

DIPLOMA THESIS

ZHANG QIANQIAN

2023

HUNGARIAN UNIVERSITY OF AGRICULTURE AND LIFE SCIENCES
INSTITUTE OF LANDSCAPE ARCHITECTURE, URBAN PLANNING AND GARDEN ART
BUDAPEST

MASTER OF ARTS IN LANDSCAPE ARCHITECTURE AND GARDEN ART

**RENEWAL DESIGN OF AN URBAN HERITAGE PARK
-THE CASE OF KING YU'S TERRACE PARK**

AUTHOR: ZHANG QIANQIAN

ADVISOR: ALBERT FEKETE

BUDAPEST,2023

ABSTRACT

With the growing awareness of conservation in heritage cities around the world, relevant laws and regulations are being improved, and methods and approaches to conservation are gradually being enriched, and great progress has been made in heritage conservation. With this comes the conflict between the preservation of heritage sites as part of the tangible cultural heritage and the cultural development of the city, and how to better protect historic sites in the context of historic cities is an issue that needs to be addressed. In recent years, heritage parks have become an effective model for balancing urban construction and heritage conservation, not only for the effective protection of the site itself and its environment, but also for the use of the site and its cultural heritage. As the ancient capital of the eight dynasties, Kaifeng has many historical sites, one of which is the King Yu's Terrace Park. This study analyses the characteristics of Kaifeng's historical sites and illustrates the integration of the city's cultural genes with the city's morphological features through the shaping of the city's historical landscape.

This paper takes an urban heritage park as the object of study, and uses King Yu's Terrace Park as an example for research. Firstly, the site park and its related theories are studied, and the concept, classification and functions of the site park are introduced. Through the study and analysis of relevant site park cases, the theoretical approach to site park planning and design is summarised. Then, a systematic and comprehensive study is conducted at three different levels: macro, meso and micro, with regard to the practical site of this planning and design. Finally, based on the previous studies, a complete set of planning and design strategies is summarised for the planning and design practice of King Yu's Terrace Park. Development of the overall planning and elements of the park is based on the protection of ancient architecture, ecological landscape design, and cultural display. Through this planning and design practice, it effectively protects and showcases the city's outer city ruins protection zone, which is important for Kaifeng to promote and inherit the 'Song' culture.

Keywords: Heritage park, cultural heritage, protection of ancient architecture, ecological landscape design, cultural display.

CONTENT

ABSTRACT	0
I Introduction	1
1.1 Background of the study	1
1.1.1 Increase in cultural heritage attention	1
1.1.2 Preservation of cultural heritage becomes a requirement of the times ..	1
1.1.3 Demand for the display and use of the King Yu's Terrace Park site	1
1.2 Purpose and significance	2
1.2.1 Purpose	2
1.2.2 Significance	2
1.3 Definition of relevant concepts	2
1.3.1 Heritage Site	2
1.3.2 Heritage Park	3
1.3.3 Classification of heritage parks	3
1.3.4 The relationship between the heritage park and the city	4
II Methodology	4
2.1 Literature reading	4
2.2 Case studies	5
2.3 Site analysis	5
III Case studies of heritage parks	5
3.1 Liangzhu Ancient City Heritage Park, Hangzhou, Zhejiang	5
3.1.1 Overview of the Liangzhu Ancient City Heritage Park	5
3.1.2 Implications for learning	5
3.2 Yoshinogari Historical Park, Japan	6
3.2.1 Overview of Yoshinogari Historical Park	6
3.2.2 Implications for learning	6
3.3 Museumsdorf Düppel Park, Germany	7
3.3.1 Overview of the Museumsdorf Düppel Park, Germany	7
3.3.2 Implications for learning	7
3.4 Summary of cases	8
3.4.1 Clear positioning of the park	8
3.4.2 Highlighting site displays	8
3.4.3 Developing heritage tourism	9
3.4.4 Advocating for public participation	9
3.4.5 Restore the ecological landscape	9
IV Site analysis	9
4.1 Project overview	9
4.1.1 Location analysis	9
4.1.2 Natural environment analysis	10
4.1.3 Historical and cultural analysis	10
4.2 Macro-analysis	10
4.2.1 Project location analysis	10
4.2.1 Central city masterplan analysis	11

4.2.3	Current situation of tourism resources analysis	12
4.2.4	Historical and cultural analysis	12
4.3	Meso-analysis	13
4.3.1	Surrounding traffic analysis	13
4.3.2	Surrounding green space analysis	14
4.3.3	Surrounding site landuse analysis	15
4.4	Micro-analysis	15
4.4.1	Internal traffic analysis	15
4.4.2	Internal functions analysis	16
4.4.3	Internal architectural analysis	17
4.4.4	Internal water resources analysis	17
4.4.5	Internal spatial structure analysis	18
4.4.6	Internal planting analysis	19
4.4.7	Users analysis	19
4.4.8	SWOT analysis	20
4.5	Summary of current issues	21
V	Site Design	22
5.1	Design goals	22
5.2	Design strategies	23
5.2.1	Design strategy of protection	23
5.2.2	Design strategy of ecological landscape design	24
5.2.3	Design strategy of cultural display	25
5.3	Overall planning	26
5.4	Overall function design	27
5.5	Bubble diagram	28
5.6	Master plan	29
5.6	Section of master plan	30
5.7	Road system design	31
5.8	Cultural services facilities	32
5.9	Water system ecological design	34
5.10	Drainage ecological design	35
5.11	Plant community ecological design	36
5.11.1	Planting principles	36
5.11.2	Overall planting community design	37
5.11.3	Planting concept design for functional areas	37
5.12	Topographic Ecological Design	38
VI	Detail Design	39
6.1	Zoom in culture square area design	39
6.1.1	Zoom in master plan - culture square area	39
6.1.2	Zoom in planting design - culture square area	41
6.2	Zoom in flower ornamental area design	42
6.2.1	Zoom in master plan -flower ornamental area	42
6.2.2	Zoom in planting design -flower ornamental area	44
6.3	Technical details	46

6.3.1 Technical details of explanation board	46
6.3.2 Technical details of road pavement	47
VII Conclusions and Deficiencies	48
7.1 Conclusions	48
7.2 Deficiencies	48
References	50
List of Figures	51

I Introduction

1.1 Background of the study

1.1.1 Increase in cultural heritage attention

In 2013, during the 12th collective study of the Political Bureau of the Central Committee of the Communist Party of China, General Secretary Xi stressed the importance of "bringing heritage on display on a vast expanse of land to life". At the national level, a series of policies have been introduced to promote the integration of culture and tourism and the development of cultural tourism industries, with the aim of revitalising cultural industries and revitalising heritage resources through the flourishing of tourism. With the improvement of material living standards, people are paying more attention to the cultivation of inner spiritual culture, and tourism to cultural heritage sites has become a popular choice for the general public as it can satisfy both emotional and recreational needs.

1.1.2 Preservation of cultural heritage becomes a requirement of the times

Culture is the soul of a country and a nation, and cultural heritage is the source of power for the continuation of civilisation, cultural inheritance and innovative creation of a country and a nation, not only vividly telling the past, but also profoundly influencing the present and the future. General Secretary Xi Jinping has repeatedly emphasised cultural confidence, building an archaeology with Chinese characteristics, Chinese style and Chinese style, sound work related to site archaeology and site protection, and vigorously developing the protection and transmission of cultural heritage with a high degree of cultural self-awareness and cultural confidence. On 29 September 2018, the Standing Committee of the 14th People's Congress of Kaifeng issued the Regulations on the Protection of Cultural Relics in Kaifeng, proposing that for immovable cultural relics to be protected and not to include King Yu's Terrace Park as a key cultural relic protection object.

