

Bushehr





Politecnico di milano

School of Architecture Urban Planning Construction Engineering

Sustainable Architecture and Landscape Design

Laurea Magistrale (Equivalent To Master Of Science)

REGENERATION OF THE OLD TOWN OF BUSHEHR

Enhancing the urban quality applying local architectural and social values

Water, wisdom, and light

Supervisor

Prof. Stefano Stabilini

Written By

Reza Aghili, Avesta dehghani, Seyd sam Hami

April 2020

Acknowledgment

We would like to express our special appreciation and thanks to our advisor Professor Stefano Stabilini, he has been a tremendous mentor for us. we would like to thanks For his assistance and guidance during this project,and encouragement to the team to achieve the goal. We also like to thanks our families for their support from long distances whom we owe all of our achievements to.

Beyond the seas there is a town
Where the windows look out on revelation.
There's a bough of knowledge in every child's hand in
the city.
The townsfolk gaze at a brick row
As if at a flame, or at a delicate dream.
The earth can hear the music of the soul
And the wind carries the sound of mythical birds.
Beyond the seas,
There's a city
Where the sun is as wide as the eyes of dawn worshipers.
The poets there are the inheritors of
Water, wisdom, and light.
There's a city beyond the seas!
One must build a boat.

Abstract

The preservation and transformation of traditional values is a challenging dilemma for many historic cities. Since 1964, developments by modernization in Iran have altered the historic areas and quarters of cities dramatically. The initial step of preservation policies was to protect individual buildings, structures, and other artifacts. In the second step, to maintain aggregated historic elements, preservation policies were modified to protect groups of historic buildings, townscape, and the spaces between buildings. The new policies have been concerned with the revitalization of the protected historic urban areas and quarters through growth management. Bushehr, a city in the south of Iran, is not an exception from this story. Bushehr had been one of the most important ports of Iran in past centuries. The old town is located in the North corner of Bushehr. The old town buildings with historic textures contain a variety of building types with different functions that reflect the identity of the city. Over the years, the historical texture has lost its characteristics and people have been moving from the old town. This project is an attempt to diagnose and propose solutions for such problems to create an inhabitable and attractive environment for the residents.

Table of Contents

1) Chapter One (Research)	
1-1 Introduction	1
1-2 Geography(Location)	2
1-3 Climate of Bushehr	3
1-4 History of Bushehr	5
1-5 Culture of Bushehr	6
1-6 Reading the City	7
1-6-1 Urban Fabric	7
1-6-2 Contemporary Urban changes	11
1-6-3 Historic Quarters Of Bushehr	13
1-6-4 Architectural and Urban Specification	17
1-6-5 Water Condition in Bushehr	26
1-6-6 Vegetation	27
2) Chapter two (Project)	
2-1 Reading The Site	29
2-2 Main Sequences	31
2-3 Strategy	36
2-3-1 Water Manegment	37
2-3-2 Activities Program Of The Site	38
2-3-3 Longitude Section	39
2-4 Design Proposal; Master Plan	41
2-4-1 Diagram of Interventions	43
2-4-2 Sun study	44
2-4-3 Interventions	45
2-5 Renders	57
List of Figures	63
References	64

1-1 Introduction

Bushehr lies in a vast plain running along the coastal region on the Persian Gulf coast of south-western Iran. It is built near the ancient port city of Rishahr (Sassanian, Riv Ardasher). It was the chief seaport of the country and is the administrative Centre of its province.

Bushehr was the main trade center of Iran in the past centuries. The city structures are traditional in style, modest in proportion and cost. Due to its lack of rail connection to the interior of the country and its shallow anchorage, it has lost its position as the primary port of Iran. The strategic location of city of Bushehr has been the main reason for the establishment of the port of Bushehr.

It is obvious that the Persian Gulf and consequently the province of Bushehr enjoys a remarkable situation with trade in addition to its remarkable situation regarding military affairs. For these reasons the Europeans were interested to take control of the region and the city of Bushehr. The Portuguese, invaded the city of Bushehr in 1506 CE and attempted to take the place of the Egyptian and the Venetians traders who were dominant in the region.

Today Bushehr remains among the most important ports in the Persian Gulf. It has an international airport, and highways connect the city to Ahvaz to the northwest and Shiraz to the northeast. A secondary coastal road links Bushehr to Bandar-e Abbas to the southeast. The old section of central Bushehr has many examples of traditional Persian Gulf architecture from the period 1870 to 1920. Bushehr is an export market for farm produce from the neighboring and fertile Fars Province. Bushehr's industries include seafood canneries, food-processing plants, and engineering firms. The Iranian navy maintains a base here

1-2 Geography

The Bushehr lies on 7m above sea level, Bushehr province is located in south west of Iran and at distance from 27° and 17 minutes to 30 degree and 17 minutes latitude and 50° and 8 minutes to 52° and 58 minutes longitude. This province is surrounded by Khuzestan province, Kohkilouye and Bouyer Ahmad province from north, the Persian Gulf and Hormozgan province from south, Fars province from east and by the Persian Gulf from west. In addition to that, Bushehr has 625 kilometers water boundaries with the Persian Gulf. Bushehr province has allocated about 1.4 percent of Iran's area with an area of 236,756 square kilometer



Figure 1-1 ; Iran Location In The World Map

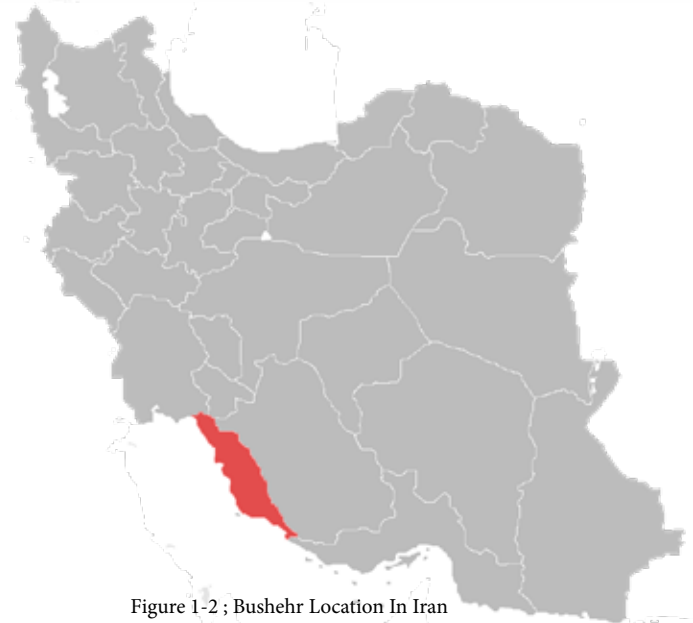


Figure 1-2 ; Bushehr Location In Iran

1-3 Climate

The climate here is “desert.” There is virtually no rainfall during the year in Bushehr. Bushehr geography factors (low latitude, low height and being adjacent to the sea) creates particular climatic properties for the town that have effects on appearance and environmental form of Bushehr, Bushehr town has humid and warm climate.

Generally it includes the Persian Gulf beaches and Arabian Sea. They are separated from plateau center by Zagros mountain range. Bushehr town because of being near the sea and the equator also has a low height from the sea level, so it has humid summer with solar radiation intensity and temperature winter with high humidity

	January	February	March	April	May	June	July	August	September	October	November	December
Avg. Temperature (°C)	14.3	15	18.8	23.3	28	30.4	32.1	32.6	30.4	26.8	21.5	16.6
Min. Temperature (°C)	10.6	11.5	14.7	19.1	24	26.9	28.9	28.9	26.1	22.2	17.2	12.8
Max. Temperature (°C)	18	18.6	23	27.5	32.1	33.9	35.3	36.4	34.8	31.5	25.9	20.4
Precipitation / Rainfall (mm)	61	28	16	8	1	0	0	0	0	2	34	66

Figure 1-3 ; Avg. Temperature of Bushehr

August is the warmest month of the year. The temperature in August averages 32.6 °C | 90.7 °F. The lowest average temperatures in the year occur in January, when it is around 14.3 °C | 57.7 °F.

Wind is one of the important elements in Bushehr area to determine the town factors and also it plays an important role in residence suitable aiming. In Bushehr, wind blows from 8 sides. However; northern and west northern winds are more important. The wind rose for Bushehr shows how many hours per year the wind blows from the indicated direction

Daylight and Sunshine hours

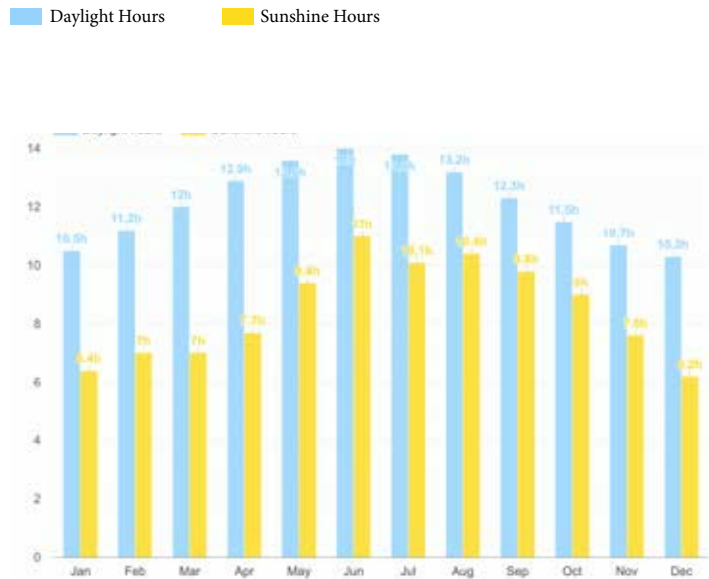


Figure 1-4

wind rose

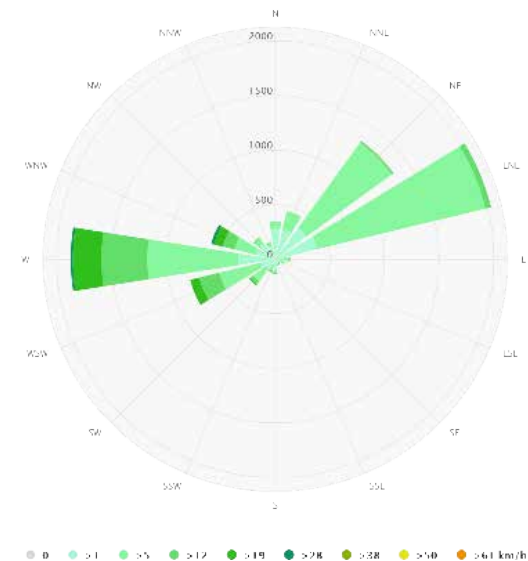


Figure 1-5

1-4 History of Bushehr

During the 1st and 2nd millennium BC, the Bushehr Peninsula was a thriving and flourishing seat of civilization called “Rey Shahr”. Many relics have been found in this regard related to the Elamite era and the civilization of Shoush (Susa).

These structures of “Rey Shahr” are said to be related to Ardeshir of Sassanid dynasty and “Rey Shahr” was formerly known by the name of Ram Ardeshir. Thereby through the passage of time came to be called Rey Shahr and thence Bushehr.

From between the 18th century through to early 20th century it was variously under the influence of European colonialists.

In 1737 the Dutch East India Company opened a trading post in Bushehr, which lasted until 1753.

In 1763 the Arab governor of Bushehr Sheikh Nasr Al-Madhkur granted the British East India Company the right to build a base and trading post there. It was used as a base by the British Royal Navy in the late 18th century. In the 19th century, Bushehr became an important commercial port. It was occupied by British forces in 1856, during the Anglo-Persian War 1856-1857. Bushehr surrendered to the British on 9 December 1856.

It was occupied by the British again in 1915, this time due to the German Niedermayer–Hentig Expedition including Wilhelm Wassmuss.

Industries include fishing and a thermoelectric power plant, while the inland area (also called Bushehr) produces metalwork, rugs and other textiles, cement, and fertilizer. The Iranian navy maintains a base here.



Figure 1-6 ; Bandar Bushehr, drawing by Eugène Flandin, 1840

1-5 Culture of Bushehr

Population

According to the general population and residence census, Booshehr province had a population of approximately 602,965 people in Oct. 1996, who were living in 27,653 square meters in area. The number of people who were live in city points was 50.9 percent; in rural areas was 49.1 percent, and less than one tenth percent were non-residence. The population censuses in Nov. 2006 were 692,829 and 743,675 in respect. According to the census of October 1996, the male population was 311,503 and the female was 300,680 of 612,183 people. So the result of sex ratio was equal to 104. It means against each 100 females were 104 males in the province. This ratio was equal to 105 between children who were less than one year, and between the 65 year-old and more was equal to 107.

Language

Approximately, all people of Booshehr province (and also the city) speak in Farsi with the indigenous accent. Various kinds of accents are existed in Booshehr rural area and villages, with the diversity. Some residents of the Sheef Island, Kangan port and Asalooyeh speak in Arabic.

Religion

In 1976, 99.6% out of 100% of Booshehr province population was Muslim, and only 0.4% of its population had the other religion. In the same year 99.31% of Booshehr city population was Muslim and the others (0.69%) followed the other religions. In 1986, most part of population was Muslim (99.23%). This high amount of Muslim in civic regions was 99.34% and in rural area close to 99.22%.

In 1996, 99.91% of Booshehr province population was Muslims. This proportion in urban area was 99.88 and in rural parts were 99.94%. At the same time 10.17% of the other religion lived in urban area and only 0.05% was in rural area.

