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NAZHVAN PARK'S LANDSCAPE REGENERATION

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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.

Our garden stood on the shadowy side of wisdom
Our garden was the interweaving point of feeling and plants
Our garden was the point where looks Cage and Mirror met
Our garden was perhaps an arc of the green circle of happiness
On that day I was munching the unripe fruit of God in my sleep
I would drink water unphilosophically
I picked up mulberries unscientifically
As soon as the pomegranate cracked hands turned to jets of desire
As soon as the lark sung, the chest burnt from delight
now and then loneliness rubbed its face against the windowpane
desire would come and put its arms around the sense's neck
thought played
Like looked like a vernal rainfall, a plane tree full of starlings
Life then was a line of light and doll
An armful of liberty
Life then was a pond of music

Sohrab Sepehri

Abstract

Isfahan and ZAYANDEHROOD River are two memorable and beautiful names, always are with another and complementary of each other. Every where one say Isfahan, certainly this name along with nice and running water and by means of its bridges and parks that bring about several times as much its beauty. revives a pleasant landscape in the minds of the people. This river, has been undertake a very important rule in the formation of the city of Isfahan, In other words, this city indebted to ZayandeRood River to its life. Zayandehrud River in Isfahan is one of the most important permanent rivers in Iran, but Continuation of drought and decrease in water flow of Zayandehrood river during recent years (2009-2020) has caused the drying of this river in the city of Isfahan. The dryness of Zayandehrud River in Isfahan is affected by human interventions in natural conditions and climate change as well as improper resource management. The impact of this drought is seen in various human and natural aspects.

Nazhvan Park is one of the largest parks along the Zayandehrud River, which is a valuable natural heritage in the western region of Isfahan, and despite the population growth and Isfahan's great desire for development, which includes the destruction of gardens and agricultural lands. Fortunately, Nazhvan Park is far from extinction, and a collection of old gardens in Isfahan that have not been destroyed during urban development are located in this huge park. Due to the fact that many polluting industries are located in the west of Isfahan, this park plays a key role in cleaning the air in this area, which is why Nazhvan Forest Park is called the Respiratory Lung of Isfahan. but due to some problems. there are not alot actives daily and night life there. In this regard, the present project seeks to achieve solutions that attract people and provide comfort and tranquility for the people and meet the leisure needs of today's man-made people and to some extent reduce the visual adverse effects of the Zayandehrud River in times of drought with an ecological design approach. Furthermore, Nazhavan could be conceived as part of an integrated urban whole with considering the characteristics of ecological design as well as reflecting a holistic, integrated vision of the earth.

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1-1 Introduction

Eṣfahān, also spelled Isfahan, capital of Eṣfahān province and major city of western Iran. Eṣfahān is situated on the north bank of the Zāyandeh River at an elevation of about 5,200 feet (1,600 metres), roughly 210 miles (340 km) south of the capital city of Tehrān. It is a large city located almost in the center of today's Iran where the main north-south and east-west roads cross. It is estimated that the Isfahan metropolitan area has a population of about 4,000,000, making it the second most populous metropolitan area in Iran after the capital Tehran.

It is not well known when exactly Isfahan was first established as a city. But, it is known that its origins go back more than 1,500 years. While Isfahan grew considerably from the early 11th through the 18th century, it flourished particularly during the Safavid dynasty in the 16th century when it became the capital of the old Persia for the second time. Isfahan was once one of the largest cities in the world.

Isfahan's Imam Square, formerly known as the Naghsh-e Jahan (meaning portrait of the world) Square, is one of the largest city squares in the world. Around the square sit a number of world-famous marvels of Islamic architecture. The Imam Square is designated by UNESCO as a World Heritage Site.

A river called Zayandeh Rood (life-giving river) runs through Isfahan giving the city and its residents more life! Isfahan has a seasonal climates. Summers could be very hot, but not humid, and winters not terribly cold. The total annual precipitation rarely exceeds five inches.

Many visitors believe Isfahan is the most beautiful city in Iran and one of the most beautiful in the world. It features numerous tree-lined boulevards and flower gardens, miles of beautiful parks along the Zayandeh Rood river; 1300 year-old covered bazaars, bridges, palaces, mosques, and minarets. No wonder Isfahan is called nesf-e jahān meaning half of the world. The city attract hundreds of thousands of visitors from all over Iran and around the world each year. †

the Nazhvan Forest Park is one of the few gardens in Isfahan, which has been rather safe from expansion and development of the city and freshens the air of Isfahan. The word nazhvan consists of two words nazh, which means "poplar" in Persian and van, which is a Persian suffix for place. Therefore nazhvan means "a place for poplars". Nazhvan has an area of 1200 ha and is located in the western part of the city. It's the only remaining part of the green space in the suburban area of Isfahan. It plays the role of Isfahan's lungs and has a special importance from the bio-environmental point of view for the city. Zayanderud river flows through the middle of the garden and this is one of the distinguished features of Nazhvan that makes it different from other parks in Isfahan. As parts of the Project for prosperity of Nazhvan, the local government of Isfahan created facilities in Nazhvan as nearby recreational area like sport grounds, a swimming pool, a campsite, playgrounds for children, also facilities for horse droshky, horse sport, boating and cycling.

1-2 Geography

The Isfahan province covers an area of approximately 107,018 square km between 30°42' and 34°30' N latitude and 49°36' and 55°32' E longitude and is situated in the center of Iran. To its north, stand the Markazi (Central) Province and the provinces of Qom and Semnan. To its south, it is bordered by the provinces of Fars, and Kohgiluyeh and Boyer-Ahmad Province. Aminabad is the most southern city of Isfahan province just 2 km north of the border. To the east, it is bordered by the province of Yazd. To the west, it is bordered by the province of Lorestan and to the southwest by the province of Chahar Mahal and Bakhtiari.

The province consists of 52 hydrological units belonging to 9 basins and 27 sub-basins. Rivers are small and temporary, with the exception of the Zāyandarud, which totals 405 km in length, with an average slope of 0.3 percent, average annual discharge of 1,053 mcm, average annual precipitation of 450 mm, and a basin area of 27,100 km².

Isfahan Province can be divided into three topographic and climatic regions based on their distance from the Zagros mountains in the west and the great desert in the east: (1) Semi-humid and cold areas encompassing western and southern valleys, including the sub-provinces of Golpāyagān, K̄vānsār, Faridan, Fereydunšahr, and Semirom. (2) The arid areas along the edge of the central desert, including Nā'in, Ardestān, and Kāšān, as well as the area of desert climate in the easternmost villages of Anārak, K̄ur, and Jandaq. (3) The semi-arid region of the oasis of Isfahan—with the Zāyandarud as a main water resource—marked by a moderate climate and four distinct seasons, including the sub-provinces of Tīrān and Karvan, Najafābād, Lenjān, Mobāraka, Falāvarjān, K̄omeynišahr (formerly Mārbin), and Isfahan, as well as Šahrežā along the road to Fārs and Bor̄k̄vār o Meyma on the road to Qom and Tehran (for a detailed discussion, see 2, below). The average annual rainfall in the meteorological stations varies from 6.7 cm in the easternmost villages of K̄ur and Biābānak to 147 cm in the Kuhrang station; relative humidity varies between 25 and 62 percent.



Figure 1-1; Iran Location In The World Map



Figure 1-2; Isfahan Location In Iran

1-3 Climate

Isfahan experiences an arid climate, much like the rest of the Iranian plateau with little rainfall. It features cold winters with temperatures between -4.8°C and 15.7°C in January. Snow does fall at least once every winter. In contrast, summers can get hot with highs topping 38.9°C in July but with pleasant and nights just below 18°C . Heat waves do occur and the record high is 39.8°C.

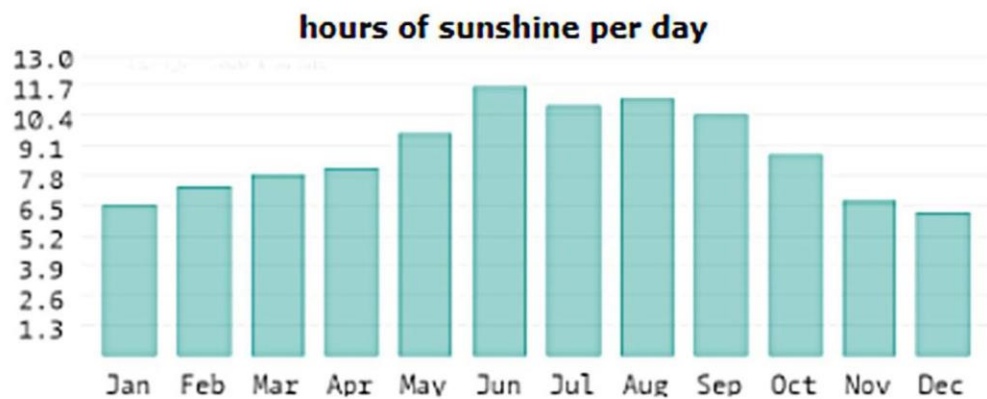


Figure 1-3; Hours of Sunshine per Day in Isfahan

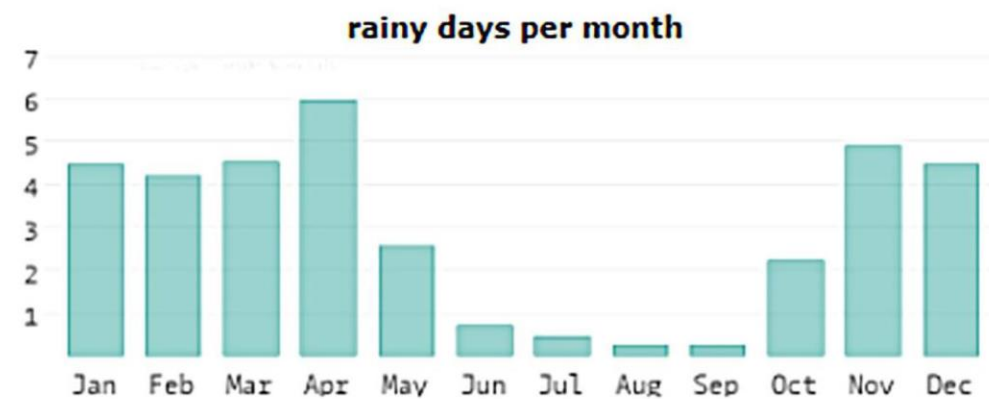


Figure 1-4; Rainy Days per Month in Isfahan

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Avg. Temperature (°C)	2.5	5.9	10.5	14.9	20.4	26.6	29.1	28.3	22.8	17.6	10.1	5.0
Min. Temperature (°C)	-4.8	-2.8	-2.9	1.1	9.3	17.3	17.8	18.8	13.5	8.6	0.7	-2.5
Max. Temperature (°C)	15.7	13.6	18.5	27.6	26.9	34.8	38.9	39.8	34.6	29.1	22.8	17.3

Figure 1-5; Avg. Temperature of Isfahan

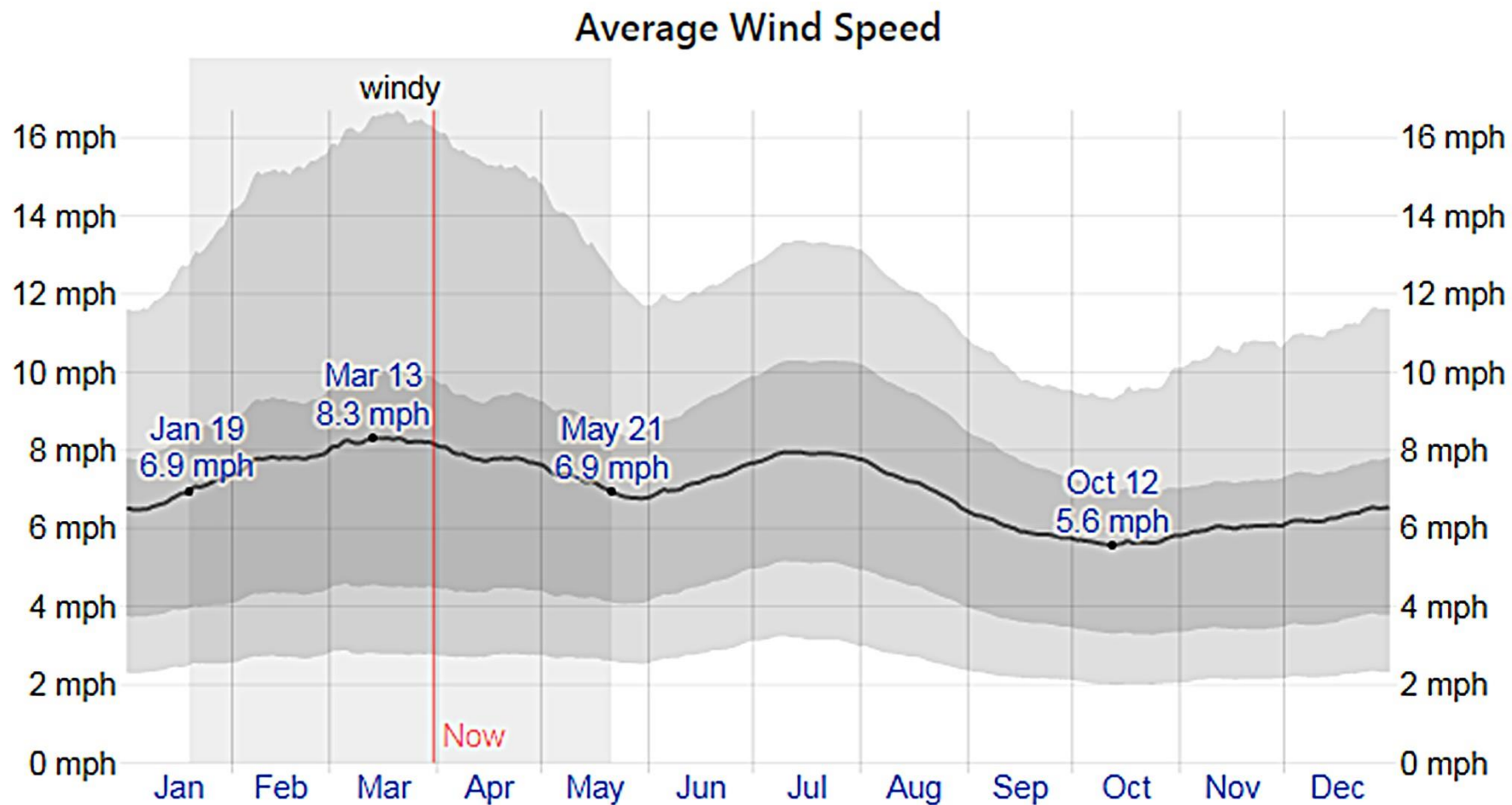
1-3 Climate

This section discusses the wide-area hourly average wind vector (speed and direction) at 10 meters above the ground. The wind experienced at any given location is highly dependent on local topography and other factors, and instantaneous wind speed and direction vary more widely than hourly averages.

The average hourly wind speed in Isfahan experiences mild seasonal variation over the course of the year.

The windier part of the year lasts for 4.0 months, from January 19 to May 21, with average wind speeds of more than 6.9 miles per hour. The windiest day of the year is March 13, with an average hourly wind speed of 8.3 miles per hour.

The calmer time of year lasts for 8.0 months, from May 21 to January 19. The calmest day of the year is October 12, with an average hourly wind speed of 5.6 miles per hour.



The average of mean hourly wind speeds (dark gray line), with 25th to 75th and 10th to 90th percentile bands.

Figure1-6: Avg. Wind Speed

1-4 History of Isfahan

Isfahan flourished from 1050 to 1722, particularly in the 16th and 17th centuries under the Safavid dynasty when it became the capital of Persia for the second time in its history under Shah Abbas the Great. Even today the city retains much of its past glory.

Isfahan first rose to international prominence as the capital of the great Seljuq Empire (1038-1194) which stretched from Central Asia to Syria. The Seljuqs had a huge impact on the cultural and architectural development of the city, and the consolidation of their empire was also significant in unifying a territory that had been competed for by diverse ethnic groups in central Asia for centuries; mainly, Arabic, Turkish, and local Iranian peoples. Under the Seljuqs, a new, uniquely Iranian, eastern Islamic architecture emerged in the city, and in particular, the traditional mosque layout (brought to Iran in 749 by its first Islamic rulers, the Abbasids) was replaced by a new design, based around four iwans (vast halls, open at one end), as represented in the Great Friday Mosque, the Masjid-i Jami. The Seljuq Turks excelled in the design of very large vaulted spaces and in the decorative articulation of buildings inside and out using complex brick patterns, and promoted the custom of organizing important urban buildings around an open, a large rectangular town square, known as a maidan.

The Safavid Empire (1502 - 1736) saw a further development of Isfahan, although the city was not chosen straight away as the imperial capital. Shah Abbas I, who reigned from 1588 to 1629, made the decision to move the capital from Qazvin to Isfahan in 1590, motivated both by the city's enormous economic potential and position at the crossroads of trade, and by concerns for security, given its central location at a safe distance from troubled borderlands. Favourable historical associations also set Isfahan apart from other Iranian cities – as the Seljuq capital, it associated Abbas with an illustrious dynasty of the past.

The Safavids were a local, Iranian dynasty. It was not until the reign of Shah Abbas I that the city was renovated in a style that broke with Seljuq tradition, with the construction of many of the monuments and buildings for which Isfahan is renowned today. Wealth and labour were used to build bridges, roads and caravanserais to encourage and facilitate trade. The imperial household was transferred there, and followed by merchants and artisans who relocated along with them.

Isfahan is famous for its Perso-Islamic architecture, grand boulevards, covered bridges, palaces, tiled mosques and minarets. Isfahan also has many historical buildings, monuments, paintings, and artifacts. The fame of Isfahan led to the Persian proverb "Esfahān nesf-e-jahān ast": Isfahan is half (of) the world.



Figure 1-7; Naghshe Jahan Square, Isfahan

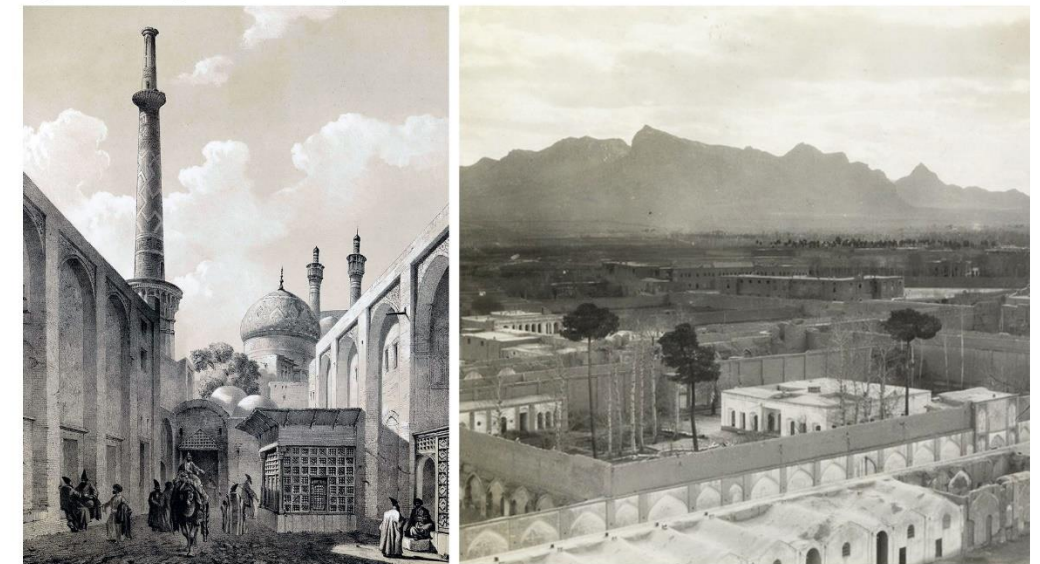


Figure 1-8; Ali minaret, 1840, drawing by Eugène Flandin | Figure 1-9; Isfahan in 1924

1-5 Culture of Isfahan

Population:

According to the 1996 census, Isfahan Sub-province was comprised of eight cities, 19 rural districts, and 531 inhabited settlements. Of a total population of 1.61 million, 86.8 percent lived in urban areas. Furthermore, 90.5 percent of the urban population of Isfahan Sub-province were living in the city of Isfahan, with the remainder living in the other seven cities of the sub-province. After Isfahan, the most populated cities in Isfahan Sub-province were K̄orāskān with a population of 61,211, and the city of Renān with a population of 41,819. The smallest city in the sub-province was Kuhpāya with a population of 3,650.

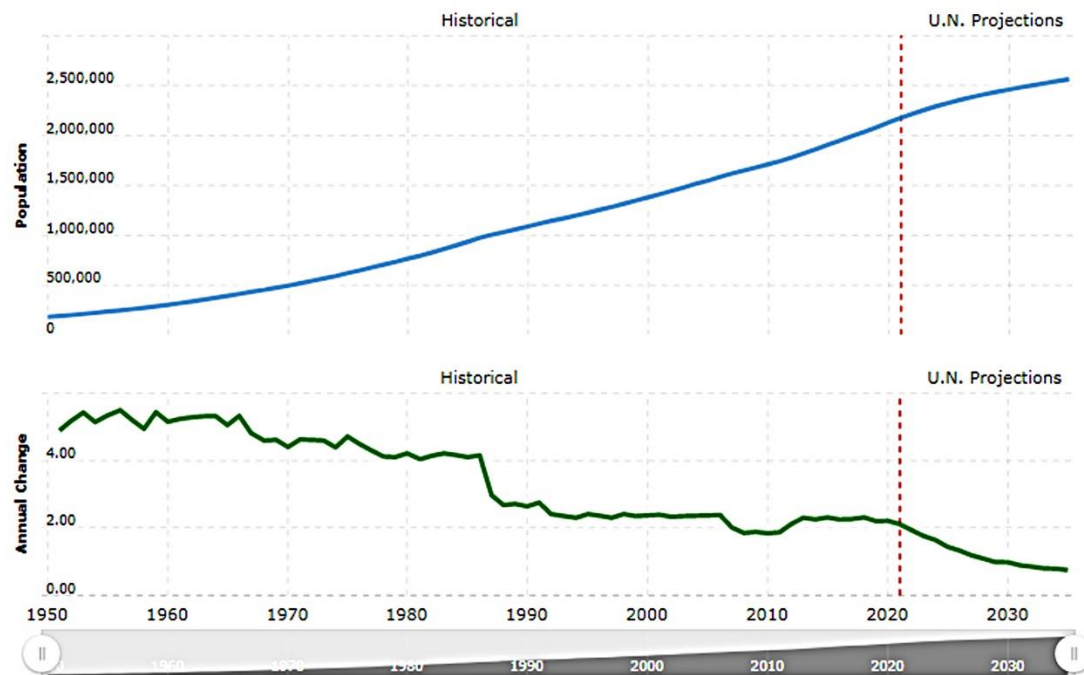


Figure1-10; Population and Annual Change Graph in Isfahan

Language:

The official language of the province is Persian, though different ethnic groups and tribes abide by their own language such as Judeo-Persian, Armenian, Georgian, Qashqai Turkic or Bakhtiari Lurish.

Religion:

ISFAHAN, city in Iran on the route from Teheran to the Persian Gulf. The origin of the Jewish settlement in Isfahan, one of the oldest in Persia, has been ascribed by Pehlevi, Armenian, and Muslim sources to various early historical periods.

Inspite of the fact that Idominated religion in Isfahan is Muslim, the new Jolfa district of Isfahan remains a heavily Armenian-populated district, with Armenian churches and shops, the Vank Cathedral being especially notable for its combination of Armenian Christian and Iranian Islamic elements. It is still one of the oldest and largest Armenian quarters in the world.



Figure1-11; Mosque in Isfahan

1-6 Tourist Attraction

Isfahan is an ancient city in the center of Iran located about 340 km south of Tehran. Isfahan is the capital of Isfahan Province and the Persians call it "Nesf-e-Jahan", meaning "Half the World". In terms of population, Isfahan is Iran's third largest city after Tehran and Mashhad. Isfahan is located in a semi-desert region near the Zayandeh Rud River. Isfahan is considered as a popular tourist destination and a major cultural and economic center of Iran. The city enjoys a temperate climate and regular seasons. Isfahan province has some 150 hotels, 444 eco-lodge units, 70 traditional hotels, 150 inns, 230 guest houses. Soaked in a rich history and culture, Isfahan was once a crossroads of international trade and diplomacy in Iran. Now, it is one of Iran's top tourist destinations for good reasons. The ancient city is filled with many architectural wonders such as unmatched Islamic buildings, bazaars, museums, Persian gardens, and tree-lined boulevards. It's a city for walking, getting lost in its mazing bazaars, dozing in beautiful gardens, and meeting people.



Figure1-12; Naghshe Jahan Square as One of the Most Important Tourist Attraction of Isfahan

Esfahan is one of Iran's most important industrial centres. Surrounded by grasslands, it is situated at the banks of the Zayandeh-Rud river, from which water is drawn for the cultivation of fruit and vegetables at the outskirts of the city. Modern economy in Isfahan is dominated by the textile industry, petro chemistry, mechanical engineering and a great steelworks. Its great historical monuments have turned Esfahan into one of the most important tourist attractions in Iran. It is visited by several million people each year. The bazaar on Imam Square was and still is the centre of urban life and trade. Traditional crafts such as carpets, wooden inlay works, miniature paintings, coppersmith works, and traditionally hand-printed cotton cloths are on display.



