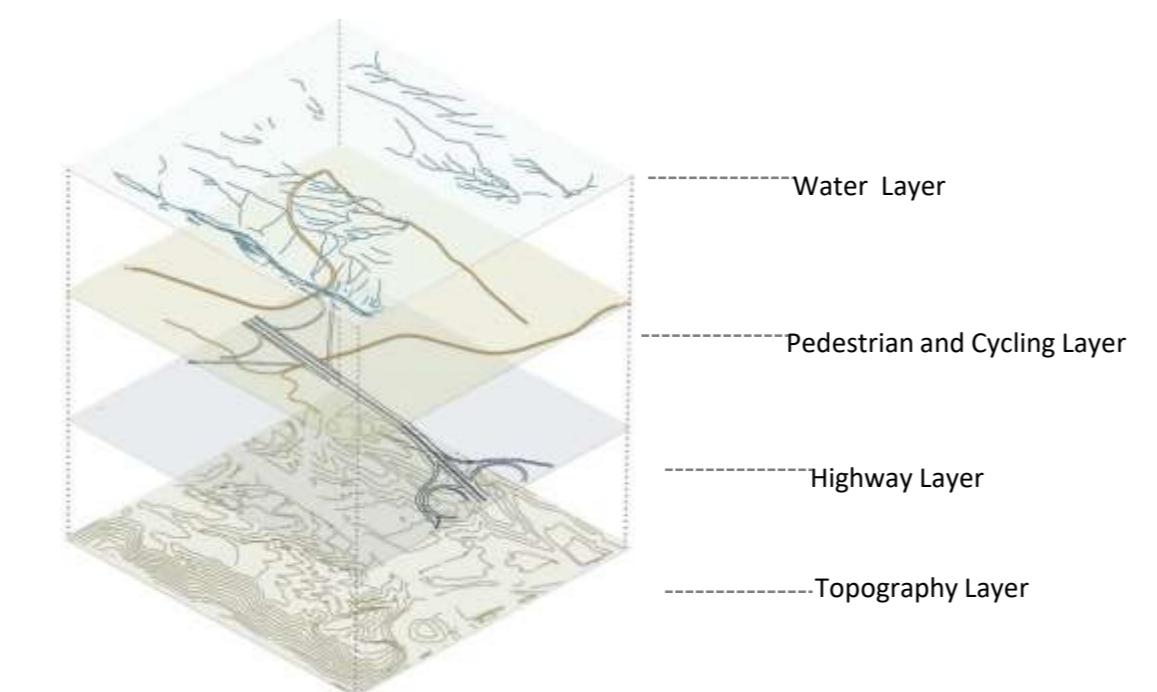
Revitalizing the hills



walkability



Connectivity instead of Fragmentation

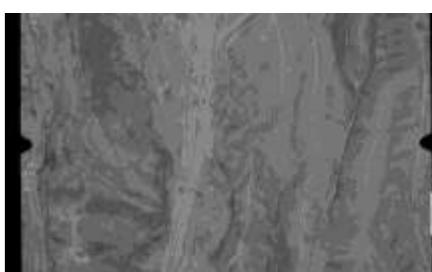


This design is an answer to one of the biggest challenges in landscape architecture in Tehran, which is landscape fragmentation, with a strong focus on walkability and pursuing the active participation of the user. Construction of highways affect both the ecological balance in the environment and people's perception of their natural environment. According to historical analyses, I understood before constructing the highways on the site chosen for this design, there were some hills in that area, so the main aim of the project is to compensate this fragmentation between two parks located in either side of the highway by designing a vertical landscape as a bridge, and developing the design to the periphery of the site reaching to those hills and parks. Not only can it help to make a connection visually, but also it can provide people with a landmark that is the embodiment of those historical hills, which were one of the most important parts of Tehran's identity.