1.1.3 Demand for the display and use of the King Yu's Terrace Park site

King Yu's Terrace Park is part of the national cultural industry demonstration park, the Kaifeng Songdu Ancient City Cultural Industry Park. As an important cultural heritage site, a historical witness and a symbol of the Chinese nation's spirit, the King Yu's Terrace site has long been the focus of scholarly research and discussion. In conjunction with existing research and development practice, it has been found that the site is still lacking in terms of display and use, and interpretation of values. As the pace of heritage tourism development accelerates, the current state of conservation and presentation of the site needs to be upgraded and innovated to keep pace with the needs of the times.

1.2 Purpose and significance

1.2.1 Purpose

What distinguishes a heritage park from an ordinary museum is the importance of its display and participation. If a site is displayed as a part of the eye but not as a part of the experience, it will not impress the viewer.

The aim of this paper is to explore various ways of presenting the site while preserving it, so that it can come to life, speak, and develop the charm of the site itself as an identifiable and perceptible cultural heritage. By exploring and practising the landscape design of King Yu's Terrace Park, a set of methods and principles suitable for the planning and design of the site park are summarised. This will enable the park to be developed in the future in a way that satisfies the requirements for the protection and use of the site, while improving the living environment and developing the local cultural and economic industries.

1.2.2 Significance

The preservation and use of heritage sites in cities is of vital importance to the cultural heritage of today's cities. It can be said that a heritage park is a dialogue between history, today and the future. In heritage parks, there are sites with a strong sense of history, which are witnesses to history and speak of the culture of a certain period in history. And the open Heritage Park is a place for our viewers today to engage with and perceive the site, bringing a window of communication between the site and the world of today. By studying the history and culture of Kaifeng and its sites, and through the planning and design practice of the King Yu's Terrace Park, the remnants of the 'Song' culture can be effectively preserved and, when open, the sites can be effectively displayed, which will strongly enhance the The park's design and planning practice can effectively preserve the remnants of the 'Song' culture, and after its opening, effectively display the site, which can strongly enhance the 'Song' culture of Kaifeng.

1.3 Definition of relevant concepts

1.3.1 Heritage Site

The Encyclopedia of China - Archaeology considers ruins to be the sites of castles, villages, dwellings, workshops and temples left over from ancient human activity. The Chinese Dictionary of Cultural Relics and Archaeology defines a site as a place where ancient humans lived, or were engaged in productive activities and battles, such as a city site, palace site, cave site, village site, workshop site, mine and smelting site, road and bridge site, and ancient battlefield site. According to Professor Zhang Hongyan, a site is a continuously distributed collection of remains and relics left within the daily

living area of a community in ancient times[9]. According to Meng Xianmin, major sites include large scale primitive settlements, ancient cities, palaces, mausoleums, military, transportation, handicrafts, and other sites that play an important role in archaeology and in the political, economic and cultural history of China in ancient times.

The remains of industrial, hydraulic and other buildings and facilities and their associated environments, especially larger sites that have a prominent place in the history of the origins and development of our civilisation; a comprehensive system of site groups including sites associated with geographical environments and containing groups of artefacts and buildings

1.3.2 Heritage Park

The archaeological heritage park is neither a city park nor a protected area, and certainly cannot be seen as a simple combination of the two. In 2009, the State Administration of Cultural Heritage promulgated the Measures for the Administration of National Archaeological Site Parks (for Trial Implementation), which clearly defines "national archaeological site park" as "is a specific public space with scientific research, education, recreation and other functions, with nationwide exemplary significance in the protection and display of archaeological sites, with important archaeological sites and their background environment as the main body". From the above analysis, the archaeological site park not only has the protection of the site, but also has public activities such as scientific research, education and recreation, and is not a single archaeological and scientific research added together.

1.3.3 Classification of heritage parks

For the purpose of this study, the author has conducted a cursory review of the site park in terms of the functional type of the site, the size of the park, the heritage. The site is classified by building type and geographical location of the site, with a view to identifying more precisely the domestic and international examples that can be used for reference and to facilitate later planning and design.

(1) Classification according to the historical function of the site

According to the historical function of the site, the site park is divided into categories such as city wall category, garden category, palace category, and mausoleum and tomb category site park. Walled city sites refer to the remains of ancient city walls, such as the Beijing Ming City Wall Site Park; garden site parks are the remains of ancient garden sites, such as the Beijing Yuanmingyuan Site Park; palace site parks include the remains of the above-ground and underground parts of the building site and the site environment, such as Japan's Nara Heijo Palace Ruins Historical Park; tombs and burials site parks, tombs are archaeological excavations. The tombs are important objects of archaeological excavation, generally located in the urban fringe to rural areas, with large areas, and the burials unearthed are of great heritage value. For example, the National Archaeological Site Park of Qin Shihuang's Tomb in Xi'an, etc.

(2) Classification according to the building material of the site

Site parks can be divided into stone, masonry, earthen and other types of site parks based on the building material of the site.

Stone Site Park e.g. King Jingjiang Tomb Archaeological Site Park, Guilin; Brick and Tile Site Park e.g. Duhu Brick and Tile Kiln Site Park, Dali Park; earthen site parks such as the Liangzhu National Archaeological Site Park in Hangzhou; and ceramic site parks such as the Qiong Kiln Site Park in Sichuan.

(3) Classification according to the size of the heritage park

The scale of heritage parks varies from large to small. Large heritage parks are generally over 150 hectares in size, such as the Xi'an Hanyangling National Archaeological Site Park; medium-sized heritage parks are generally between 50 and 150 hectares in size, such as the Yoshinogari Heritage Park in Japan and the Heijo Palace Heritage Park in Japan; and small heritage parks are generally under 50 hectares in size, such as the Yangzhou Songjiao City Heritage Park and the Beijing Huangchenggen Heritage Park.

(4) Classification by geographical location of the site

Depending on the relationship between the site and the city, heritage parks can be divided into suburban, urban and wilderness sites Parks. Suburban heritage parks such as the Guangfu Forest Heritage Park in Shanghai; urban heritage parks such as the Daminggong Heritage Park in Xi'an.

Wilderness heritage parks such as the Annan Red Earth Heritage Park.

1.3.4 The relationship between the heritage park and the city

Heritage parks are an important part of cities, and they have these four main roles for cities: heritage parks have a protective role for urban sites; heritage parks have a shaping role for urban culture; heritage parks have a calling card role for the image of cities; and heritage parks have an improving role for the urban environment. By combining the protection of heritage sites with the development of heritage culture, the heritage park achieves a multi-win effect and plays a protective role for the city. The sites themselves carry a strong cultural message, and in the process of building and planning the city, these historical veins all deeply influence the culture of the city and have a deep impact on shaping the city's environment, deepening people's understanding of their city's culture and a deeper understanding of the culture associated with the sites. The heritage park enriches the image and connotation of the city, and at the same time, the city and the countryside provide fertile ground for the heritage park to land and is the carrier of the heritage park.

II Methodology

2.1 Literature reading

Literature reading is the basis for writing a thesis. In this paper, we first find and read a large amount of literature to have a macro grasp of site parks and their theories, and

then summarise in detail the nature, classification and role of site parks to lay a good foundation for the planning and design research later on.

2.2 Case studies

Analysis summarises excellent examples of cultural conservation, utilisation and presentation of heritage sites in various countries, summarises them and provides a knot of ideas for planning and design practice, making the case studies more instructive.