Figure1-13; Si-o-se Bridge

1-7 Population

Population in Urban Area: 2,170,567

World: 247th Asia: 133rd Iran: 3rd

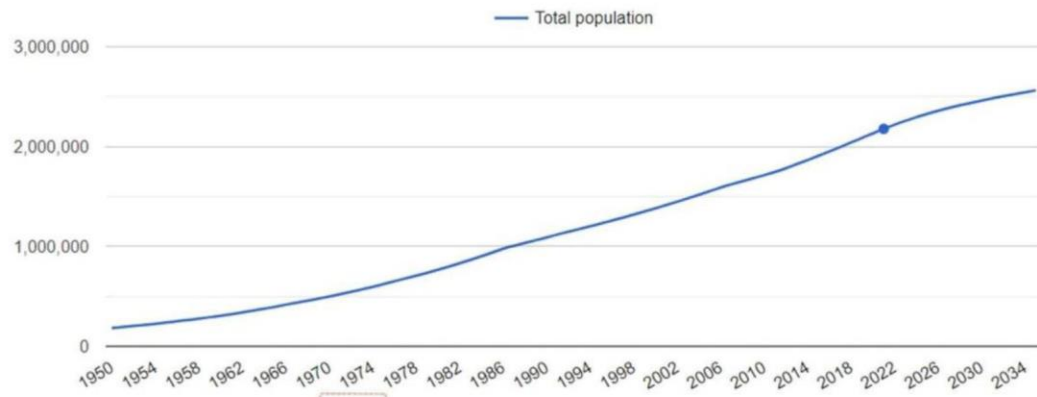


Figure1-14; Isfahan Urban Area Population Graph

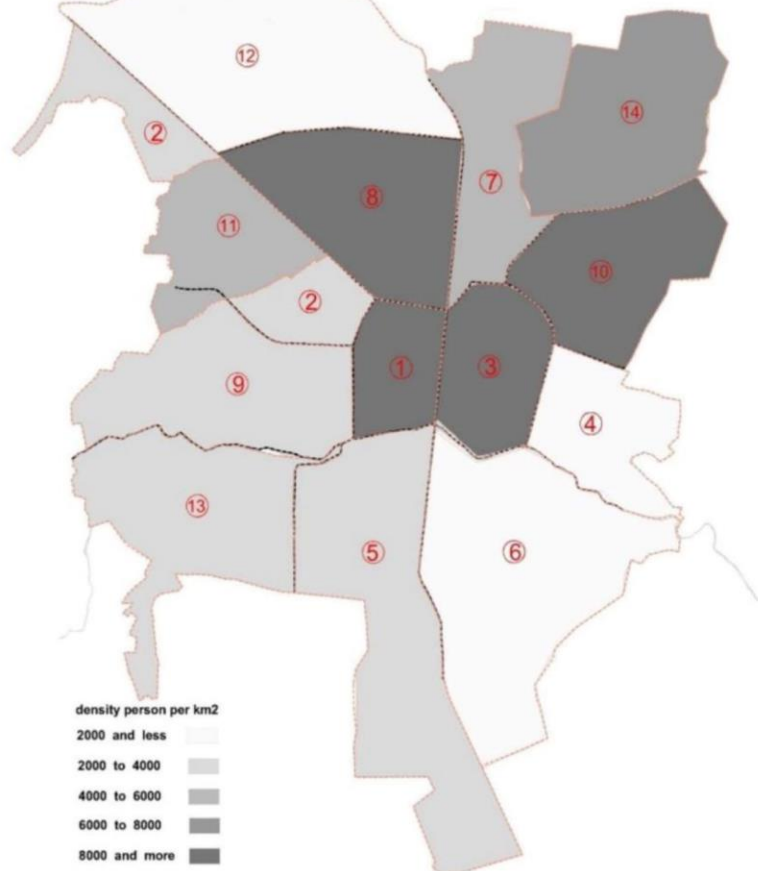
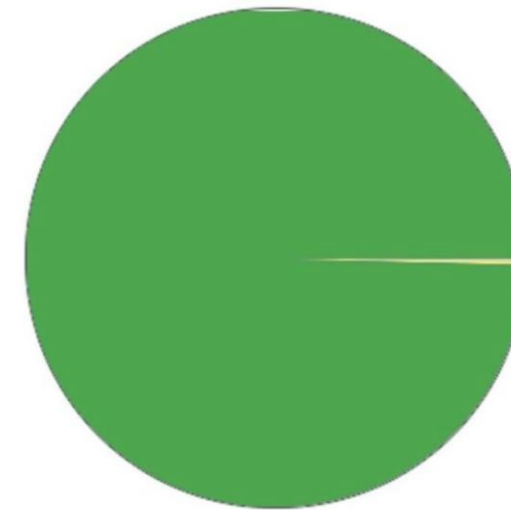
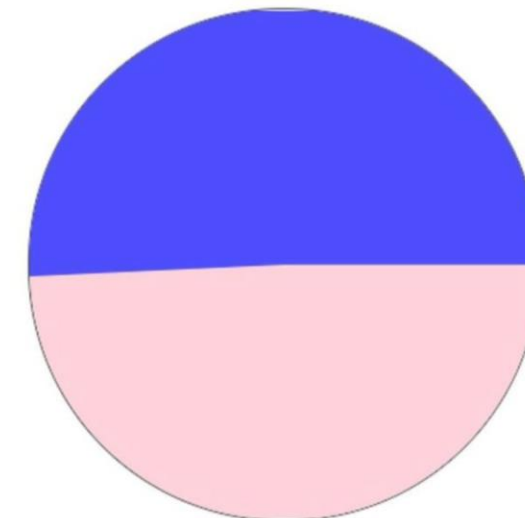


Figure1-15; Population Density of Municipality Districts in Isfahan



- Muslim (99.61%)
- Christianity (.02%)
- Zoroastrian (.17%)
- Jewish (.02%)
- Other (.12%)
- Not Stated (.06%)

Figure1-16; Religion in Isfahan Province (2016)



- Male (50.76%)
- Female (49.24%)

Figure1-17; Demographic Breakdown by Sex in Isfahan Province (2016)

1-8 Age of Population

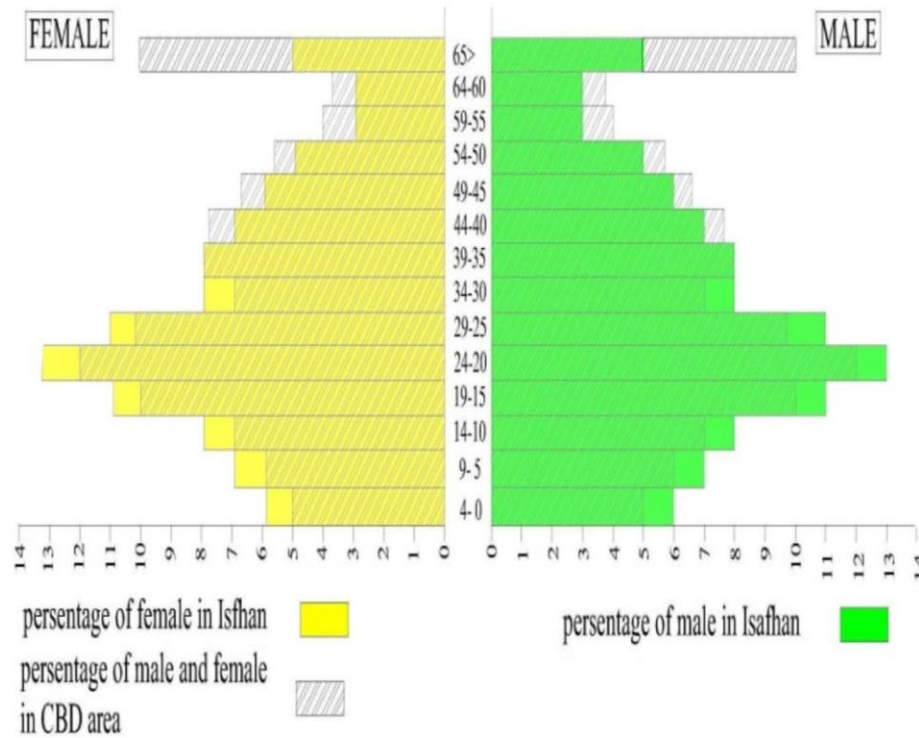


Figure 1-18; Age and Sex Pyramid of Isfahan City and CBD Area

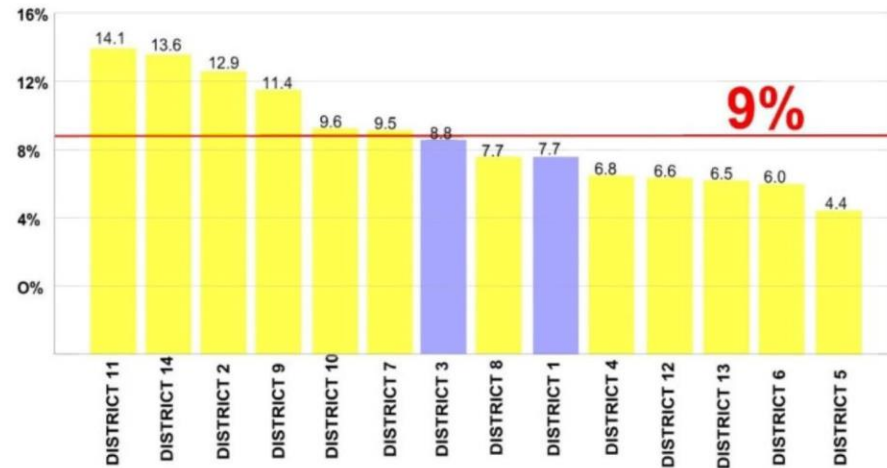


Figure 1-19; Literacy Rate in The Different District

In terms of age structure, 36.7 percent of the population was under the age of 15, while senior citizens account for 4.8 percent. 35 percent and 4.5 percent, respectively, in urban areas and 38.9 percent and 5.6 percent in rural areas.

Year	Population 10 years and more	Activity rate			Non activity rate			
		Employed	Unemployed	Total	Student	Homemaker	Income recipients	Others
1966	290269	39.2	1.4	40.6	19	33	6.1	1.3
1976	481373	36.8	1.6	38.4	26.4	30.7	3.5	1
1986	694573	33.8	4.9	38.7	22.3	32.8	2.7	3.5
1996	997693	30.8	2.8	33.6	30.2	28.7	4.3	3.2
2006	1376004	35.4	3.9	39.3	22.7	26.6	7.1	4.3

Figure 1-20; Employment Structure in Different Decades

Municipality district	Marital status				No. of response
	Married	Widow	Divorced	Not married	
1	37443	4040	611	23444	151
2	28136	1718	230	16555	60
3	56435	5866	931	35157	212
4	59342	3498	666	35474	206
5	70311	4876	1097	53043	271
6	54972	3967	816	35733	212
7	64103	3876	757	38609	196
8	103954	5747	1260	64616	563
9	35359	2638	344	20839	176
10	97941	5459	981	58517	412
11	47851	2440	694	29469	150
12	55342	2686	706	36667	282
13	70445	3312	631	43473	182
14	809247	51744	9925	508650	3180

Figure 1-21; Marital Status in Isfahan Municipality Districts

Municipality	Mean	Medium	House hold	Sex ratio
1	31.7	34.1	3.3	97.7
2	26.6	29.3	3.7	106.2
3	30.4	33.3	3.4	100.6
4	28.8	31.5	3.5	102.9
5	28.3	31.8	3.6	100.2
6	29.9	33.1	3.4	102.3
7	25.3	27.7	3.8	105.4
8	27.2	29.7	3.7	103.2
9	28.2	30.9	3.5	104.8
10	26.9	29.6	3.7	105.6
11	25.4	28.2	3.8	106.9
12	26.5	28.6	3.7	104.9
13	27.2	29.8	3.8	113.6
14	23.2	25.9	4	106.6
Isfahan	27.8	30.3	3.6	104.1

Figure 1-22; Age and Sex Ratio in Isfahan Municipality Districts

1-9 cycle of the Zayandehrud River

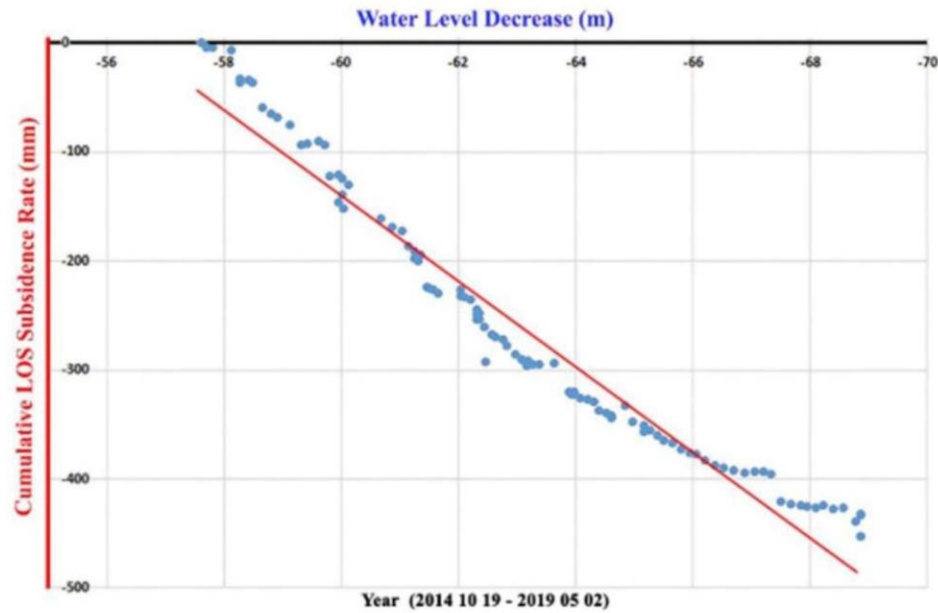


Figure1-23; Land Subsidence in Isfahan and Water Level Decrease Rate Between Years 2014-2019

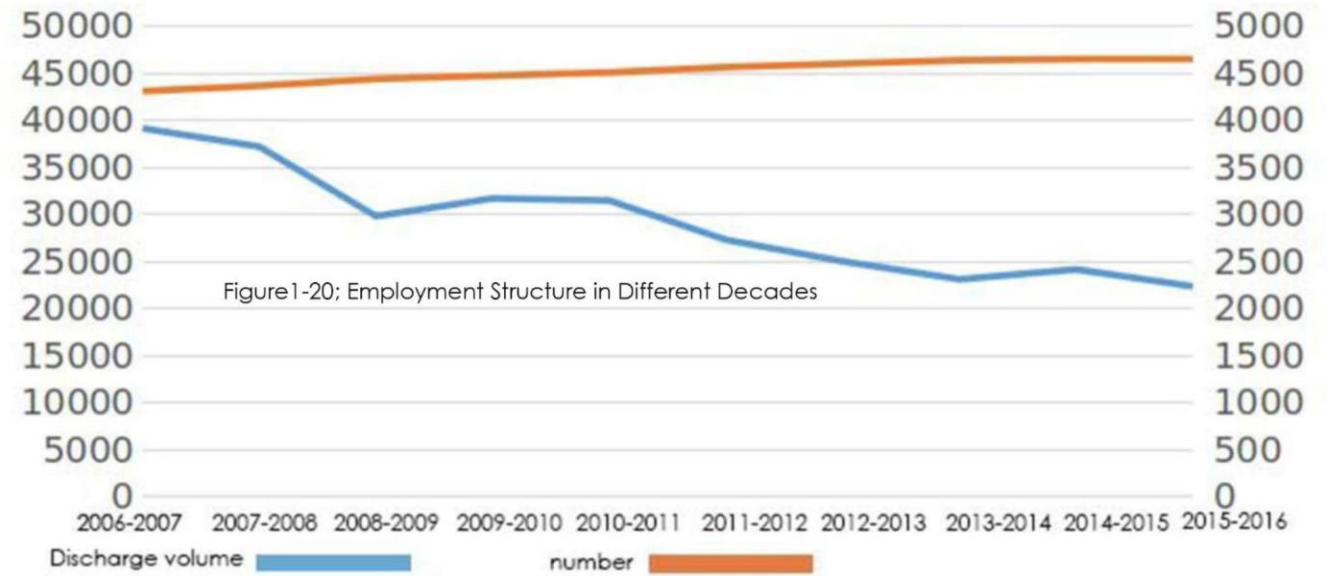


Figure1-20; Employment Structure in Different Decades

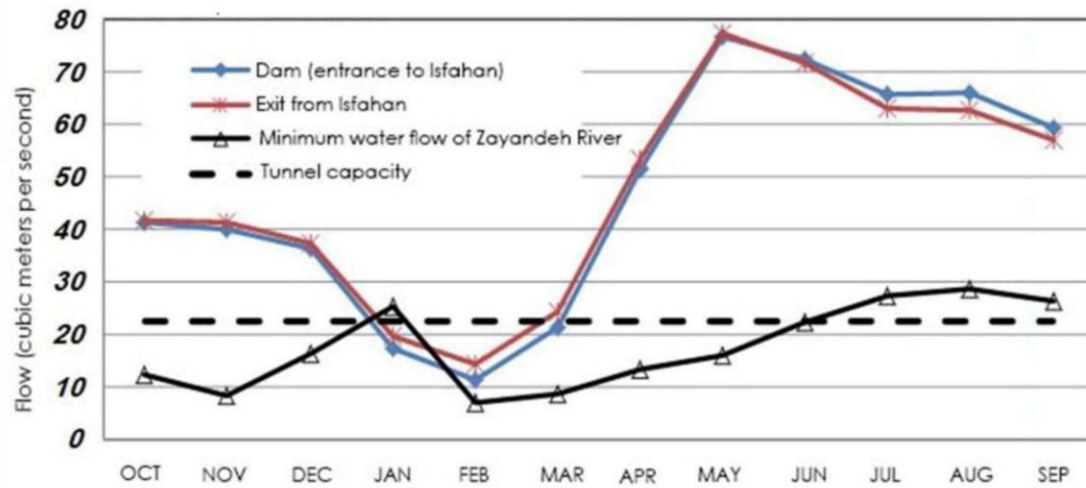


Figure1-24; Monthly Comparison of Incoming Water Flow to Isfahan Province and Outgoing from Zayandehrud Dam in The Period 1973-2000

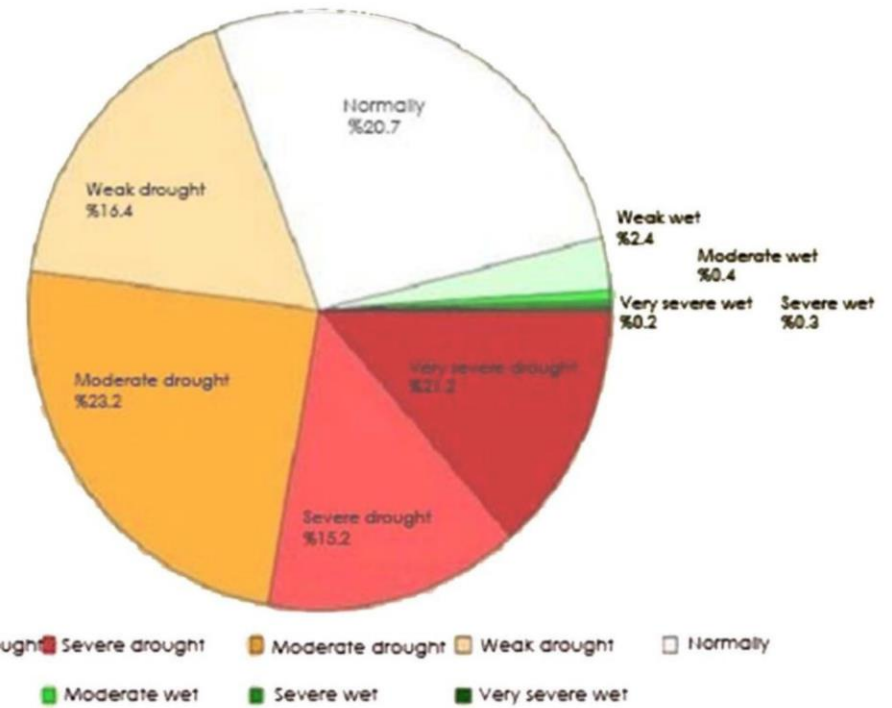


Figure1-25; Reduction of Water Wells in Zayandehrud River Basin

Figure1-26; Percentage of Area Affected by Drought Based on The Sepi Index for a Period of Ten Years Until The End of April 2020 in Isfahan Province

1-10 Reading the City

1-10-1 Three Crucial Stages of Isfahan Physical transformation

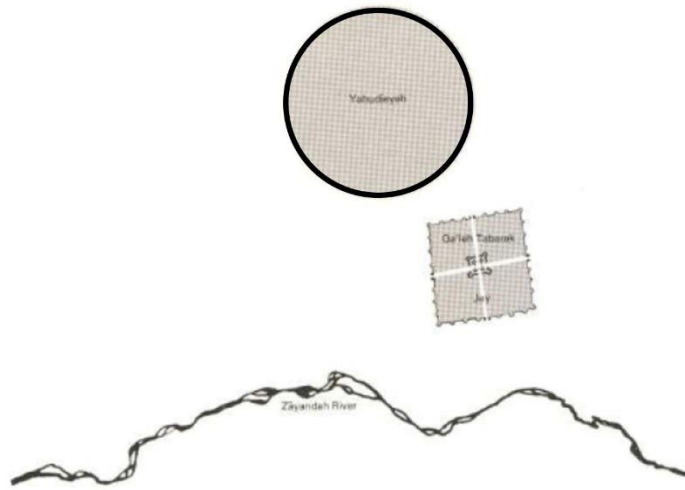


Figure1-27; The two urban cores of Isfahan in the 7th century

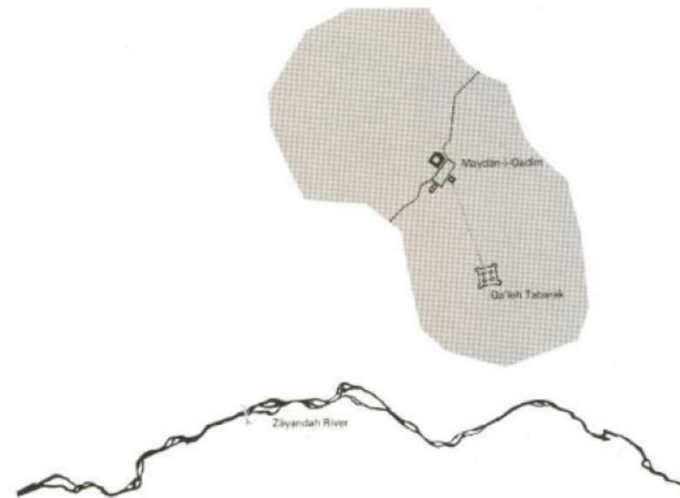


Figure1-28; The expansion of the city of Isfahan during the Seljuq Dynasty, 12th century

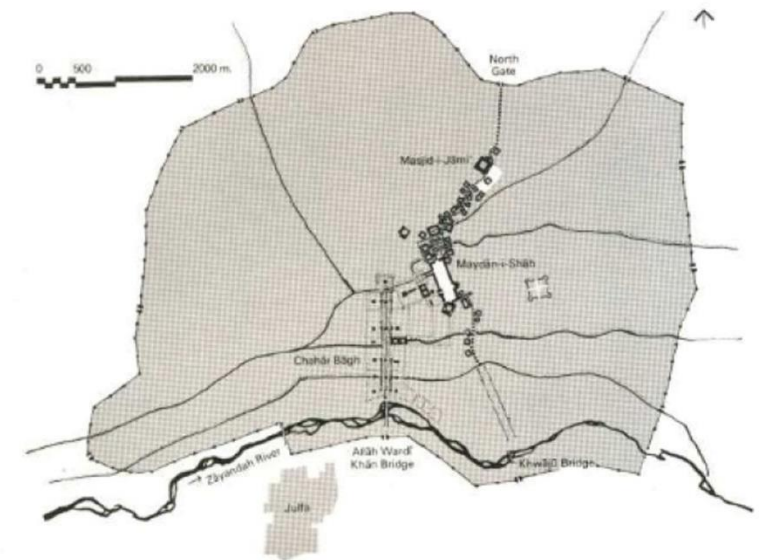


Figure1-29; The expansion of Isfahan during the Safavid Dynasty, 16th century

1-10-2 Water Channel (Madi)

Maddies distinguish Isfahan from other cities of Iran and somehow they give identity to central parts of city and distinguish these parts from new districts. Maddies have an important role in forming Safavid city therefore; they perform as an element of urban design. The relationship between Maddies network and different parts of the city as well as the role of them in relation with city structure and fabric are remarkably noticeable.