Historical Hills in 30's decade



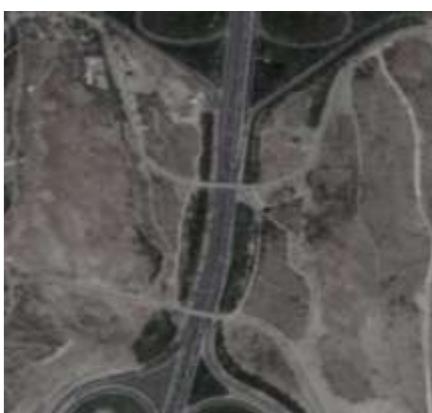
Highway construction in 70's decade



Road development resulting in a total fragmentationLayer

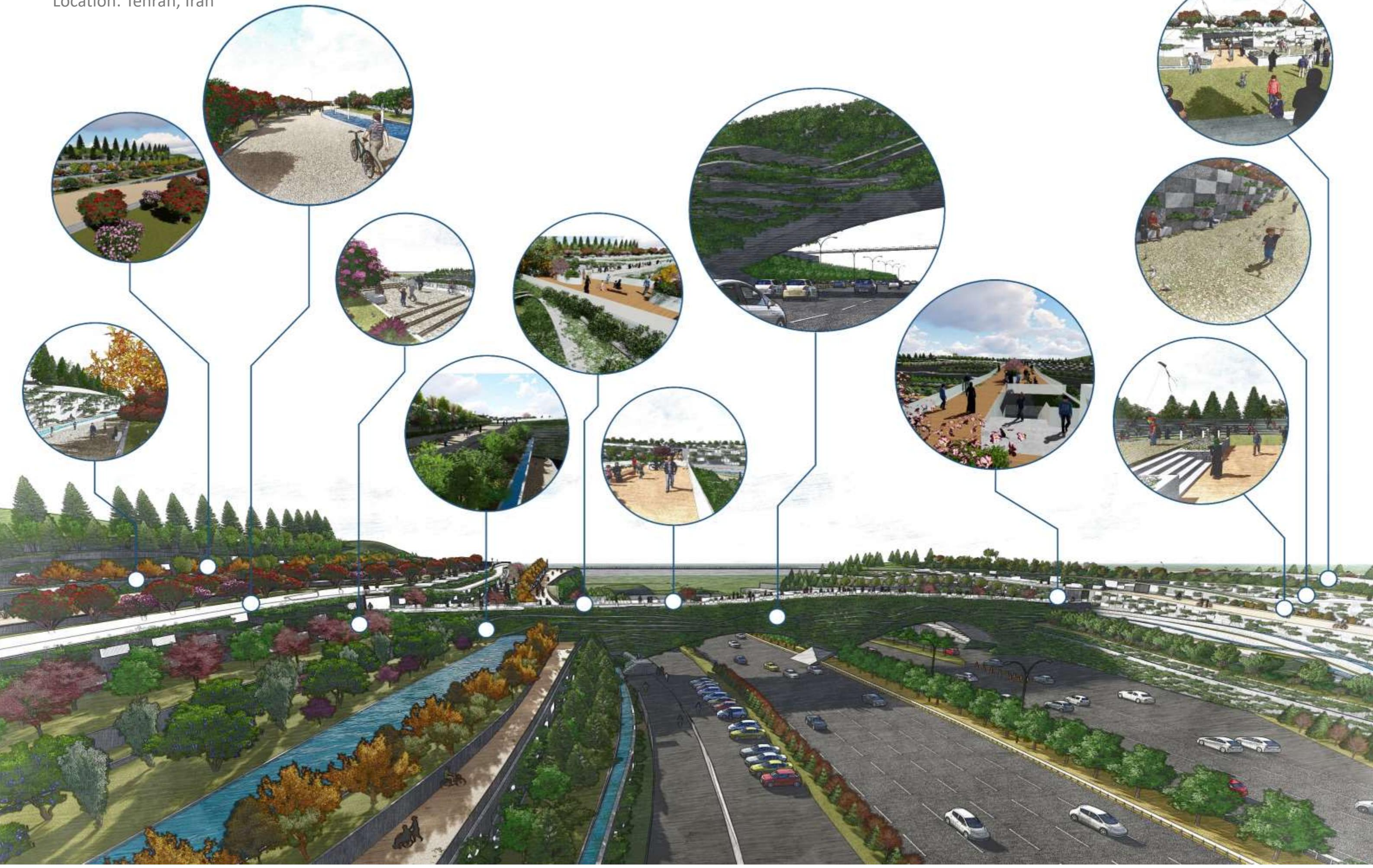


Current situation of the fragmentation between two parks



# Green Bridge Urban Landscape Design

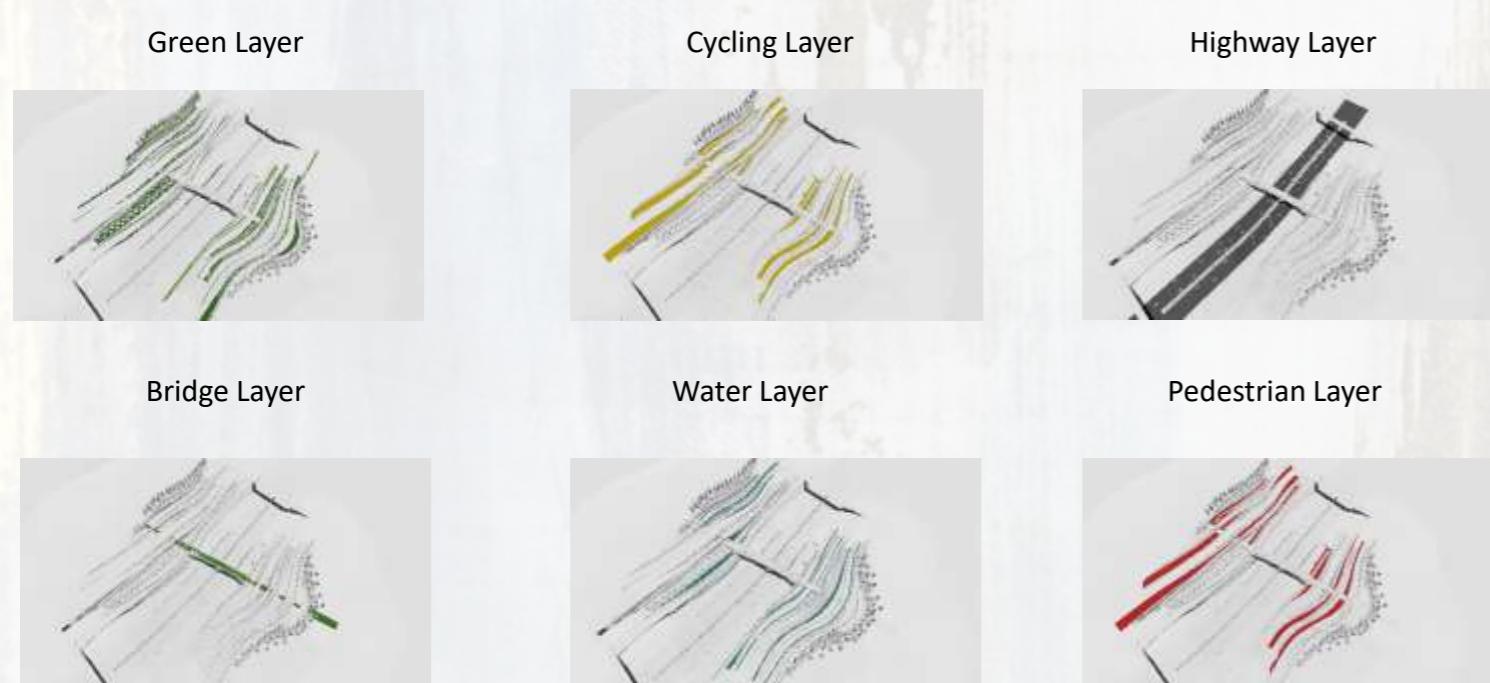
Location: Tehran, Iran



Tehran University, Faculty of Fine Arts  
Master Thesis Project, 2016  
Grade: A+

## Green Bridge Urban Landscape Design

Location: Tehran, Iran



The project site is located in Yadegar-Emam highway that has divided two parts of historical hills as well as Pardisan park. Vertical garden in the first place was the major concept to design both for the green bridge and for the peripheral design. Creating a practical landscape along the highway for making people more physically active through walking and cycling has been the other concept. Since nowadays the overwhelming majority of people are greatly dependent on their single occupancy vehicles, and creating some infrastructures for cycling can give them a chance to leave their cars in their homes and make physical exercise parts of their lives. Moreover, traffic congestion has brought about air pollution, so the plants used in this design have been chosen to mitigate the air contamination caused by burning fossil fuels.



Tehran University, Faculty of Fine Arts  
Urban Landscape Design Studio, 2015  
Grade: A

## Enqelab St. Pedestrian Zone Design

Location: Tehran, Iran

Transforming the Enghelab street, which is one of the most important streets in Tehran both culturally and politically that connected Azadi and Valieasr cross-road to each other, into a greenway is the main aim of the project. It has long been the cultural centre of Tehran. More than 5 Colleges and many Enlightenment Cafés are located in this area. It is also the main Book Centre of the country with more than hundreds of bookstores. Moreover, this street has always been the intersection of poor and affluent as well as elite and ordinary people, and the scene of the most important events in Iran from the construction of the first cinema to people's demonstrations resulting in the revolution, its history should be definitely taken into consideration in the first place, so before any planning, a comprehensive analyze was done to understand what factors influenced this street the most.