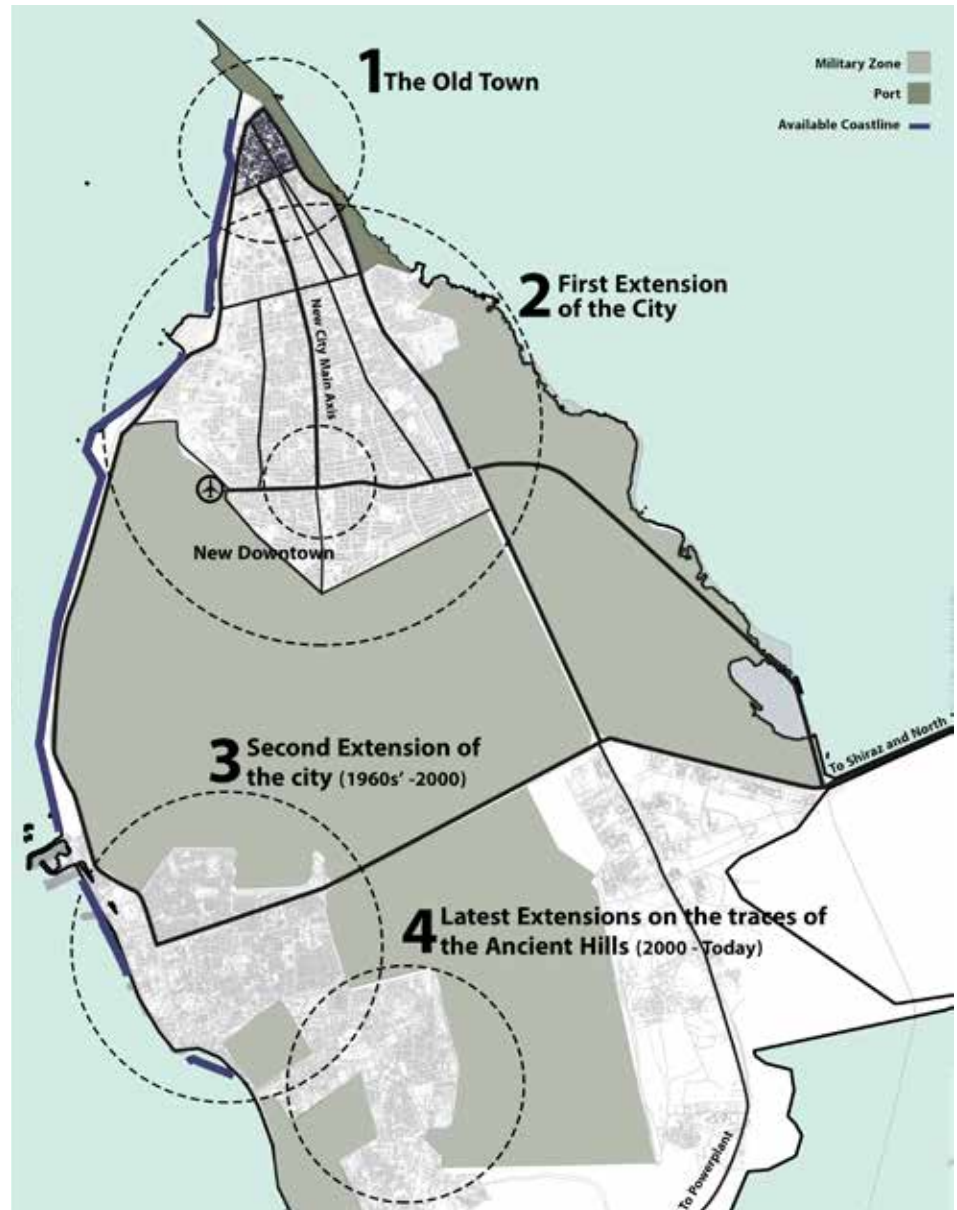


Figure 1-7 ; ETH-BIB-Hafen von Buschehr-Persienflug 1924-1925

1-6 Reading The City

1-6-1 Urban Fabric

The old texture of Bushehr has special cohesion and interconnected places. Views of novelty and beauty occur in every place, it induces to be the most prominent civil texture of Iran. In spite of hot and humid climate, buildings need to have much more open spaces; it has much density and complexity. On the other hand, the figures of buildings have the most open place in Iran because of its climate. If the buildings have a total aspect outside, it should be said, the combination of these two factors will be the most prominent character in town planning and architecture of Bushehr



The proportion of the built capacity to space (mass and space) is closed to each other in separated part. Having closeness and or wide place is recognizable in whole texture. Generally, the quality of living place, price and having a proper place are recognizable in residential closeness. Places which have a few residential closeness use nature and have an interested in a quiet and neat place. In plurality of residential is faced with increasing pollution, noisy and bad climate while the price of public equipment and facility will decrease.

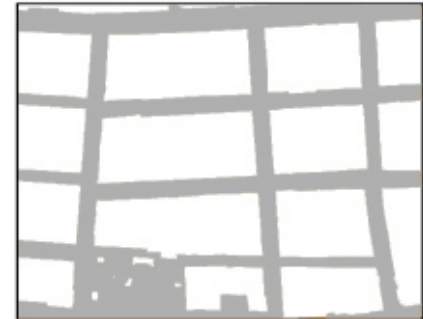
Built up spaces

Relational spaces

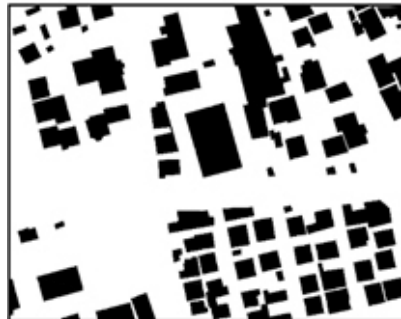
Old City



First Extension



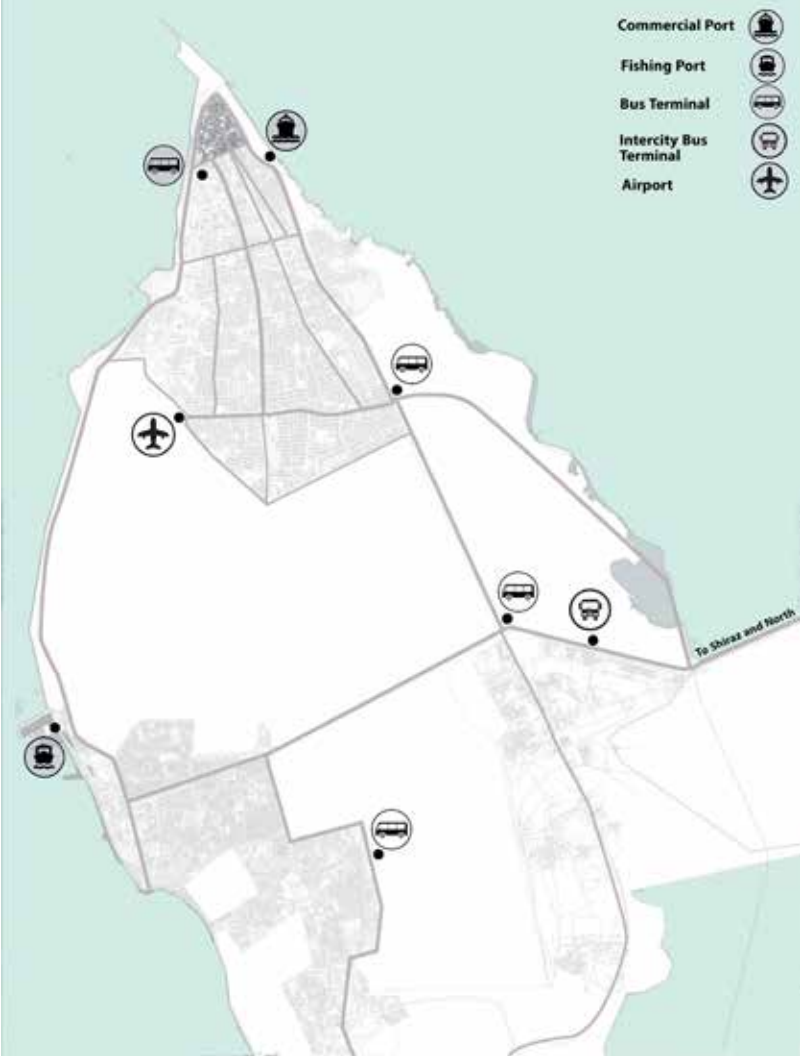
Second Extension



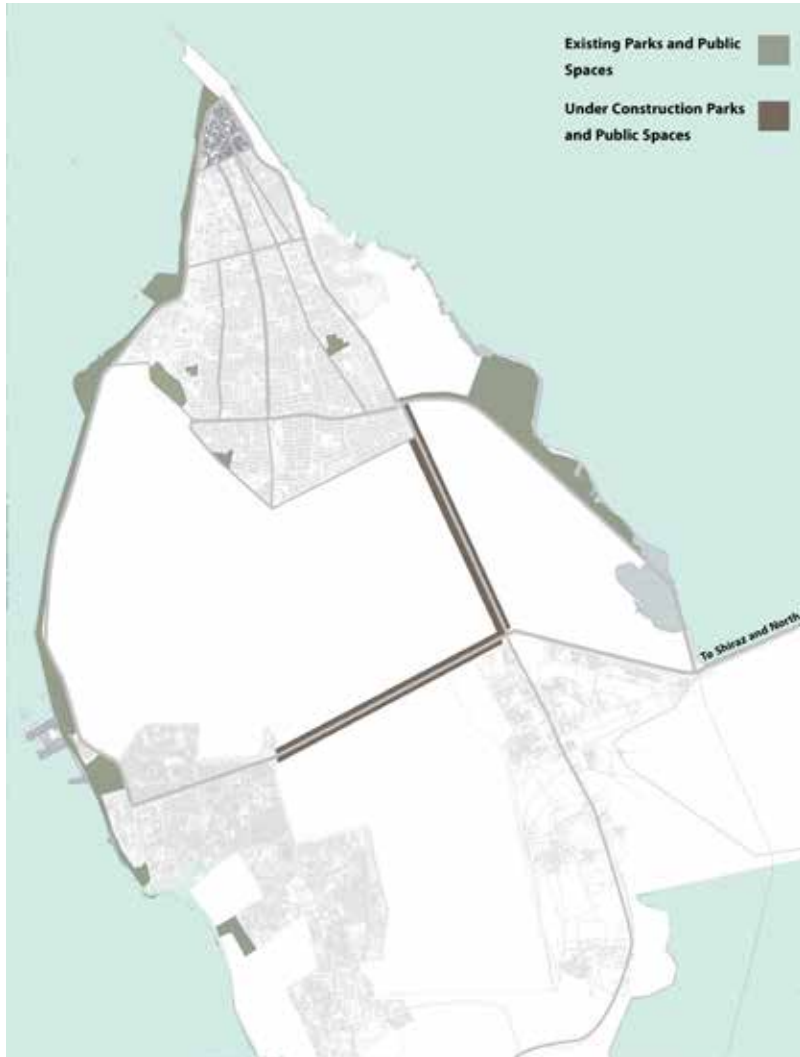
Third Extension



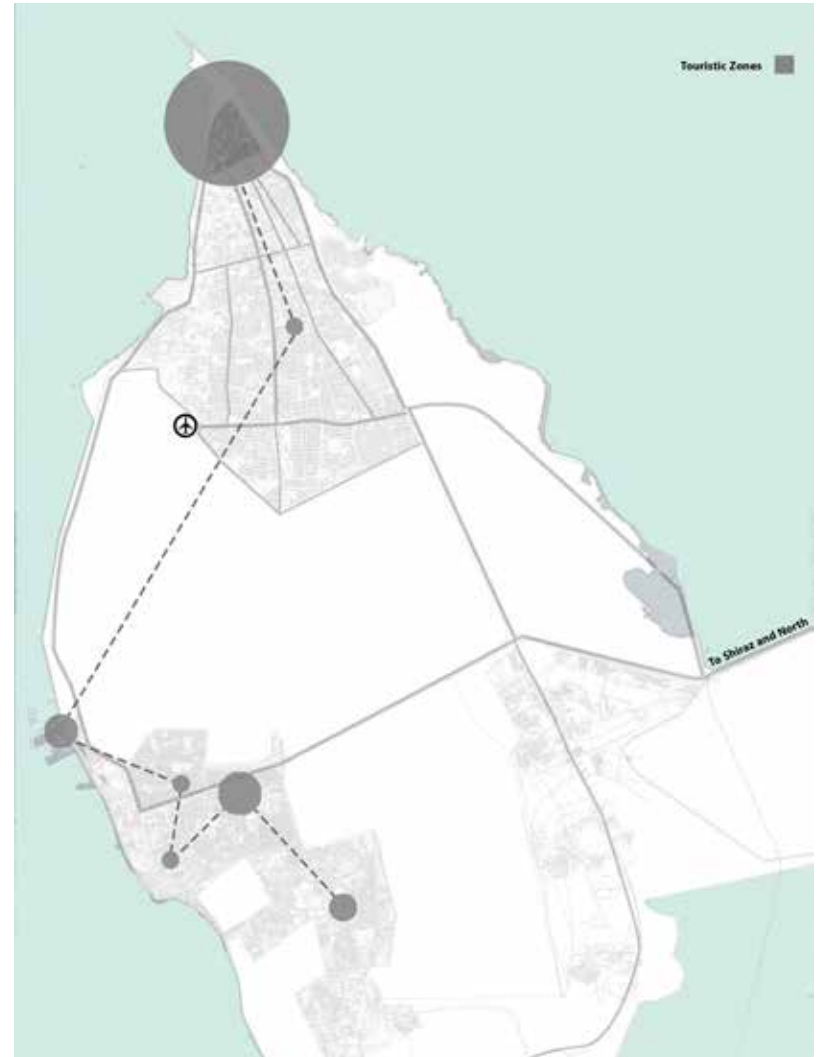
Transportation



Green Areas



Touristic Attractions



1-6-2 Contemporary Urban changes



Wall and Gate of the city;1856



Historic texture of Bushehr till 1956
First changed happened
Wall and gate of city destroyed



Historic texture of Bushehr
Enghelab street construction
which was divided the historic
texture in to the 2 parts



r 1964
on
orical



Historic texture of Booshehr till 1977
First extention of the port



Historic texture of bushehr till 2003;
Conversion of Ahangaran Bazaar to
the Ahangaran Street.