Maddies have defined green axis in organic fabric of Isfahan, in alleys and passages, which has changed Isfahan to a garden city in many people opinions. Moreover, Maddies and branched gutters are expanded like a network all over the city and provide security against natural disasters

Maddies are used in structural design of Isfahan as following:

1. In Charbagh axis as they are truly designed to create geometry-linear urban space.
2. In other pathways such as alleys which move windingly towards out of the city



Figure1-30; Schematic map of Isfahan's water channel (Madi) system, the Maddies made an organic design in the city

1-10-3 Chahar-Bagh Design

Safavid designer built Charbagh Street as major new city axis. Charbagh had used to connect new and old sections of city. Charbagh had created as the most important element of Isfahan urban design and a Safavids invention in the new city section. This street has designed as the axis of Isfahan Garden City therefore; it has conformed to special features of Persian Garden axis. It has formed according geometrical order and pre design map. Unlike most of the old streets in the old Isfahan, this avenue was a wide, straight boulevard with two rows of large trees and a stream in the middle. This boulevard was created as a north-south extension of the old city, continuing to the south, where an extensive complex of Safavid gardens was created. The glorious bridge of Sio-seh Pol across the Zayande River was used to connect Charbagh to the south of the river

Sheikh Bahaie designed Chahar-Bagh and the royal gardens beside them in a planned and geometrical form. These gardens are all located as green patches next to each other. On the northeastern part of these gardens, the great square of Naghsh-e-Jahan is located. From the northern part of the square, the old bazar of the city is located. Again, this part of the city is in an organic form, which belongs to the old part of the city

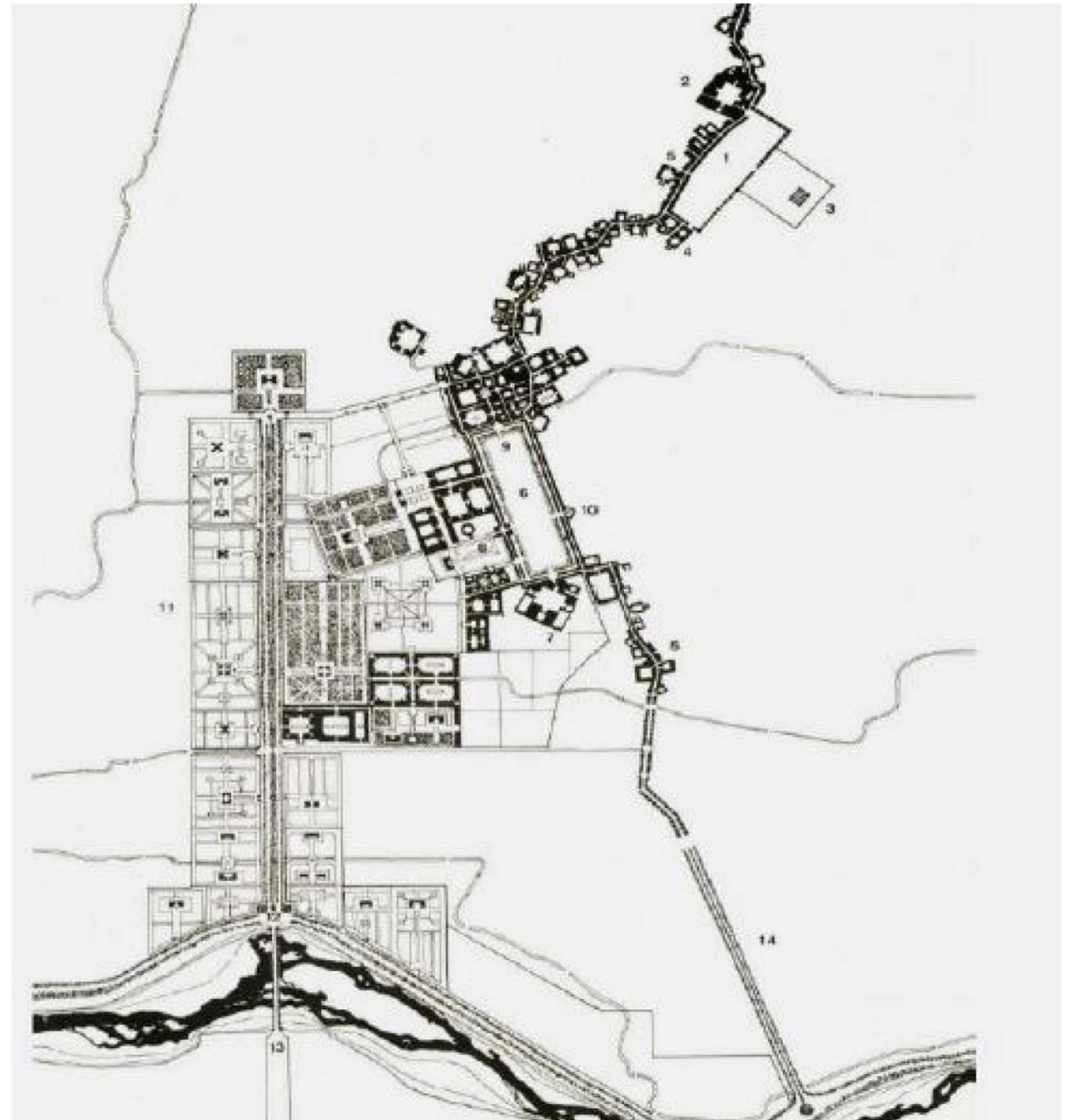


Figure1-31; The Planned form of Chahar-Bagh and the intersection to Zayande River

1-10-4 Greenway Analysis

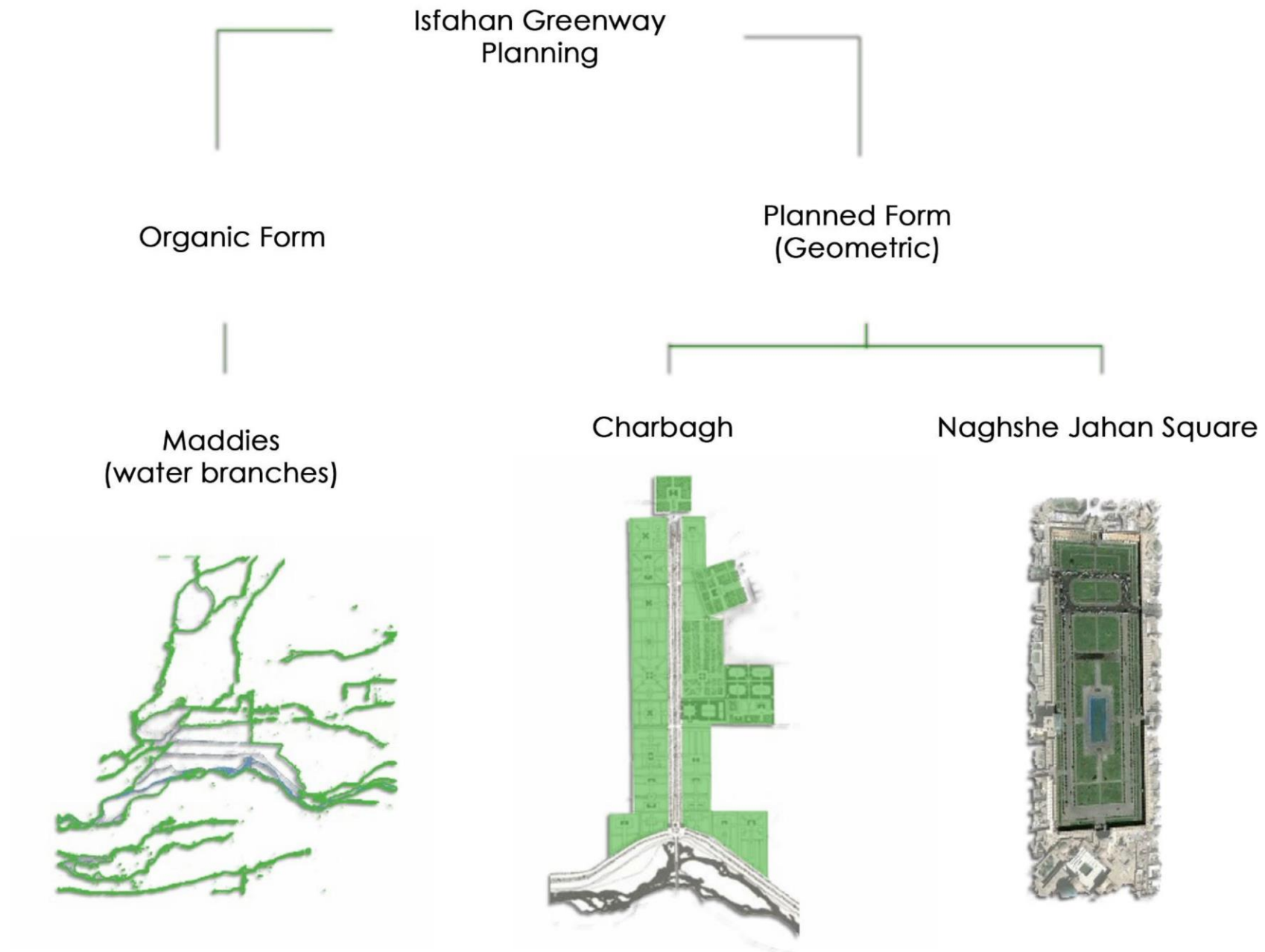
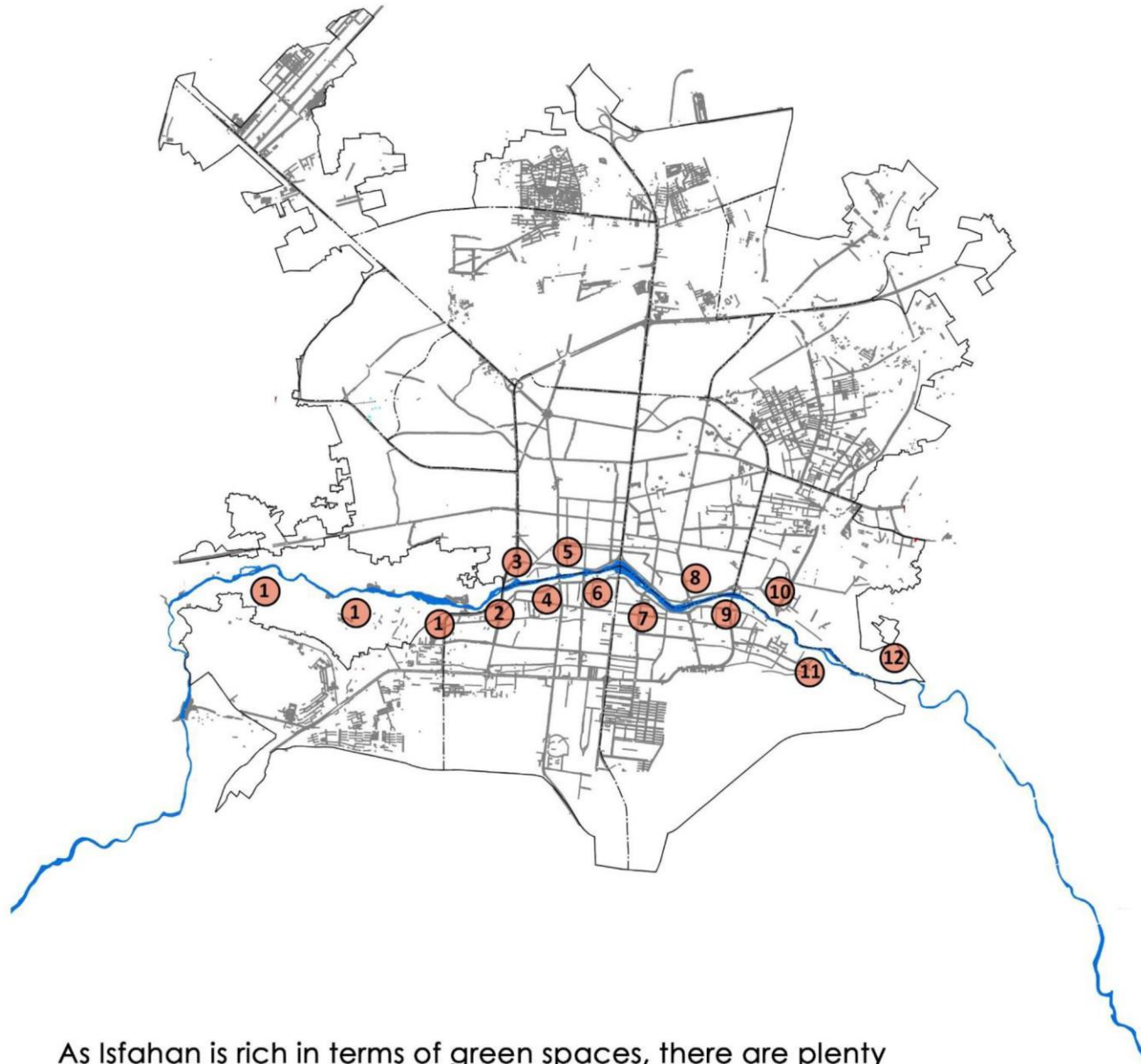
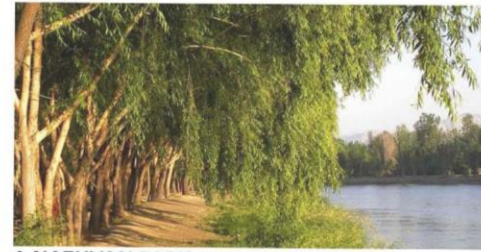


Figure1-32;The Form of Isfahan's Greenway Planning in Safavid Period

1-10-5 Existing Green Along River



As Isfahan is rich in terms of green spaces, there are plenty of green spaces and parks along Zayandehrud river.



1. NAZHVAN PARK



7. SAADI PARK



2. MARNAN PARK



8. MOSHTAGH PARK



3. FELEZI BRIDGE PARK



9. ISARGARAN PARK



4. MELLAT PARK



10. FLOWER GARDEN



5. SIO SE BRIDGE PARK



11. PARDIS PARK

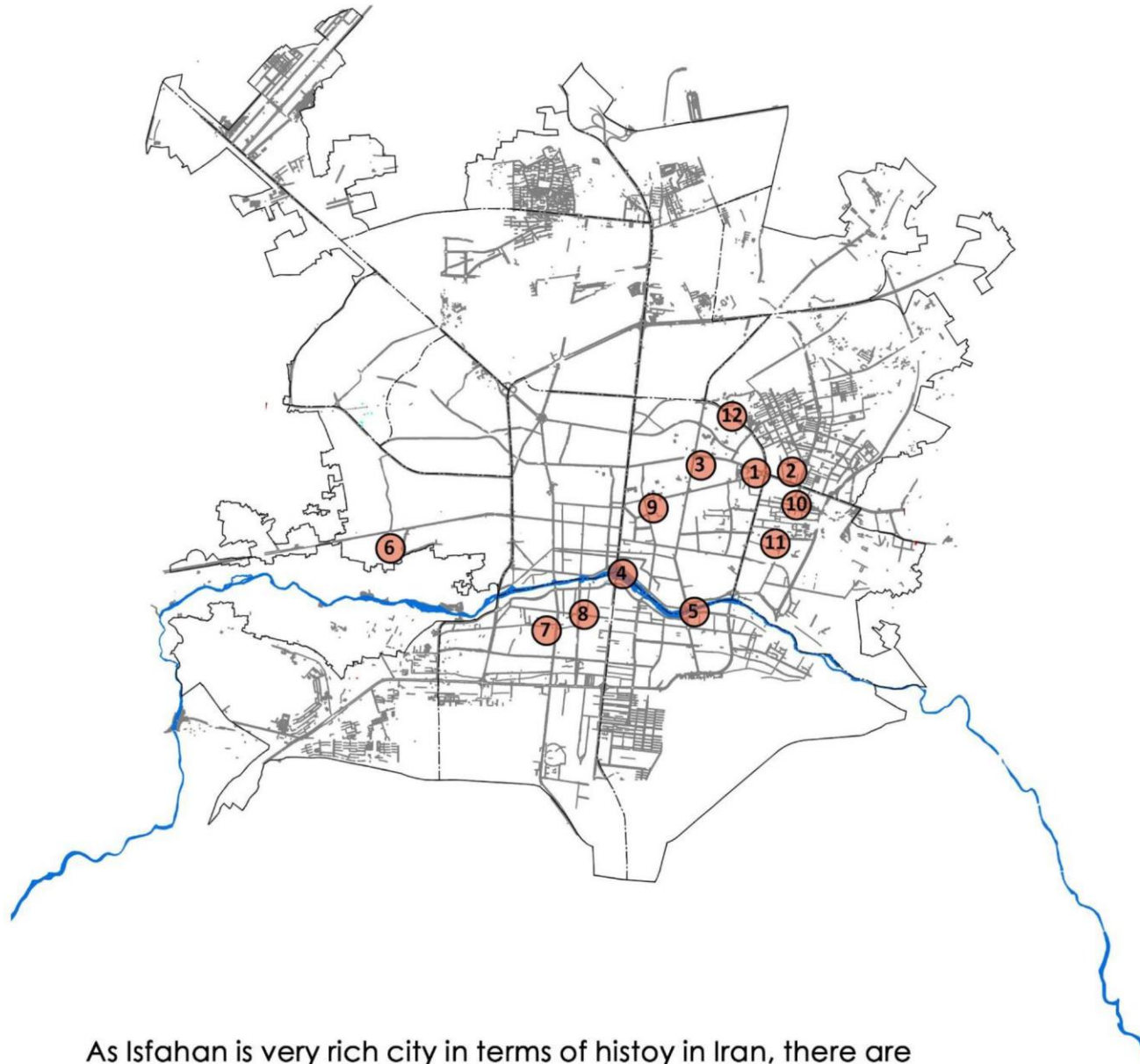


6. AIENE KHANE PARK



12. JAVAN PARK

1-10-6 Historical places



As Isfahan is very rich city in terms of history in Iran, there are many historical places in the city which are related to different historical periods.



1.AALI QAPU PALACE



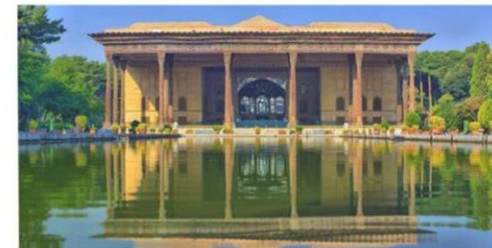
7.VANK CHURCH



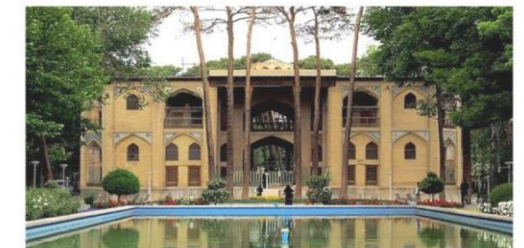
2.NAQSH-E JAHAN SQUARE



8.JOLFA SQUARE



3.CHEHEL SOTOON PALACE



9.HASHT BEHESHT PALACE



4.SI O SE POL BRIDGE



10.SHEIKH LOTFOLLAH MOSQUE



5.KHAJOO BRIDGE



11.MASHROUTEH HOUSE OF ISFAHAN



6.MONAR JONBAN



12.HAKIM MOSQUE

1-10-7 History Timeline of Isfahan



Achamaenids, Seleucids, Sassanids

This period covers the foundation of the Persian Empire under Cyrus to the conquest of Iran by the Arabs. there are no monuments from this period in isfahan.



Seljuks

Many of the most important monuments in Isfahan date from this time including most of the finest minarets and the great dome of the Friday Mosque which was erected by Nizam al-Mulk.



Muzaffarids

The Muzaffarid period in Isfahan is chiefly remarkable for the Minarets of Dardasht.



Quiunlus

The Darb-e-Imam dates from the period when the Quiunlus ruled Isfahan as does the series of panels within the main eivan of the Friday mosque.



Afghani Interregnum

The only extant work from this time is a mehrab in the part of the Friday Mosque known as the "Porch of Omar".



Qajar

The Masjed-e-Seyyed dates from this period as does some of the finest domestic architecture in Isfahan, but the movement of the capital first to Shiraz and then to Tehran brought an end to the period of building for which Isfahan is so famous

pre 651

1050 - 1220

1335 - 1393

1453 - 1501

1725 - 1729

1753 - 1925

1000 - 1050

1220 - 1335

1393 - 1453

1501 - 1725

1729 - 1753



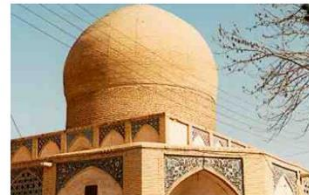
Deylamids and Buyids

These were the first indigenous Iranian dynasties following the Arab conquest.



Il Khans

Oljeitu is the most significant of these as far as Isfahan is concerned and is responsible for the magnificent stucco mehrab in the Friday Mosque.



Timurids

The Tomb of Shahshahan dates from this period as does some of the work on the principal Eivan of the Great Friday mosque.



Safavids

Shah Ismail's grandson, Shah Abbas I, made Isfahan his capital created the city as we know it today. This period has left a tremendous heritage of architectural splendour in the city.



Nader Shah

The Afghans were defeated by Nader Khouli who is thought to have commissioned the murals in the palace of Chehel Sotoon.

1-10-8 History Timeline- Safavid Empire



Naqsh-e Jahan Square

UNESCO's World Heritage Sites

The square is surrounded by buildings from the Safavid era. The Shah Mosque is situated on the south side of this square. On the west side is the Ali Qapu Palace. Sheikh Lott Allah Mosque is situated on the eastern side of this square and at the northern side Qeysarie Gate opens into the Isfahan Grand Bazaar. area: 89,600 square metres



Sheikh Loffollah Mosque

is one of the masterpieces of Iranian architecture that was built during the Safavid Empire, standing on the eastern side of Naqsh-i Jahan Square, Esfahan, Iran. The purpose of this mosque was for it to be private to the royal court,For this reason, the mosque does not have any minarets and is smaller.



Shah Mosque

is a mosque located in Isfahan, Iran. It is located on the south side of Naghsh-e Jahan Square. It was built during the Safavid dynasty under the order of Shah Abbas I of Persia.



Khaju Bridge

is one of the historical bridges on the Zayanderud. Serving as both a bridge and a weir, it links the Khaju quarter on the north bank with the Zoroastrian quarter across the Zayanderud. It also served a primary function as a building and a place for public meetings



Ali Qapu Palace

UNESCO's World Heritage Sites

The palace is forty-eight meters high and there are six floors, each accessible by a difficult spiral staircase. In the sixth floor, Music Hall, deep circular niches are found in the walls, having not only aesthetic value, but also acoustic. Ālī Qāpū is regarded as the best example of Safavid architecture and a symbol of Iran's Islamic heritage.

1598-1629

1603 -1619

1630

1650

1660

1599-1602

1627

1647

1670



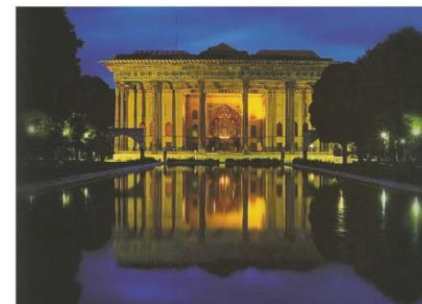
Si-o-seh pol

It serves as a place of passage, but also as a dam to regulate the course of the river



Bedkhem Church

One of the most important historical churches of the city, it belongs to the Abbas I era. The church is located in the Julfa square near Saint Mary Church. The Bedkhem church was built by an Armenian merchant named Khaje Petros



Chehel Sotoun

UNESCO's World Heritage Sites

The name, meaning "Forty Columns" in Persian, which is a Persian pavilion in the middle of a park at the far end of a long pool, in Isfahan, Iran, built by Shah Abbas II to be used for his entertainment and receptions



Hasht Behesht

means "the Eight Heavens" in Persian, is a 17th-century pavilion in Isfahan, Iran. It was built by order of Suleiman I, the eighth shah of Iran's Safavid Empire, and functioned mainly as a private pavilion. It is located in Isfahan's famous Charbagh Street.It was also the first modern school in Isfahan was called His Majesty's School

1-10-9 Polo Match (Chowgan)

Chovgan, Chowgan or Chogan (Persian: چاگ وچ čōwgan), is a sporting team game with horses that originated in ancient Iran (Persia). It was considered an aristocratic game and held in a separate field, on specially trained horses. The game was widespread among the Asian peoples. It is played in Iran, Republic of Azerbaijan and among Tajiks and Uzbeks. It was later adopted in the Western World, known today as polo.



Figure1-33; Persian painting of Polo (Chowgan)

POLO IN THE HISTORY, CULTURE AND ART OF IRAN

Playing polo is one of the oldest and most beautiful sports in ancient Iran and is a refreshing and joyful sport that strengthens the human body and soul and is also known as the world's first team sport. A sport in which, unlike other ancient sports, humans were not against each other and competed over a ball. Inverse today, polo has a very high status among the Iranian people, and Iranians used every opportunity to ball and rejoice. In the ancient Nowruz ceremonies and national celebrations and weddings, this game was played continuously and prizes were awarded to the winning players. Polo game has been reminiscent of the sweet memories of people's lives, and for this reason, the role and drawings of this passionate game can be seen in many Iranian cultural, artistic and handicraft works with innovative methods. This game disappeared in Iran at the beginning of the 19th century, when incompetent kings came to power and destroyed Iranian culture. Even after Nasser al-Din Shah, Did not say any name of this sport.

until the early 1950s, when a movement began to modernize all equestrian disciplines. After Pahlavi came to power, polo flourished again due to his relationship with the Europeans. The game initially had a military and war title, in which Iranian riders displayed the talents of their war horses. Iran has registered polo in its name in the UNESCO World Intangible Heritage.