2.3 Site analysis

Collect texts, pictures, historical materials, archaeological reports and travelogues to research the conservation and use of the site, the site and the surrounding landscape resources. Analyse the current situation of the park's exterior and interior through photography, video, etc. to identify problems and find entry points for the planning and design of this park.

III Case studies of heritage parks

3.1 Liangzhu Ancient City Heritage Park, Hangzhou, Zhejiang

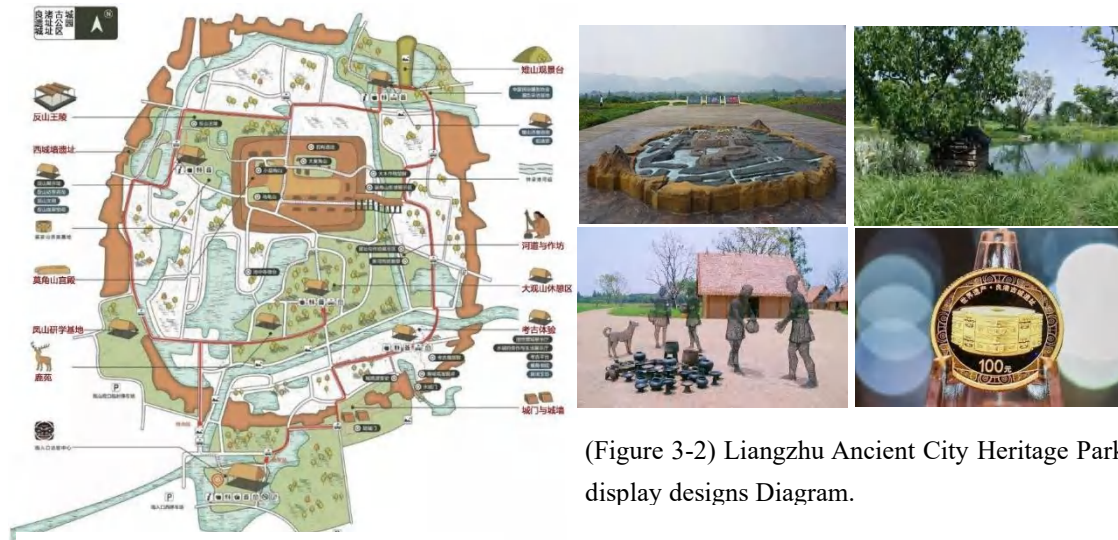
3.1.1 Overview of the Liangzhu Ancient City Heritage Park

Since its discovery in 1936, the Liangzhu cultural site has been the subject of continuous archaeological excavation and research, which has yielded a wealth of results, and archaeological work continues to this day. With the city site as its core, the Liangzhu site covers many heritage elements such as water resources, burials and jade, and was inscribed on the World Heritage List in 2019. The Liangzhu National Archaeological Site Park is being built on the premise of protecting and developing the ancient city site in conjunction with Liangzhu culture. The park combines the display of the site itself and its environment, science education, leisure and tourism, and cultural promotion, and covers an area of 4,203 hectares, located in Yuhang District, Hangzhou, Zhejiang Province (Figure 3-1).

3.1.2 Implications for learning

The planning and design of the site park should be based on the principle of giving priority to original authenticity, with minimal intervention in the site park, through on-site display and multimedia displays are used to showcase the ruins themselves as the core of the design and to disseminate the cultural connotations embedded in the

site. With the advancement and development of technology, artificial intelligence and virtual reality technology can transcend the boundaries of time and space to restore the original appearance of the site, allowing visitors to immerse themselves in the site and realise a dialogue with ancient culture, so the use of science has become an essential tool in the planning, design and development of heritage parks (Figure 3-2).



(Figure 3-1) Liangzhu Ancient City Heritage Park layout Diagram.

(Figure 3-2) Liangzhu Ancient City Heritage Park display designs Diagram.

3.2 Yoshinogari Historical Park, Japan

3.2.1 Overview of Yoshinogari Historical Park

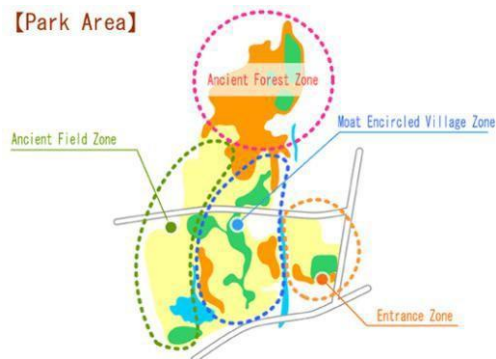
Yoshinogari Historical Park is located in Yoshinogari Town, Saga Prefecture, Kyushu, Japan, and covers an area of 117 hectares (Figure 3-3) . The Yoshinogari site is the largest site of a trench settlement in Japan during the Yayoi period that has been discovered to date, and the Yoshinogari Historical Park was created to preserve and use the site. The park has four zones: the entrance zone, the ancient forest zone, the trench tribe zone and the ancient wilderness zone (Figure 3-4). The historical park is focused on preserving the original state of the site, while developing and exploiting it through restoration of architectural remains, restoration of living scenes, display of artefacts, and tourist experiences for visitors.

3.2.2 Implications for learning

The Yoshinogari National Historical Park in Japan places great emphasis on the visitor's experience, where visitors can not only participate in various activities, but even stay overnight in the park and enjoy special accommodation (Figure 3-5). It is only by experiencing the park first-hand that you can remember and remember the history first-hand, and the whole park is a paradise to visit and experience life in the Yayoi period.



(Figure 3-3) Yoshinogari Historical Park layout Diagram.



(Figure 3-4) Yoshinogari Historical Park Functional Zones Diagram.



(Figure 3-5) Yoshinogari Historical Situation Diagram.

3.3 Museumsdorf Düppel Park, Germany

3.3.1 Overview of the Museumsdorf Düppel Park, Germany

The site of Museumsdorf Düppel is located in the south-western suburbs of Berlin, Germany, and is the site of an ancient village from the late Middle Ages. After a comprehensive archaeological excavation, a site park was built on site. During the excavations, the archaeologists came up with the idea of creating a place for archaeological experiments and communicating the results of medieval life to visitors. Since its opening in 1975, the Museumsdorf Düppel Park has persistently promoted long-term experimental archaeology, turning the entire site into a large scale public archaeological experiment (Huang Kejia and Han Jianye, 2013), enabling a five-sensory experience, participation and resurrection of history. The site covers 19.6 hectares (Figure 3-6).

3.3.2 Implications for learning

The Museumsdorf Düppel Park restores all aspects of the site's historical scene through diverse, living displays. Instead of simply visiting and reading about the history and culture, the park is transformed into a huge open-air museum. Although the scenes are fully restored, all displays are based on real archaeological evidence, and the restoration of the site's buildings is accompanied by a focus on the simulation of the site's surroundings, without the blind pursuit of elaborate and beautiful landscape vegetation (Figure 3-7).

All the restoration and display activities are closely related to the history and culture of the site, without the use of too many cutting-edge modern technologies, but without diminishing the effect of the displays, which are not only popular with visitors but also effective in conveying and passing on the heritage culture.

Experimental archaeology, although mainly driven by non-professional community volunteers, has also contributed to the development of archaeology through its findings. Through such public participation in scientific experiences, the site and its history and culture are presented in an innovative and living way, deepening the public's understanding and interest in the site and inspiring them to consciously maintain and pass on their history and culture. The good interaction between the park and the surrounding community and the self-sufficient operation of the park all contribute to the long-term sustainable development of the heritage park in the contemporary era.