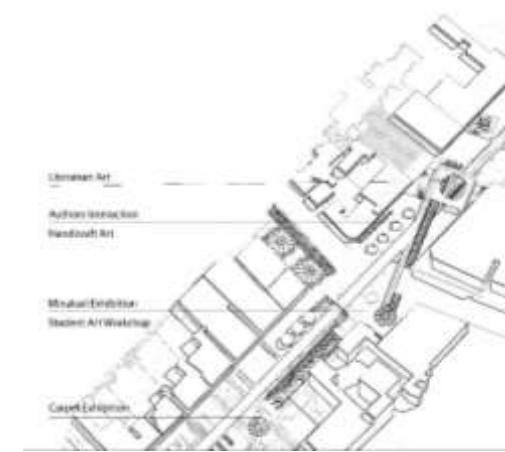
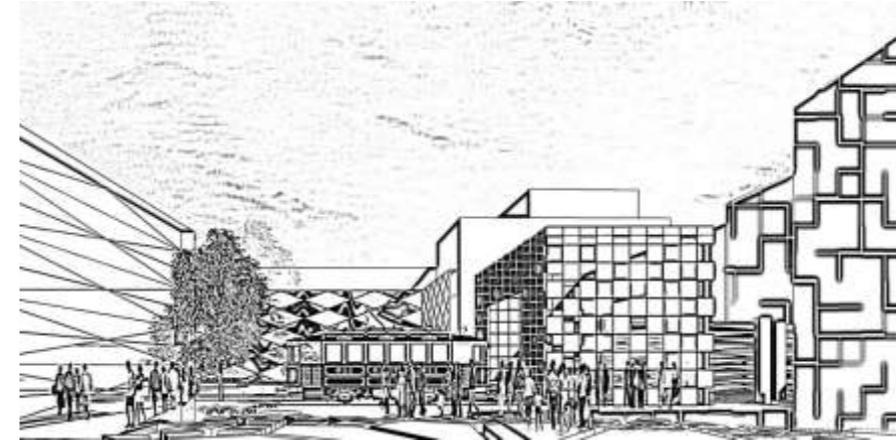
Art Exhibition



Visual Art Station



When considering different factors, it has been influenced the cultural one the most, and the second most important factor is art. But locating in city Centre, it is very crowded, noisy and polluted as a result of traffic congestion. This project aims at finding solutions in order to organizing the street functions and turning it to a dynamic recreational, Commercial and Cultural center with no annoying cars, noises and pollutions Adding a streetcar running on tramway track is the most important proposal to transform this street into a pedestrian way. As the major concept the stations of this tramway has a specific theme to tie different parts of the pedestrian way together. This theme is art and culture

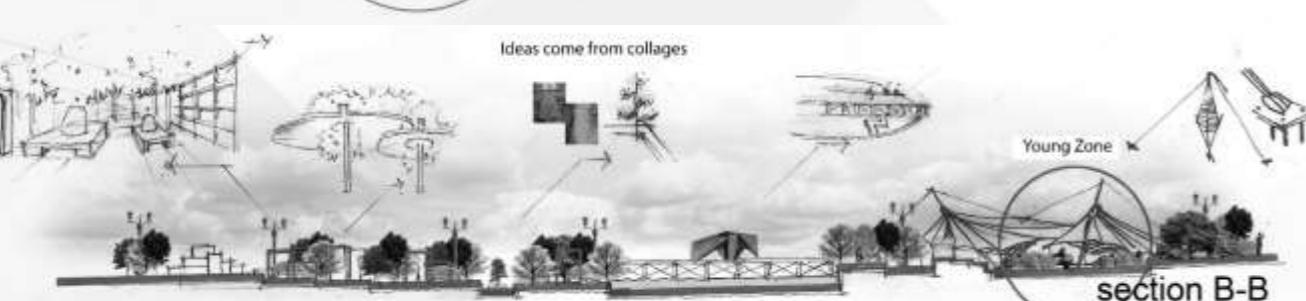


# Community park design

based on collage methodology

Location: Tehran, Iran

The site project is located in a residential neighborhood in the west of Tehran, which is currently widely undeveloped. The main aim of the design is to create a neighborhood character through designing different kinds of public places, which not only provide residents with a number of leisure amenities, but also give them a sense of identity and belonging to their neighborhood. In the first place, the prospective park divides into three zones or colonies for three different age group, including children, youngsters, and elderlies. Design process continues to serve these age groups by providing them with the facilities they need



As for children, colour is incorporated into their colonies in order to add vitality to the place, and bring a rush of joy to their lives, more over some particular furniture is designed to make the park more intriguing for them. The children zone is located in the lower level to give them more security, while their parents supervise them from the upper level. With regard to the youngsters, some places are designed with tents to serve several useful purposes. Not only do they give young people an opportunity to gather together, but even can play a role as outdoor stages for performing theatre. When it comes to the elderly zone, apart from providing them with some public places to interact with each other, I decided to design some greenhouses for them. In this way they can be more physically active, nurturing different kinds of plants, which in turn enormously contributes to their mental wellbeing.