1-6-3 Historic Quarters Of Bushehr



Behbahani Quarter



shanbedi Quarter



Kooti Quarter

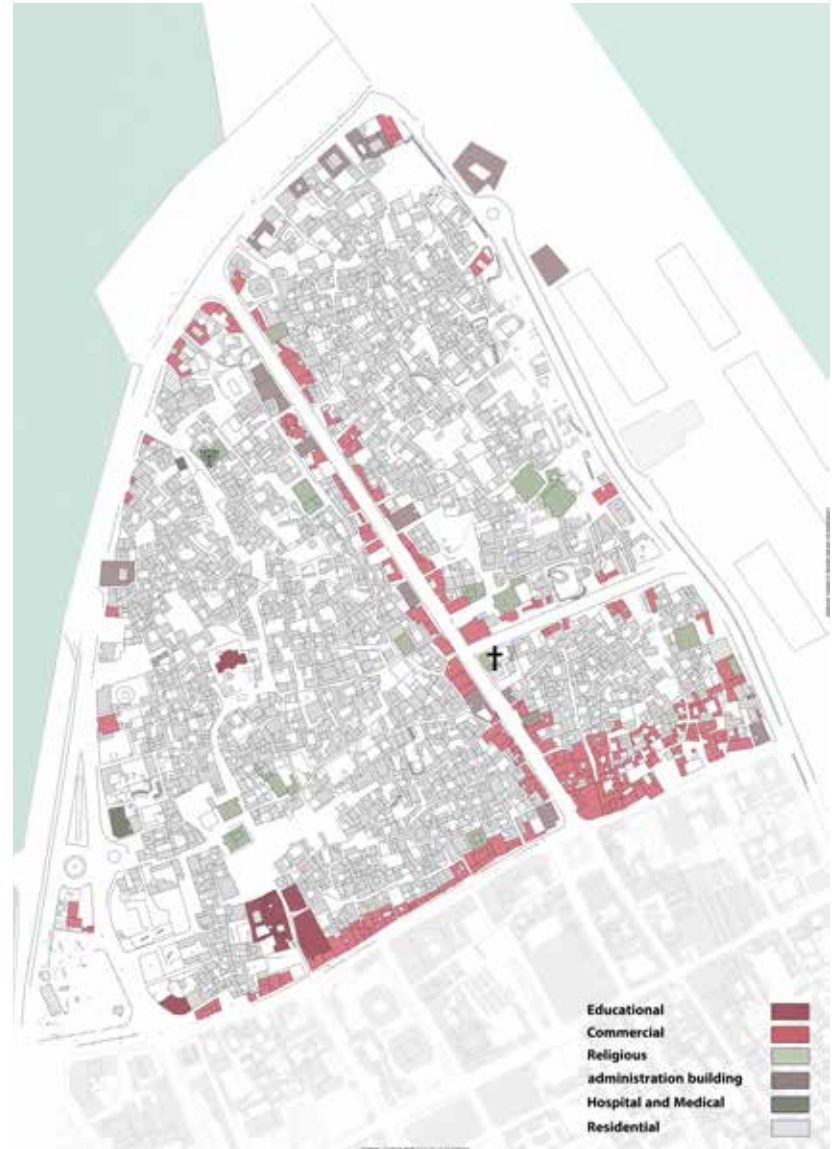


Dehdashti Quarter

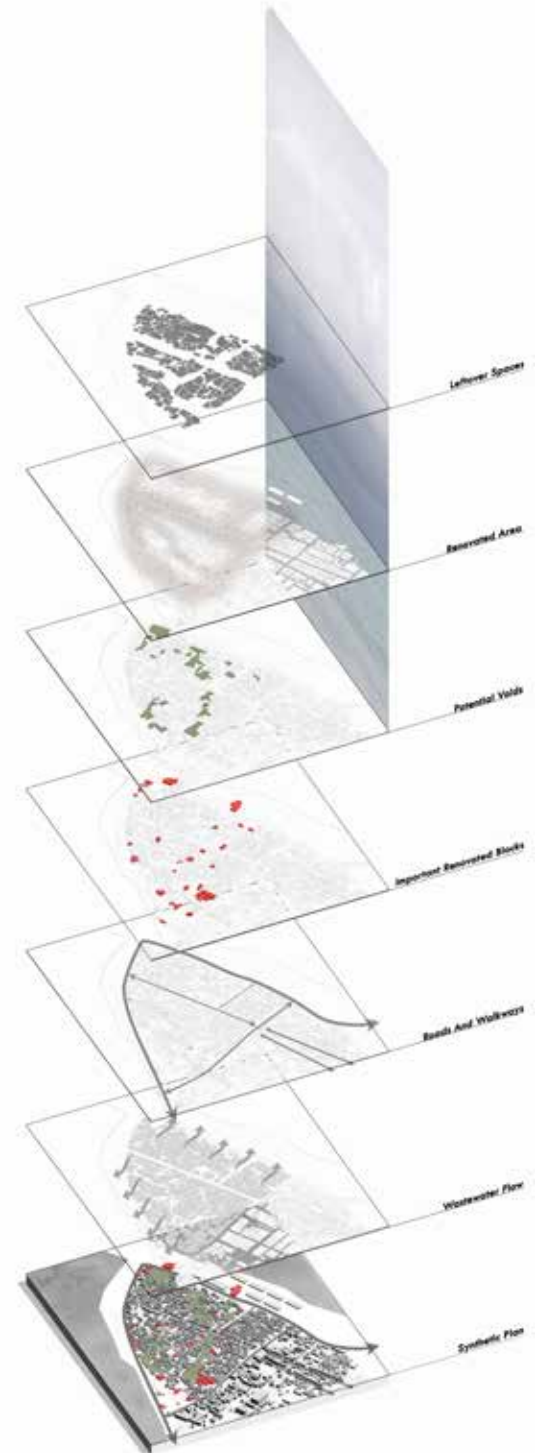
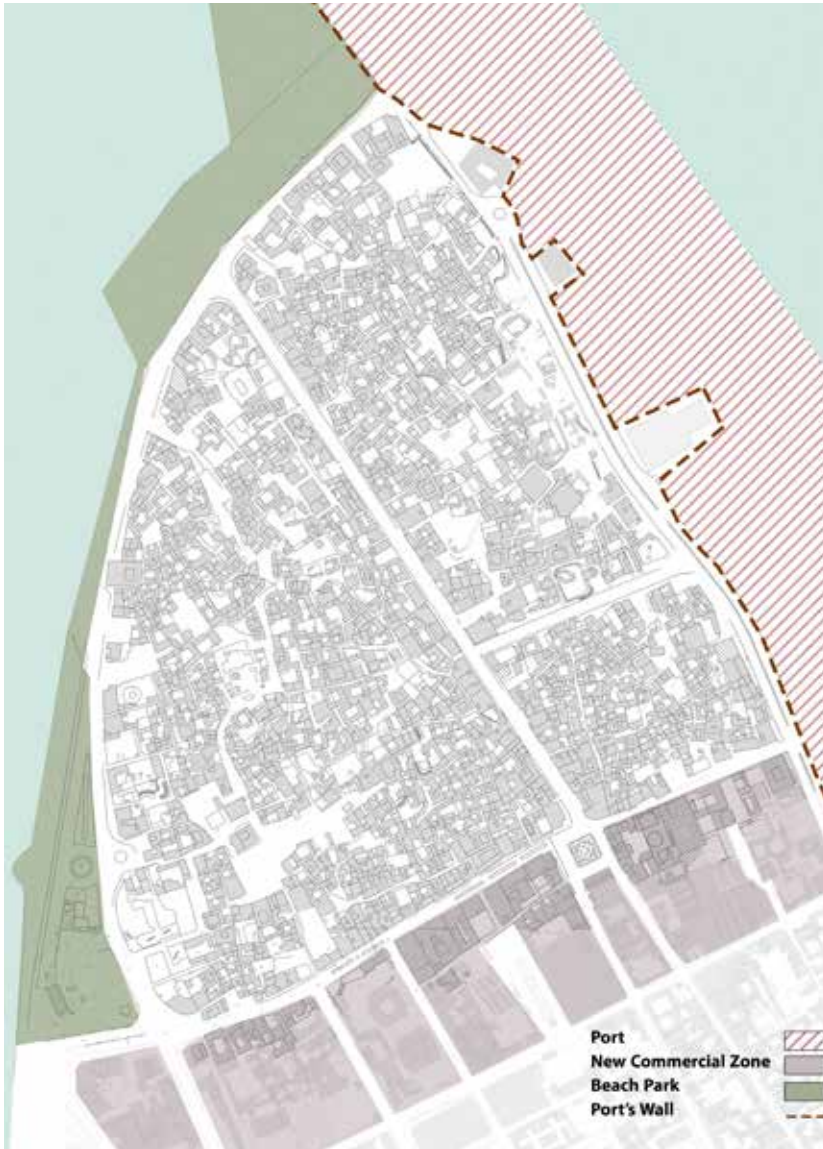
Accessibility Of Historic Quarters



Functions in Historic Quarters



Main Zones in Historic Quarters



1-6-4 Architectural and Urban specifications

Explosion of the Blocks

The old quarter of Bushehr is a big block exploded to smaller parts (blocks or houses) and with a distance between every block that makes the alleys. The reason for this explosion is giving more free faces for the building to breath and reduce the humidity and temperature specially for muggy summers.



Figure 1-8 ; Bushehr in 1956

High density of the whole quarter

During the formation of the old quarters of Bushehr, The walls surrounding the city still were existing. The city was limited in a small proportion of the land and because of safety reasons citizens prefer to stay inside the walls of the city. These reasons maid a high density in the old town. Blinding and Shading were also the other reasons for this density.

Hight of the buildings

Most of the buildings in the old quarter of Bushehr have 2 or 3 levels and the first level was usually service level. Probably the main reason was reducing the humidity by keeping a distance from the ground level.

White Color

Most of the buildings in the old quarter of Bushehr had white color, although over time the color was changing and losing its bright color. Probably the main reason was reducing the temperature increase the reflection of sunlight.



Figure 1-9

Meydan (Square)

Meydan is the main urban element of the Iranian old cities. One simple definition of Meydan says "Meydan is an open public area in a compact urban zone." But Meydan in Iranian traditional urban design is more than this simple definition. Meydan is an element that organizes the connections, contains the most important element of the city (like mosque, bazaar, administrative and governmental buildings, etc.) and makes a unique collective memory for the people living nearby. In the Iranian history and literature, Meydan was always the place that the most important activities happened. A place for people to trade, to pray, to fight and to protest. Meydan even is used for executing criminals and at the same time for celebrating mourning and festivals.



Figure 1-10 ; Naghshe Jahan - Isfahan



Figure 1-11 ; Amir Chakhmagh - Yazd



Figure 1-12 ; Meydan of Municipality - Rasht

Meydan in Bushehr's old city

Every quarter of Bushehr's old city contains some Meydans. The functions of this Meydans changes base on the surroundings, the scale and the location of that Meydan. Most of the Meydans of each quarter are surrounded by houses, a mosque and in some cases shops, and there is one Meydan in Kouti quarter that is the main Meydan of the old city that contains most of the functions of that Meydan, like a mosque, shops, administrative and governmental buildings, school and the house of the rich families.



Figure 1-13 ; Meydan of Kouti – Bushehr

Numerous Openings in the sides of the rooms

Most of the rooms in the old quarter of Bushehr are consistent with 3, 4, 5, or 7 openings on both sides. This kind of openings cause blind in the room and reduce the humidity and temperature. These openings usually had a shader outside of the building. Sometimes this shading was provided by the thickness of the walls.



Figure 1-14

Extroverted architecture

Although most of the traditional architectures in Iran are Introverted Architectures (because of the weather and religious believes of people), Bushehr's architecture is extroverted. Probably one of the reasons was the urgent need for ventilation. Bushehr has one of the architecture with the most number of windows in the facade in compare to the other parts of Iran.



Figure 1-15

Architectural Elements

Courtyard

The courtyard is one of the main elements of Bushehr's architecture. Ventilation and reduction of humidity was the main reason for having the courtyard inside the house. There were also other uses of courtyard like holding religious ceremonies and weddings. Because of the proportion of the height of the building and dimension of the courtyards, usually, courtyards had the shadow during the day. Normally the courtyards in Boushehr do not have flower boxes and just one tree is the only green element in the yard. Some bigger mansions have two yards that one of them is dedicated to private uses and women of the family and the other belongs to guests and viewers.



Figure 1-16



Figure 1-17

Shanashir (Balcony)

Shanashir is the name of a type of balcony that is used in Bushehr. The structure of shanashir is by wood and has wooden cover as the shader. The texture of the wooden cover is designed to block the view of the outside but does not cover the sunlight and ventilation.

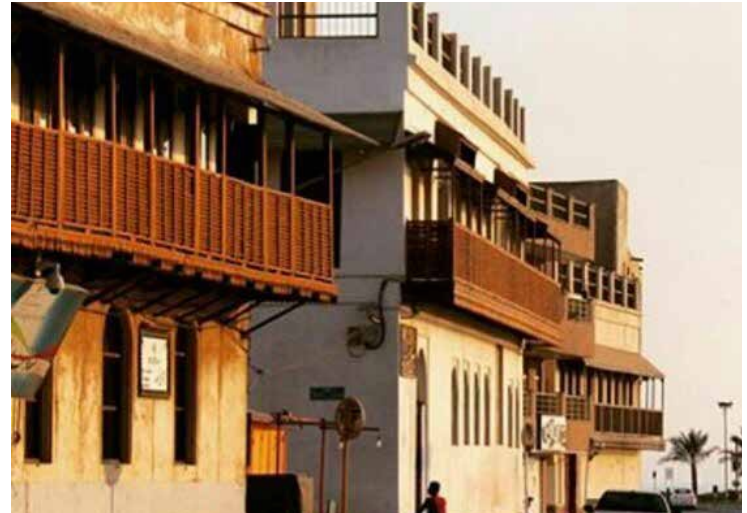


Figure 1-18

Tarmeh (Terrace)

Tarmeh (called Ivan in other parts of Iran) is a part of Bushehr's traditional architecture. Tarmeh is a terrace covered with 2-3 sides and usually has a roof. The main use of Tarmeh was for the summer's night as a place to sleep.



Figure 1-19

Hashti (entrance)

Hashti is a small room next to the entrance of the house. Hashti is been using as a waiting room for the guests before entering the house and also for the short visits. Hashti was working as a filter between the entrance and the house.



Figure 1-20

Staircase

Staircase in Iran's architecture was always an extra element, so it always was moved to the corners with the smallest possible dimensions and without landings. sometimes they were also working as ventilators.



Figure 1-21

Roof

Roof (Boon in Bushehry dialect) was usually used as a place for sleeping in summers. In the bigger houses sometime the roof had also a toilet service. The staircase finishes in the roof with an opening through the sea to work also as a wind catcher and move the wind to the building. The rain water on the roof was moving through Shife (pipes) to the cisterns.



Figure 1-22

1-6-5 Water condition in Bushehr

Because of lack of clean water in Bushehr, the most part of tap water of city is coming from Kazeroon (another city 150km far from Bushehr) or from a desalination factory that costs a lot for the city. The lack of water in Bushehr caused a program that divided the city into two parts and each day city can supply the water of one part and the other part should use the disposal water of the water tanks.

Wastewater reuse

On-site wastewater reuse can reduce water use in both urban and rural households. At present, most homes use potable (drinkable) water for practically everything in the house and garden.

We are literally flushing our drinking water down the toilet!

Greywater and Blackwater.

Greywater is wastewater from non-toilet plumbing fixtures such as showers, basins and taps.

Blackwater is water that has been mixed with waste from the toilet.

Advantages of reuse

reduce water bills

use fewer water resources

irrigate the garden during drought or water restrictions

cut down the amount of pollution going into waterways

help save money on new infrastructure for water supplies and wastewater treatment

decrease demand on infrastructure for sewage transport, treatment and disposal, allowing it to work better and last longer

1-6-6 Vegetation

w



Ziziphus spina-christi



Prosopis



Date Palm



Tamarix



Bougainvillea



Bitter orange



Suaeda aegyptiaca



Alcea



Lycium

Ziziphus spina-christi

Ziziphus spina-christi, known as the Christ's thorn jujube, is an evergreen tree or plant native to northern and tropical Africa, Southern and Western Asia. It is native to the Levant, East Africa and some tropical countries. Fruit and leaves from the tree have been used in Ancient Egyptian food and medicine.

Tamarix

The genus Tamarix (tamarisk, salt cedar) is composed of about 50–60 species of flowering plants in the family Tamaricaceae, native to drier areas of Eurasia and Africa. They are evergreen or deciduous shrubs or trees growing to 1–18 m in height and forming dense thickets.

Suaeda aegyptiaca

Suaeda aegyptiaca is a species of plant in the family Amaranthaceae (formerly classified under the Chenopodiaceae), and salt-tolerant plant (halophytes) that is distributed primarily throughout North Africa and West Asia. It is particularly common in salt-affected regions of southern Iran.