(Figure 3-6) Museumsdorf Düppel Park layout Diagram



(Figure 3-7) Museumsdorf Düppel Park Current Situation Diagram.

3.4 Summary of cases

3.4.1 Clear positioning of the park

The conservation and presentation of the external form of the site should be built with the preservation of the archaeological site in mind while highlighting its historical, artistic and cultural character in its form.

3.4.2 Highlighting site displays

The display of the site proper is integrated with the conservation of the site; museum or exhibition gallery displays are an important way for the public to learn more about the heritage, the remains, the site and the culture of the site; interactive experience displays are a key element that can leave a lasting impression; other detailed displays such as art installations are an important element in enriching the content and cultural content of the site park.

3.4.3 Developing heritage tourism

The tourism product makes the heritage park a place with more room for development and vitality, with comprehensive functions such as heritage conservation, cultural tourism, exhibition and use, and science education.

3.4.4 Advocating for public participation

The above examples of heritage parks have a strong focus on public participation and are well co-ordinated in harmonising the activities of people such as visitors, archaeologists and local residents. The public is involved in the operation and management of the archaeological site park by creating a dialogue with the site through becoming volunteers, experiential participation, archaeological education, etc. This is a great catalyst for heritage revitalisation efforts.

3.4.5 Restore the ecological landscape.

Use ecological design techniques to restore the ecological landscape of the site's grassland. It also improves the outlook of the whole city.

IV Site analysis

4.1 Project overview

4.1.1 Location analysis

The project is located in Kaifeng City, Henan Province, China, in the central region of China, the eastern part of Henan Province and the hinterland of the Central Plains. It is one of the central cities in the core area of the Central Plains City Cluster of China, a cultural and tourist city, as approved by the State Council. It has a total area of 6266 square kilometres and a resident population of 4824016 (Figure 4-1).



(Figure 4-1) Location Analysis Diagram.

4.1.2 Natural environment analysis

Located in the hinterland of the Central Plains, Kaifeng has a flat, fertile soil, mostly clay, loam and sandy soils, which is suitable for all kinds of crops. Kaifeng has a temperate monsoon climate with four distinct seasons, generally characterized by cold and dry winters, dry and windy springs, high temperatures and rainy summers, and high weather in autumn. There are many rivers and lakes in Kaifeng, belonging to the Yellow River and the Huai River, and five lakes and four rivers surround the city, with a water area of more than 220 hectares, accounting for about 1/10 of the built-up area of the central city of Kaifeng, which is known as the "Water City of the North". Water City in the North It is known as the "Northern Water City".

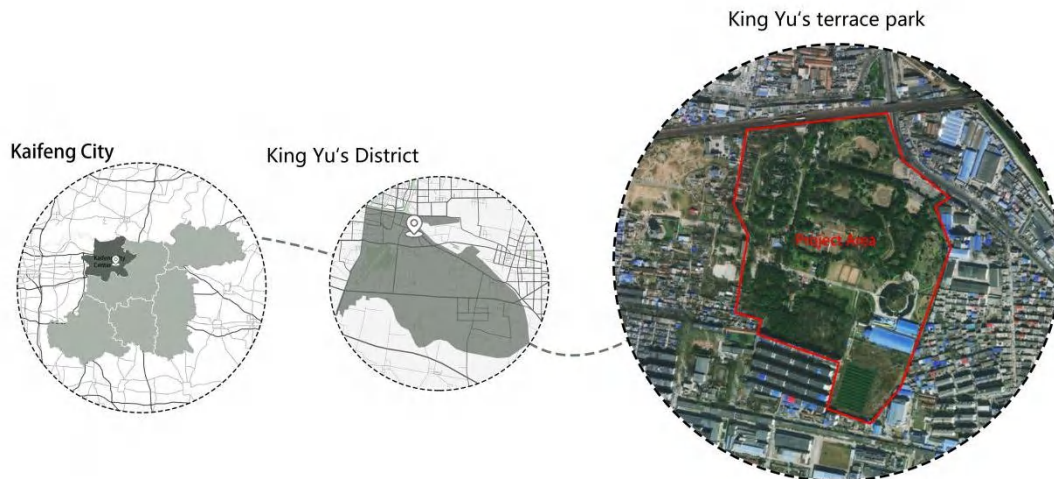
4.1.3 Historical and cultural analysis

Kaifeng is one of the first National Famous Historical and Cultural Cities It has a history of more than 4,100 years and is known as the "Ancient Capital of the Eight Dynasties", and has nurtured the influential "Song Culture" which has been inherited from the Han and Tang dynasties and the Ming and Qing dynasties. Song Culture The city has been known as the "ancient capital of the eight dynasties" and has given birth to the influential "Song culture", which has been inherited from the Han and Tang dynasties and the Ming and Qing dynasties. The capital of the Song Dynasty The city of Tokyo It was the world's largest city at the time and was the city of the Qingming River where the painting was created. Kaifeng is a city with a central axis It is a capital city that has never changed, and the ruins of the city on top of the city are rare in the world's archaeological and capital city history. With its rich cultural heritage, Kaifeng was the capital of the Song dynasty for 168 years, and as such, it has a strong focus on 'Song culture' among its many cultural expressions.

4.2 Macro-analysis

4.2.1 Project location analysis

King Yu's Terrace Park is located in China's Henan Province Kaifeng City The southeastern corner of the city is dominated by the surviving Yuwangtai The park is named after the existing King Yu's Terrace . King Yu's Terrace Park has a long history and a rich cultural heritage. It was opened as a park in 1955 and has experienced a history of 2,500 years since then. The park covers an area of 26.1 hectares (Figure 4-2).

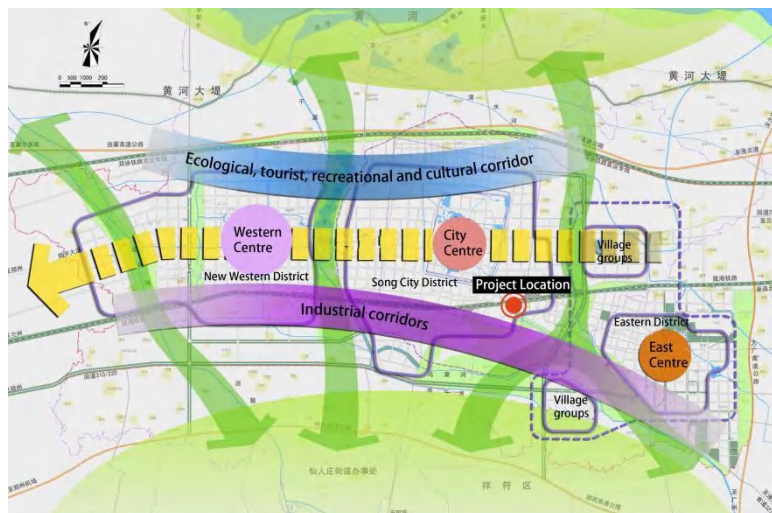


(Figure 4-2) Park Location Diagram

4.2.1 Central city masterplan analysis

According to the overall urban plan for downtown Kaifeng, King Yu's Terrace Park is an important green public space in the Songcheng area (Figure 4-3) . It is also a national tourist attraction, so it is important to strengthen the protection and management of the park and to better provide the surrounding residents with a high-quality green space for outdoor activities.