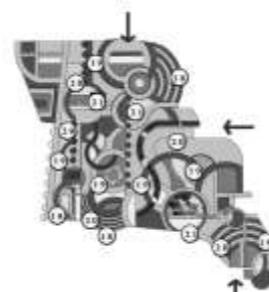
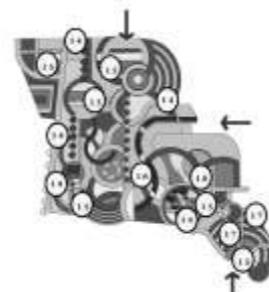
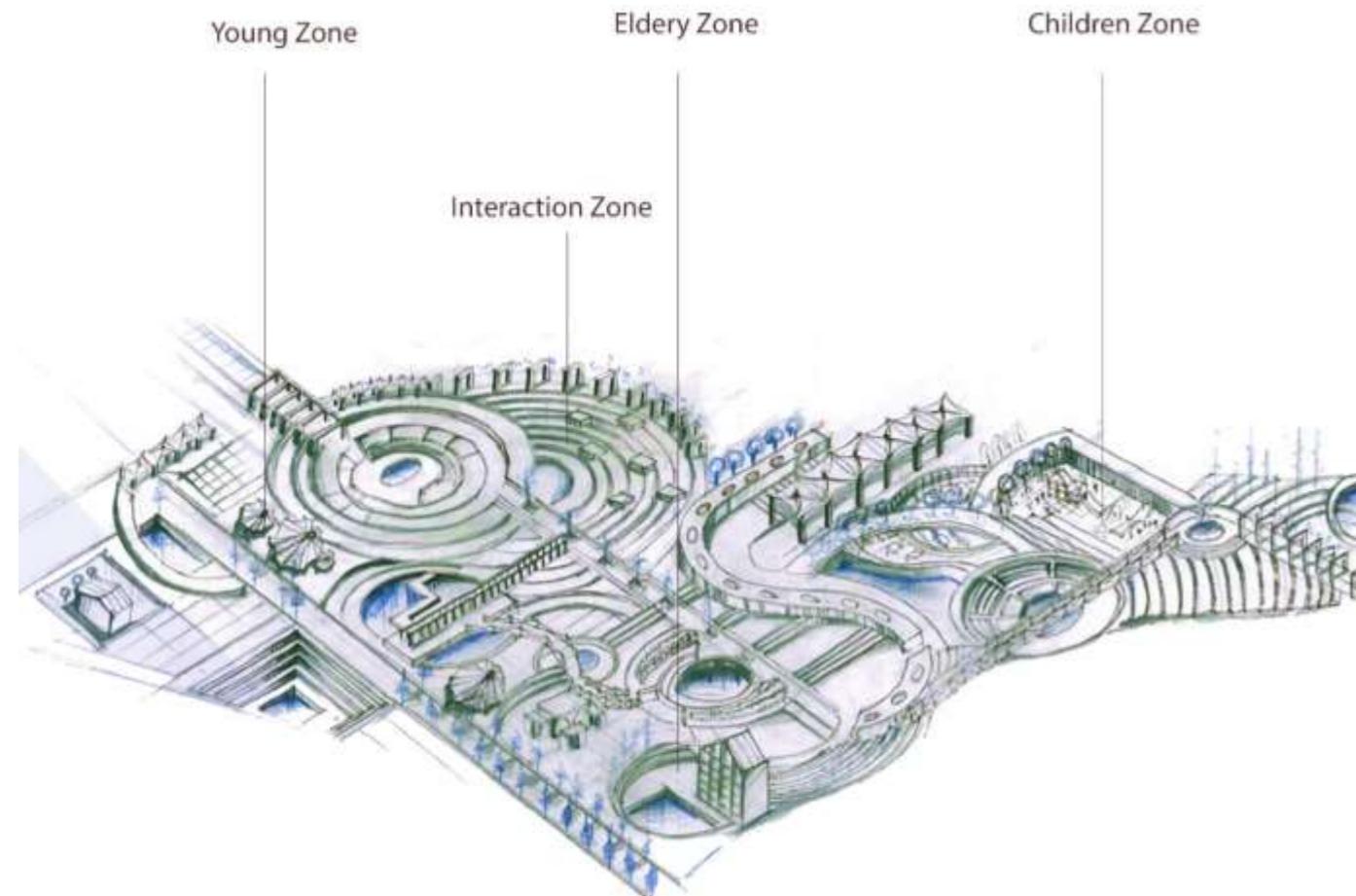
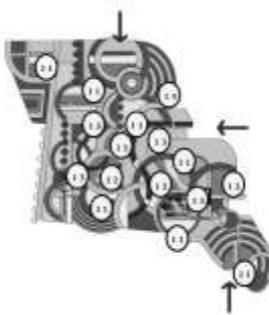
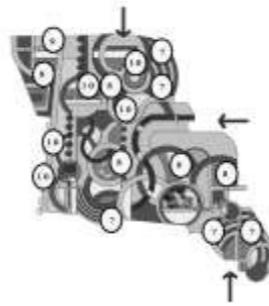
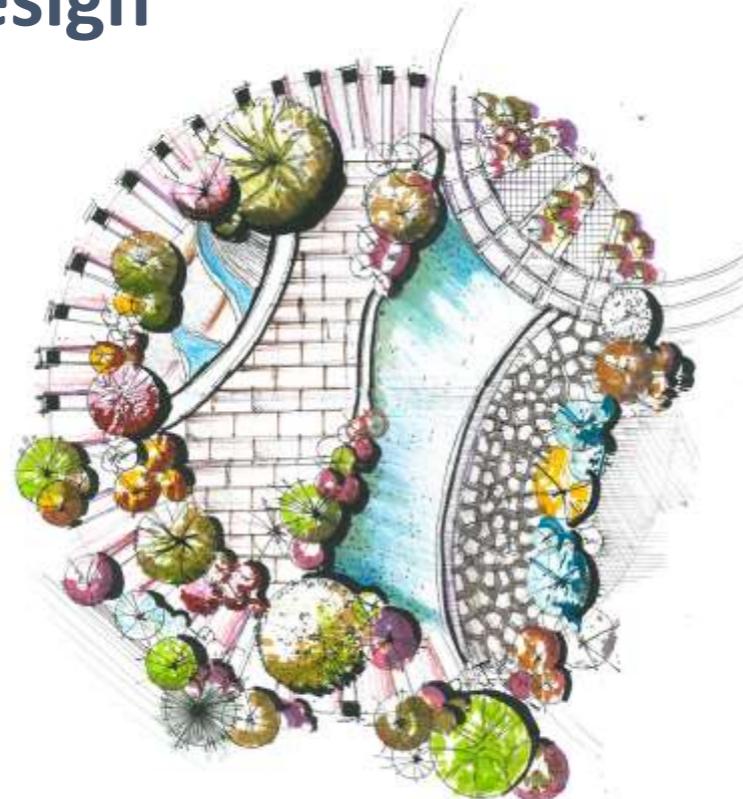
Tehran University, Faculty of Fine Arts  
Urban Landscape Design Studio, 2014  
Grade: A