Prosopis

Prosopis is a genus of flowering plants in the pea family, Fabaceae. It contains around 45 species of spiny trees and shrubs found in subtropical and tropical regions of the Americas, Africa, Western Asia, and South Asia. They often thrive in arid soil and are resistant to drought, on occasion developing extremely deep root systems. Their wood is usually hard, dense and durable.

Bougainvillea

Bougainvillea is a genus of thorny ornamental vines, bushes, or trees. The inflorescence consists of large colourful sepallike bracts which surround three simple waxy flowers. It is native to South America from Brazil west to Peru and south to southern Argentina. Different authors accept from four to 18 species in the genus.

Alcea

Alcea is a genus of about 60 species of flowering plants in the mallow family Malvaceae, commonly known as the hollyhocks. They are native to Asia and Europe. The single species of hollyhock from the Americas, the streambank wild hollyhock, belongs to a different genus.

Date Palm

Phoenix dactylifera, commonly known as date or date palm, is a flowering plant species in the palm family, Arecaceae, cultivated for its edible sweet fruit. Although its exact place of origin is uncertain because of long cultivation, it probably originated from the Fertile Crescent region straddling between Egypt and Mesopotamia.

Bitter orange

Bitter orange, Seville orange, sour orange, bigarade orange, or marmalade orange is the citrus tree *Citrus × aurantium* and its fruit. It is native to southeast Asia and has been spread by humans to many parts of the world. It is probably a cross between the Pomelo, *Citrus maxima*, and the Mandarin orange, *Citrus reticulata*.

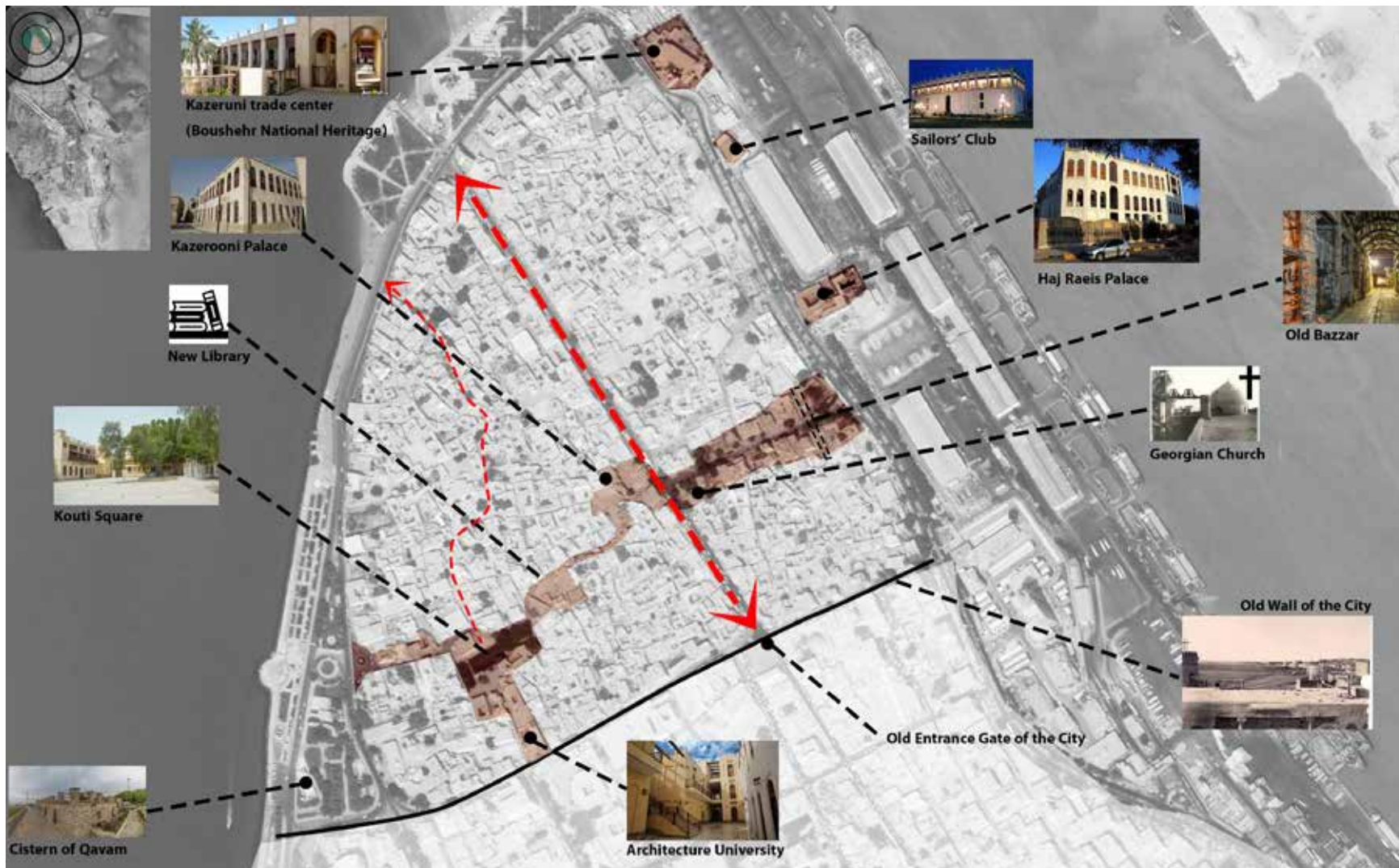
Lycium

Lycium is a genus of flowering plants in the nightshade family, Solanaceae. The genus has a disjunct distribution around the globe, with species occurring on most continents in temperate and subtropical regions. South America has the most species, followed by North America and southern Africa.

Chapter two (Project)