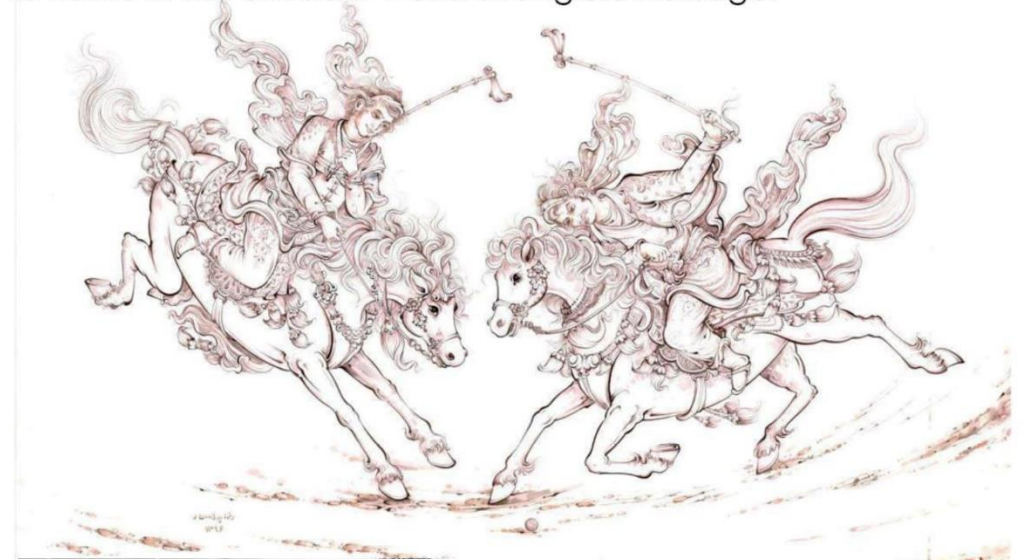


Figure1-34; Persian painting of Polo (Chowgan)

1-10-10 Polo Match (Chowgan) in Isfahan

Towards the end of the 16th century, the capital of the Safavid Empire was moved to Esfahân from Qazvin, and Shah Abbâs the Great decided to redesign the city to make it the most beautiful in the world. Isfahan Naghsh Jahan Square was built for polo. He planned his city around a vast, central square, the or Naqsh-e Jahân. The maydân, which served as the royal polo ground, was about 500 yards long and 150 yards wide and at each end were stone goal posts eight yards apart, which is today the regulation width of a polo gal. At approximately midfield the Shah built a seven-story palace, Âli-Qâpu.



Figure1-35; Naghshe-jahan Square Designed for Playing Polo

As the central feature of the palace his architects designed a towering royal gallery, its roof supported by 18 graceful, wooden columns. At the south end of the field just beyond the goal posts Shah Abbas constructed the magnificent Masjed-Shah, whose mosaic domes and minarets make it one of the most beautiful in the World. Beyond the northern goal is the elaborately decorated Qaysariya Gateway leading to the Royal Bazaar. The stone goal posts, as well as the palace, the mosque and the bazaar can still be seen today, although ornamental pools and gardens have replaced the field where ponies galloped and mallets flayed centuries ago. The Bazaar in Esfahan offers, in addition to the normal wares of an Eastern market, an astonishing variety of souvenirs decorated with old polo scenes copied from Persian miniatures. One can note at sites like Esfahan and in ancient art and literature certain differences in polo of past centuries and the game as we know it today. The fields were often longer and narrower.



Figure1-36; Polo on Naghshe-jahan Square in Last Years

1-10-11 Natural Market of Nazhvan Park

The fields, gardens, orchards and local markets of Nazhvan Park have become colorful natural hangouts during these years, which Isfahanian people go to buy fruits and vegetables, and sometimes dairy products and homemade vinegar. Rice, cucumber, and okra farms with pavilions among them, private orchards, and orchards that are open to the public for the sale of fruits and vegetables, dairy products, juices, and local vinegars. This is a picture that can be seen on weekends in Nazhvan Park. Farmers plant and sell the specific products of that season in each season. The sellers of these products are mostly local farmers and do not allow strangers among themselves.

According to one of the sellers, people come to Nazhvan to buy their necessities, because vegetables and fruits are more expensive in the city and the products of this area are fresher, healthier and more organic. "The agricultural products in the city are irrigated with sewage, but we use well water," he said. Also he said, all kinds of customers come to them, because most people come to this area for sightseeing and also shop next to it.



Figure1-37; Local Natural Canopies Next to Farms



Figure1-38; Local Natural Canopies Next to Farms



LEGEND:
PARK
AGRICULTURAL LANDS
NATURAL MARKET
ZAYANDEHRUD RIVER
PUBLIC GREEN

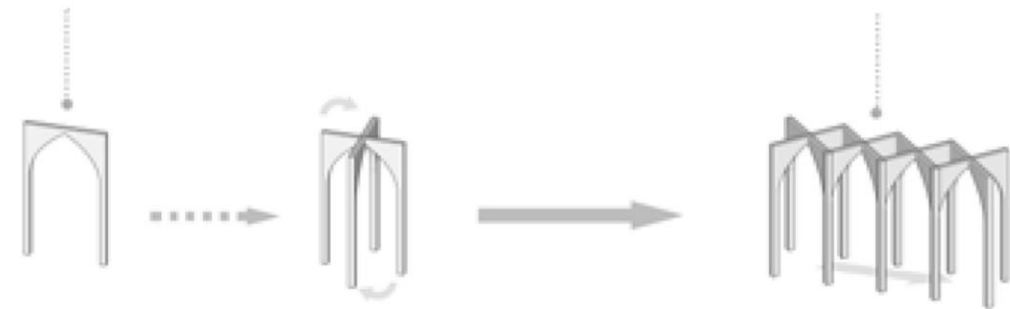
1-10-11 Arch in the Ancient Architecture of Iran

The arch has always been one of the building blocks in traditional Iranian architecture; It has been used in various structures from palaces to citadels, forts, houses, bazaars, caravanserais, baths, bridges and dams. The "arch and chafed" method became popular in Iran with the advent of the parti period (a period of history of Iran) in Iranian architecture, and then continued its significant trend towards growth and perfection in post-Islamic methods. In pre-Islamic Iran, the arch was mostly used as a *Maze dar*, the prominent structure of which is the *Kasra arch* and the palace of *Ardeshir* (Sassanid period), although sharp or truncated cases were also used. The peak period of use of the truncated arch dates back to the post-Islamic period, from which the arch became famous and popular with seventy-five seventy-seven.

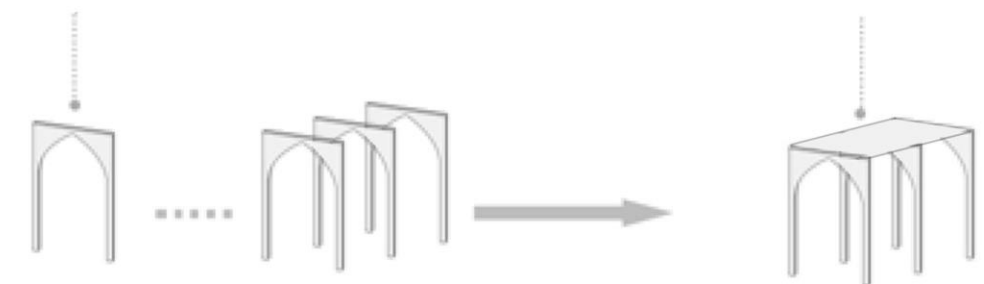
Si-o-se pol Bridge in Isfahan is a vaulted arch bridge consisting of two superimposed rows of 33 arches, from whence its popular name of *Si-o-se-pol* comes, and is made of stone.

idea of designing the facade pattern of of Wellcome garden and Markets is coming from one element of Iranian architecture: *Tagh* (arch). Wellcome garden By rotating an arch 90 degree and moving that through a line, a pattern of perpendicular arches will be made that provide a filter against the direct sunlight.

For markets by repeating the arches in one direction and having a flat roof that creates shade and also the arches give the markets an invitation.



Idea of designing of Wellcome garden



Idea of designing of Market



Sketch of Si-o-se pol Bridge

1-10-12 Cycle of the River



60% REDUCTION IN THE STORAGE VOLUME OF CHADEGAN DAM ON THE ONE HAND AND THE REDUCTION OF WATER INFLOW OF THIS RIVER HAS CAUSED THE DAM OUTPUT TO BE DRASTICALLY REDUCED AND THE ZAYANDEH RIVER TO NOT REACH ISFAHAN



CHADEGAN DAM WAS FULL OF WATER AROUND 10 YEARS AGO



THE VOLUME OF ZAYANDEHRUD WATER IN 2012 WAS ABOUT 282 MILLION CUBIC METERS, WHICH IS 75% LESS THAN THE 40-YEAR AVERAGE.



USUALLY IN THE MONTHS OF MAY AND JUNE, ALSO IN THE MONTH OF OCTOBER, THE RIVER FLOWS WITH VERY LITTLE WATER AND THE REST OF THE MONTHS OF THE YEAR RIVER COMPLETELY DRY.



GAVKHONI WETLAND IS COMPLETELY DRY AND DESTROYS THE ENVIRONMENT AND DAMAGES THE HABITATS OF ANIMALS AND BIRDS IN THIS AREA



GAVKHONI WETLAND IN YEARS AGO WITHOUT THE PROBLEM OF DROUGHT AND THE HABITAT OF BIRDS AND ANIMALS AND IT WAS AS TOURIST ATTRACTION

1-10-13 Ecology-Plants



CLOVE



FIELD BINDWEED



CHRYSANTHEMUM



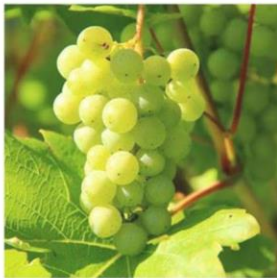
VIOLET



GLADIOLA



ROSE



GRAPE



PRUNUS ARMENIACA



BLACKBERRY



WHITE MULBERRY



GREEN PEPPER



CUCUMBER



ONION



TOMATO



MINT



GREEN BEANS PLANT



FESTUCA RUBRA



FESTUCA ARUNDINACEA



WEeping WILLOW TREE



ELM TREE



SWAMP WHITE OAK TREE



PINUS-SYLVESTRIS TREE



POPLAR TREE



SCOTCH PINE TREE

1-10-13 Ecology-Plants Description

CLOVE

tree of clove is an evergreen that grows up to 8–12 metres (26–39 ft) tall, with large leaves and crimson flowers grouped in terminal clusters.

FIELD BINDWEED

IT IS intertwines and topples native species. It competes with other species for sunlight, moisture and nutrients. It poses threats to restoration efforts and riparian corridors by choking out grasses and forbs. It can decrease habitat biodiversity and is one of the most serious weeds of agricultural fields in temperate regions of the world.

CHRYSANTHEMUM

They have alternately arranged leaves divided into leaflets with toothed or occasionally smooth edges. The simple row of ray florets is white, yellow, or red. The fruit is a ribbed achene. Chrysanthemums start blooming early in the autumn

VIOLET

Viola is a genus of flowering plants in the violet family Violaceae. It is the largest genus in the family, containing between 525 and 600 species. Many species, varieties and cultivars are grown in gardens for their ornamental flowers.

GLADIOLA

Gladiolus is a classic perennial known for its tall flower spikes and large, colorful blooms. these flowering plants are available in a multitude of colors and typically reach between 2 and 5 feet in height.

ROSE

A rose is a woody perennial flowering plant of the genus *Rosa*, in the family Rosaceae, or the flower it bears. There are over three hundred species .They form a group of plants that can be erect shrubs, climbing, or trailing, with stems that are often armed with sharp prickles.

GRAPE

A grape is a fruit, botanically a berry, of the deciduous woody vines of the flowering plant genus *Vitis*. they are a type of fruit that grow in clusters of 15 to 300, and can be crimson, black, dark blue, yellow, green, orange, and pink.

PRUNUS ARMENIACA

IT is the most commonly cultivated apricot species. The native range is somewhat uncertain due to its extensive prehistoric cultivation. IT is a small tree, 8–12 m (26–39 ft) tall.

BLACKBERRY

The blackberry is an edible fruit produced by many species in the genus *Rubus* in the family Rosaceae, hybrids among these species within the subgenus *Rubus*, and hybrids between the subgenera *Rubus* and *Idaeobatus*. Blackberries are perennial plants which typically bear biennial stems from the perennial root system.

WHITE MULBERRY

Morus alba, known as white mulberry, common mulberry and silkworm mulberry,[2] is a fast-growing, small to medium-sized mulberry tree which grows to 10–20 m (33–66 ft) tall. It is generally a short-lived tree with a lifespan comparable to that of humans

GREEN PEPPER

The bell pepper is the fruit of plants in the *Grossum* cultivar group of the species *Capsicum annuum*. Cultivars of the plant produce fruits in different colors, including red, yellow, orange, green, white, and purple. Preferred growing conditions for bell peppers include warm, moist soil in a temperature range of 21 to 29 °C (70 to 84 °F).

CUCUMBER

Cucumber (*Cucumis sativus*) is a widely-cultivated creeping vine plant in the Cucurbitaceae gourd family that bears cucumiform fruits, which are used as vegetables.

1-10-13 Ecology-Plants Description

ONION

The onion (*Allium cepa* L., from Latin *cepa* "onion"), is a vegetable that is the most widely cultivated species of the genus *Allium*. The onion is most frequently a biennial or a perennial plant, but is usually treated as an annual and harvested in its first growing season.

TOMATO

The tomato is the edible berry of the plant *Solanum lycopersicum*, [1] commonly known as a tomato plant. Numerous varieties of the tomato plant are widely grown in temperate climates across the world, Tomato plants typically grow to 1–3 meters (3–10 ft) in height.

MINT

The species that make up the genus *Mentha* are widely distributed and can be found in many environments. Most grow best in wet environments and moist soils. Mints will grow 10–120 cm (4–48 inches) tall and can spread over an indeterminate area.

GREEN BEANS PLANT

Green bean plants are either pole varieties that grow long vines or low-growing bush types. Most varieties are green, but there are also purple, red, yellow, and streaked beans. Green beans are several inches long and either round or flattened in shape.

FESTUCA RUBRA

Festuca rubra is perennial and has sub-species that have rhizomes and/or form bunchgrass tufts. It mainly exists in neutral and acidic soils. It can grow between 2 and 20 cm tall.

TALL FESCUE

Tall fescue is a long-lived perennial bunchgrass species. Typically, this species of grass has a long growing season and ranges between 2 and 4 feet (1.2 m) tall in seedhead stage. tall fescue performs best in soils with pH values between 5.5 and 7.

WEeping WILLOW TREE

Willows, also called salallows and osiers, form the genus *Salix*, are around 400 species [2] of deciduous trees and shrubs, found primarily on moist soils in cold and temperate regions of the Northern Hemisphere.

ELM TREE

There are about 30 to 40 species of *Ulmus* (elm). All species are tolerant of a wide range of soils and pH levels but, with few exceptions, demand good drainage. The elm tree can grow to great height, often with a forked trunk creating a vase profile

SWAMP WHITE OAK TREE

Quercus bicolor grows rapidly and can reach 60 to 80 feet (18 to 24 meters) tall with the tallest known reaching 29 m (95 ft) and lives up to 285 years. The swamp white oak is a great choice for a shade or street tree, with the ability to grow at a moderate pace and live more than 300 years. It's the kind of tree you plant for not only your enjoyment but for the benefit of generations to come.

PINUS-SYLVESTRIS TREE

Pinus sylvestris is an evergreen coniferous tree growing up to 35 m in height. Over 100 *Pinus sylvestris* varieties have been described in the botanical literature, but only three or four are now accepted.

POPLAR TREE

Populus is a genus of 25–30 species of deciduous flowering plants in the family Salicaceae, and can grow from 15–50 m (49–164 ft) tall, with trunks up to 2.5 m (8 ft 2 in) in diameter. The seeds of the poplar tree are easily dispersed by the wind, thanks to the fine hairs surrounding them.

SCOTCH PINE TREE

The Scots pine is a long-needled coniferous evergreen that can easily grow 125 feet or more in height, with a trunk 3 feet or more in diameter. Most mature specimens reach about 60 feet in height, with a width of about 40 feet. The tree is pyramidal in shape when young, but becomes flatter on top as it ages.

1-10-14 Ecology-Animals



PAINTED LADY



PLAIN TIGER BUTTERFLY



SLOE HAIRSTREAK



SOOTY COPPER



ORIENTAL HORNET



SEVEN-SPOTTED LADY



ODALISQUE EPALLAGE



LESSER WHITETHROAT



LAUGHING DOVE



CLOVE



CROW



SWALLOW



WOODPECKER



REED BUNTING



LITTLE TERN



DOMESTIC SHORT HAIED



CAUCASIAN SQUIRRE



LIBYAN JIRD



BLACK-SIDED RACERUNNE



CAUCASOTACHEA

1-10-14 Ecology-Animals Description

PAINTED LADY

Vanessa cardui is a well-known colourful butterfly, known as the painted lady, or formerly in North America as the cosmopolitan. The species is resident only in warmer areas, but migrates in spring, and sometimes again in autumn.

PLAIN TIGER BUTTERFLY

Danaus chrysippus, also known as the plain tiger, African queen,[2] or African monarch, is a medium-sized butterfly widespread in Asia, Australia and Africa. It is a medium-sized butterfly with a wingspan of about 7–8 cm (2.8–3.1 in).

SLOE HAIRSTREAK

Satyrion acaciae, the sloe hairstreak, is a butterfly in the family Lycaenidae. The butterflies have very definite haunts which are widely dispersed throughout the distribution area and often of very limited extent ; they occur particularly on rocky slopes, with blackthorn hedges and exposed to the full force of the sun, in June.

SOOTY COPPER

Lycaena tityrus, the sooty copper, is a butterfly of the family Lycaenidae. The butterflies occur all through the summer, on roads among fields and on broad sunny forest-roads; they visit according to season particularly *Potentilla*, *Ranunculus*, *Chrysanthemum*, *Thymus* and *Leontodon*, and, though not confined to certain flight-places, occur sometimes in large numbers together.

ORIENTAL HORNET

The Oriental hornet (*Vespa orientalis*) is a social insect of the family Vespidae. The hornet builds its nests underground and communicates using sound vibrations. The sting of an Oriental hornet can be quite painful to humans and some humans are allergic to stings

SEVEN-SPOTTED LADY

An adult seven-spot ladybird may reach a body length of 7.6–10.0 mm (0.3–0.4 in). Their distinctive spots and attractive colours apparently make them unappealing to predators. The species can secrete a fluid from joints in their legs which gives them a foul taste.

ODALISQUE EPALLAGE

Odalisque (*Epallage fatime*) appears much more like a typical Dragonfly, being large with a substantial body and spread wings. Often these are fast flowing in hills where the water is full of large pebbles and rocks with much edge vegetation and nearby bushes.

LESSER WHITETHROAT

Like most "warblers", it is insectivorous, but will also take berries and other soft fruit. This is a bird of fairly open country and cultivation, with large bushes for nesting and some trees. The nest is built in low shrub or brambles, and 3 to 7 eggs are laid.

LAUGHING DOVE

The laughing dove (*Spilopelia senegalensis*) is found in dry scrub and semi-desert habitats where pairs can often be seen feeding on the ground. A rufous and black chequered necklace gives it a distinctive pattern and is also easily distinguished from other doves by its call.

COMMON CHIFFCHAFF

The common chiffchaff (*Phylloscopus collybita*), or simply the chiffchaff, It is a migratory passerine which winters in southern and western Europe, southern Asia and north Africa. A small insectivorous bird, it is subject to predation by mammals, such as cats and mustelids, and birds, particularly hawks of the genus *Accipiter*. Its large range and population mean that its status is secure, although one subspecies is probably extinct.

1-10-14 Ecology-Animals Description

CROW

Corvus is a widely distributed genus of medium-sized to large birds in the family Corvidae. The genus includes species commonly known as crows, ravens and rooks; there is no consistent distinction between "crows" and "ravens", and these appellations have been assigned to different species chiefly on the basis of their size, crows generally being smaller than ravens. The 45 or so members of this genus occur on all temperate continents except South America, and several islands.

SWALLOW

The swallows, martins, and saw-wings, or Hirundinidae, are a family of passerine birds found around the world on all continents, including occasionally in Antarctica. Around 90 species of Hirundinidae are known. The family uses a wide range of habitats. They are dependent on flying insects, and as these are common over waterways and lakes, they frequently feed over these, but they can be found in any open habitat, including grasslands, open woodland, savanna, marshes, mangroves, and scrubland.

WOODPECKER

Woodpeckers are part of the family Picidae, that also includes the piculets, wrynecks, and sapsuckers. Members of this family are found worldwide. Most species live in forests or woodland habitats, although a few species are known that live in treeless areas, such as rocky hillsides and deserts, and the Gila woodpecker specialises in exploiting cacti.

REED BUNTING

The common reed bunting (*Emberiza schoeniclus*) is a passerine bird in the bunting family Emberizidae. Most birds migrate south in winter, but those in the milder south and west of the range are resident. It is common in reedbeds and also breeds in drier open areas such as moorland and cultivation.

LITTLE TERN

The little tern (*Sternula albifrons*) is a seabird of the family Laridae. This bird breeds on the coasts and inland waterways of temperate and tropical Europe and Asia. It is strongly migratory, wintering in the subtropical and tropical oceans as far south as South Africa and Australia.

DOMESTIC SHORT HAIRD

A domestic short-haired cat is a cat of mixed ancestry—thus not belonging to any particular recognised cat breed—possessing a coat of short fur.

CAUCASIAN SQUIRRE

The Caucasian squirrel (*Sciurus anomalus*) or Persian squirrel, is a tree squirrel in the genus *Sciurus* found in temperate broadleaf and mixed forests in south-western Asia. The species mainly lives in forested areas dominated by oak, pine, and pistachio, up to altitudes of 2,000 metres (6,600 ft).

LIBYAN JIRD

The Libyan jird (*Meriones libycus*) is a species of rodent in the family Muridae. Its natural habitats are subtropical or tropical dry shrubland, intermittent saline lakes, hot deserts, and rural gardens.

BLACK-SIDED RACERUNNE

Eremias persica, the Aralo-Caspian racerunner or Persian racerunner, is a species of lizard native to southern Azerbaijan, most of Iran, southern Turkmenistan, Afghanistan, and western Pakistan. They share several attributes such as having a wide range distribution across the Iranian Plateau, as well as the number and shape of their scales.

CAUCASOTACHEA

Caucasotachea is a genus of medium-sized air-breathing land snails, terrestrial pulmonate gastropod molluscs in the family Helicidae.