# Community park design

based on collage methodology

Location: Tehran, Iran

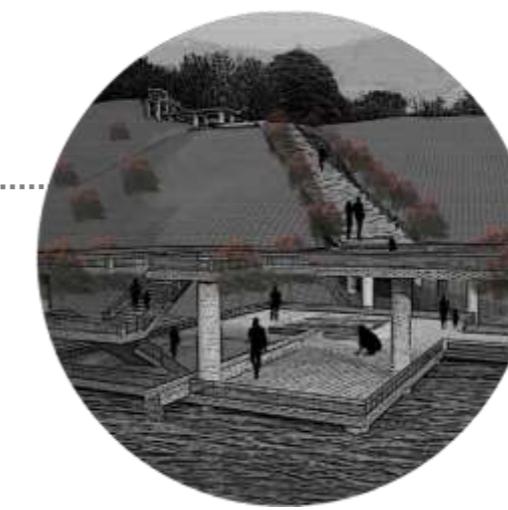
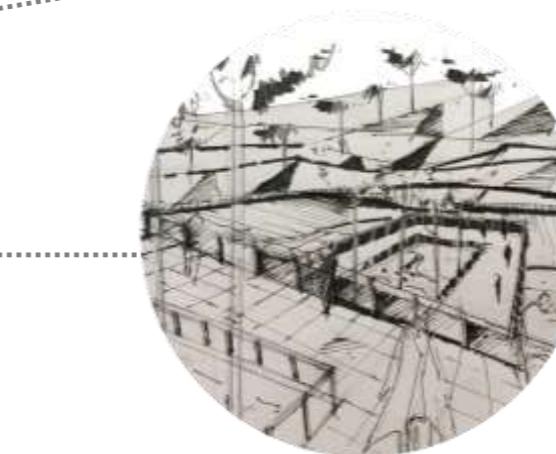
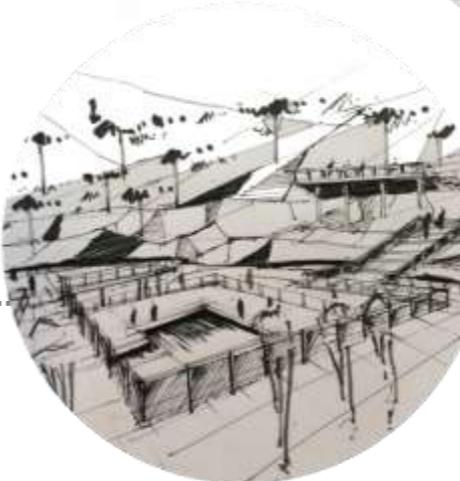
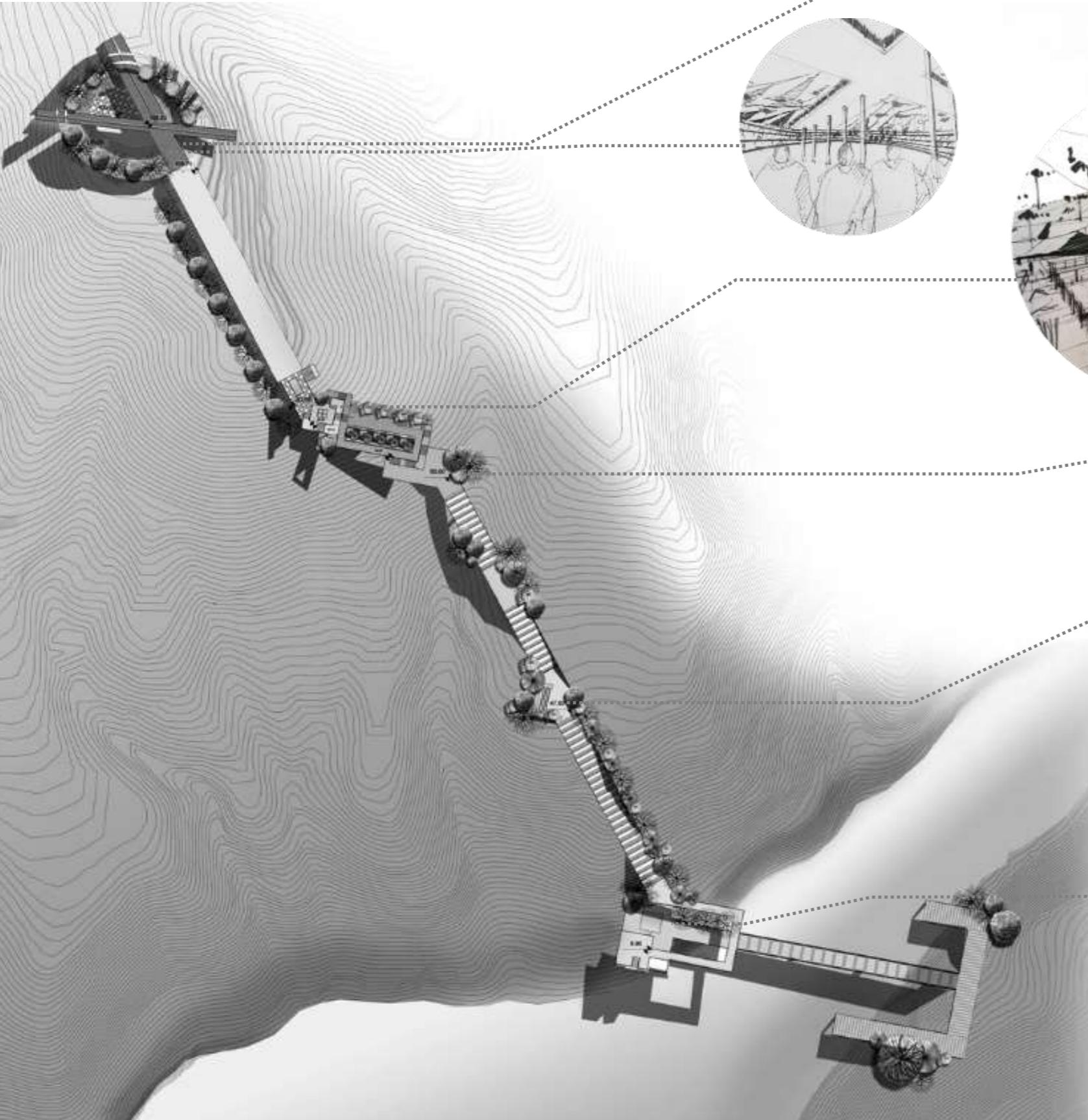
What greatly stands out in this project is its methodology. Unlike other projects that design process starts from plan, it commences with some abstract pictures through collages and then by sketching some perspectives based on those collages we reach to the final plan. Actually it reaches from three dimensional to two dimensional design. It gives us the chance to not only be much more creative, but think about both the form and function of a place before designing its two-dimension plan.



Tehran University, Faculty of Fine Arts  
 Landscape Design Studio, 2014  
 Grade: A

## Hill walkway design alongside the lake

Location: Tehran, Iran



The first idea for planning this walkway, which is located in a village nearby Tehran, is to interfere with the natural environment as less as possible, so we decided to design a minimal path with some vantage point in the middle of the way to provide spectators with breathtaking views of the lake. In that way, not only does it provide them with a heavenly experience, but also by using water element along the path they can recharge their batteries. Another idea is to protect people from the relentless heat by designing some shelters. In order to have a sustainable design we had to think of choosing materials.

As locally sourced materials reduce negative environmental impacts and can create a sense of place, we decided to use the local source of stones there to construct the walkway. In every vantage point they can rest for a while, and see the spectacularly amazing view of the Latian lake. In the end when reaching the main source of water, which is the lake, there would be a specially designed deck for them to rest.

**Freelance Working**  
Commercial Project, 2020

## Residential Yard

Location: Shirood, Iran



The yard and the deck have been constructed in the north of Iran in a residential complex in which each villa has a private yard. Instead of designing a pool in the middle of the yard that could make the most of the place, I decided to design a small pond, as the owner did not willing to use a big pool, rather they were so passionate about a yard with a lot of greenery and water to be at peace with the world there. There were two important orange trees, typical of that climate. In the first place I take them into consideration in my design, then the rest of the yard has been designed according to the existence of those trees.