King Yu's Terrace Park is one of the few large comprehensive garden green spaces in Kaifeng, and has a pivotal position as an important part of it, contributing to the construction of urban green spaces in Kaifeng. The urban area of Kaifeng is also a ribbon of urban greenways formed by its presence.



(Figure 4-3) Kaifeng Central City Masterplan Diagram

4.2.2 Conservation planning of the ancient city layout analysis

According to the Kaifeng Old Town Pattern Conservation Plan, King Yu's Terrace Park is an important historical and cultural conservation area, undertaking the role of heritage conservation and spreading historical culture (Figure 4-4) . The protection and display of the existing ancient buildings within the park should be enhanced so

that more people can understand the history and culture behind them.



(Figure 4-4) Kaifeng Conservation Planning of the ancient city layout Diagram

4.2.3 Current situation of tourism resources analysis

Kaifeng has 8 national 5A and 4A tourist attractions and 19 national key cultural relics protection units. China Kaifeng Qingming Cultural Festival, the China Kaifeng Chrysanthemum Cultural Festival attract many tourists from home and abroad (Figure 4-5). Most of the heritage parks and sites are concentrated in the city centre. In the King Yu's Terrace District, there is only one King Yu's Terrace Park.

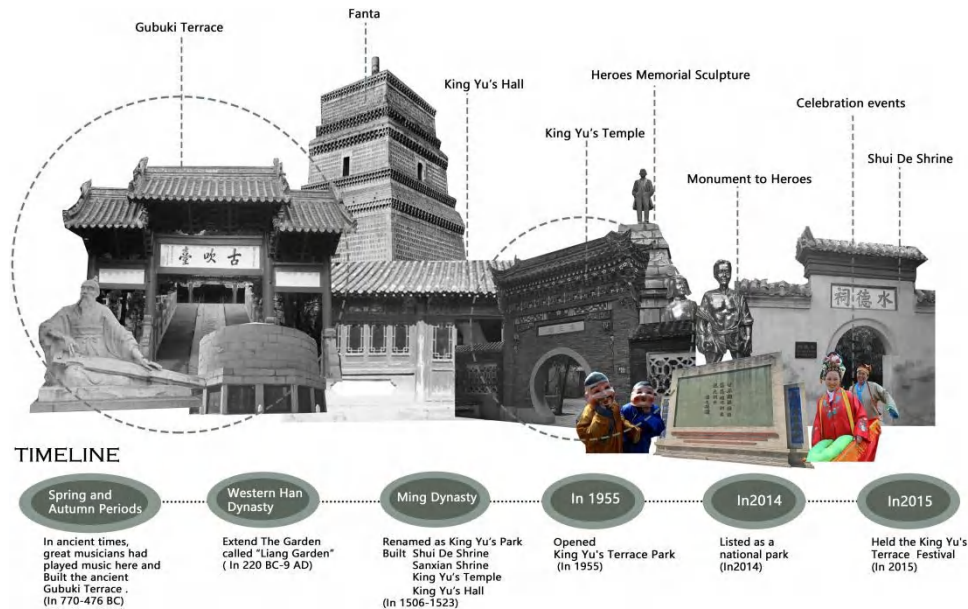


(Figure 4-5) Kaifeng Current situation of tourism resources Diagram

4.2.4 Historical and cultural analysis

King Yu's Terrace Park has a long history and a rich cultural heritage. It was opened

as a park in 1955 and has experienced a history of 2,500 years since then, and is one of the key cultural heritage protection units (Figure 4-6). The main attractions include the Ancient Blowing Platform, the Imperial Book Building, the Qianlong Imperial Tablet Pavilion, the Three Sages Ancestral Hall, the Yu Wang Hall and the Water Virtue Ancestral Hall. In addition to the cultural relics, the park also has the Xinhai Revolution Martyrs' Memorial Garden, Peony Garden, Cherry Garden, Fangchun Garden and other sightseeing spots, which are national A-class tourist attractions.

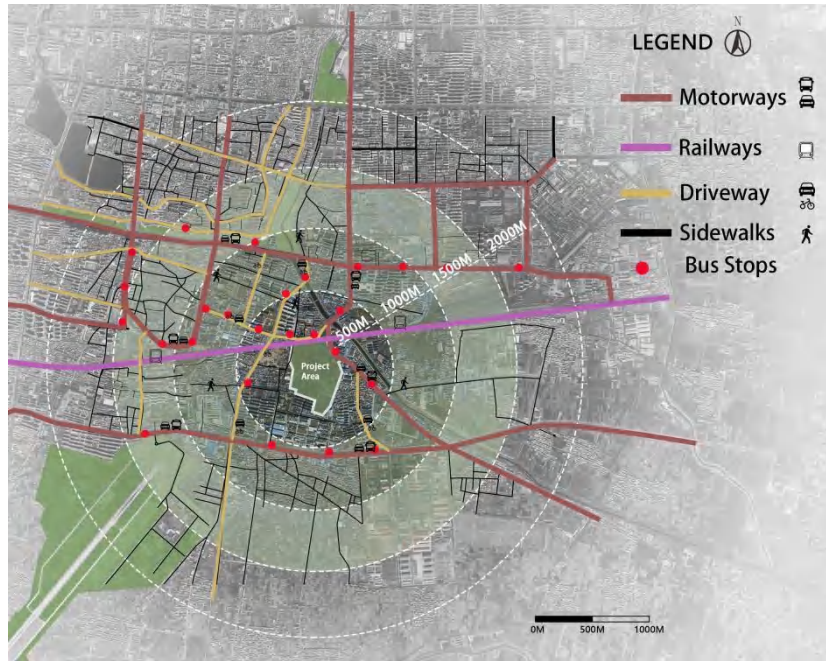


(Figure 4-6) King Yu's Terrace Park Historical and cultural Diagram

4.3 Meso-analysis

4.3.1 Surrounding traffic analysis

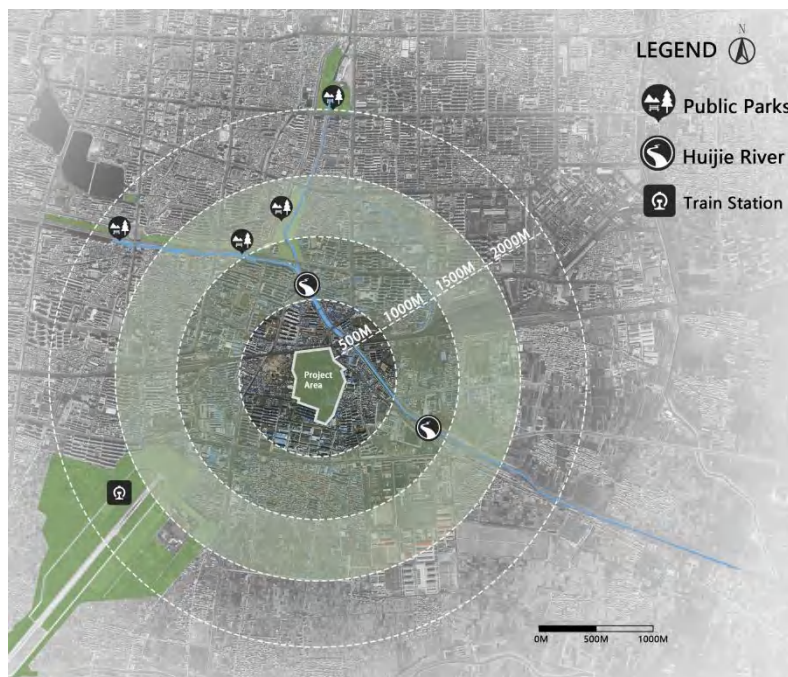
The area around King Yu's Terrace Park is well served by transport facilities for easy commuting. It is bordered by the train tracks to the north, Fanta I Street to the west and King Yu's Terrace Road to the east. The planned road network is well-connected and residents can reach the park entrance from a number of roads. There are a number of bus stops within 500 metres of the site, making it easy for residents to access the park (Figure 4-7).