Chapter Two (Project)

2-1 Reading The Site- Large scale

2-1-1 Green Analysis









LEGEND:

- | | | |
|-------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
|  PARK |  AGRICULTURAL LANDS |  SITE AREA |
|  ZAYANDEHRUD RIVER |  PUBLIC GREEN | |

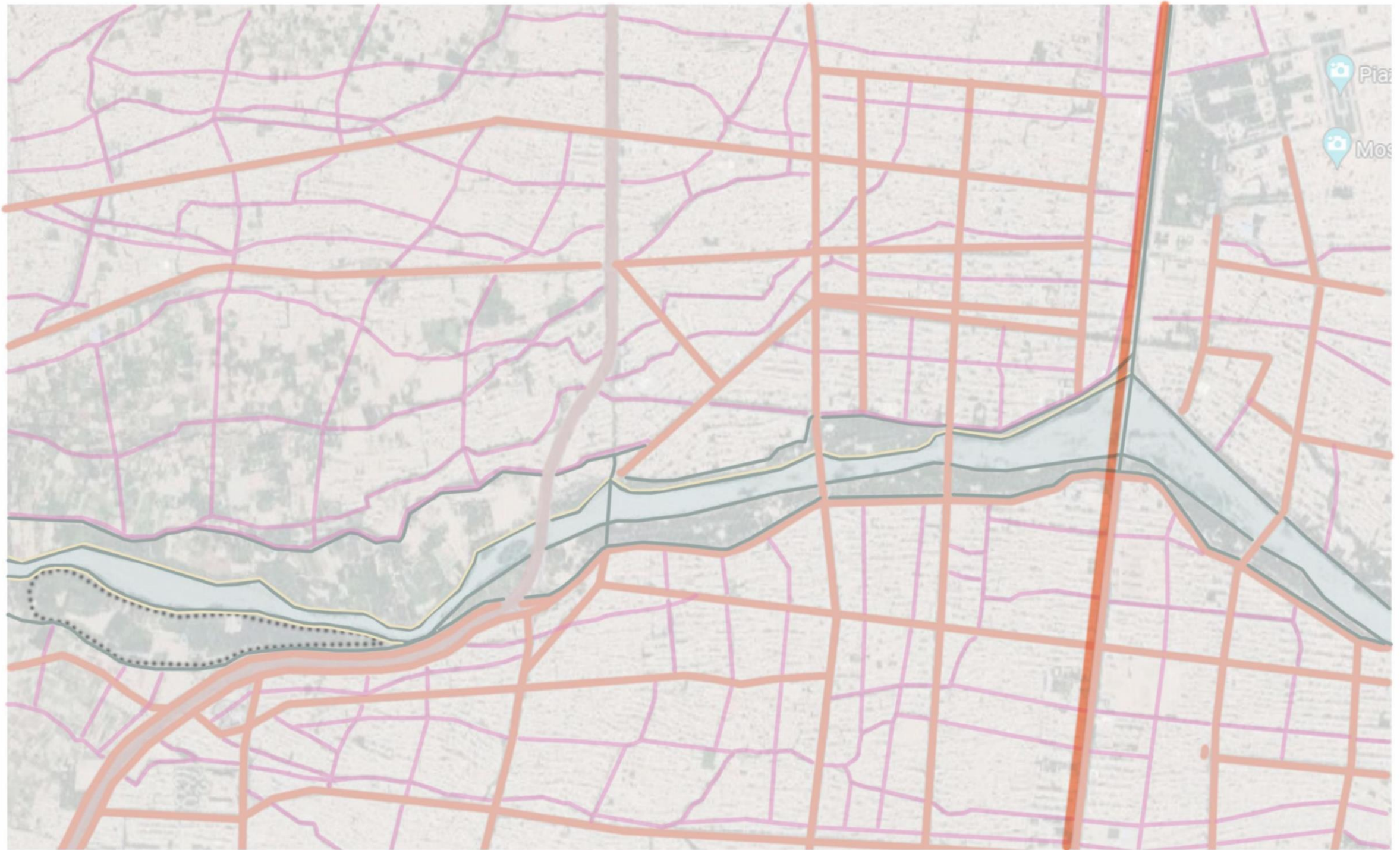
2-1-2 Landuse



LEGEND

- | | | |
|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
|  EDUCATION |  ENTERTAINMENT |  SITE AREA |
|  COMMERCIAL |  HISTORICAL |  RESIDENTIAL |

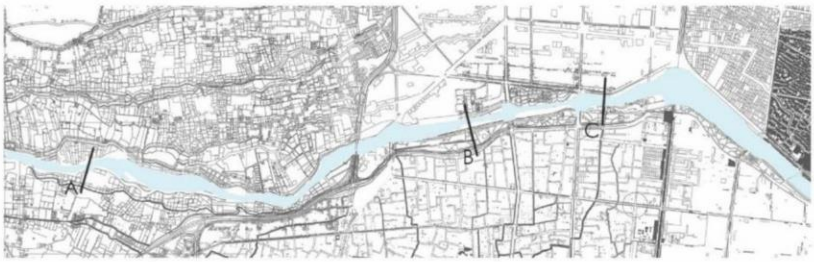
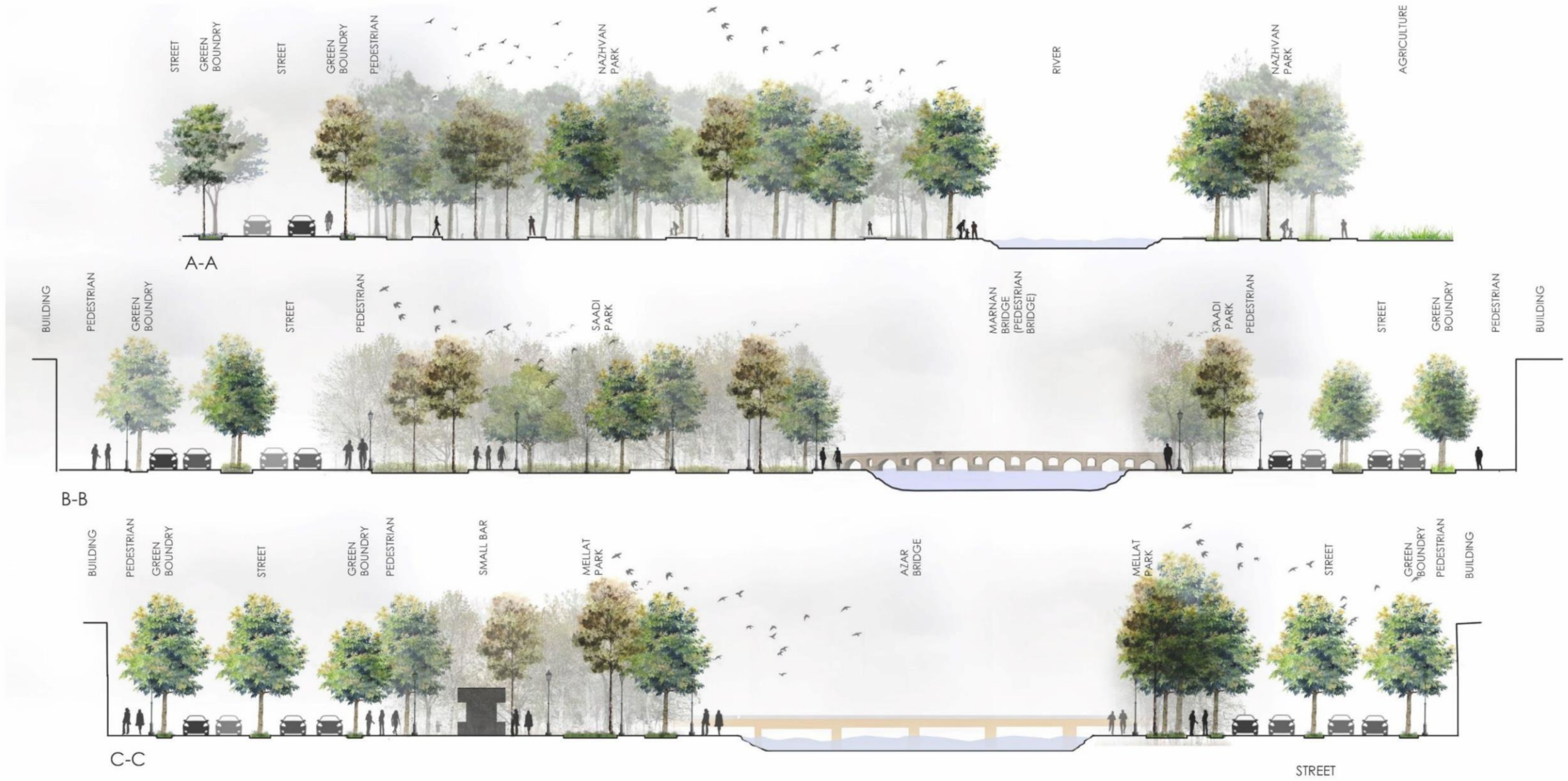
2-1-3 Mobility



LEGEND:

- | | | | |
|-------------------|-----------|--------------|----------------|
| SITE AREA | HIGHWAY | PEDESTRIAN | SECENDARY ROAD |
| ZAYANDEHRUD RIVER | MAIN ROAD | CYCLING PATH | METRO LINE |

2-1-4 Existing Section



VIEW OF SEC A-A



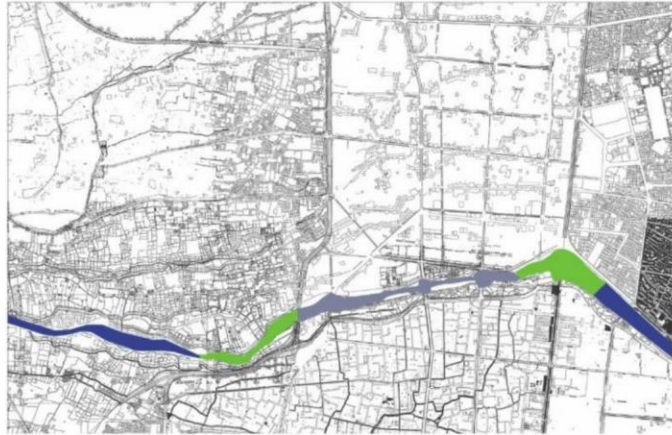
VIEW OF SEC B-B



VIEW OF SEC C-C



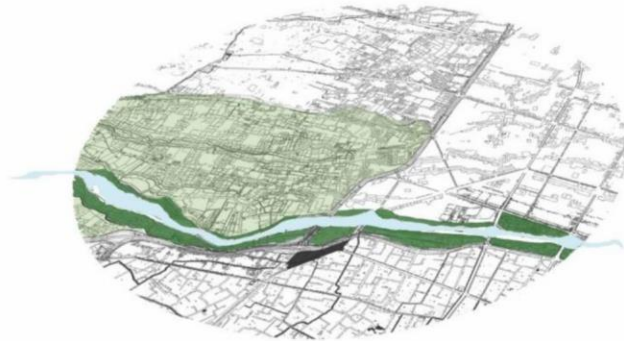
2-1-5 Existing Regional Analysis



- STRAIGHT CHANNEL
- SINUOUS CHANNEL
- CURVEOUS CHANNEL



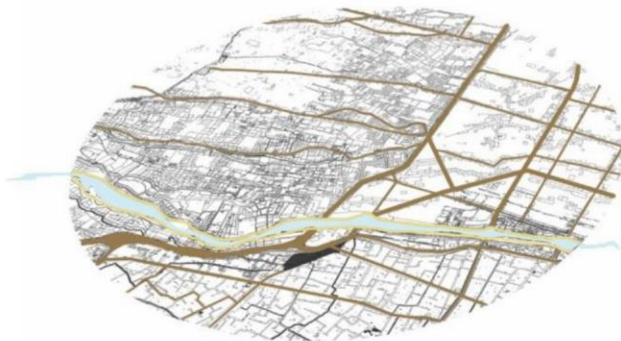
STRAIGHT CHANNEL



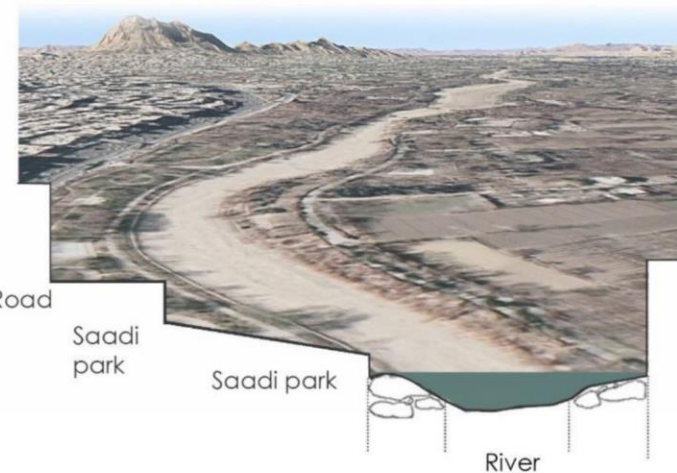
- GREEN AREA**
- PARKS
 - AGRICULTURAL LANDS



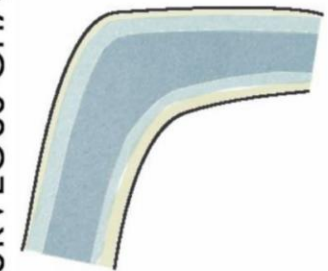
SINUOUS CHANNEL



- MOBILITY**
- ACCESSIBILITY
 - SOFT MOBILITY



CURVEOUS CHANNEL



- HYDROGRAPHY**
- ZAYANDEHROUD RIVER
 - WATER CHANNEL (MADI)

2-2 Green River in Drought Time



Plough park

Public garden

Sport field



The out back

Polo match

Kindergarten



Farm school

Football field

wellcome garden



Terraces

Urban agriculture

Temporary market



Outdoor exhibition

Flower garden

Green restaurant



Flower festival

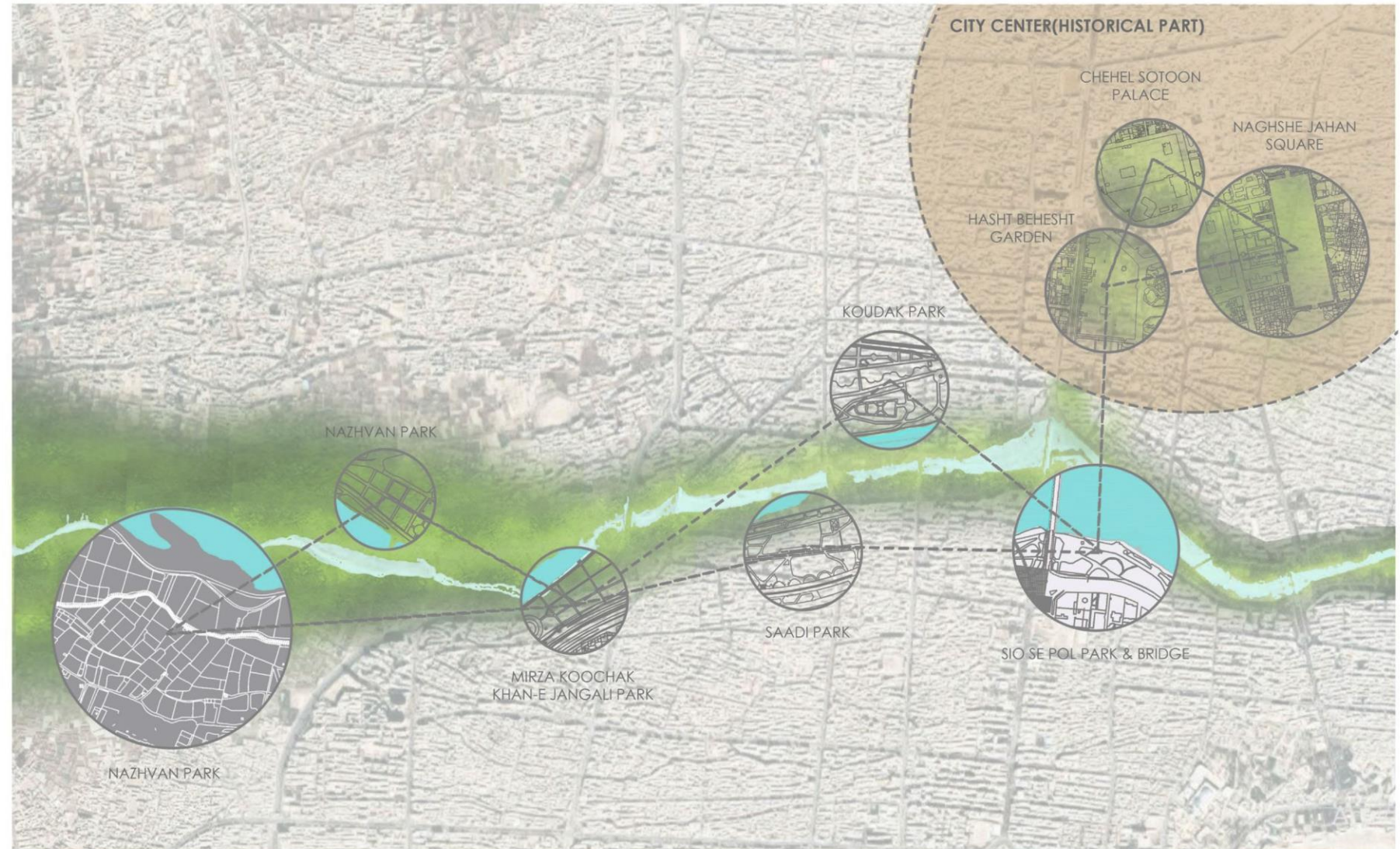
Greenhouse

Picnic area



2-3 Strategy- Green Connection to the City

This slide shows our idea of connecting our site to the city center during both drought and flow times. We used different green areas which are all along the zayanderud river which we call green corridor for this connection . We are planning to connect the site to the city center by pedestrian and bike ways and from si o se pol bridge which directly connects to the famous and historical part of the isfahan like naghsh e jahan square and other historical buildings.



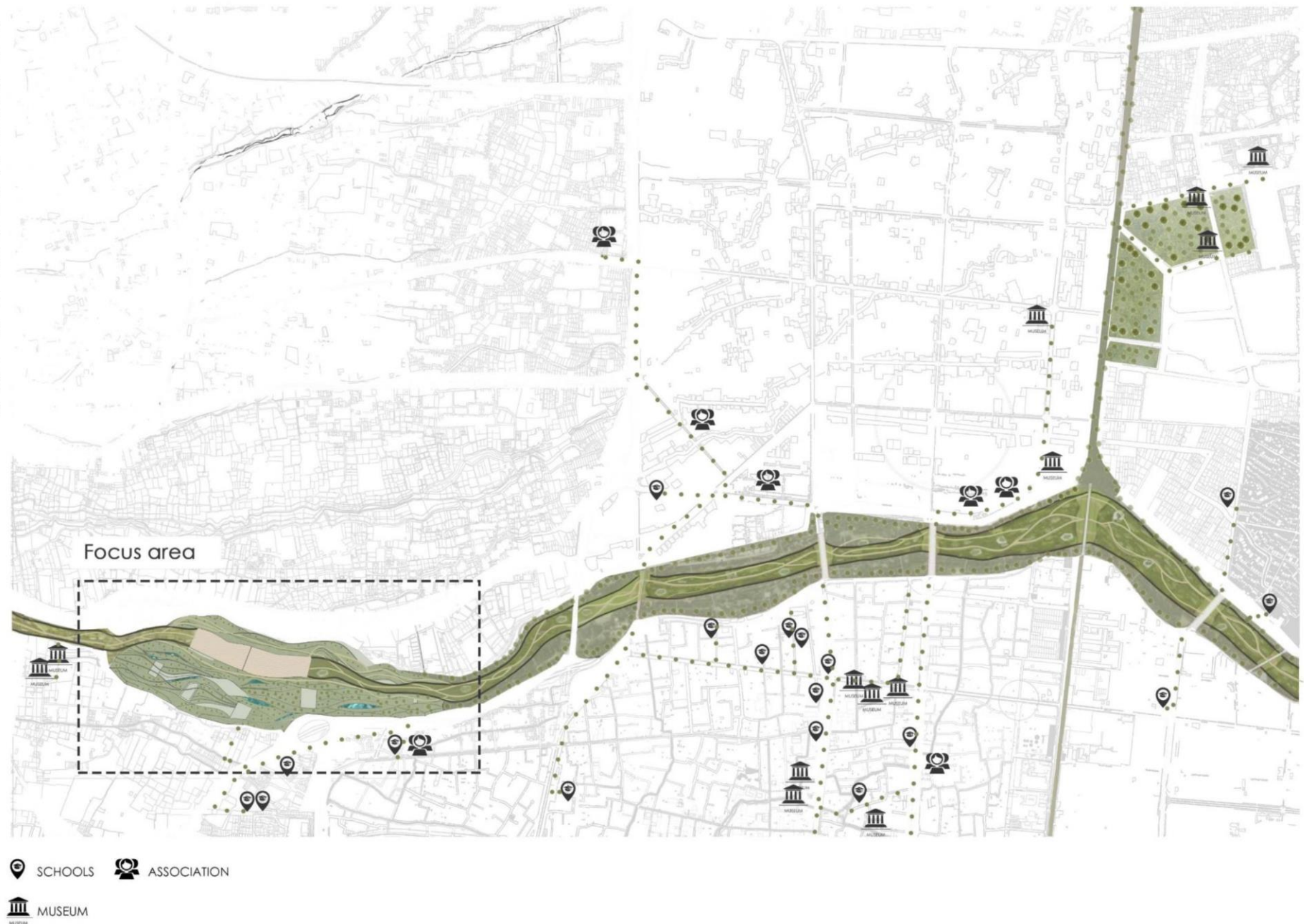
2-4 Master Plan- Temporary Linear Park- Large Scale

After the studies we did in different linear parks in different cities, we come up with a masterplan of making a temporary linear park in drought time which connects the whole parks along river together and reach to the city center. We have different functions in this linear park such as terraces which we have designed to watch polo match in the area. We have educational farming and exhibition as well as football fields and picnic area and urban agriculture, welcome garden and urban orchard which connects our area of focus to the city center like hasht behesht garden, chehel sotoon palace and garden with green corridor.

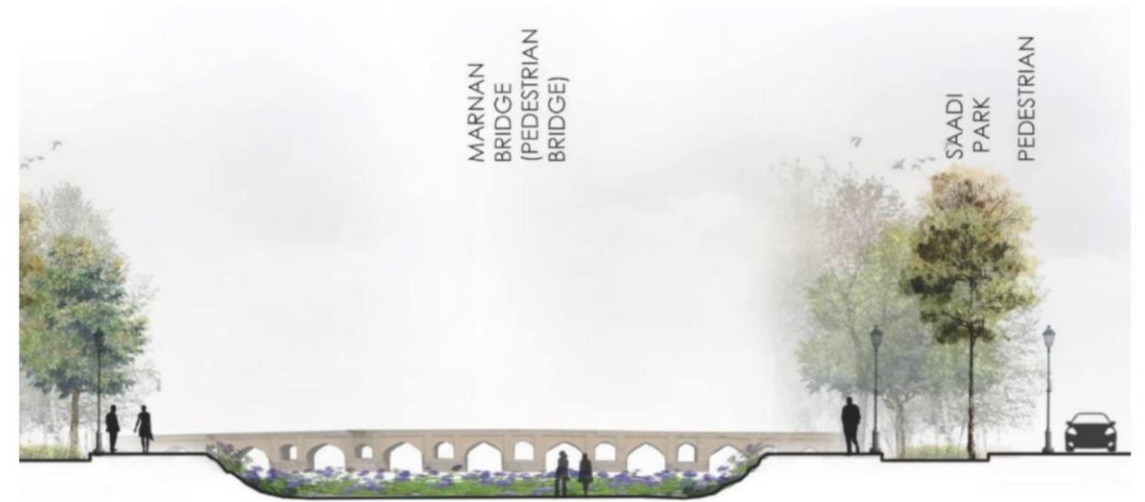
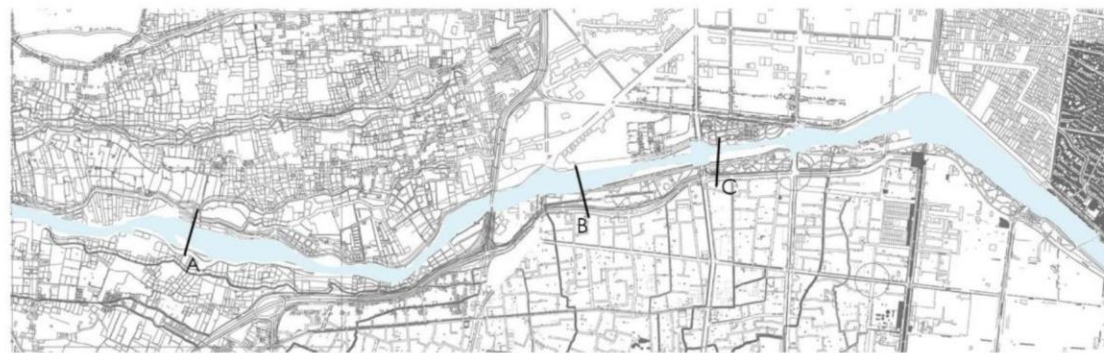
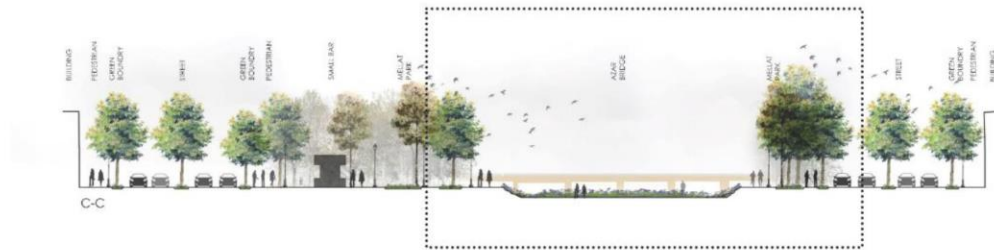
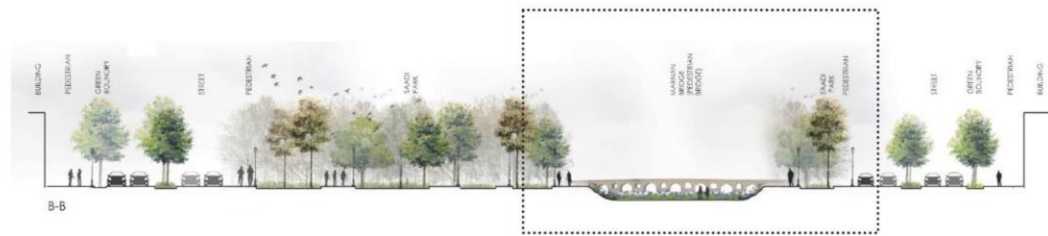
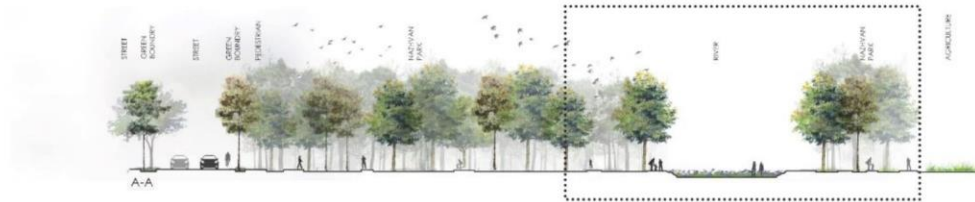


2-5 Linear Park Connection to Users

For giving life to our temporary linear park, we try to connect it to the users which are near to the area with different corridors and Pathés . We find out different schools in the area which can have different activities in the area such as workshop and exhibition as well as educational garden. Also we have different museums in the area which we connect to the area to make the park more effective. Further more, we try to connect associations to the linear park to make area more liveable.