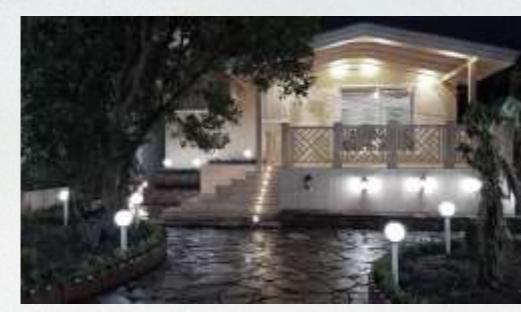


Other trees such as banana have been added to not only add more charm to the place, but be more useful for the resident who use that villa in their summer vacations. Some ivy plants also have been planted to make the walls as green as possible. As can be seen these ivies have been growing and make the place more and more amazing.



Night view of the villa and the garden

Details



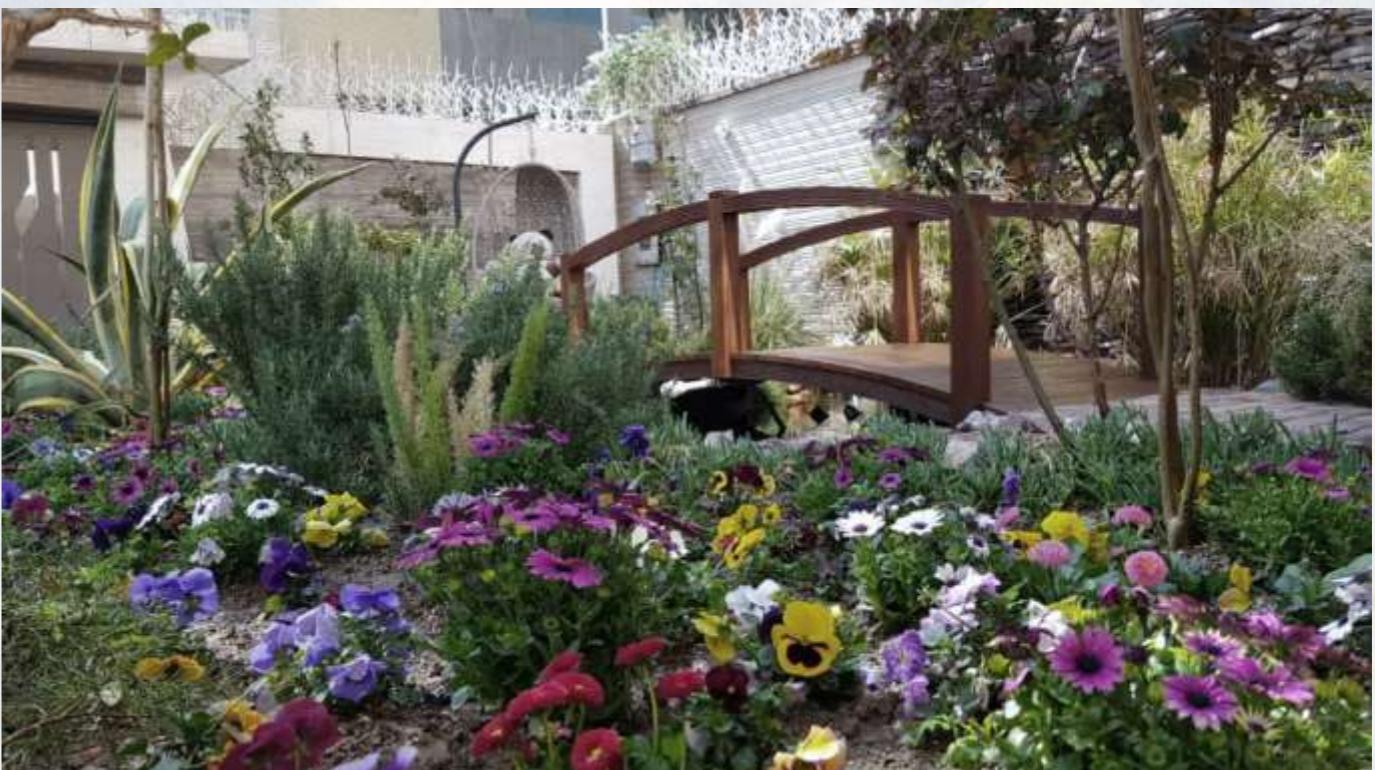
**Freelance Working**  
Commercial Project, 2020

## Residential Yard

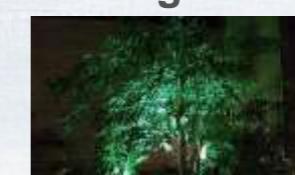
Location: Isfahan, Iran



The site project is located in the south of Isfahan, in one of the posh areas named Mardavij. It has been designed in order to provide the residents with a place in which they can not only recharge their batteries, but also experience the calmness and serenity as a break from the constant noise of their hectic and frantic lifestyle. The main concept is to design based on the Japanese gardens, as its main principles are based on Taoist philosophies and Buddhist to inspire peaceful contemplation. Water as the major element is usually accompanied by other natural elements such as plants and rocks to create a tranquil environment where people are given a golden opportunity to be at peace with the world. so based on what the owners wanted in the first place a pond with a wooden bridge and a waterfall was designed. Then some plants that are the indication of Japanese gardens and can adapt to the Isfahan's climate have been added. The design has been done in a way that make use the most of the place, as the other part of the yard should be allocated to the parking.