(Figure 4-7) King Yu's Terrace Park Surrounding traffic Diagram

4.3.2 Surrounding green space analysis

In the vicinity of King Yu's Terrace Park, there is only one Fanta Park within a distance of 500 metres and a series of parks around the city wall within a distance of 1000-1500 metres (Figure 4-8) . Therefore, it is clear that there is a lack of large parks for leisure, fitness and recreation for the surrounding residents, and that King Yu's Terrace Park, as the green centre of the King Yu's Terrace district, should provide a better space for green services.



(Figure 4-8) King Yu's Terrace Park Surrounding green space Diagram.

4.3.3 Surrounding site landuse analysis

The surrounding area is predominantly residential, with some commercial activity present. Around the site the mixed buildings are mostly low-rise, with the residential buildings being high-rise. To the west of this park, famous for the Fanta, one of the oldest surviving Buddhist buildings in Kaifeng .

The park is enclosed on all sides, with a fence as a boundary line. Only two entrances can be accessed, the main entrance area with a large parking area and a secondary entrance connected to the Prosperity Tower Park (Figure 4-9).

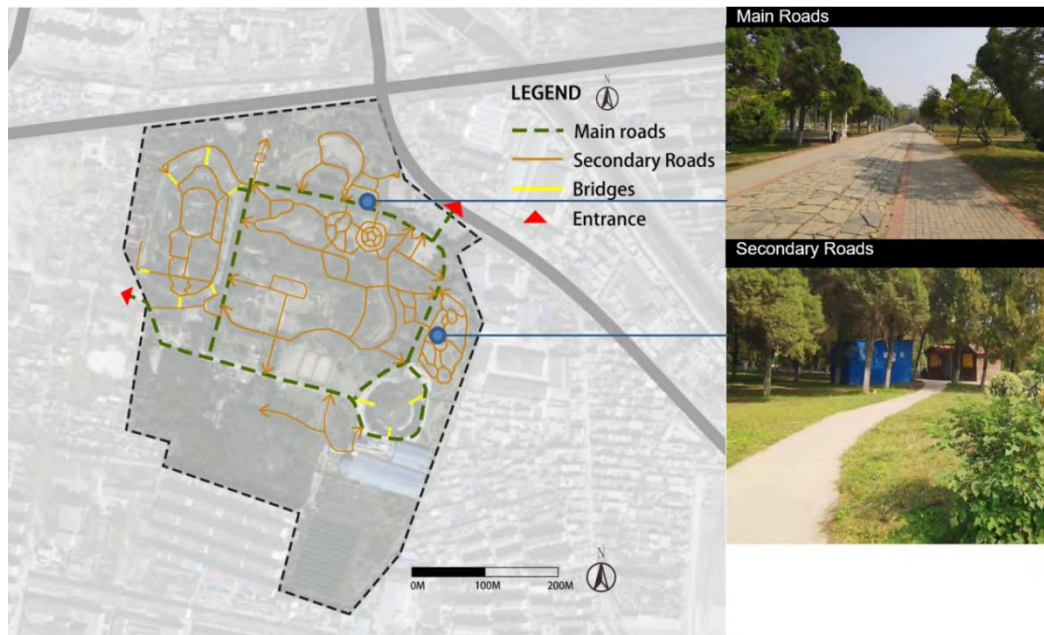


(Figure 4-9) King Yu's Terrace Park Surrounding Landuse Diagram

4.4 Micro-analysis

4.4.1 Internal traffic analysis

The paths within the park are divided into main paths and secondary paths (Figure 4-10). The main paths are 6 metres wide and the paving material is mainly concrete, gravel and brick. The secondary paths are 2-3 metres wide and the paving materials are concrete, brick and earth. The current planning of the secondary roads is confusing and there is no clear guidance. Also there are a number of cut-offs in the secondary roads which do not directly connect to other roads. Most of the current roads within the park are in a very dilapidated state due to lack of management and maintenance over the years.



(Figure 4-10) King Yu's Terrace Park Internal traffic Diagram

4.4.2 Internal functions analysis

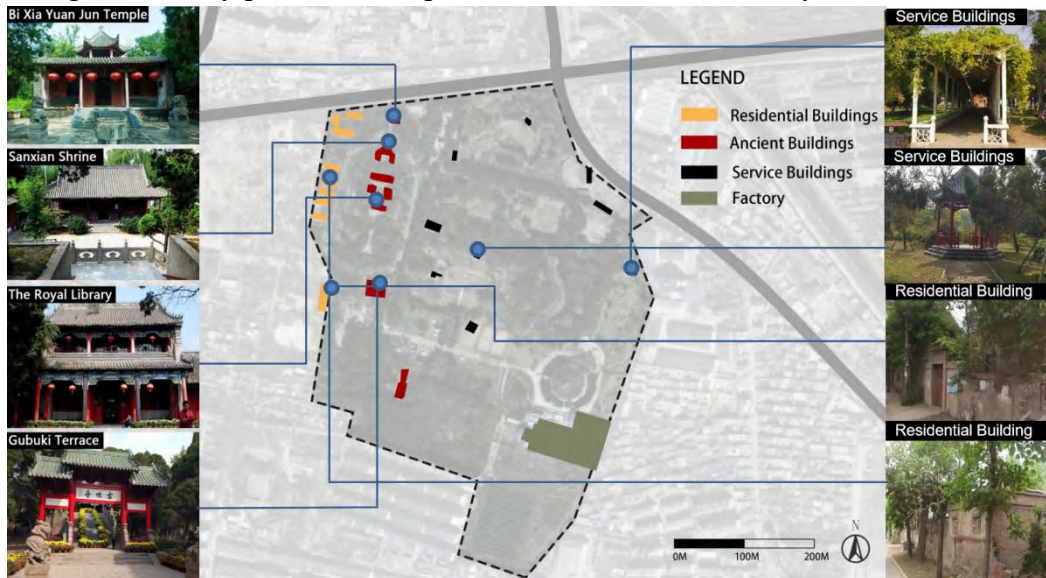
The park is currently divided into the following areas: the main entrance, the central activity area, the water park, the ancient conservation area, the planting area, the basketball court and four small gardens with different themes (Figure 4-11). The main entrance area: outside the park entrance there is a car park with about 40 parking spaces and some bicycle parking spaces. Upon entering the park there is an entrance square with sculptures and flower beds. The central activity area has children's facilities and sports facilities, but some of the existing infrastructure is rather dilapidated due to its age, and some of it is no longer functional. The water park is a small island enclosed by a ring of water, connected by a bridge to the park road, and a small indoor swimming pool for children next to the island. Ancient Conservation Area: a landscaped area mainly devoted to the display of ancient buildings. Planting area: This area has a large number of existing plant communities, mostly with native plants, and is the highest area in the park in terms of terrain. The basketball court: a new area for sporting activities, which has now been completed and can be used on a daily basis. Four different themed gardens: the Cherry Garden, the Peony Garden, the Pomegranate Garden and the Spring Garden (a garden of mainly evergreen shrubs).



(Figure 4-11) King Yu's Terrace Park Internal functions Diagram.