2-6 Green River Sections





2-7 Reading The Site- Small Scale

2-7-1 Mobility

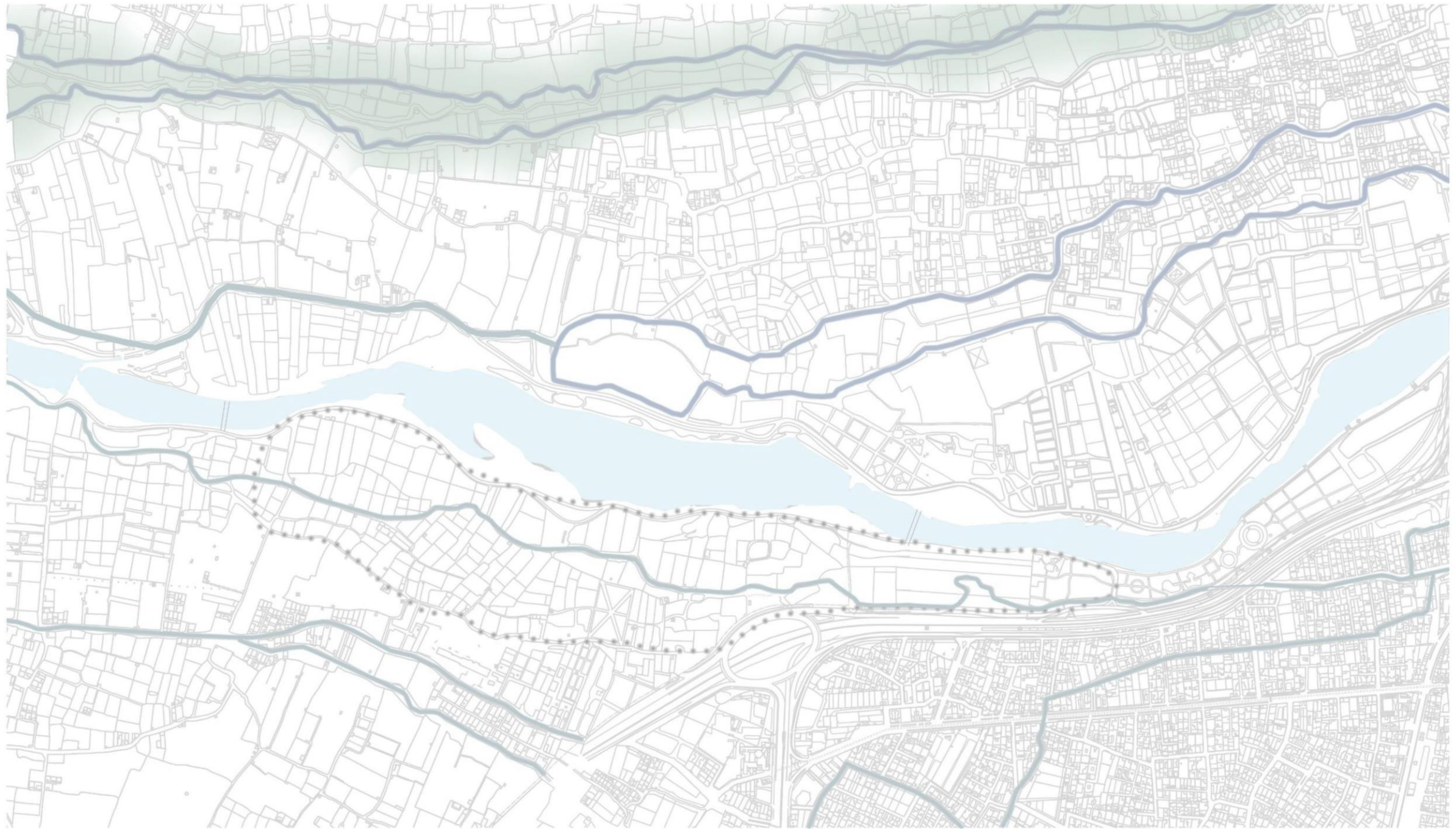


LEGEND:

- | | | | | |
|-------------------|-----------|--------------|----------------|-------------|
| SITE AREA | HIGHWAY | PEDESTRIAN | SECENDARY ROAD | BUS STATION |
| ZAYANDEHRUD RIVER | MAIN ROAD | CYCLING PATH | BIKE STATION | |

SCALE:1/6000

2-7-2 Hydrography



LEGEND:

..... SITE AREA

■ ZAYANDEHRUD RIVER

■ IRRIGATION CHANNELS

■ UNDERGROUND WATER

■ ENVIRONMENTAL CORRIDOR

SCALE: 1/6000 

2-7-3 Green Area

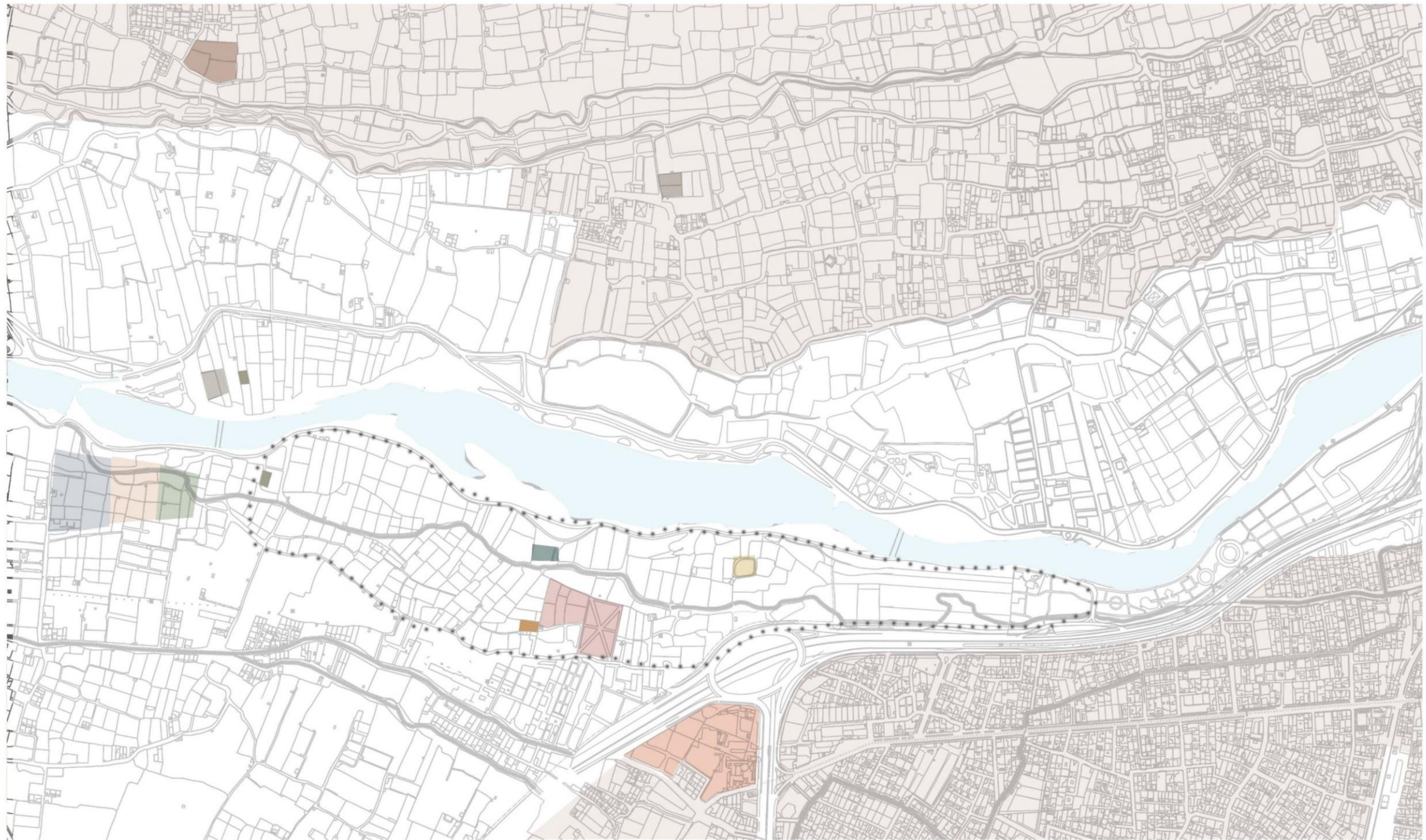


LEGEND:

- | | |
|-------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
|  PARK |  AGRICULTURAL LANDS |
|  ZAYANDEHRUD RIVER |  PUBLIC GREEN |

SCALE: 1/6000 

2-7-4 Landuse

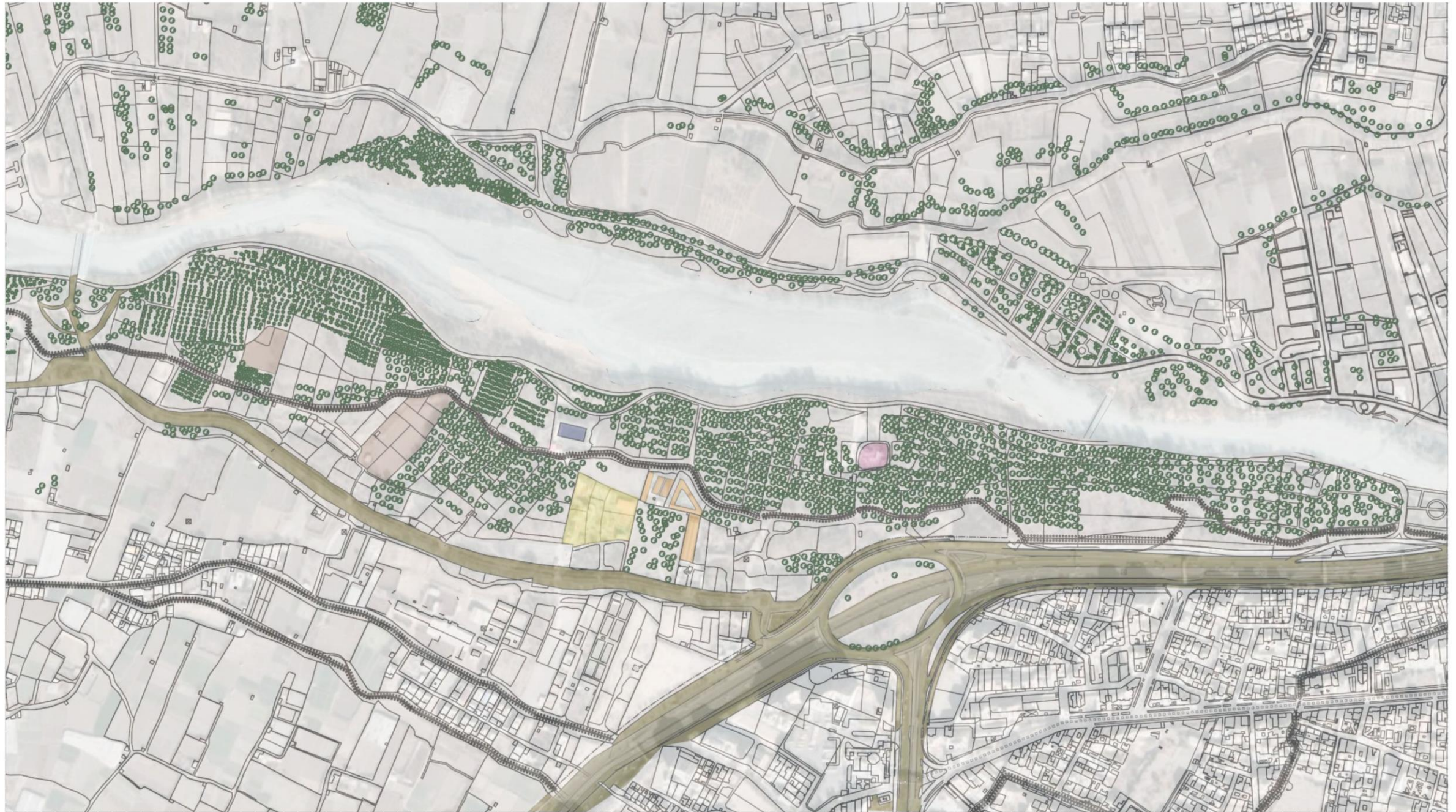


LEGEND:

- | | | | | | |
|----------------|------------|-----------------------------|------------------|-------------------|-------------|
| AMUSEMENT PARK | WATER PARK | PUBLIC RENTAL BIKES STATION | AQUARIUM | REPTILES GARDEN | RESIDENTIAL |
| CAFETERIA | TELE SIZH | BUS TERMINAL | BUTTERFLY GARDEN | HORSE RIDING CLUB | HISTORICAL |

SCALE:1/6000

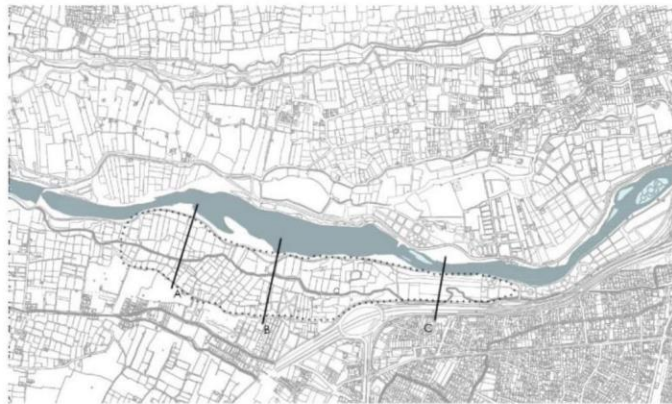
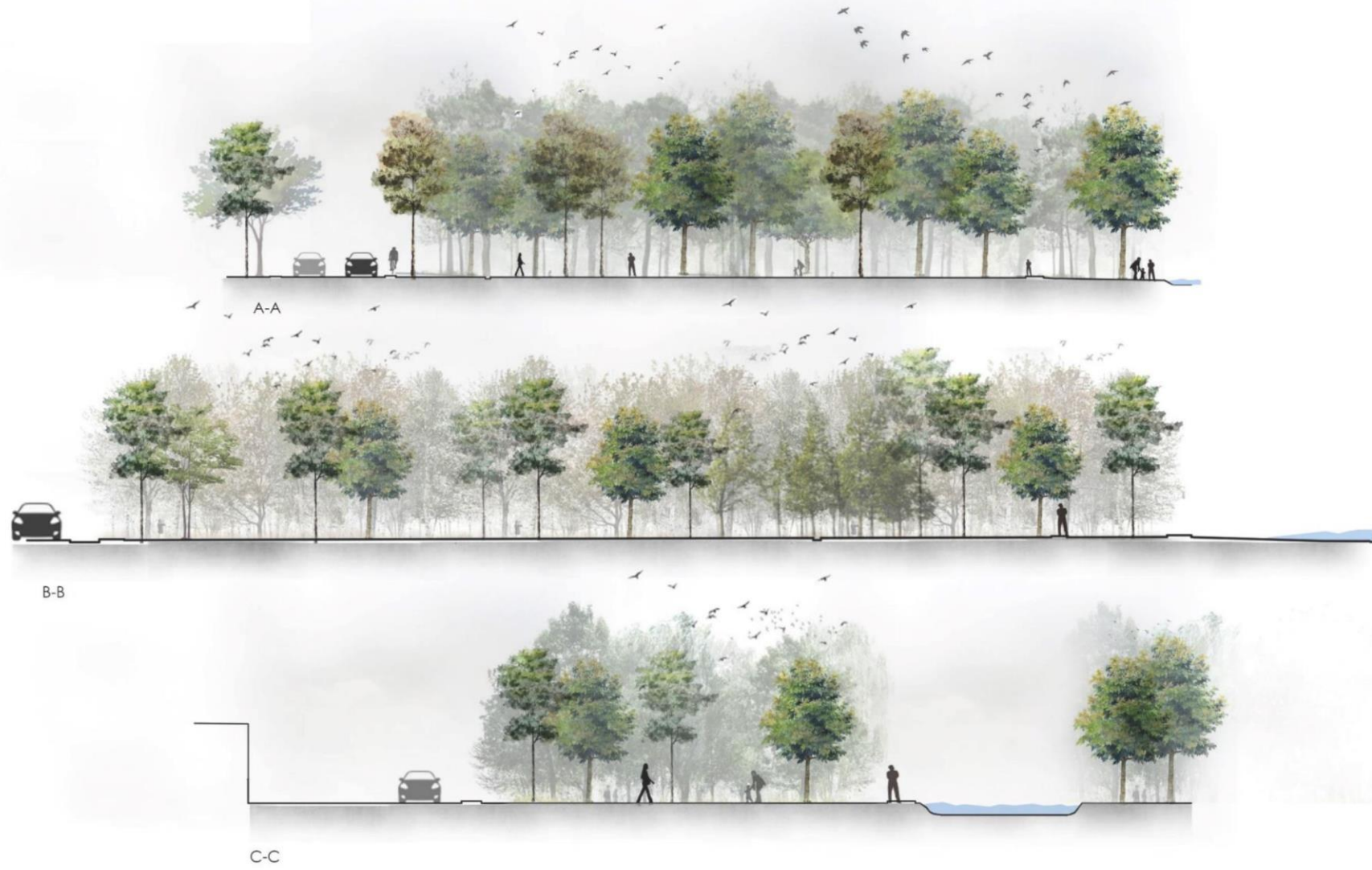
2-7-5 Existing Focus Area



- | | | | |
|-------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
|  WATER POOL |  ABONDON LANDS |  BUILDINGS |  ROADS |
|  ZAYANDEHRUD RIVER |  PLAYGROUND |  TELESIZH | |

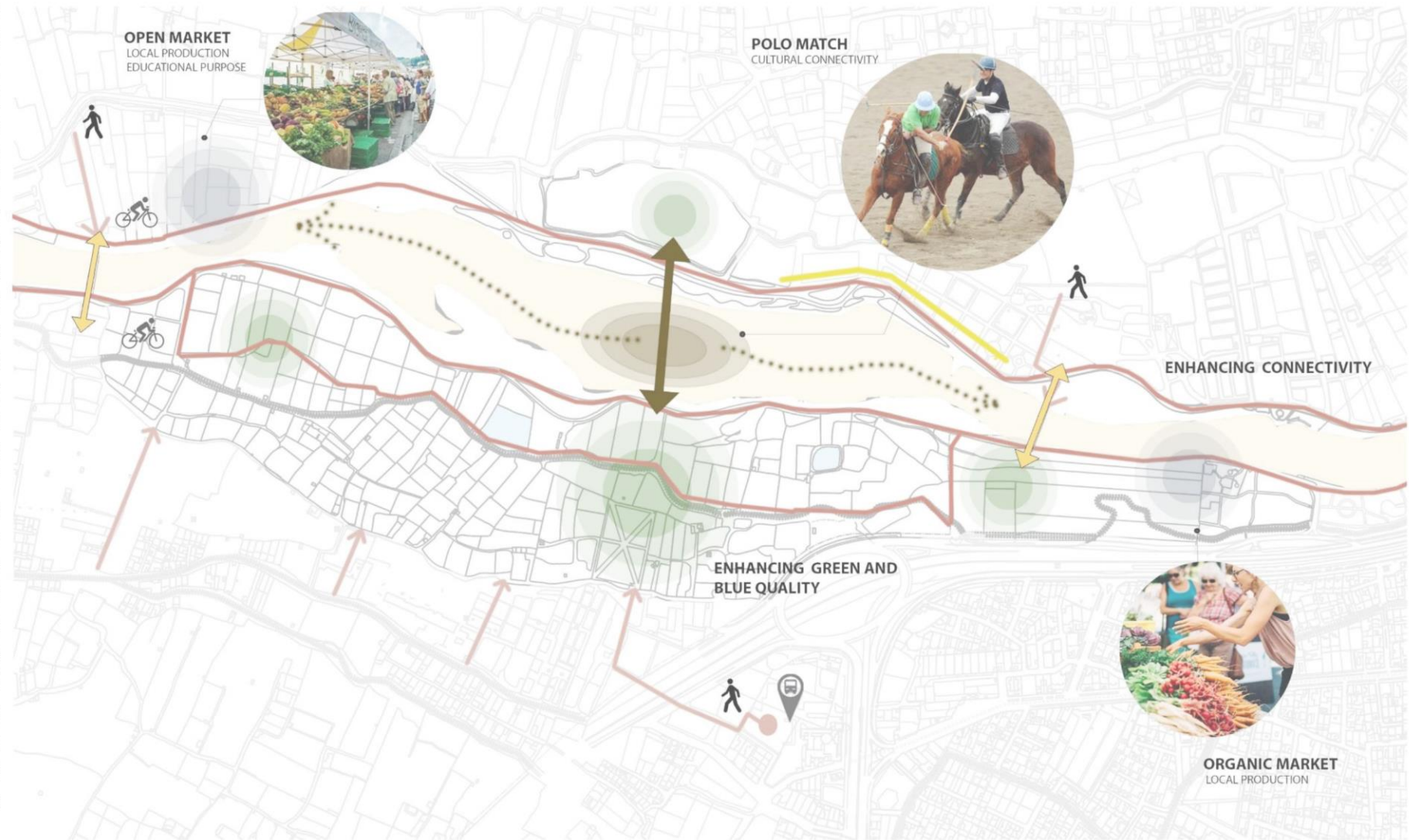
SCALE:1/6000 

2-7-6 Existing Situation Section



2-8 Strategy map- Drought Time

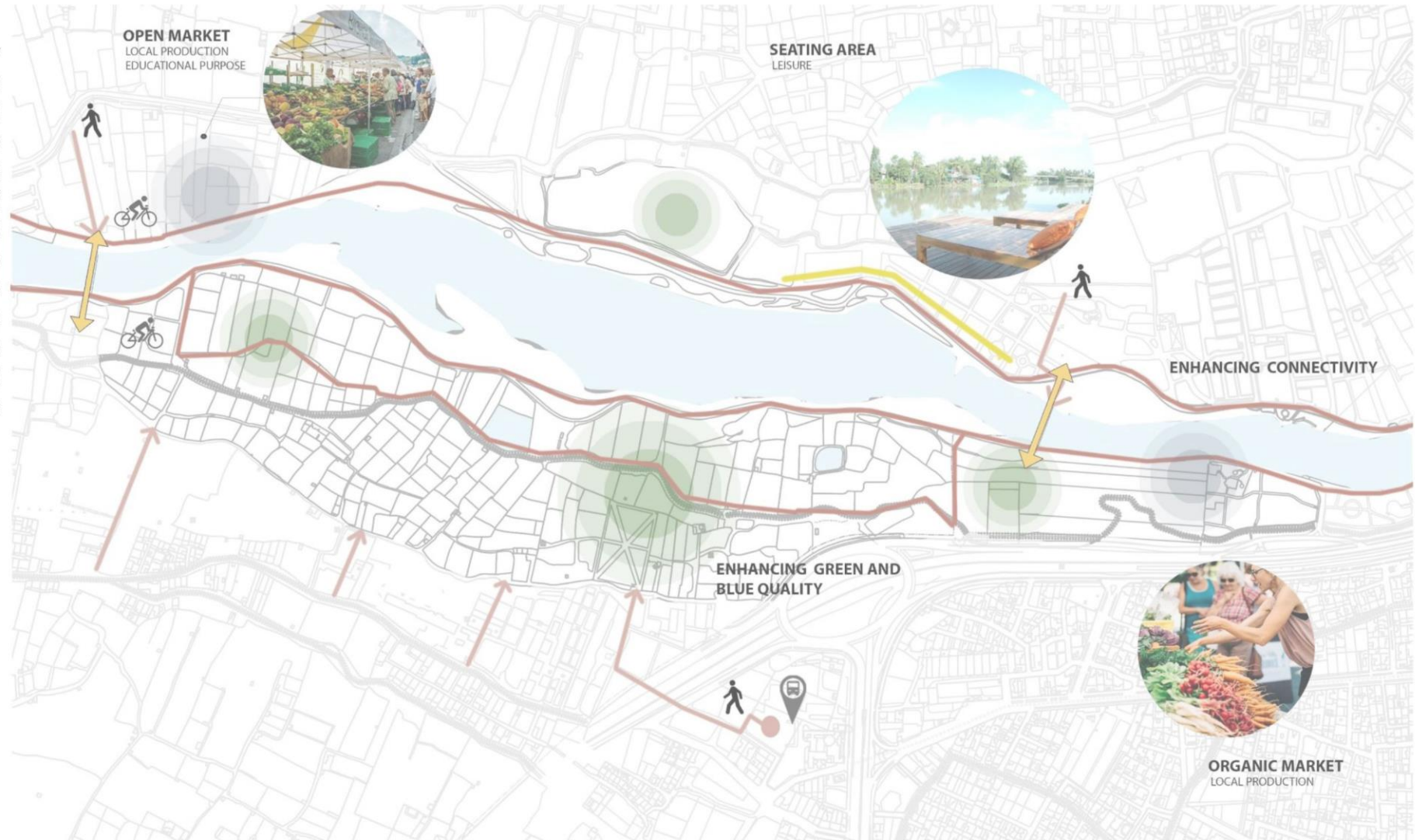
There are 2 different strategy map for both drought time and zayanderud river flow times. In both strategy One of Our main idea is to connect the area to the city in term of being in touch with the city as well as cultural connection. We think of saving the existing bike path all along the zayanderud and improve the quality of the Pasways and giving more bike stations, also we planned to improve the pedestrian pathways and giving a lighting design to the nazhvan park to make the area more safe for people, also provide defferent access to the site to make the area pedestrian friendly. we try to follow the green and blue strategy to enhance the quality of space and connect these green spaces togheter. Also as there is agricultural lands in the top and down of the area we try to provide some temporary organic and open market in some nodes for locals to sale their products and also agricultural fields could



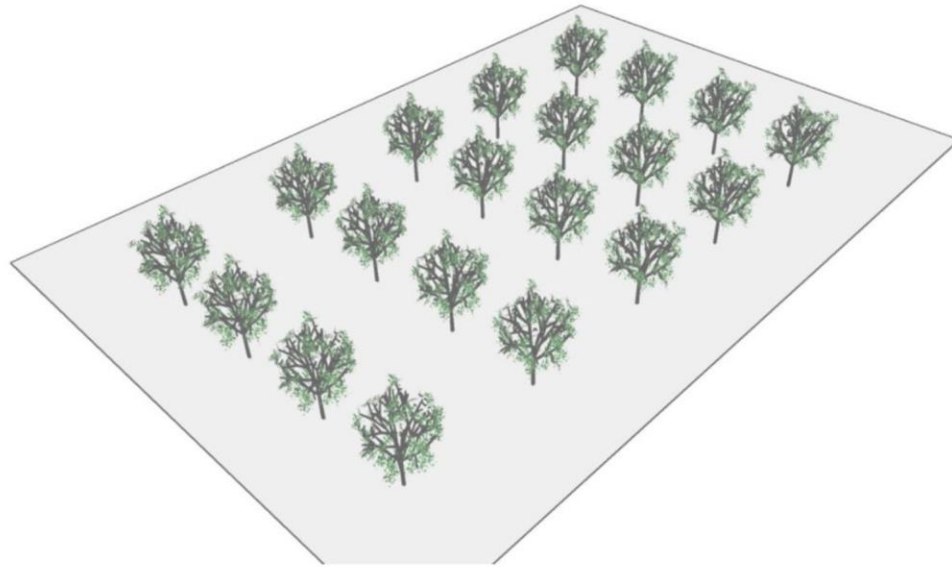
be use as a educational purpose also. Also as this area is completely dry in most of the year, we propose a polo match here which is a traditional match in isfahan, and in most cultural square of this city you can see people playing this match which could provide a cultural connectivity to the city. Also we provide some seating area which represent in yellow color which people can seat and watch the match and enjoy their times!