Night



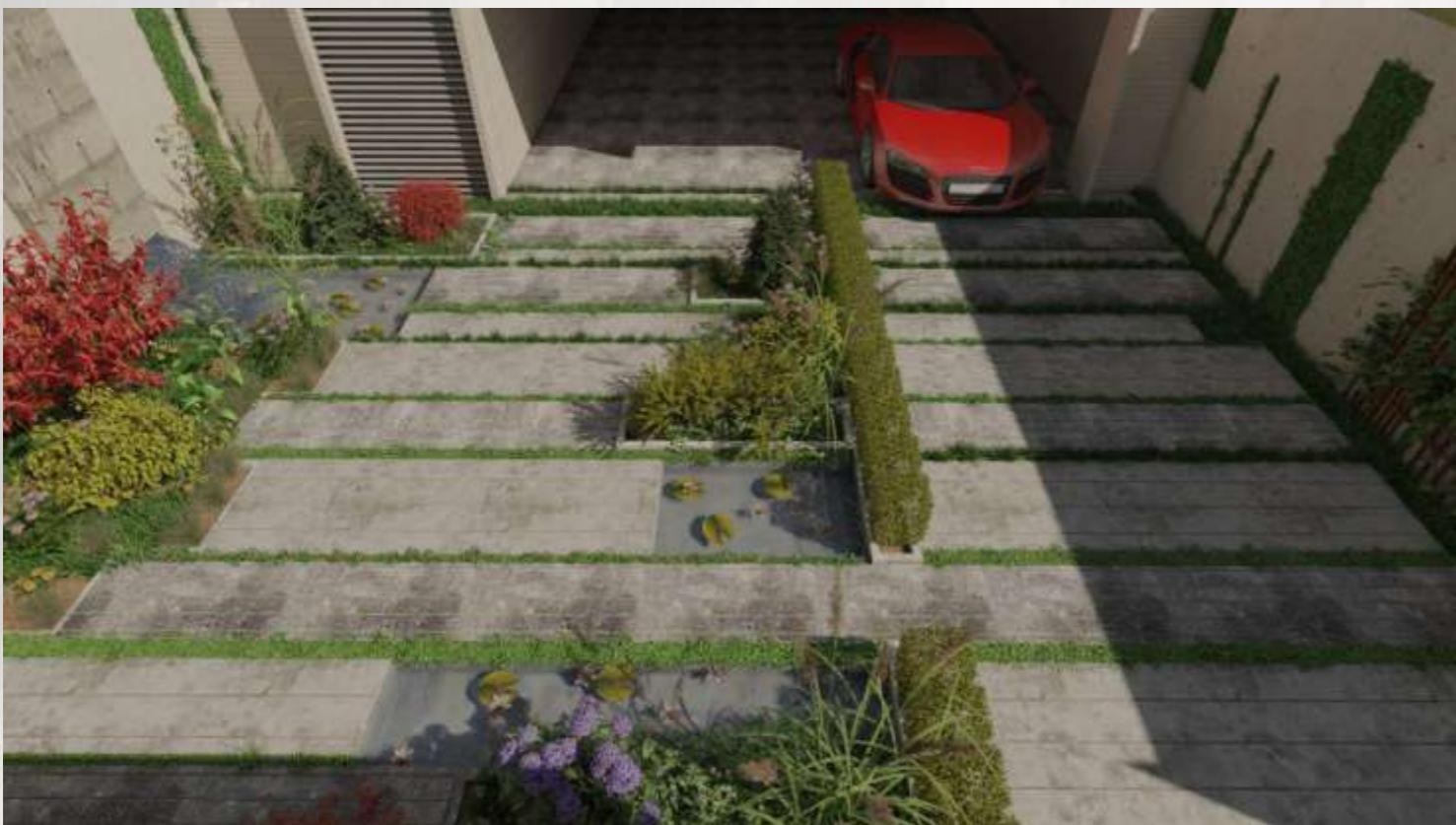
Details



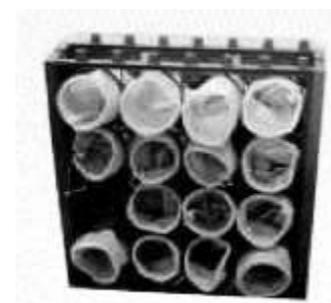
## Residential Yard

Location: Tehran, Iran

The site project is located in the west of Tehran. It has been designed in order to use the maximum space to add greenery, so we decided to use green walls. Two important factors that have been taken into account for designing the green walls are both practicality and aesthetic. In a way that those wall have been designed to be a backdrop to the patio for nurturing the vegetables. The second aim of the project is to use modular planting system, as not only are they self-supporting, but also they make everything really easy for creative planting design. More importantly they can be constructed of recycled materials. Both horizontal and vertical expansion is their important feature that make them proper for this project.



Green Wall Details

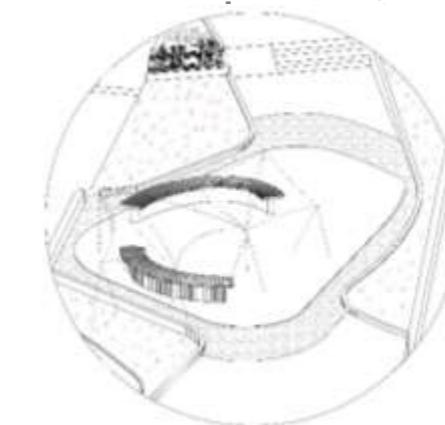
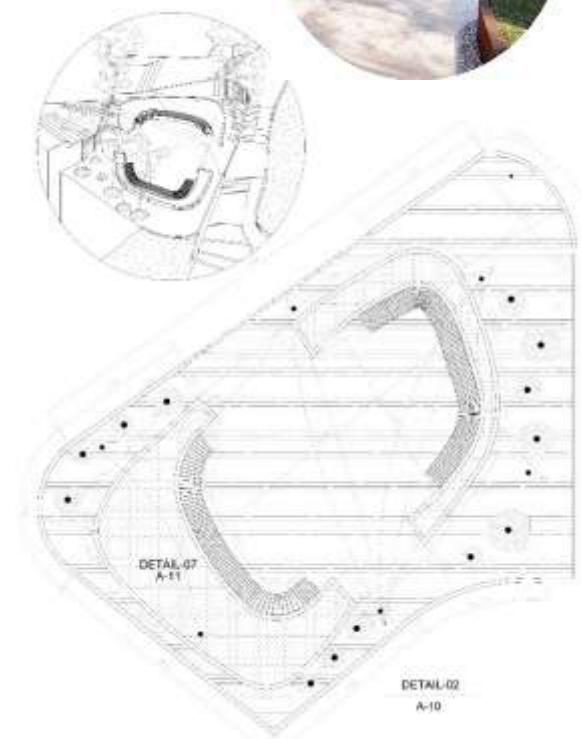
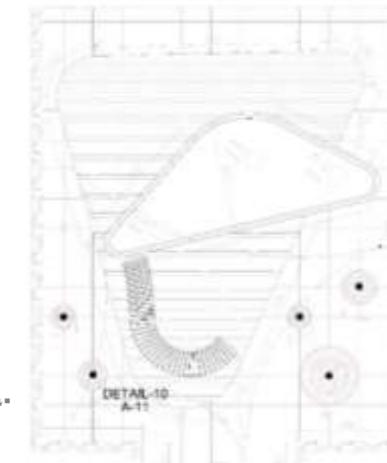


STP International group  
Landscape Design Studio, 2017

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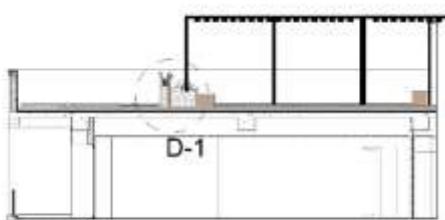
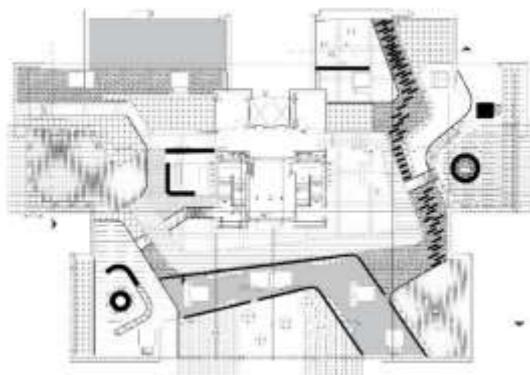
## Residential Yard