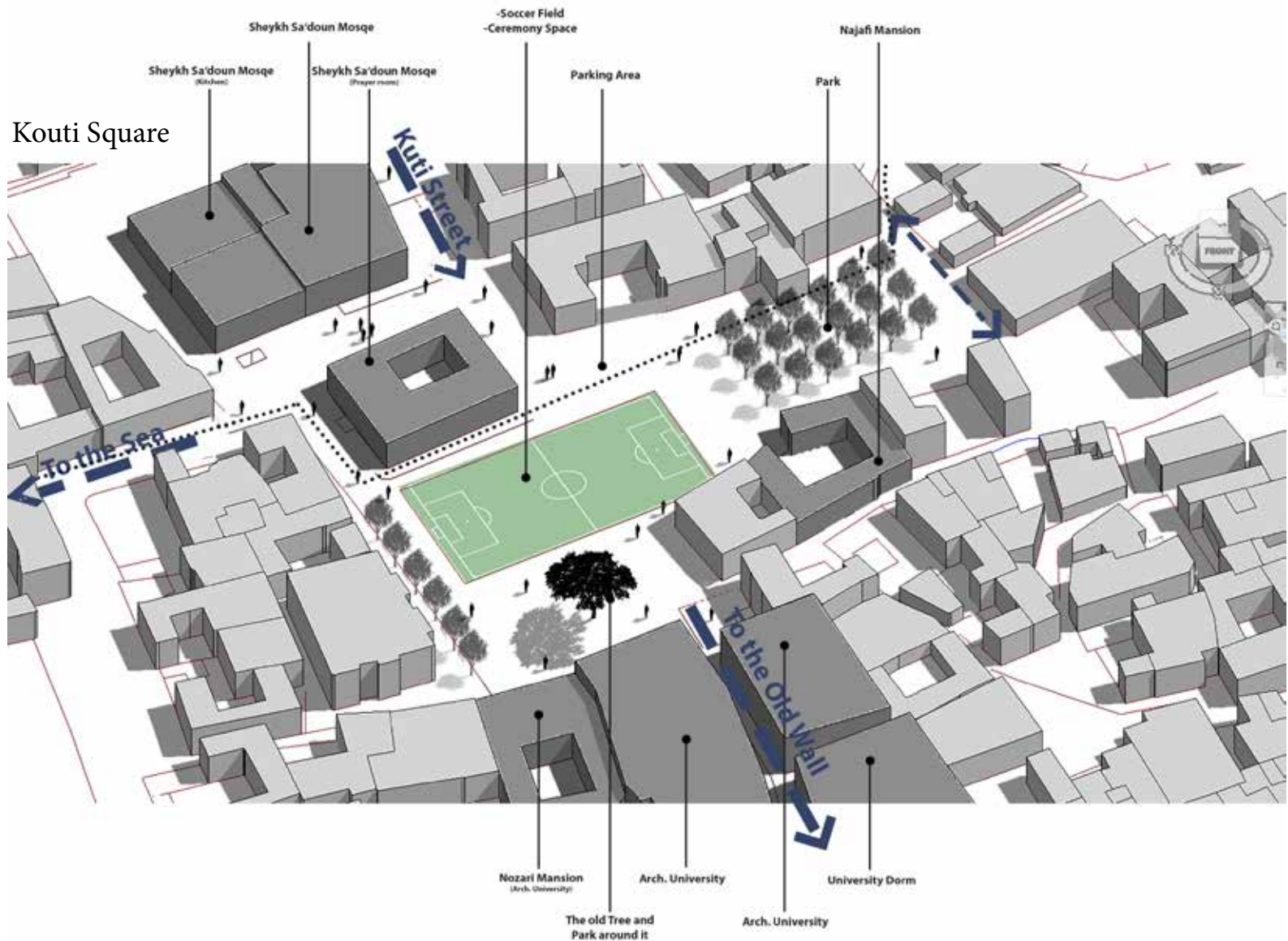
2-1 Reading the Site



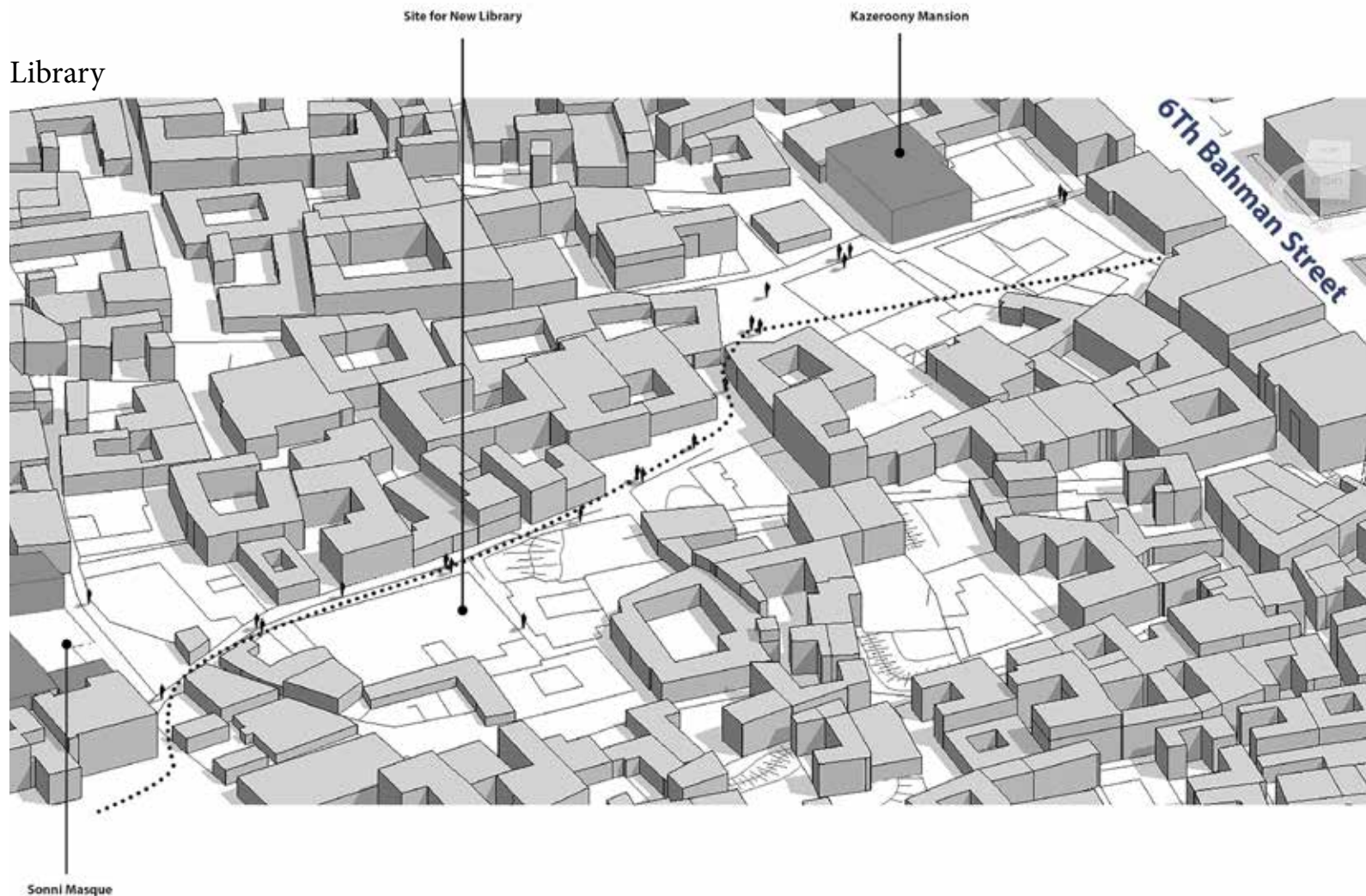


2-2 Main Sequences

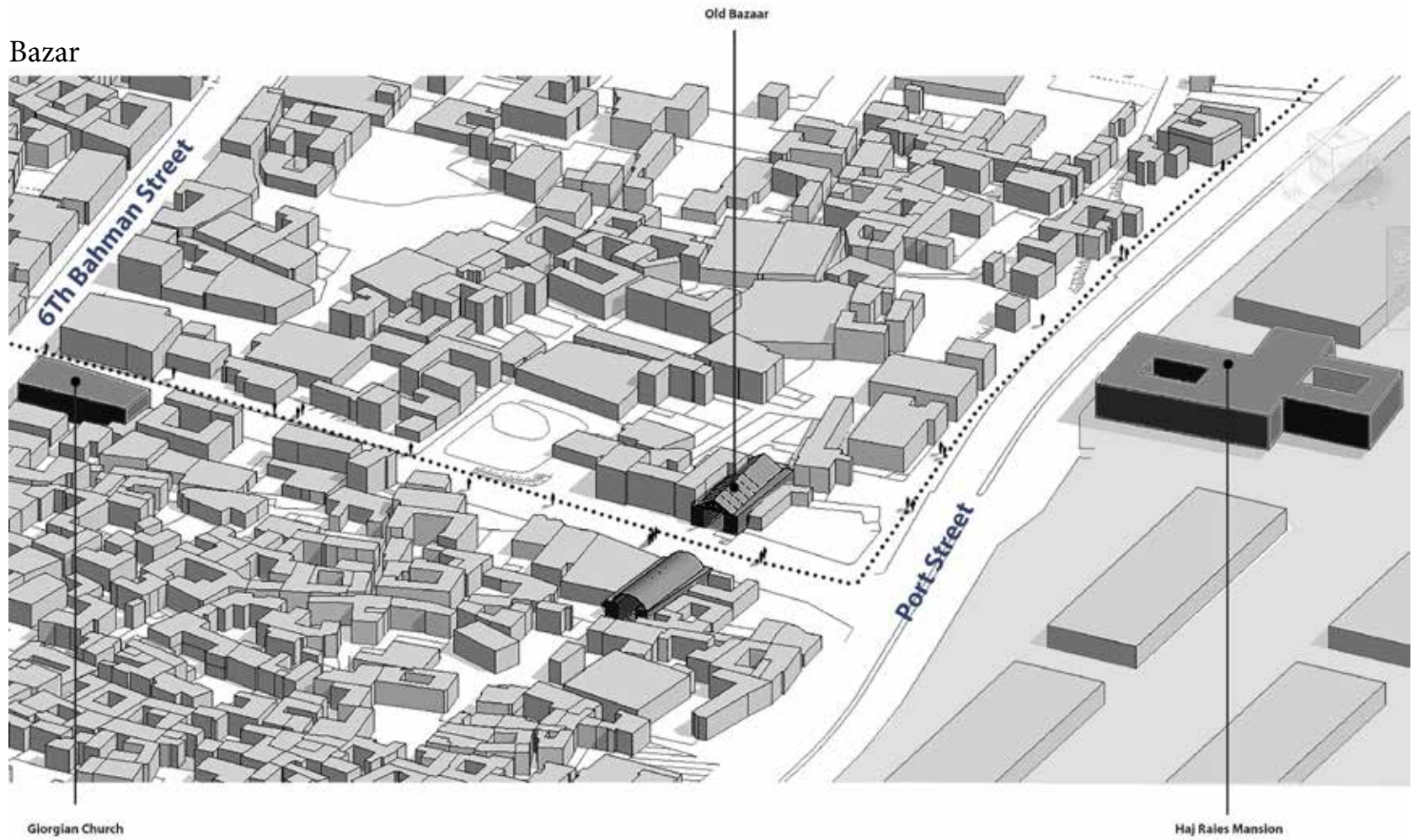
Kouti Square



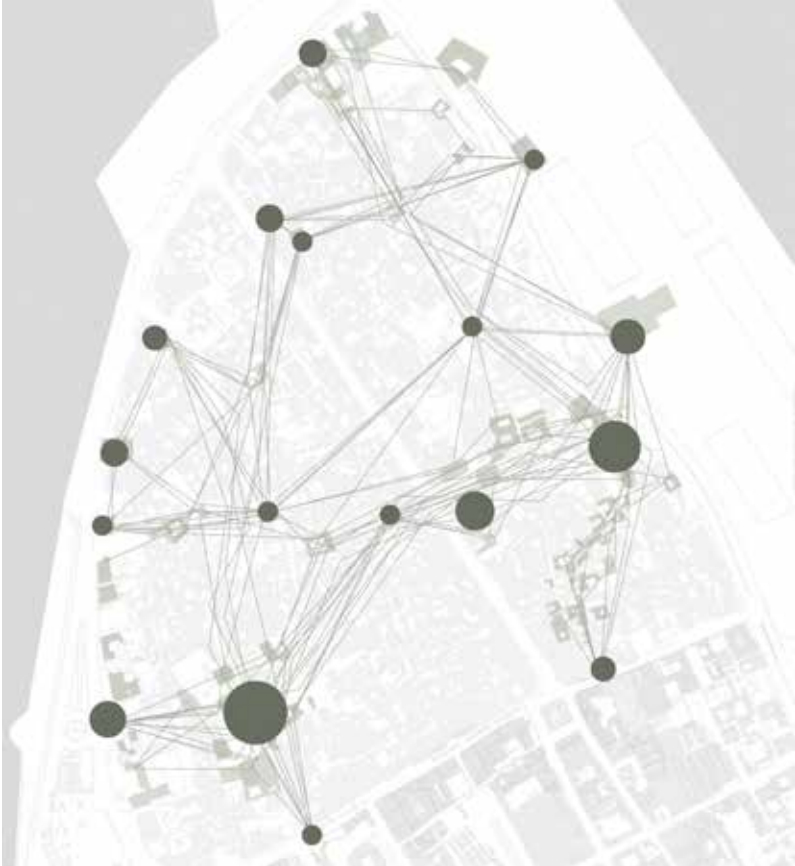
Library



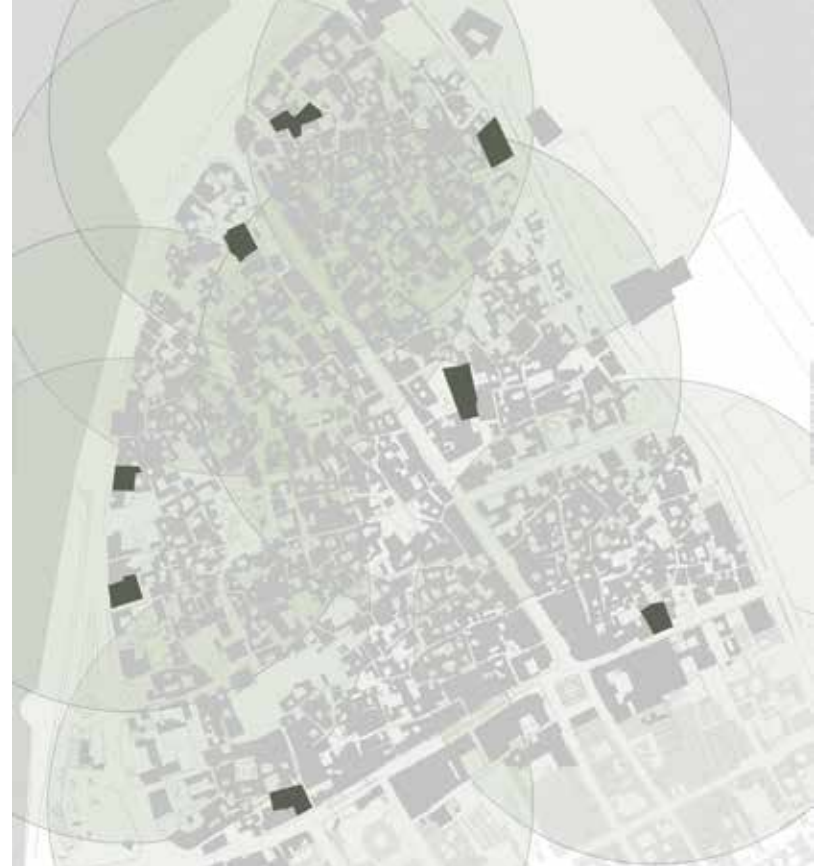
Bazar



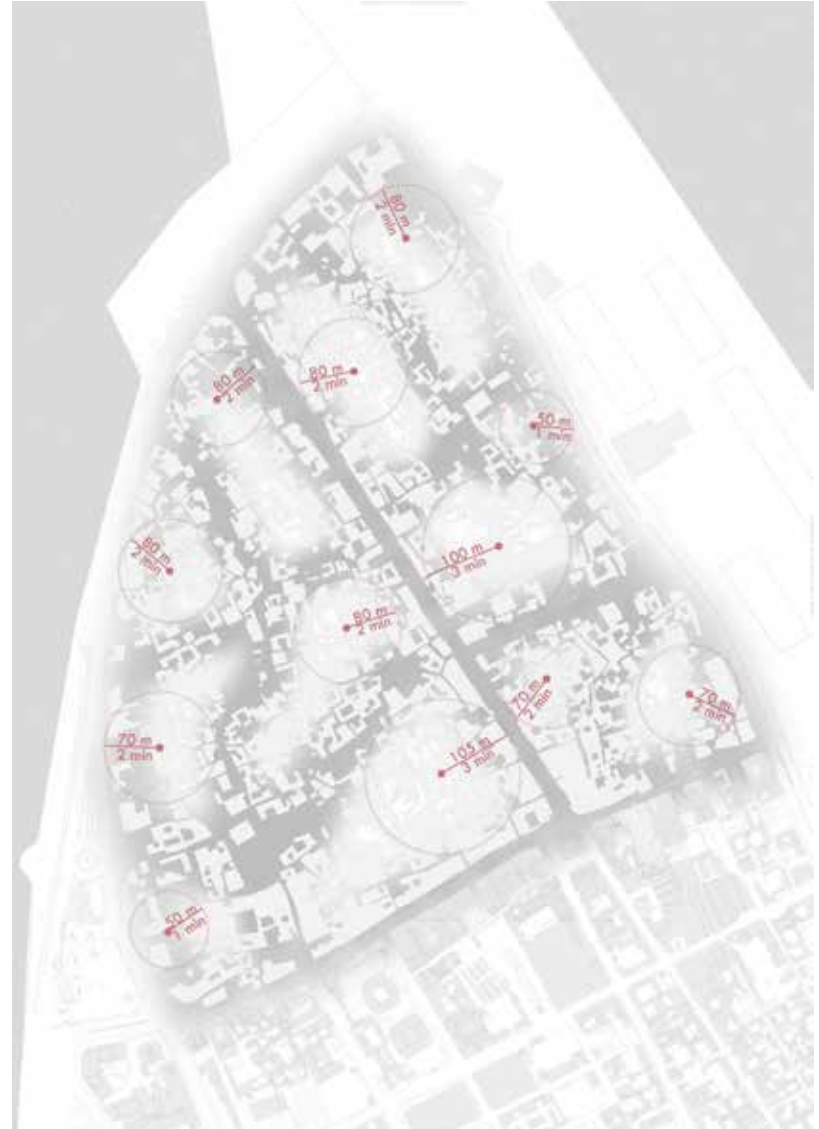
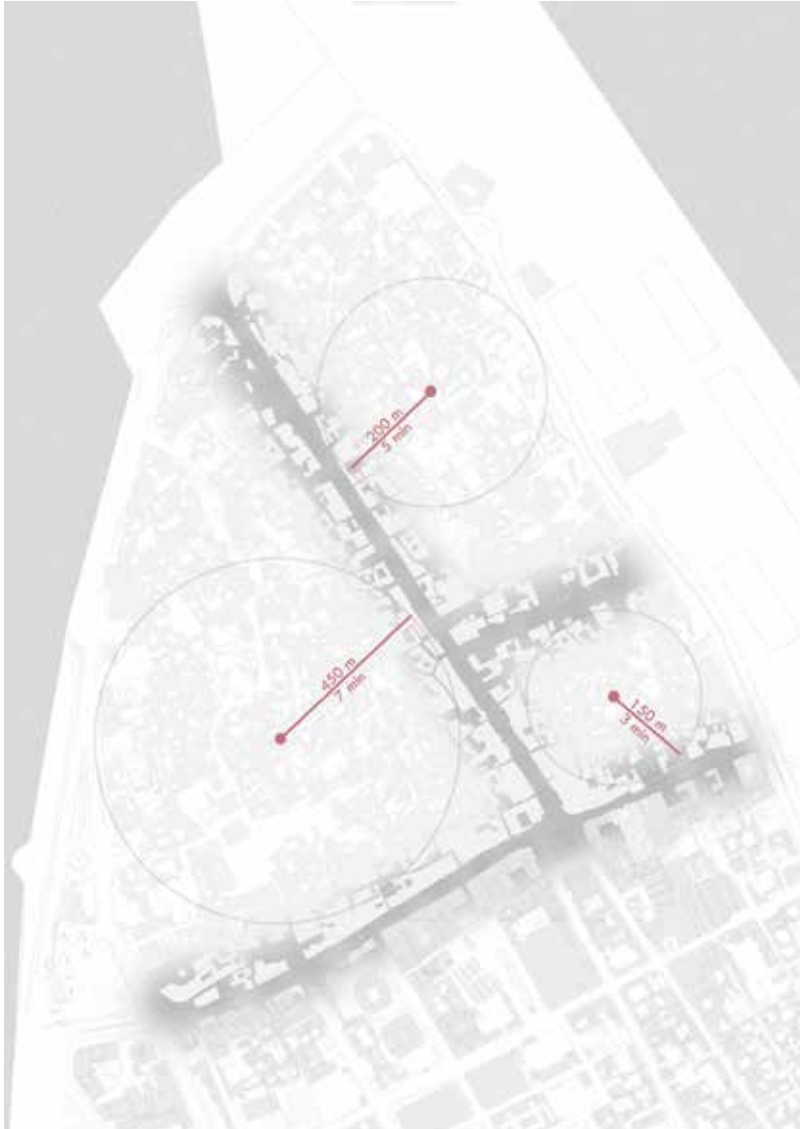
Landmarks Network



Parking Range



Walkable distance of each Sub-district



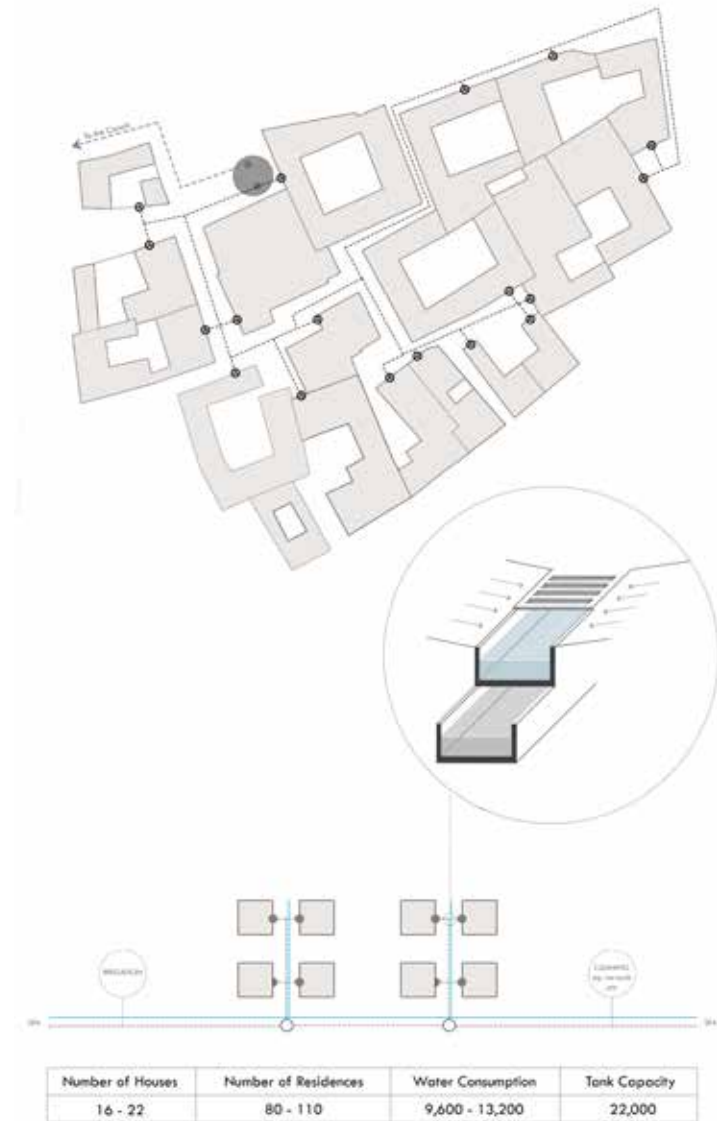
2-3 Strategy Plan

Over time, the inside of the old town is getting more and more hollow. Due to the lack of facilities, safety, and bad accessibility, every day more people are leaving their houses inside the 4 quarter. The strategy is to propose a network based on the existing paths and alleys that connects the potential buildings and points of the town to develop their quality and with the help of that development, increase the urban quality of the whole old town.