2-9 Strategy map- Flow Time

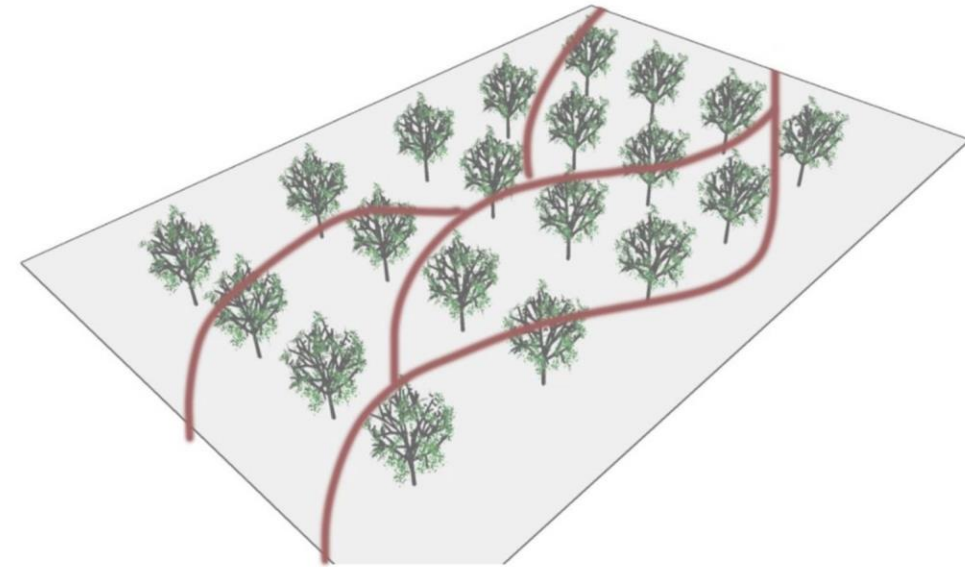
this slide shows the strategy in flow times, Also, in the flow time, we have idea of connectivity and enhancing the green and blue interaction and quality as well as enhancing the quality of pathways for both pedestrian and bike to make the area more inviting for people. But during the flow times, there is not polo match in the area and people could use the seating areas to seat and enjoy the atmosphere of the area.



2-10 Concept Of Landscape Design



Current Situation
weak pedestrian pathways
Disconnected



Design Proposal
pedestrian friendly
Naturally Connected

2-11 Master Plan- Drought Time



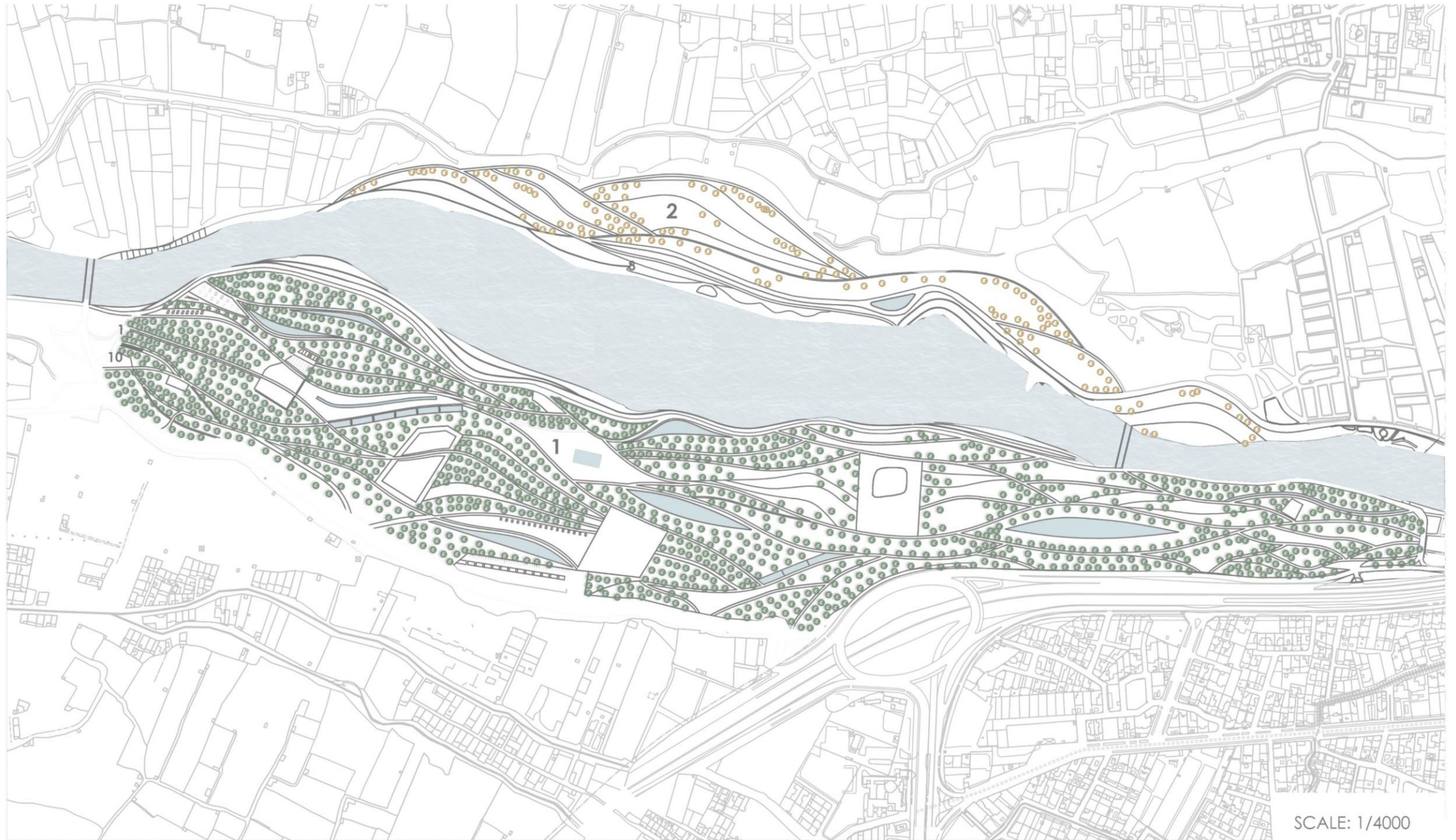
- | | | | | | |
|----------------|---------------|-------------------|----------------|----------------------------|-------------------|
| 1. ENTRANCE | 3. WATER POOL | 5. AMUSEMENT PARK | 7. MAIN SQUARE | 9. SEATING AREA | 11. EXERCISE AREA |
| 2. CAR PARKING | 4. MARKET | 6. TELESIZH | 8. TERRACES | 10. BIKE STATION & PARKING | 12. POLO MATCH |

2-12 Master Plan- Flow Time



- | | | | | | |
|----------------|---------------|-------------------|----------------|----------------------------|-------------------------|
| 1. ENTRANCE | 3. WATER POOL | 5. AMUSEMENT PARK | 7. MAIN SQUARE | 9. SEATING AREA | 11. EXERCISE AREA |
| 2. CAR PARKING | 4. MARKET | 6. TELESIZH | 8. TERRACES | 10. BIKE STATION & PARKING | 12. ZAYANDEHROUAD RIVER |

2-13 Proposed and Existing Trees



SCALE: 1/4000

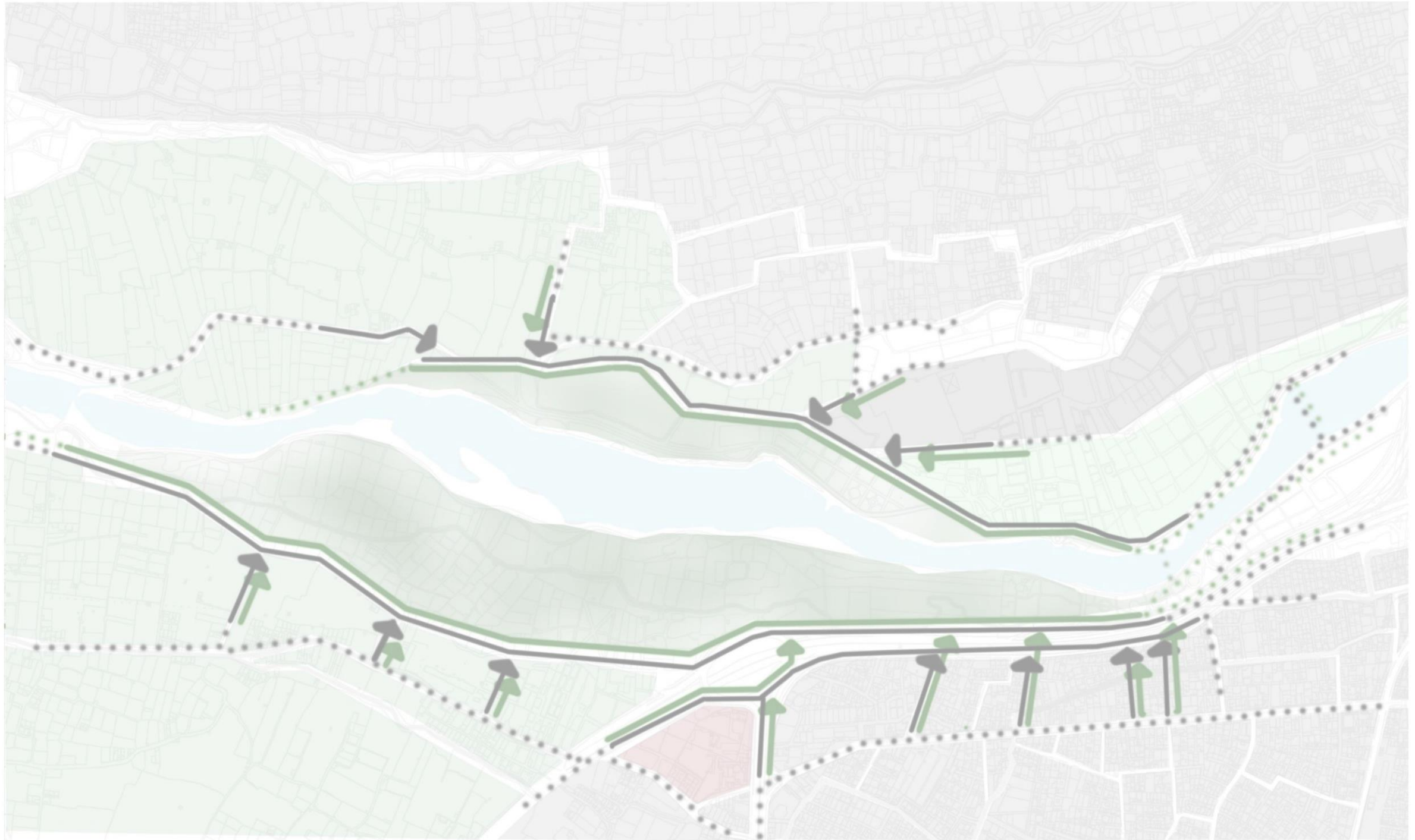
- 1. EXISTING
- 2. PROPOSED

2-14 Connections

2-14-1 Green Connections



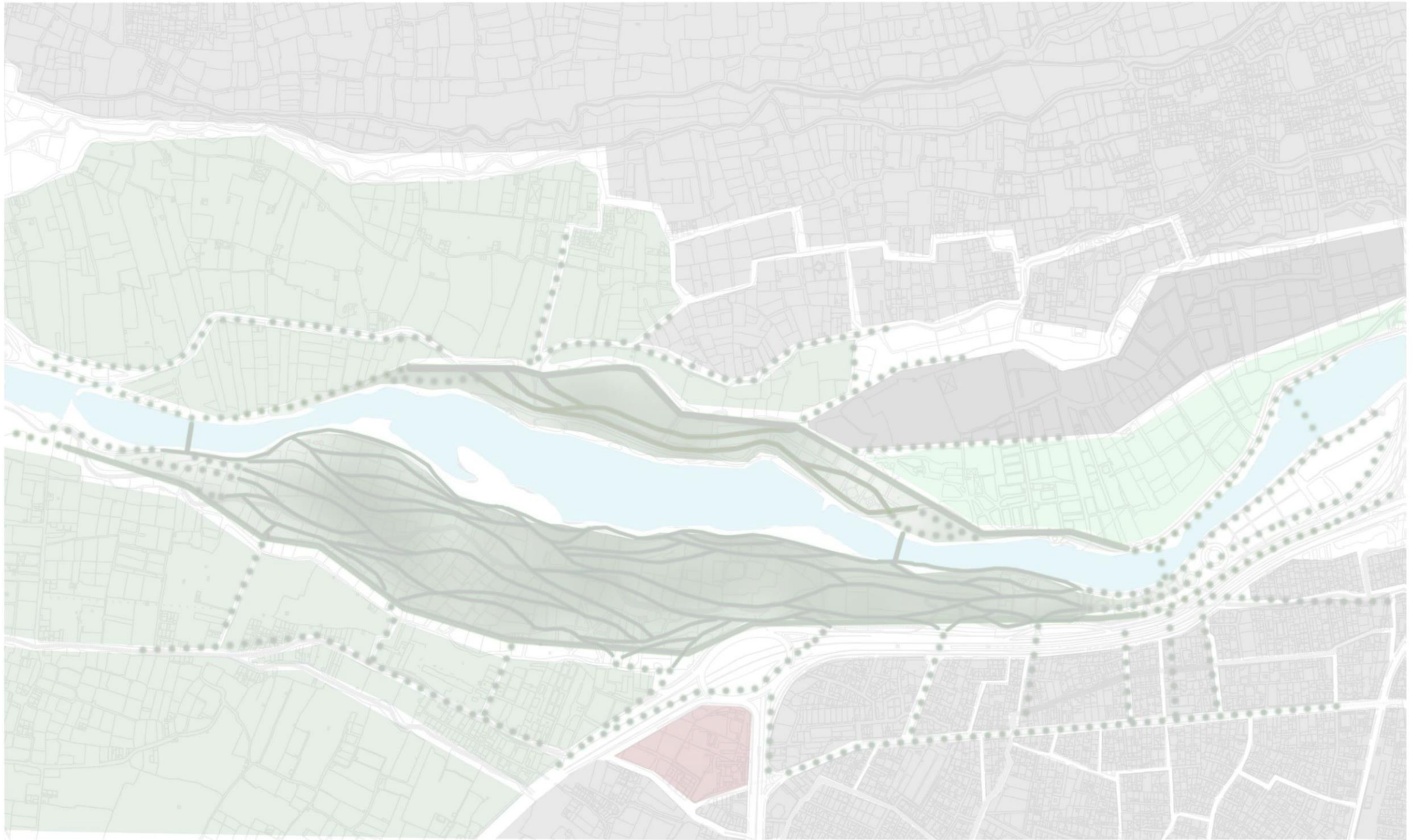
2-14-2 Connections To The Site



LEGEND:

- | | | | |
|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
|  SITE AREA |  BUS STATION |  PUBLIC RENTAL BIKES STATION |  PETHESTRIAN AND BIC WAY |
|  AGRICULTURE |  RESIDENTIAL |  TRANSPORTATION ROUTE | |

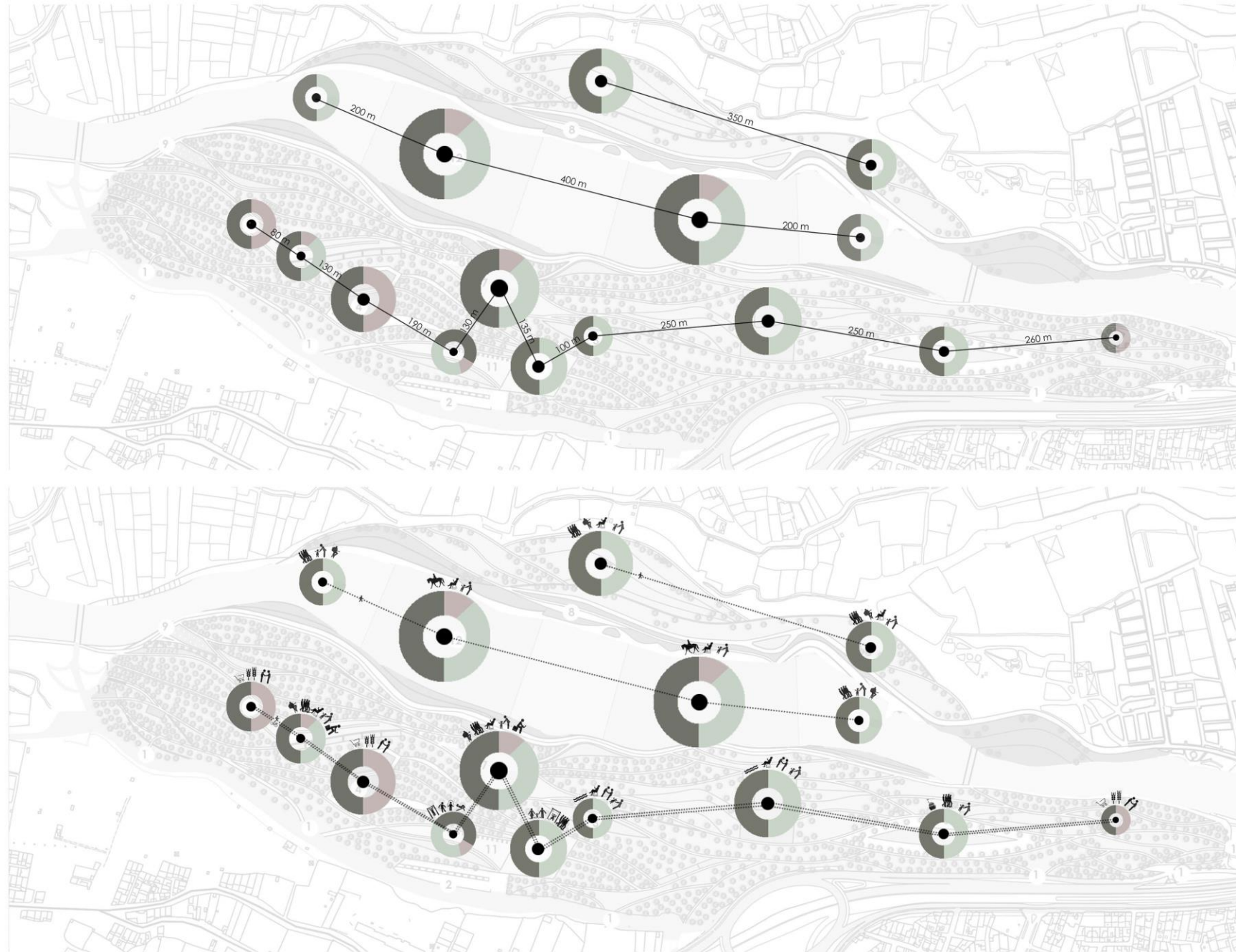
2-14-3 Path connection



LEGEND:

- | | | |
|-------------|-------------|-----------------------------|
| SITE AREA | BUS STATION | PUBLIC RENTAL BIKES STATION |
| AGRICULTURE | RESIDENTIAL | PETHESTRIAN AND BIC WAY |

2-15 Activities Program of The Site

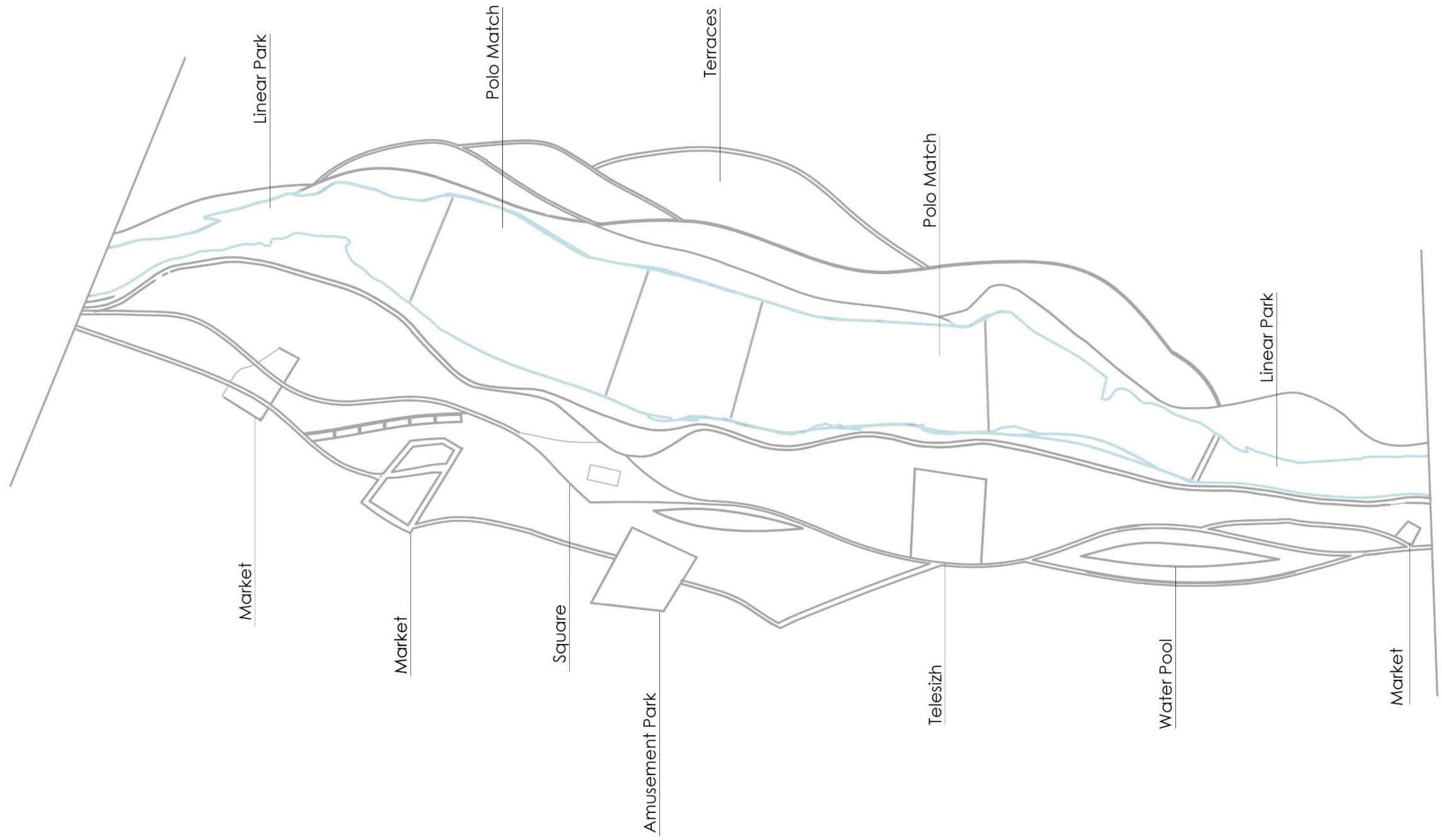


NECESSARY ACTIVITIES
 Compulsory activities that will take place throughout the year, under nearly all conditions (E.g. going to work or school)

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)

2-16 Diagram of Interventions In Drought Time



Section



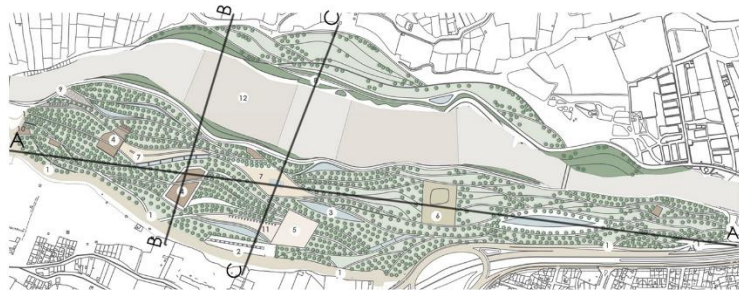
A-A



B-B



C-C

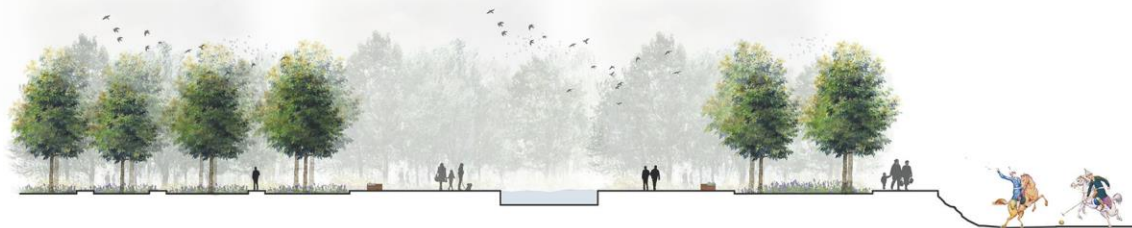


2-17 Interventions

Seq 1-Square

This square invites people to sit, relax and communicate through various pavement's materials and small pond of the square and green spaces. Also, the floor design is done according to the path ways on the site and it has harmony with other parts of the site.