4.4.3 Internal architectural analysis

The types of buildings within the park are divided into 3 main types: residential buildings, ancient buildings and service buildings(Figure 4-12). The residential buildings are low-rise buildings built by the surrounding residents. Due to their age, most of the buildings are no longer in working order and are unoccupied, but a small number of residential buildings are still in use. The maintenance of the facades of the ancient buildings is relatively good, and the vegetation around the ancient buildings grows well, but there is a lack of unified planning and management. The service buildings are mostly pavilions and planters, which can be used by visitors for resting.

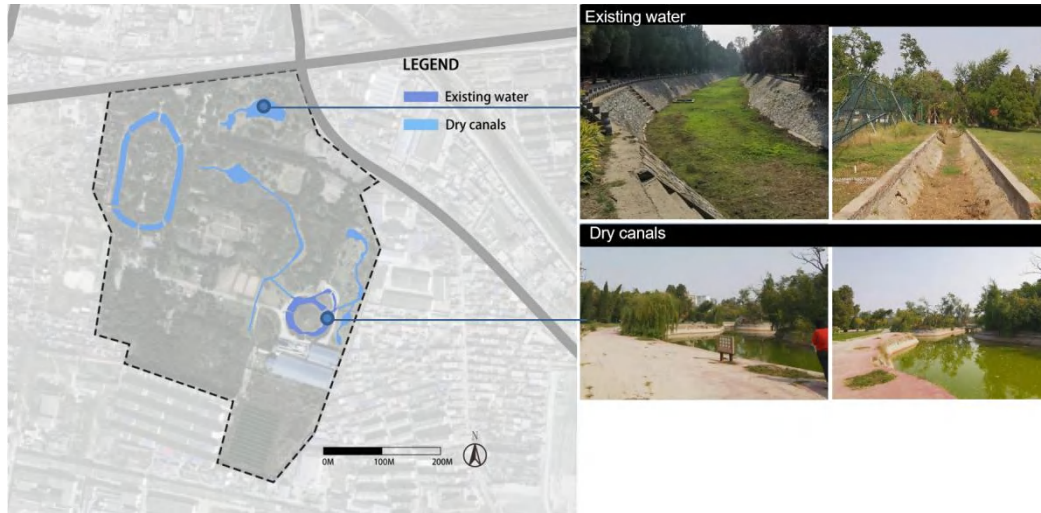


(Figure 4-12) King Yu's Terrace Park Internal building analysis Diagram

4.4.4 Internal water resources analysis

The current state of water resources within the park is divided into two types: one is a

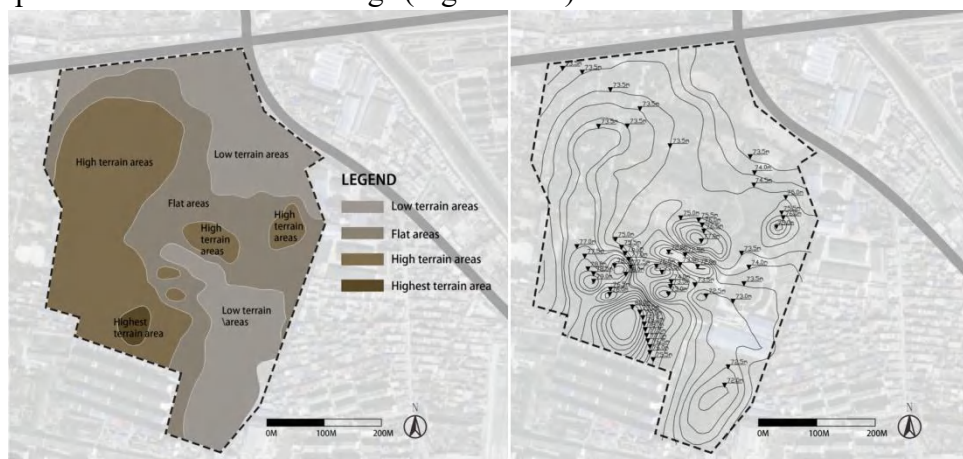
river with water. The other is a dry channel (Figure 4-13) . By reviewing the information, the water resources were still very abundant when the park was newly built, but due to the lack of maintenance and management in the later years. Most of the water has dried up, leaving only the channels exposed, which affects the aesthetics of the park's landscape.



(Figure 4-13) King Yu's Terrace Park Internal water resources Diagram

4.4.5 Internal spatial structure analysis

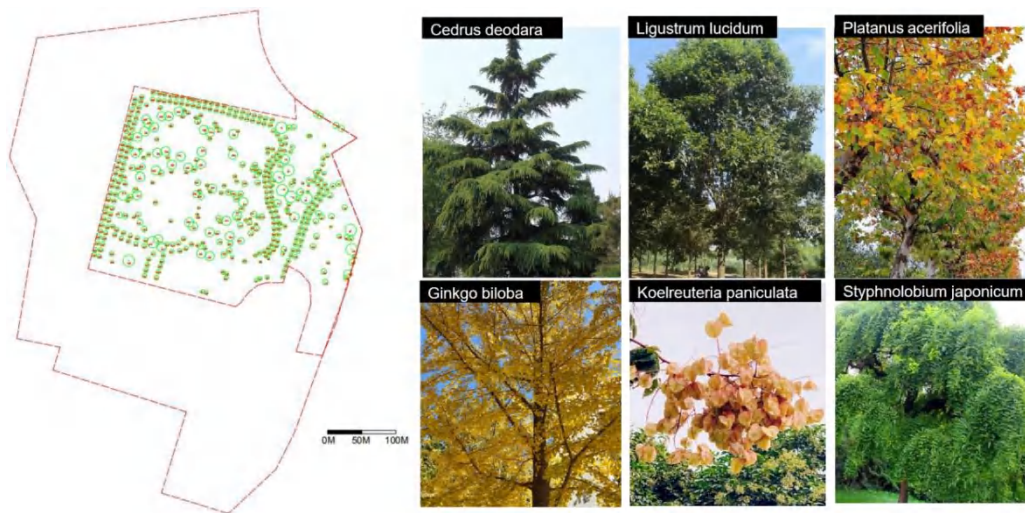
The topography within the park is generally high in the west and low in the east with a roughly 7m difference, with the highest point at 80.0m in the southwest corner of the site and the lowest point at 73.0m in the northeast corner of the site. The site is gently sloping with moderate gradients and only a few steeper slopes. The entire site is divided into three main parts: the low terrain area, the flat area and the high terrain area. The low terrain area contains the entrance plaza, the children's activity area and the water park area. The flat area is mainly used as a central activity area, containing sports activities, themed gardens and quiet rest areas, and is the main activity-bearing area of the park. The high terrain areas are mainly concentrated in the ancient conservation area and the planting areas, which are elevated to bring out the solemn atmosphere of the ancient buildings (Figure 4-14).



(Figure 4-14) King Yu's Terrace Park Internal spatial structure Diagram.