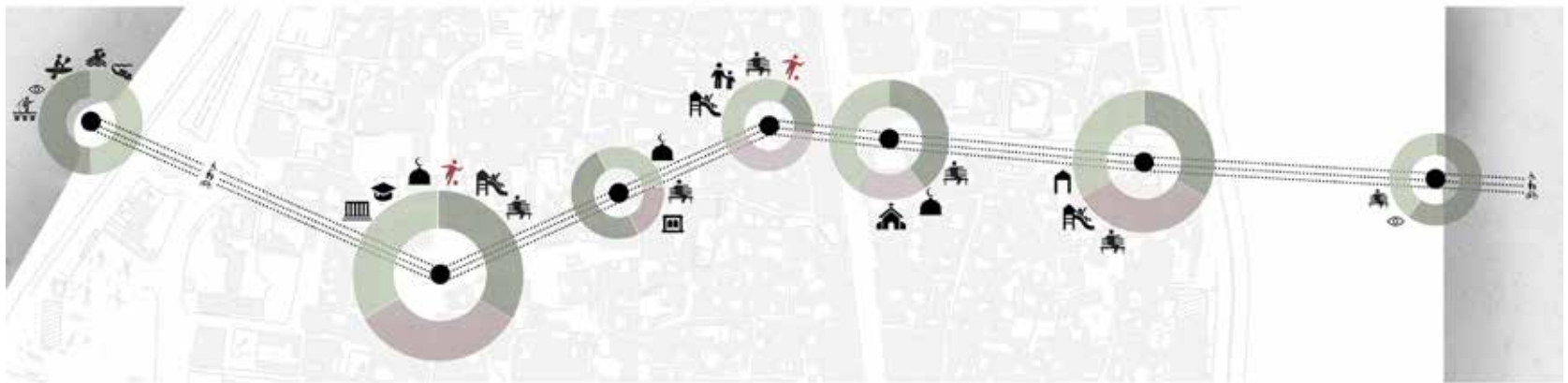
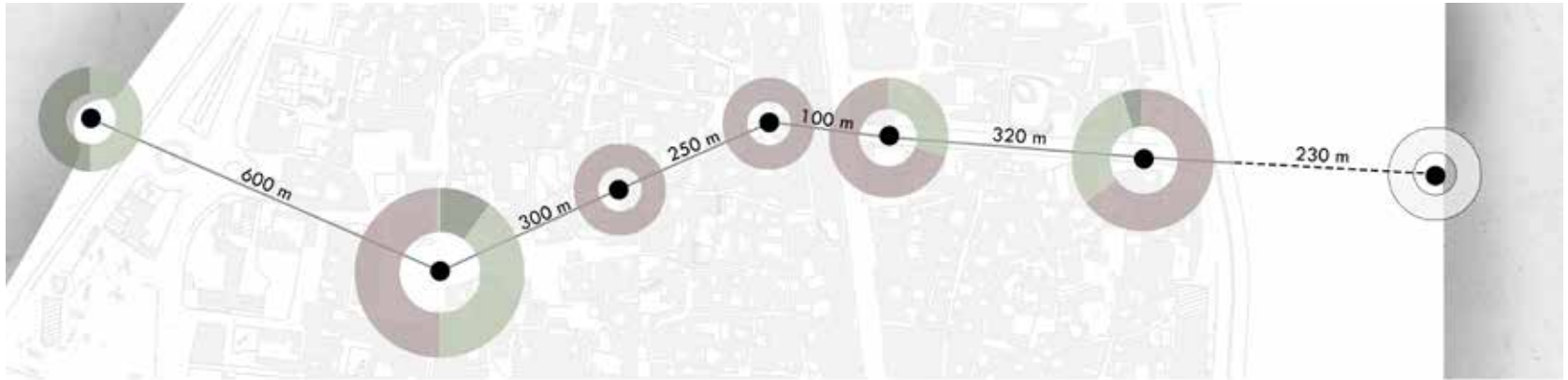


2-3-1 Sewage

One of the most important issues in the old town is the lack of a sewage system. The canals in the alleys are the only system that drives the sewages of the houses to the sea without any refinement. The new strategy for the sewage system is to divide the town into 16-22 houses sub-quarters and use an on-site water treatment system called Taylex for each sub-quarter. Canals are divided into two levels, the one below takes the blackwater to the Taylex tanks and the upper level drives the greywater outside of the town.



2-3-2 Activities Program of the Site



■ Necessary Activities

Compulsory activities that will take place throughout the year, under nearly all conditions. (E.g. going to work or school)

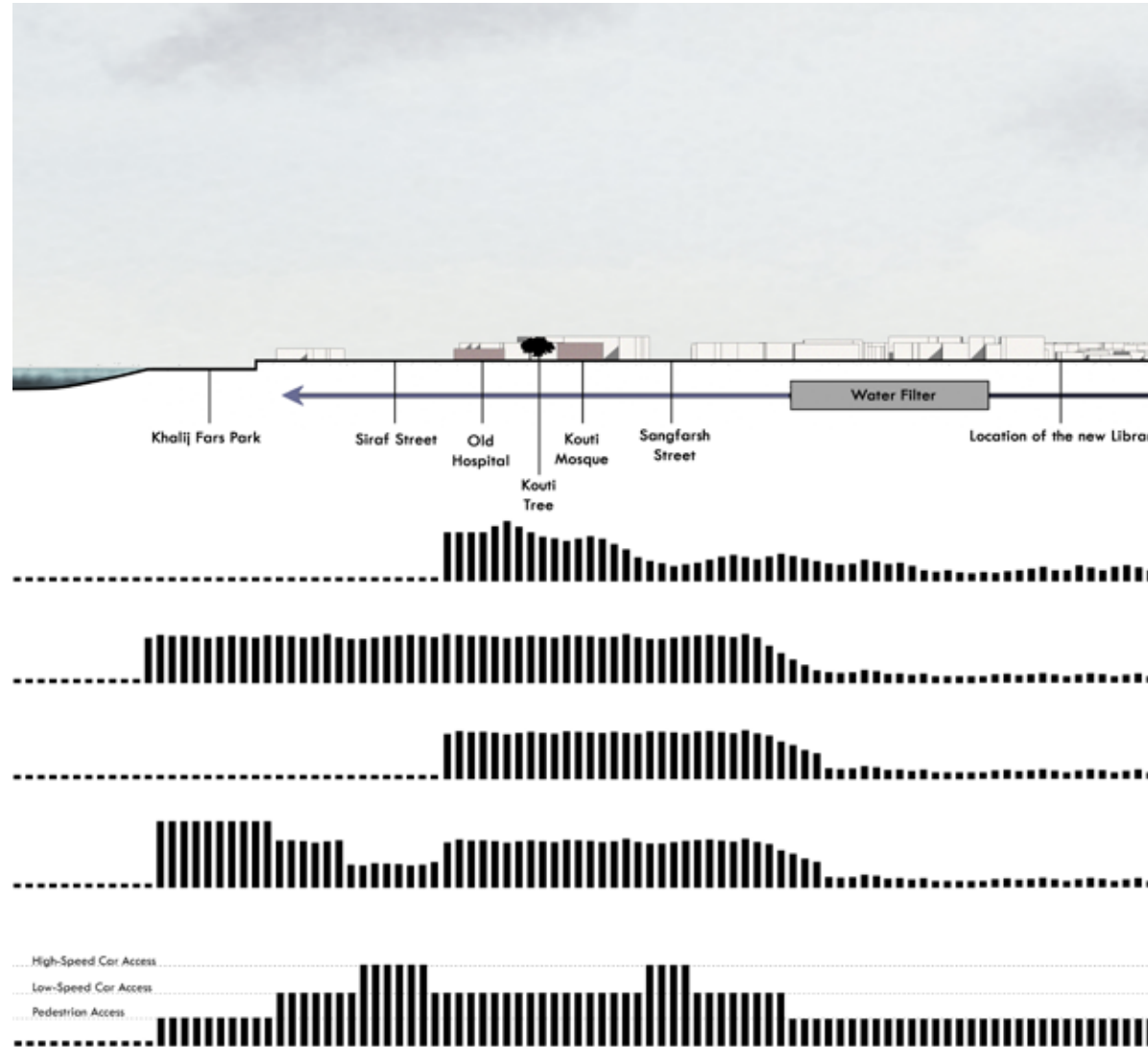
■ Optional Activities

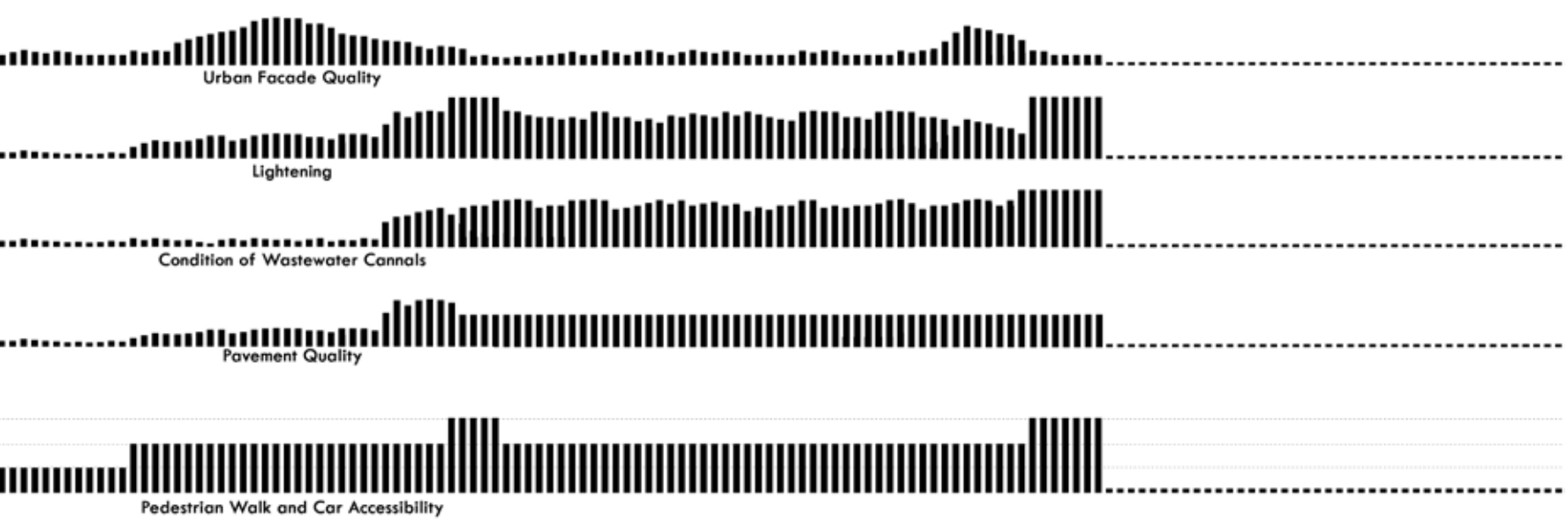
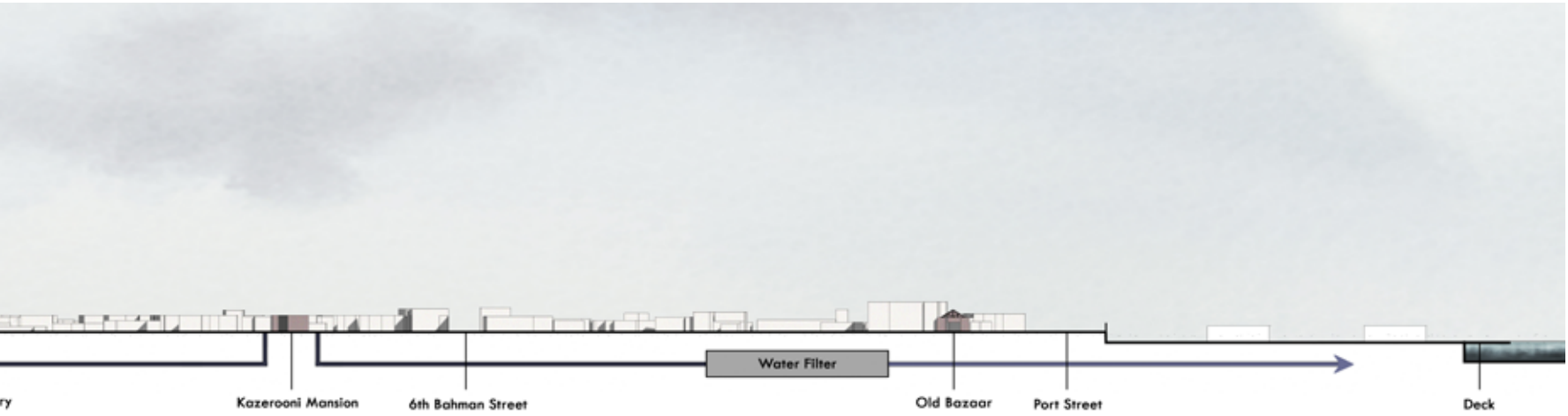
These activities take place only when exterior conditions are favorable, and weather and place invite them. (E.g. Sunbathing, Sitting, Taking a walk.)

■ Social Activities

Activities that depend on the presence of others in public spaces. (E.g. Passive contacts, communal activities.)