Location: Tehran, Iran

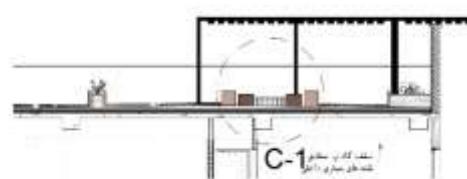


## Roof Garden

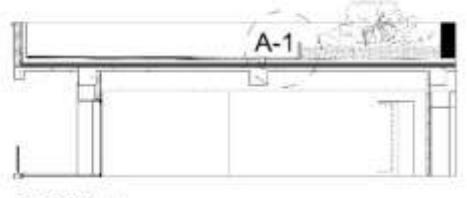
Location: Tehran, Iran



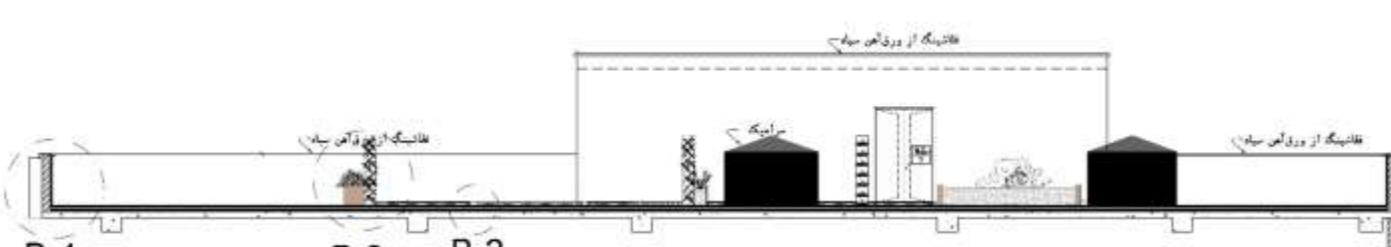
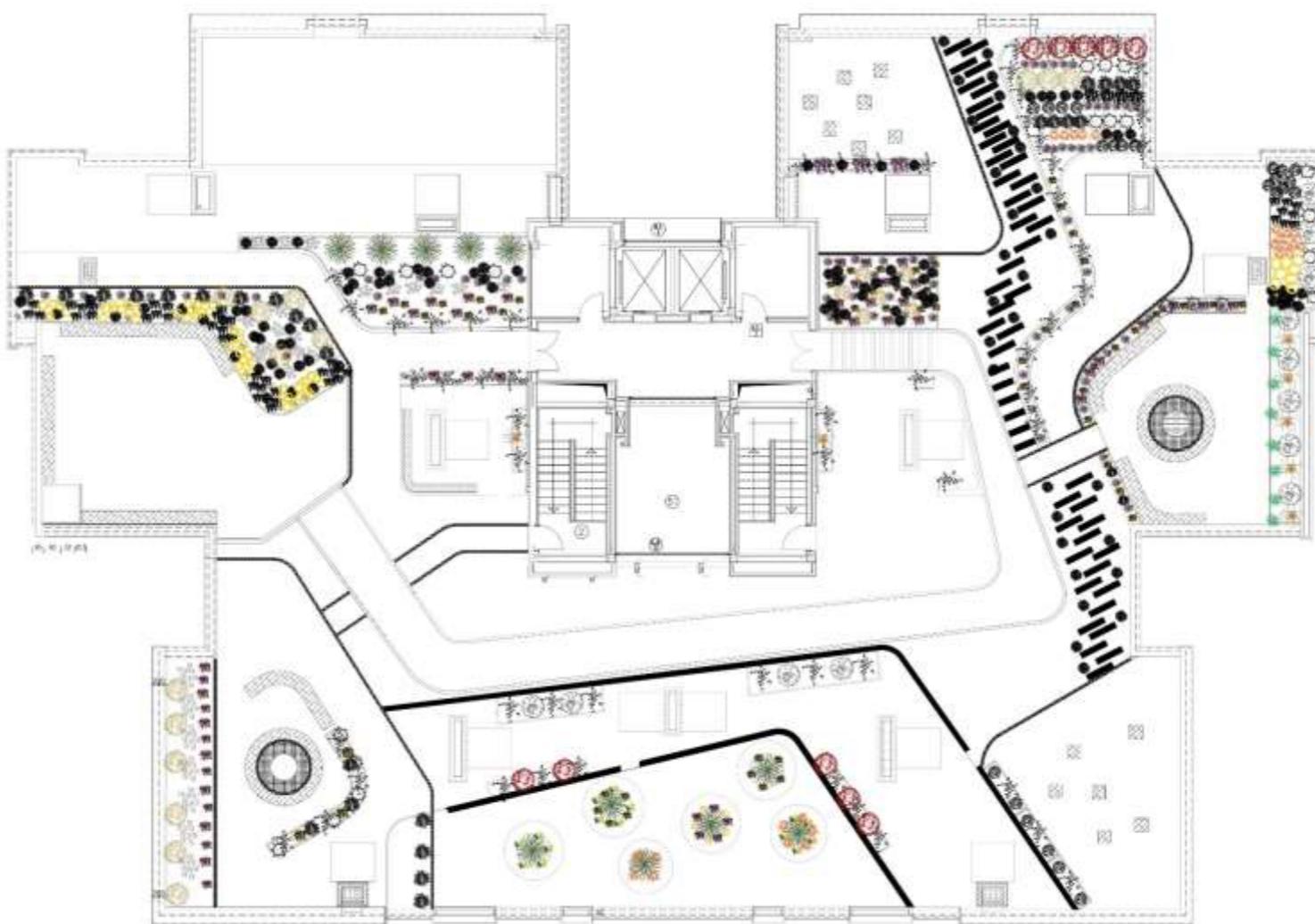
SECTION D-D



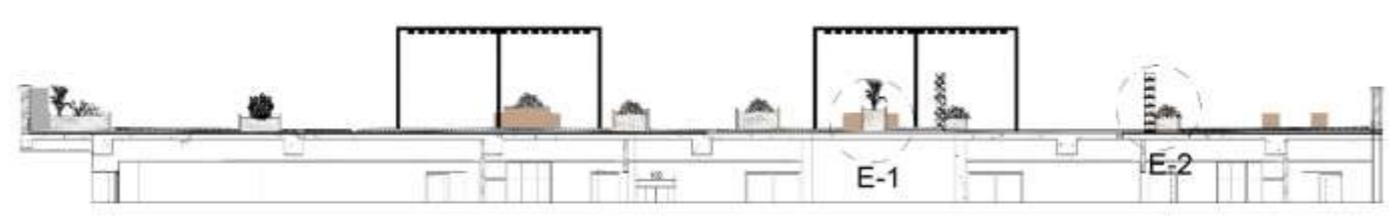
SECTION C-C



SECTION A-A



SECTION B-B



SECTION E-E

## Green Wall Details