In the following pages, the sections are shown in more details, as well as the materials, also the focus aria can be seen from the view of a bird and a human.



Square



Seq 2-Terrace

According to the analysis of the site, we designed terraces for both drought and flow times, here you can see the terraces design in the drought time for watching the polo match in the area. The big terraces with seating spaces also can be use for gathering and social activities. The terraces are 15 and 16 meters wide, Short graces are used in the design of terraces, and the pavements are permeable. In the flow time terraces are used for seating and enjoying the atmosphere of the park.



Terraces



Seq 3-Market

Based on the analysis performed and the conditions of the site, we proposed markets for the sale of local fruits and vegetables on agricultural lands around the site. Markets are located on empty land and useless the site. And they have a good connection with the site through pedestrian way. In the market space, there is a place for people to sit and relax.

In the following pages, the sections are shown in more details, as well as the materials, also the focus aria can be seen from the view of a bird and a human.

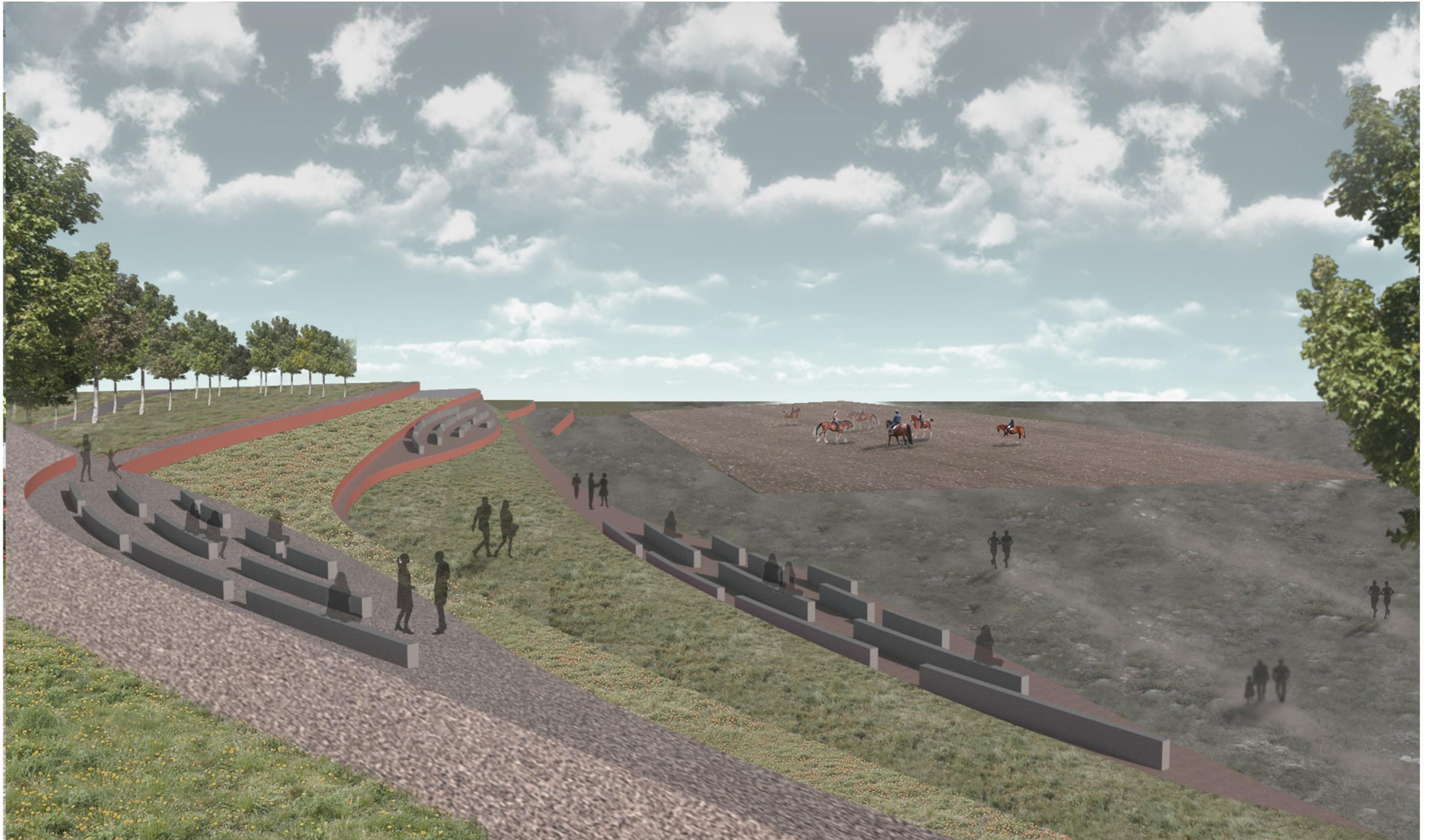


Market



2-18 Renders







Bridge Connection From Residential



ENHANCING QUALITY
PEDESTRIAN FRIENDLY
ENHANCING SAFETY
CONNECTIVITY



EXISTING CONDITION

Path Along River



EXISTING CONDITION



ENHANCING QUALITY
PEDESTRIAN FRIENDLY
ENHANCING SAFETY
CONNECTIVITY



Bridge Connects North And South



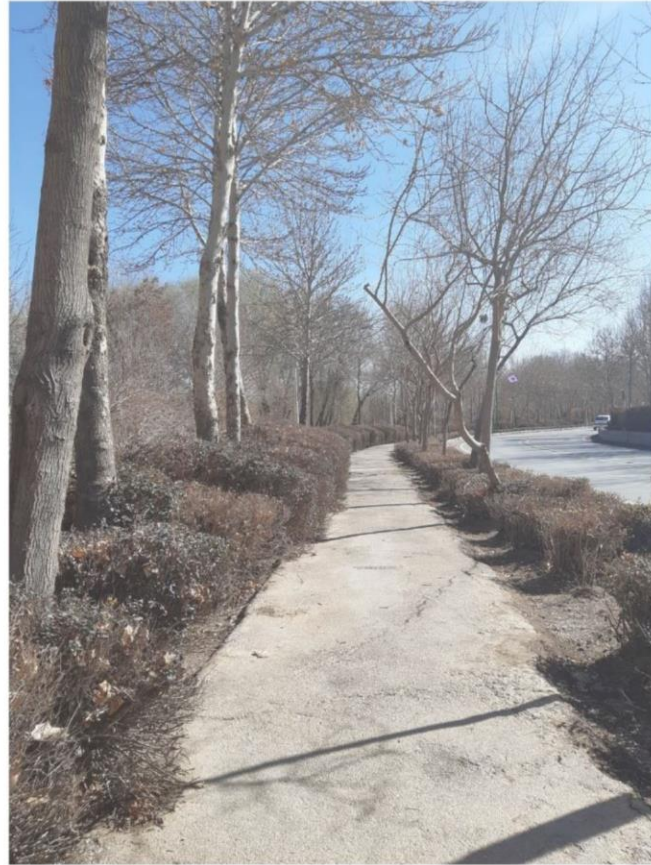
EXISTING CONDITION



ENHANCING QUALITY
PEDESTRIAN FRIENDLY
ENHANCING SAFETY
CONNECTIVITY



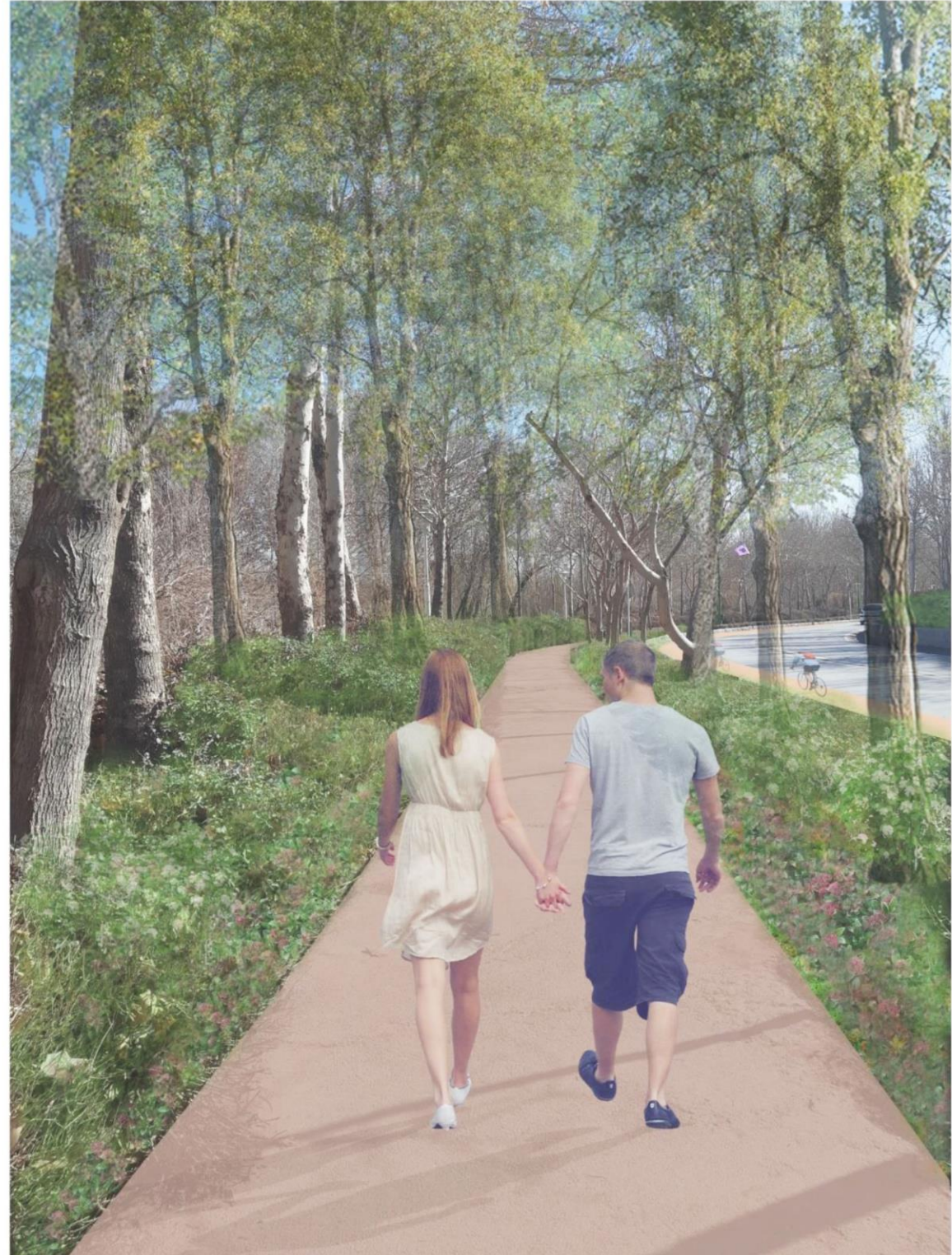
Connection From Olfat Road



EXISTING CONDITION



- ENHANCING QUALITY
- PEDESTRIAN FRIENDLY
- ENHANCING SAFETY
- CONNECTIVITY



2-19 Case Studies

2-19-1 The Shelby Farms Park-Memphis Tennessee

A competition asked develop a master plan for Shelby Farms Park, in Memphis, Tennessee. At more than five-times the size of New York's Central Park, the organizers' vision offered an opportunity for what they called "land-husbandry practices." Continuing it's agricultural history, the designs called for orchards, gardens, and energy generation, as agricultural program elements, along with other large-scale recreation activities typical of large urban parks. Organized around 12 "landscape rooms," the Agricenter Commission manages 1,000 acres in the southeastern portion of Shelby Farms Park for research, education, and agribusiness. With farming areas this big, most people don't think it is a park, and assume it is a private business, upon whose land they cannot enter. Field Operations aims to answer some of these questions through their design, which segments the park into these "landscape rooms," each of which might have a specific user-set, and security standards/accessibility defined by distinct entrances and access points. even if the orchards and crop fields have some modicum of security and restrictions to the general public, their simple proximity and educational programs or tours will contribute to the value of the park.



2-19-2 The Turia Riverbed Park- Valencia, Spain

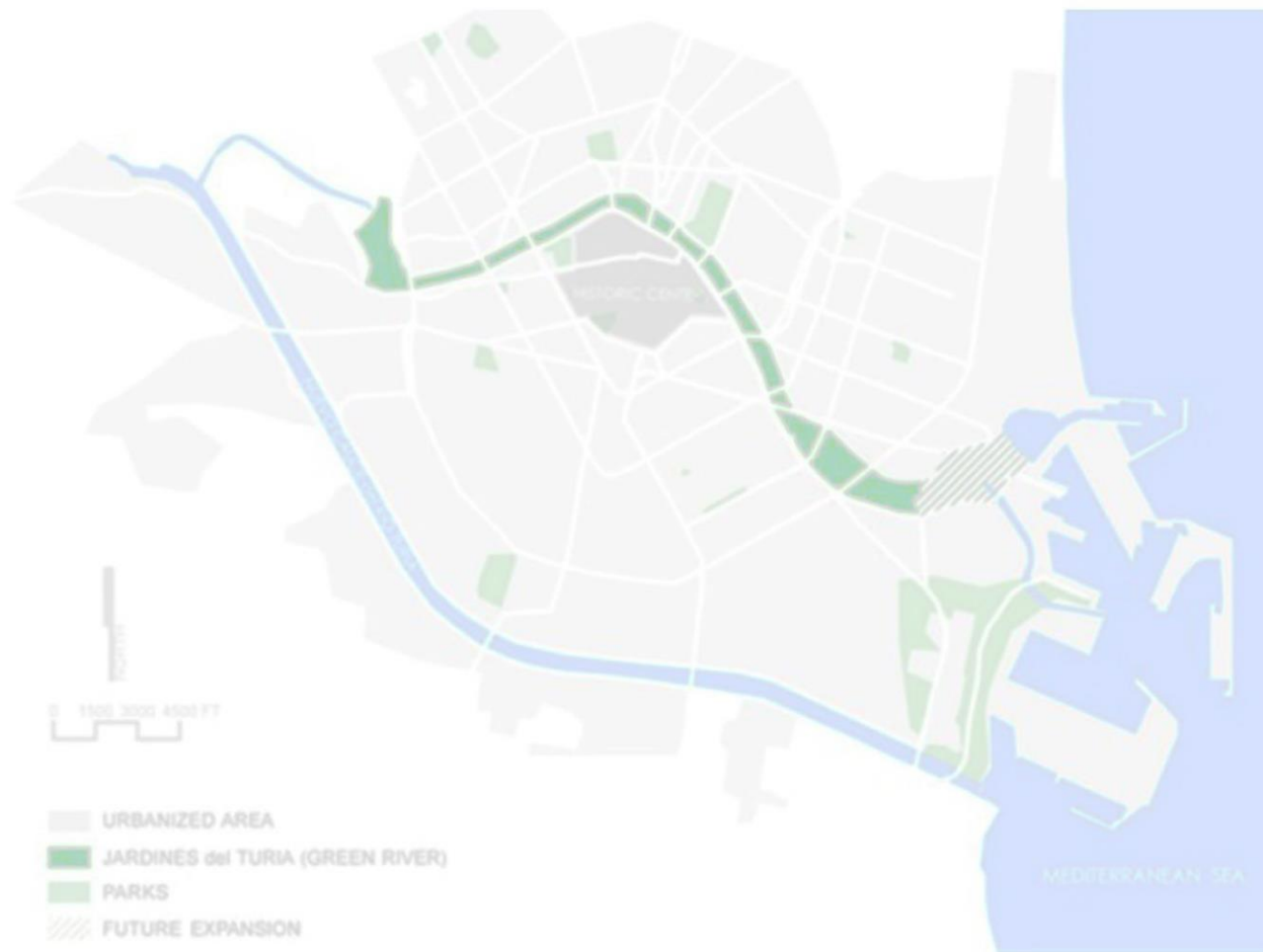


After a season of unusually heavy rains, the Turia overflowed its banks on the 13th and 14th of October, 1957, flooding the city. In some neighborhoods, the waters reached heights of over five meters (17 feet). At least 81 people died in the Gran Riada de Valencia, and thousands were displaced after losing their homes. It was an epic disaster, and called for an epic response.

So Valencia devised the "Plan Sur" to deal with the Turia's menace. The entire river would be diverted, its course to the Mediterranean re-routed through the fields south of the city. The government originally planned to convert the former riverbed into a highway, but citizens protested and formed a movement named "el riu és nostre i el volem verd": the river is ours and we want it green. It took awhile, but their wishes were eventually heard, and in 1986 the Turia Riverbed Park was officially inaugurated



The Turia Riverbed Park- Valencia, Spain



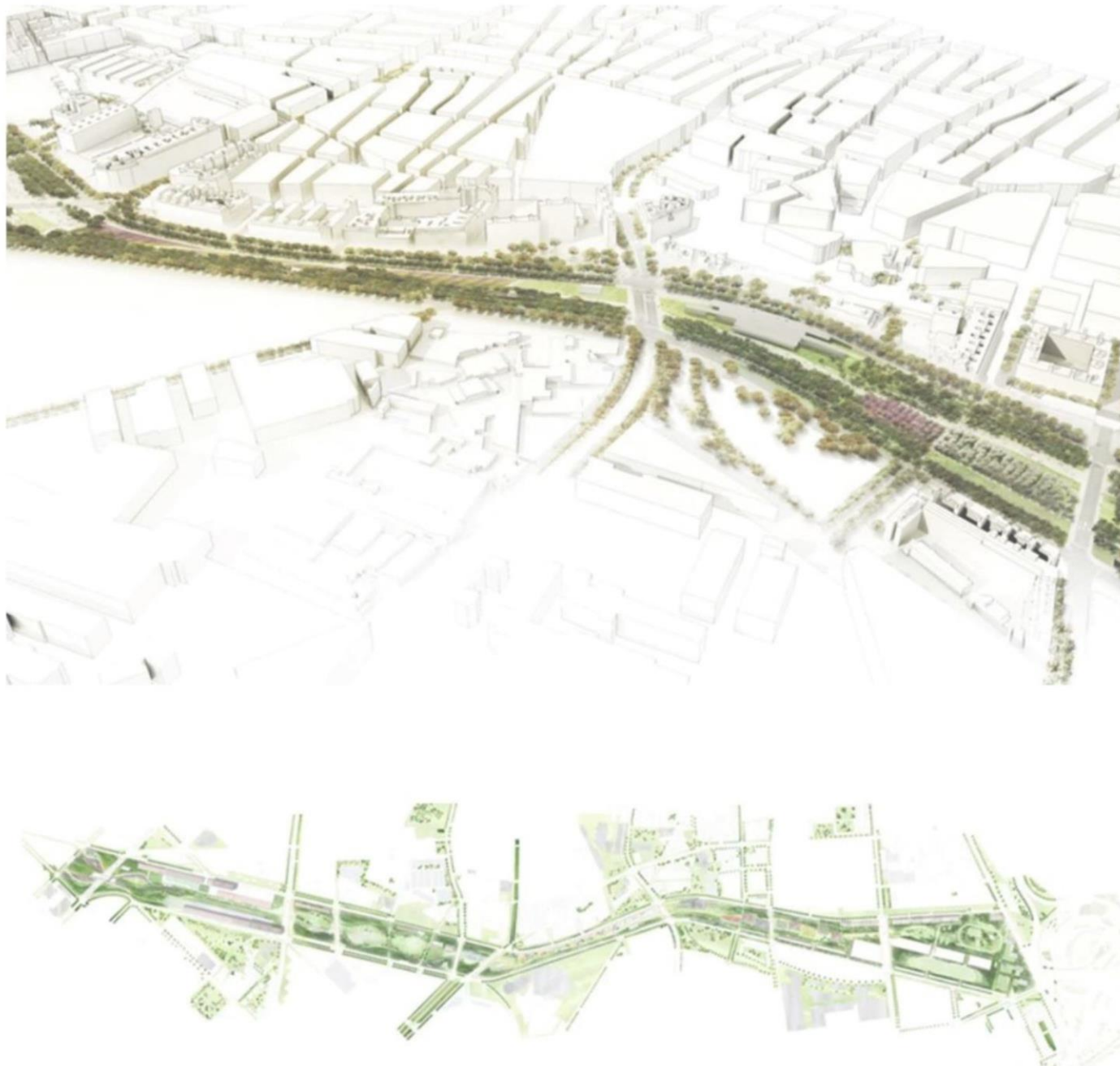
The park is seven kilometers (4.3 miles) in length, running from the BioParc in the west to the City of Arts and Sciences in the east. This is Spain's largest urban park, as well as its most popular, welcoming over seven million visitors a year.

Valencians were right to fight for this green space; the Turia Park is the city's most unique asset, and has improved the quality of life here in untold ways.

There's the City of Arts and Sciences, of course, but also the Gulliver Park, the Palau de la Música, and a variety of sports installations: baseball, track and field, rugby, soccer and even American football. This long, flat, central city park is a runner's dream, with constantly changing landscapes, plenty of paths, and no traffic to worry about



2-19-3 Sagrera Linear Park- Barcelona, Spain



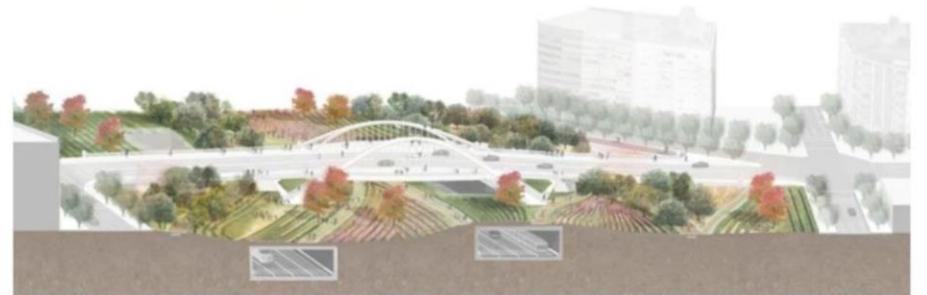
urban design and landscape architects west 8 in collaboration with aldayover and RCR has won the competition for the design of the 'sagrera linear park', a diagonal public green space running through the heart of barcelona, spain. a part of a new 'slow' barcelona initiative that gives relief to the urban rush, the new park connects the sea, the city, and its natural surroundings together with a variety of zones that harvest biodiversity.



Sagrera Linear Park- Barcelona, Spain



reflecting the identity of its historical neighbourhoods, the sagrera linear park consists of series of micro-parks that are linked together by a common diagonal axis. generously shaded walkways are provided for pedestrians and cyclists, with a number of pause points in the form of fountains and informal seating throughout. the 222,000 m2 project rests on the public transport infrastructure and will offer a dynamic green space for visitors and locals alike.



References

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