2-3-3 Longitude Section



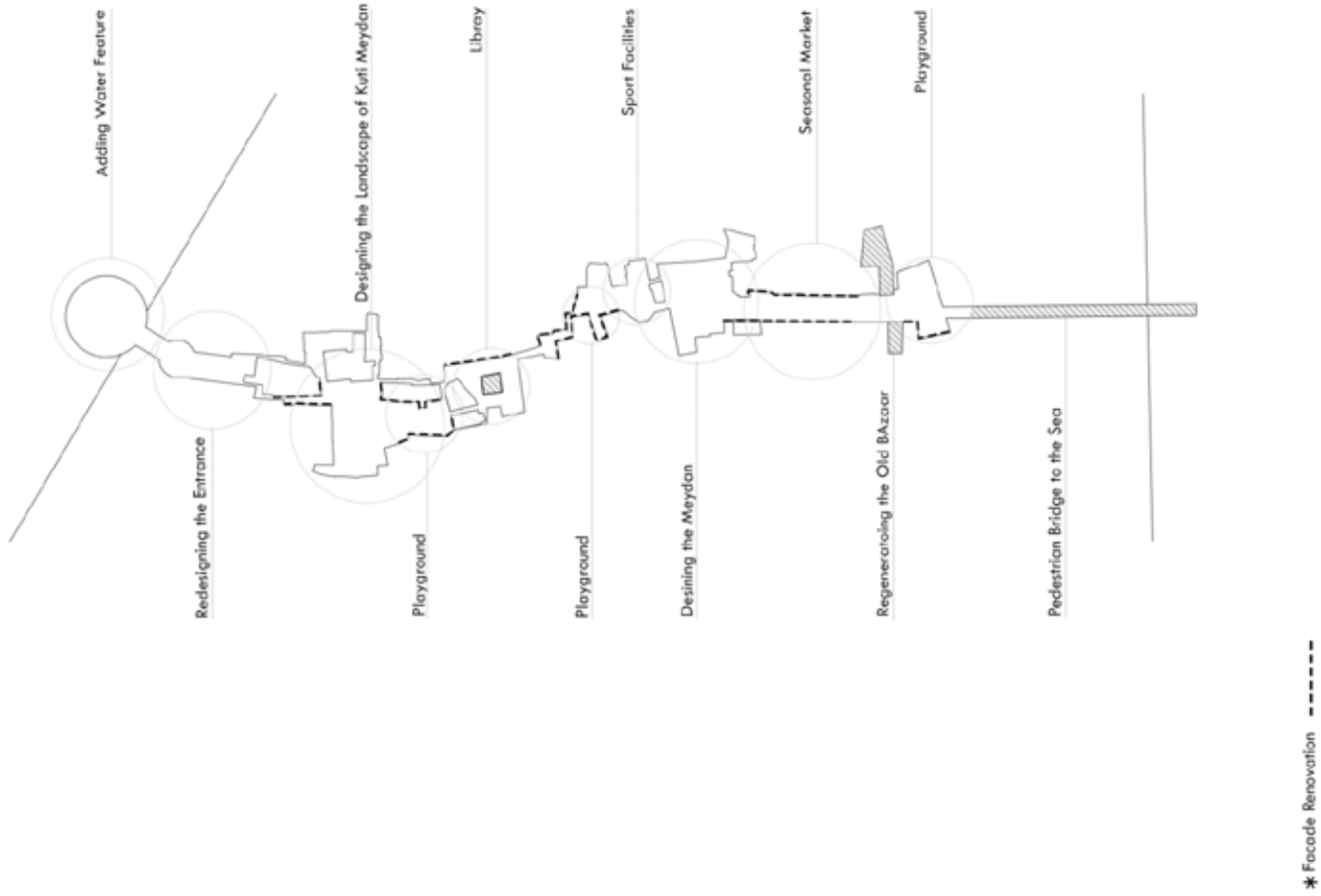


2-4 Design Proposal; Master Plan

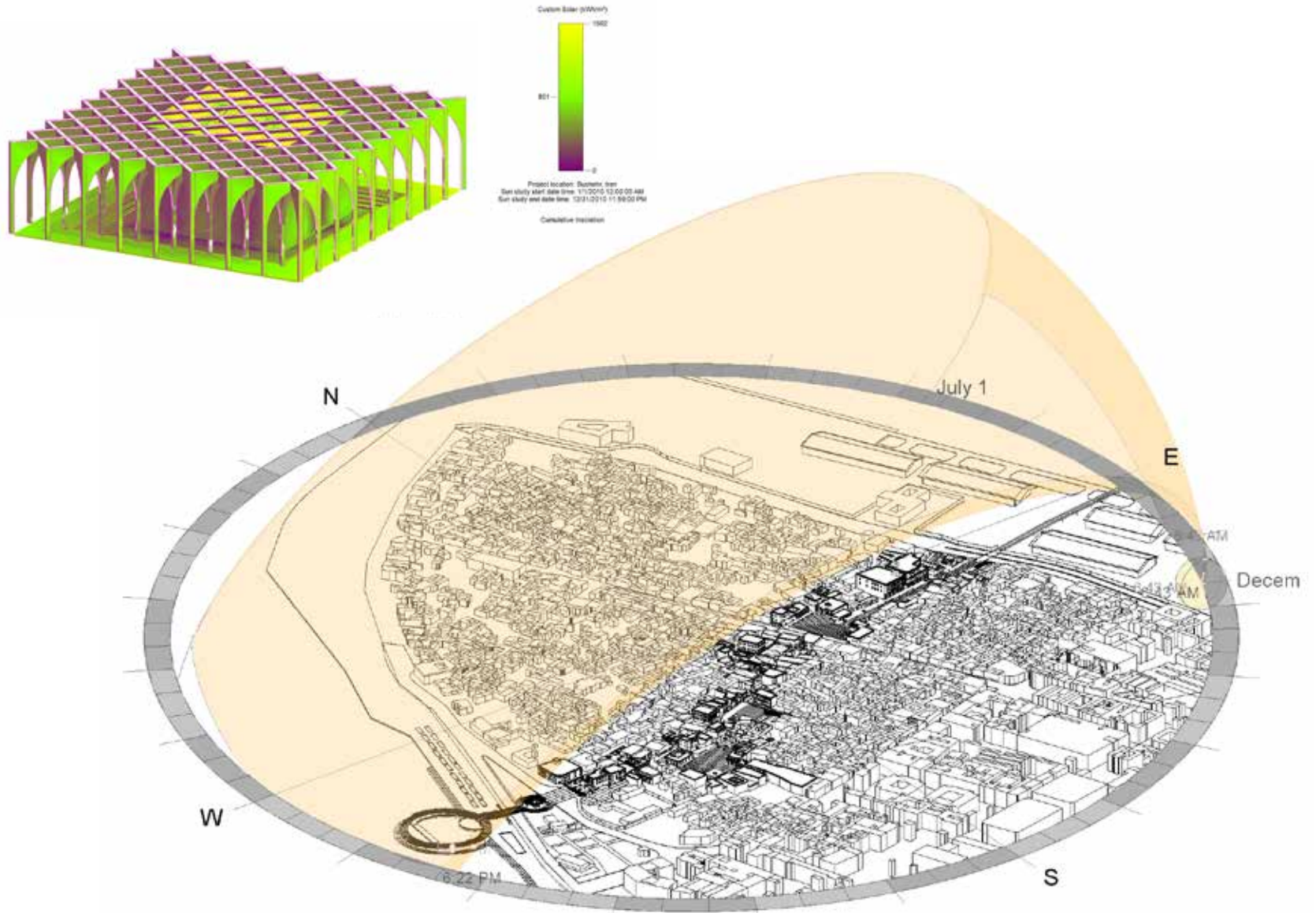




2-4-1 Diagram of Interventions



2-4-2 Sun Study



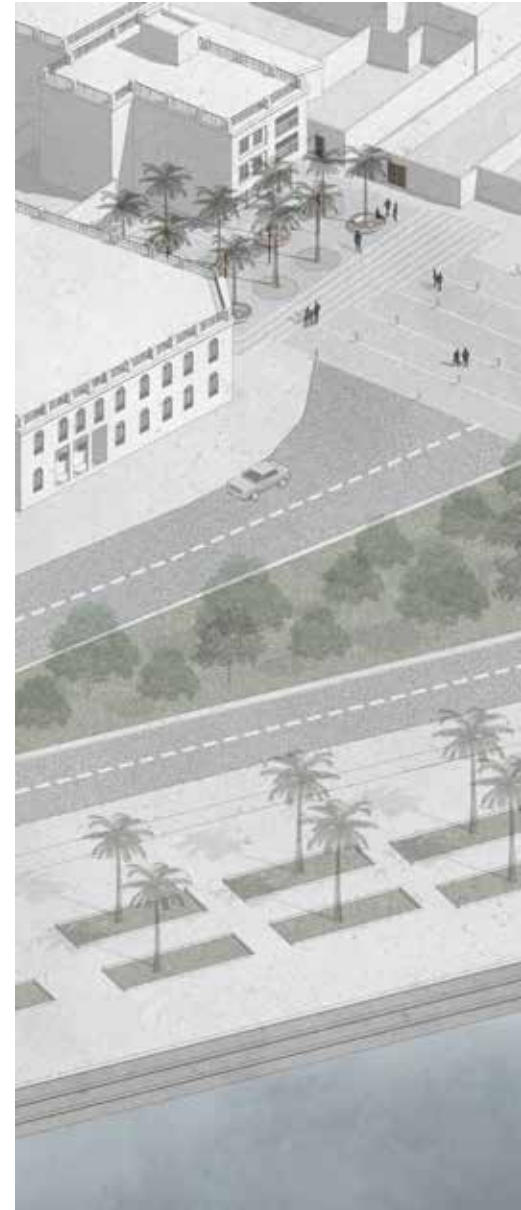
2-4-3 Interventions

Seq 1- The Wooden Pier

An orbicular wooden pier was suggested as an extension to the coastline on the western entrance of the main axis of the project, derived from the existing circular lines of the surroundings. This will be one of the two points that we are trying to connect the urban corridor to the sea. Our proposal is adding the missing functions of the beach line of Bushehr by orbiting around the existing amphitheater, extending from the beach into the Persian Gulf.

The 360 degree viewpoint of the deck is facing both the sea and the inside of the circle which the swimming pool is located in the middle. Also, another level for the amphitheater would be combined to improve the experience of the performances taking place there.

Two internal ramps connect the top of the deck to the sea level, where a wooden sloping deck goes to the seawater pool from both inner sides of the circle. However, on the exterior side of the circle, the ramps are gradually moving inside the water giving a pleasant possibility to have a viewpoint of the sea while people can also interact with it. The bridge that connects the main urban corridor to the pier is passing on the top of the existing beach park to not interrupt the activities and physical form of the linear park





Seq 2- Kouti Meydan

Kouti Meydan used to be the most important square of Bushehr, containing some of the oldest buildings of the city. Also, The old tree of Kouti Plaza is respected and considered as one of the most important symbols of the city for the people during decades. Moreover, the oldest mosque of the historical town, and architecture campus can be mentioned as the significant architectural elements of the place. The idea is to revive the values of an old Meydan such as promoting outdoor activities that cause equity, social cohesion, and community's stability. In order to achieve the latter, a playground is added to the plaza like most of the other sequences to encourage children and families presence.

We tried to keep and emphasize on the centrality of the old tree as the mother nature's symbol that opens her arms to embrace the people around it. It will be the center of all social and optional activities promoted by establishing sight, increasing conversation and reducing noise pollution.

Currently the interaction of the people is missing in the Meydan which is its initial concept . The human relation of a broad range of people, such as art and architecture students or the people attending the mosque daily, regular users of Meydan and the buildings around it, is lost in leftover soulless spaces of the meydan.

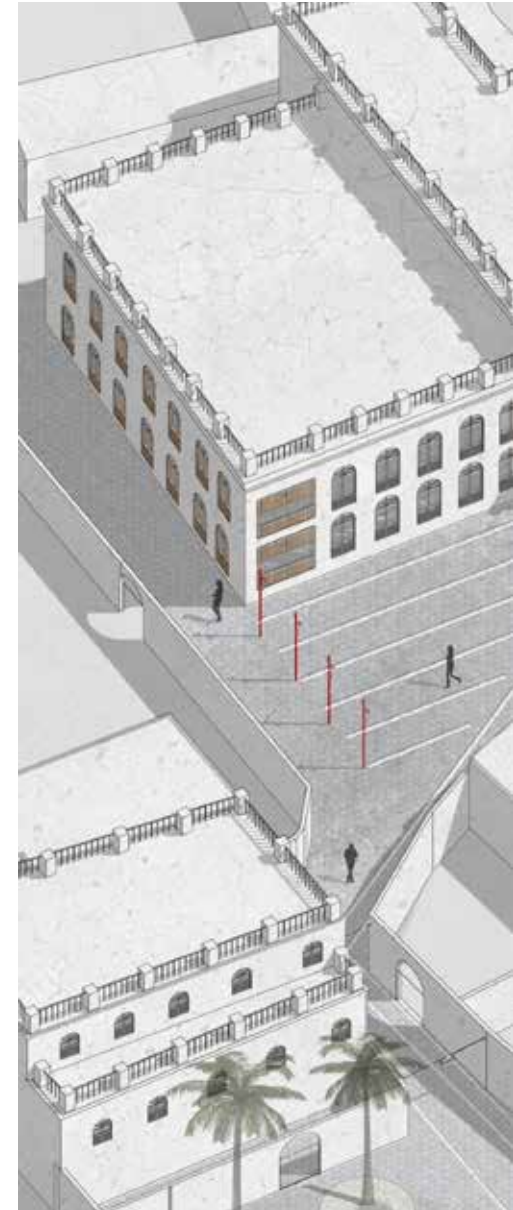
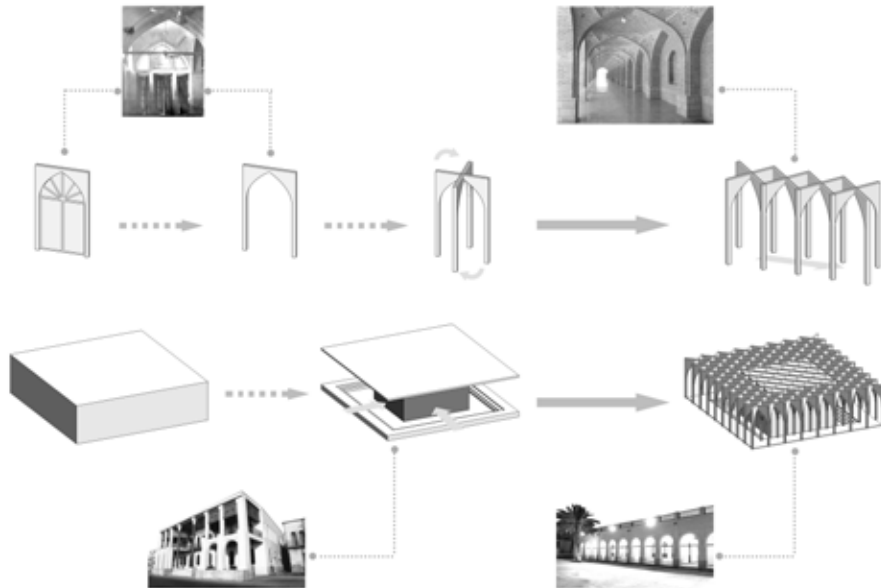
The main idea is to improve the safety and vivacity of the urban corridor and specially each sequence like Kouti plaza, as the focal points. We believe, making the meydans important again, can encourage social relationships irrespective of the social background of people of a Meydan.





Seq 3- The library

The library is a suggestion by the municipality of Bushehr in order to improve the cultural facilities of the old town. The site of the library is located in the 3rd sequence of the project on the top of the ruins of a residential mansion. The idea of designing the facade pattern is coming from two elements of Iranian architecture: Tagh (arch) and Shabestan. By rotating an arch 90 degree and moving that through a line, a pattern of perpendicular arches will be made that can move around the building and provide a filter against the direct sunlight. Movement of this pattern around the library is like the movement of Shabestan around the mosques that used to be a place for students who were studying in the mosque to talk and discuss with each other about their lessons and sleep and live there





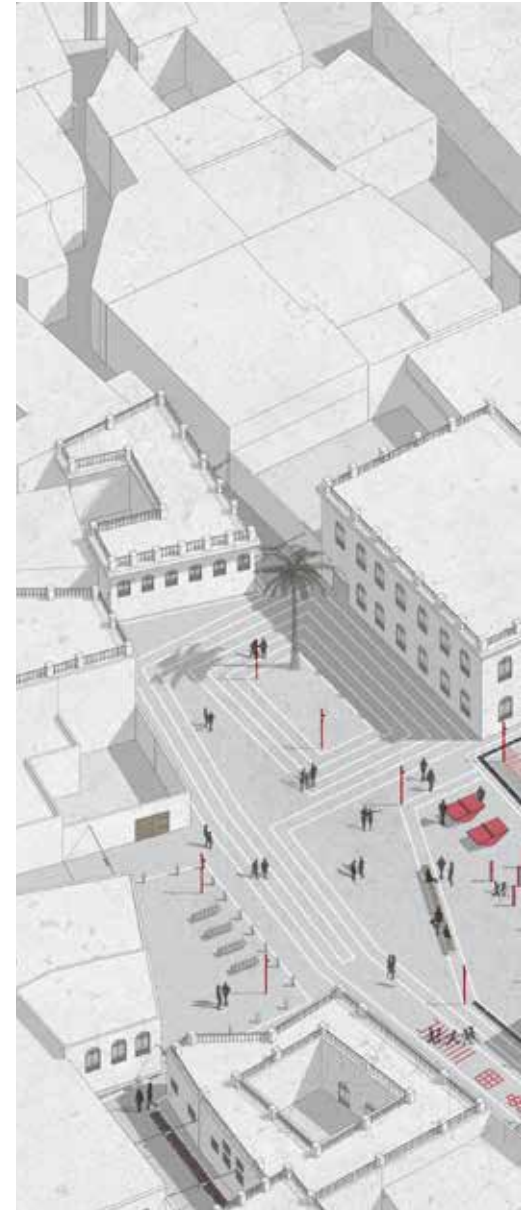
Seq 4- The Correlation Square

Bushehr as an important trading port in the south of Iran was a safe city for all kinds of people regardless of their races or their religions. The Existence of numerous holy places of different religions is a sign of this fact.

The 4th sequence is a good example of this equality, the communal mosque of the city on one side of the street and the Georgian church on the other side. The idea for designing this sequence is to trace back the equality that was exciting in Bushehr, a small town with 3 churches, one synagogue and two mosques for Sonni people. To sides of a Meydan, two holy places for two religions in an equilibrium. It is a sign of the correlation between the people of the town, despite their religion.

A playground is proposed on the other side of the street that contains the sports facilities. The football pitch that is appreciated a lot by the people of the old town is relocated in the 4th sequence. The playground was located on the Kouty Meydan and disconnected the two sides of the square and was a distraction on the most important meydan of the city.

The new location of the football pitch gives this opportunity to it to work with the playground and improve the safety and social cohesion of the town by giving the same chance to all the people from any social level to use it.



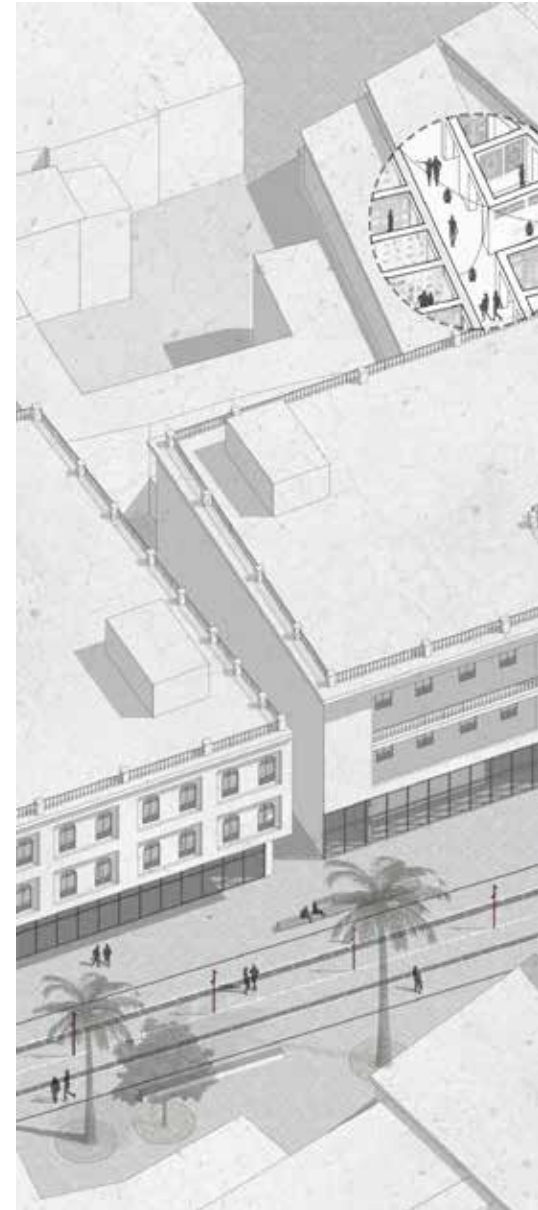


Seq 5- The Old Bazaar

Due to the urban changes in Bushehr, losing the importance of Bushehr as a trading port, and the wrong decisions of city planners, the old bazaar lost its cohesive role in the town. The new shopping centers spread in different parts of the city took the important role of the old Bazaar. Bazaar as the backbone of the urban structure and as an interface between various urban elements of the town was evacuated and ruined over time. The leftover of the ruins was a place for homing the homeless people of the old town.

The strategy over the bazaar is to improve the quality of the axis that bazaar is located on that and giving a new chance to revive the bazaar by moving the urban flow next to it. A playground is also added next to the bazaar to encourage people to use these two elements that can perfectly work with each other. The east-west axis of the bazaar is located on the main axis of the project and the north-south axis is located on the second axis of the bigger strategy that finishes with the part of the bazaar that is working now next to the wall street in the south of the old town.

The traces of the east-west axis that does not exist anymore is highlighted by a pavement light and to revive the activities that used to happen here, it will be used as the new seasonal market.



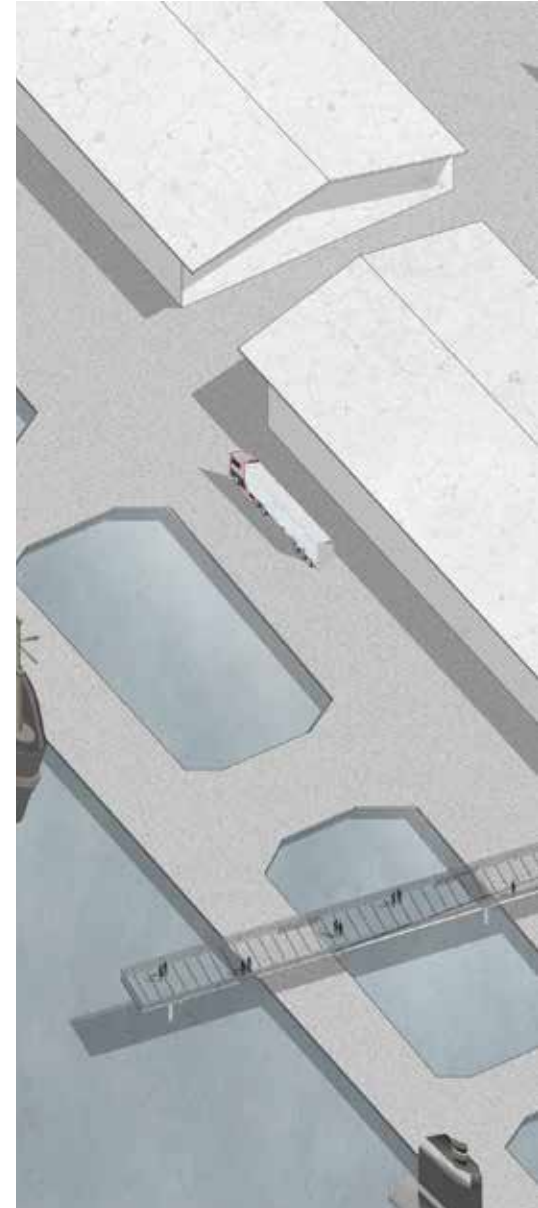


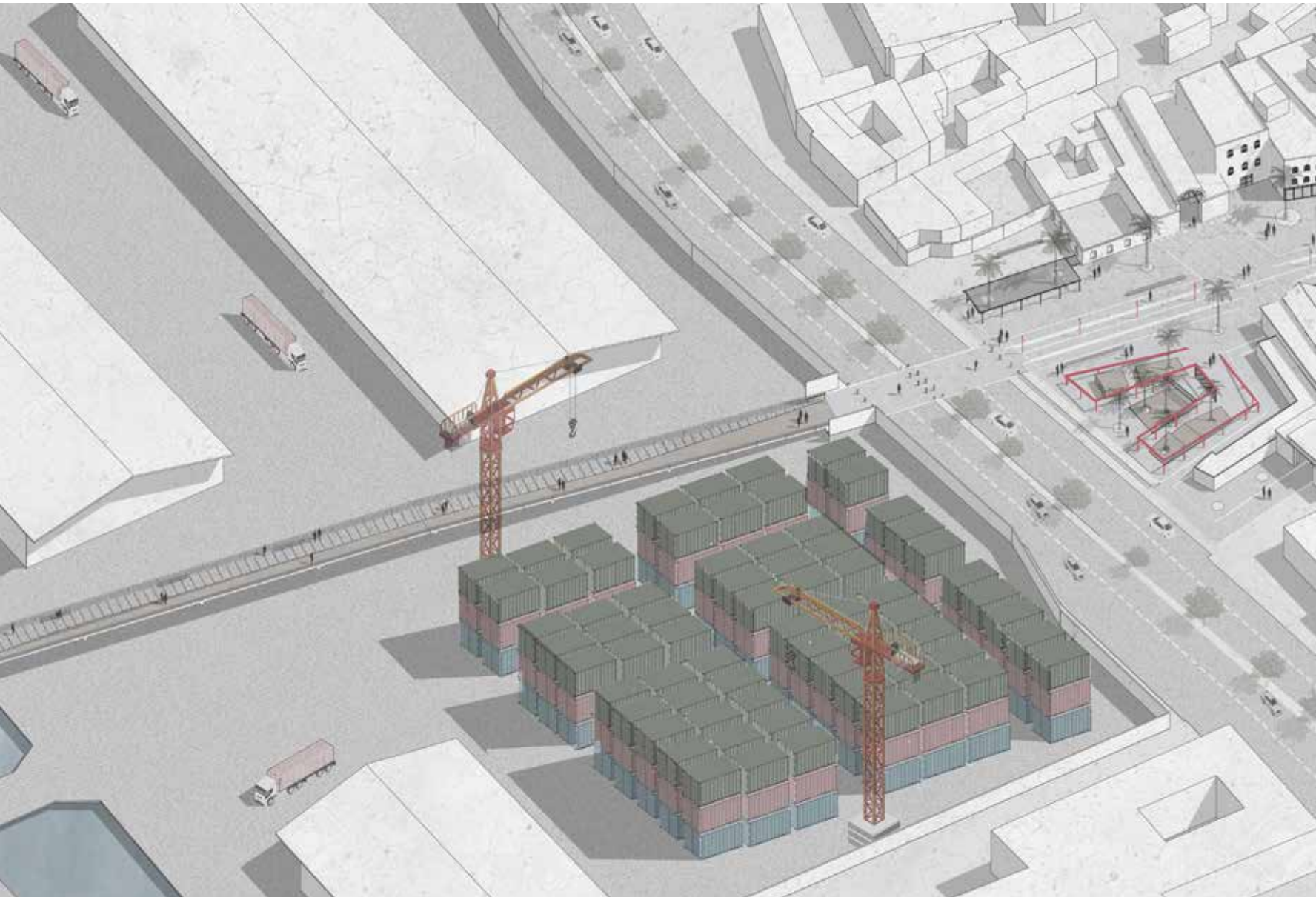
Seq 6- The Port Bridge

After the extension of the port dock on the east side of Bushehr, the old town was completely disconnected from the sea from one side. A solid long wall is the result of this division that moves from northeast to the southeast of the town. The wall obstructed the view to the port and the activities happening there. The port's deck breaks the wall and move on the top of the port and provides a viewpoint on the east side of the peninsula to see the activities inside the port and the vessels that are reminding the old and forgotten history of Bushehr as a trading port.

The height difference between the port and the town is 1.5 meters. The deck gradually goes up with a 6% slope and after 50 meters the deck is 4.5 meters higher than the port and it will not work as an obstacle for the movements inside the port.

The deck also connects both sides of the project to the sea, with two different approaches. On the west side, the wooden deck works as an element that connects people and sea physically and gives this chance to the users to touch the water directly; however, on the east side, the port's deck connects the people and the sea visually.





2-5 Renders











جو گفتم ان کینم امکه که شاید
برون بردانج فرمود ان سخن
فرود آورد خرو را و خود
که نزل شاه چون سازد سیاهی
ز طاب و کسر زنی دگر ساسا
فروستایان از اسبهای طلا
سرا را از اسبها

Water, wisdom, and light

Beyond the seas there is a town
Where the windows look out on revelation.
There's a bough of knowledge in every child's hand in the city.
The townsfolk gaze at a brick row
As if at a flame, or at a delicate dream.
The earth can hear the music of the soul
And the wind carries the sound of mythical birds.
Beyond the seas,
There's a city
Where the sun is as wide as the eyes of dawn worshipers.
The poets there are the inheritors of
Water, wisdom, and light.
There's a city beyond the seas!
One must build a boat.

List Of Figures

Figure 1-1 ; Iran Location In The World Map	2
Figure 1-2 ; Bushehr Location In Iran	2
Figure 1-3 ; Avg. Temperature of Bushehr	3
Figure 1-4 Daylight and Sunshine hours	4
Figure 1-5 wind rose	4
Figure 1-6 ; Bandar Bushehr, drawing by Eugène Flandin, 1840	5
Figure 1-7 ; ETH-BIB-Hafen von Buschehr-Persienflug 1924-1925	6
Figure 1-8 ; Bushehr in 1956	17
Figure 1-9	18
Figure 1-10 ; Naghshe Jahan – Isfahan	19
Figure 1-11 ; Amir Chakhmagh - Yazd	19
Figure 1-12 ; Meydan of Municipality – Rasht	19
Figure 1-13 ; Meydan of Kouti – Bushehr	20
Figure 1-14	21
Figure 1-15	21
Figure 1-16	22
Figure 1-17	22
Figure 1-18	23
Figure 1-19	23
Figure 1-20	24
Figure 1-21	24
Figure 1-22	25
Figure 1-23	27

References

Life Between buildings by Jan Gehl
Changes in the traditional urban form and the social
sustainability of contemporary cities: A case study of Iranian
cities by Ayyoob Sharifi, Akito Murayama
Ph.D thesis, Historic Quarters Revitalization
(Case of Booshehr), By Pouya Doulabi

<https://www.weather-atlas.com/>

<https://en.climate-data.org/>

<https://www.britannica.com/>

<http://mirasbushehr.ir/>