4.4.6 Internal planting analysis

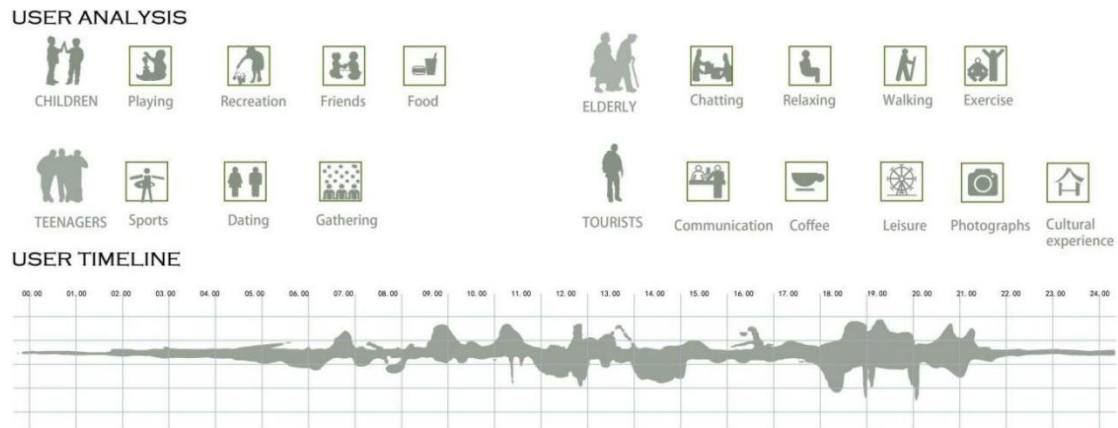
Due to the large size of the whole park, the survey for tree species was concentrated on the central area of the park, and this area is also the area I will plan in detail later. There are six main species of plants in the central area within the park (Figure 4-15). The street trees distributed along the main path are the hanging bell trees. The other area trees are ginkgo, cedar, luan and acacia etc. for, and shrubs are maidenhair, boxwood, heather etc. The majority of the plants in the park are in good condition, with a few in poor condition. They may be considered for cutting back in the later planning and design.



(Figure 4-15) King Yu's Terrace Park Internal planting Diagram

4.4.7 Users analysis

Based on the analysis of the surrounding land use and the basic site survey, it was found that the park should serve mainly residents and visitors (Figure 4-16). The daily use groups are all dominated by children, young people and the elderly. According to the site survey, residents' use is concentrated after 6pm, which is because most Chinese people have the habit of going out for a walk and exercising after dinner. In addition to catering for the display of history and culture, there should be sufficient space for activities such as a children's play area and a fitness area for residents. A visitor centre, cultural display area and experience area could also be added to the site to meet the needs of visitors. Create an urban heritage park that combines historical and cultural, leisure and ecological functions.



(Figure 4-16) King Yu's Terrace Park Users Diagram

4.4.8 SWOT analysis

The advantages of this site park planning and design: is that firstly, King Yu's Terrace Park is located in the historical and cultural protection area of Kaifeng, with the support of government policies. Secondly, the site has a long history and culture, and the site is of high value, which is conducive to building a cultural brand of the site. Finally, the location is excellent, with convenient transportation and a good foundation for greening and other things.

Disadvantages: The landscape elements within the park are in a state of disrepair. There is a lack of display and promotion of the park's background culture. The planting design is also very homogeneous. The singularity of the existing features is unattractive.

Opportunity: Kaifeng is a historical and cultural tourist city, so King Yu's Terrace Park can be combined with other tourist resources to develop tourism. Not only will it spread the history and culture of the park, but it will also drive the city's economic development.

Threats: Firstly, King Yu's Terrace Park is rarely known due to a lack of publicity. Secondly, King Yu's Terrace Park is located in the suburbs and it is important to consider how it can be combined with other tourism resources. Finally, it is also important to consider how to better balance the preservation of the site with its cultural presentation. Better cultural dissemination with adequate protection of the site is what sets the site park apart from other parks (Figure 4-17).



(Figure 4-17) SWOT Diagram

4.5 Summary of current issues

Current state of the building: The old building is well preserved but lacks display design. The other service buildings are in a state of disrepair, affecting their use.

Infrastructure: There is very little infrastructure within the park, with only a small number of facilities for children's activities, sports activities and benches. Most of the infrastructure is in a state of disrepair.

Paving: The paving materials for roads are mainly brick, gravel, asphalt concrete and rubber. The quality of the paving materials has also deteriorated due to prolonged use. Also due to the lack of overall planning and design of the roads, there is also a part of the pavement that people walk out on their own.

Plants: As this is a historical park, most of the plants inside the park are very tall, but lack of maintenance and management means that many of them grow wild. There are also a few plants in a poor state of growth.

Water resources: Most of the water resources within the park have dried up due to a lack of management over a long period of time. Only the area of the water park has a small amount of existing water. The dried up rivers should the aesthetics of the landscape (Figure 4-18) .



(Figure 4-18) Current issues Diagram

V Site Design

5.1 Design goals

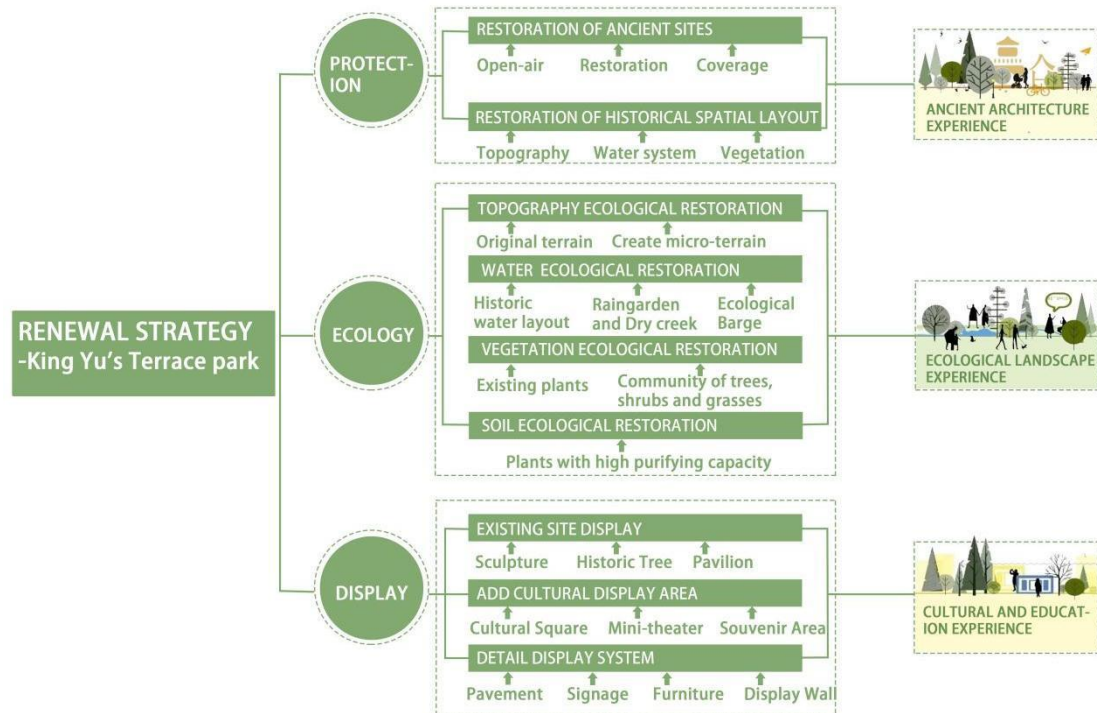
Based on the above analysis and discussion, it was determined that this King Yu's Terrace Park would aim at ancient preservation, cultural display and ecological landscape design, featuring the promotion of 'Song' culture and creating a heritage park that effectively conveys historical and cultural information (Figure 5-1).



(Figure 5-1) Design goal Diagram

5.2 Design strategies

According to the analysis of the current situation, the design strategy for the renewal of King Yu's Terrace Park focuses on three directions. Ancient architecture protection,



ecological landscape design and cultural display (Figure 5-2).

(Figure 5-2) Design Strategy Diagram

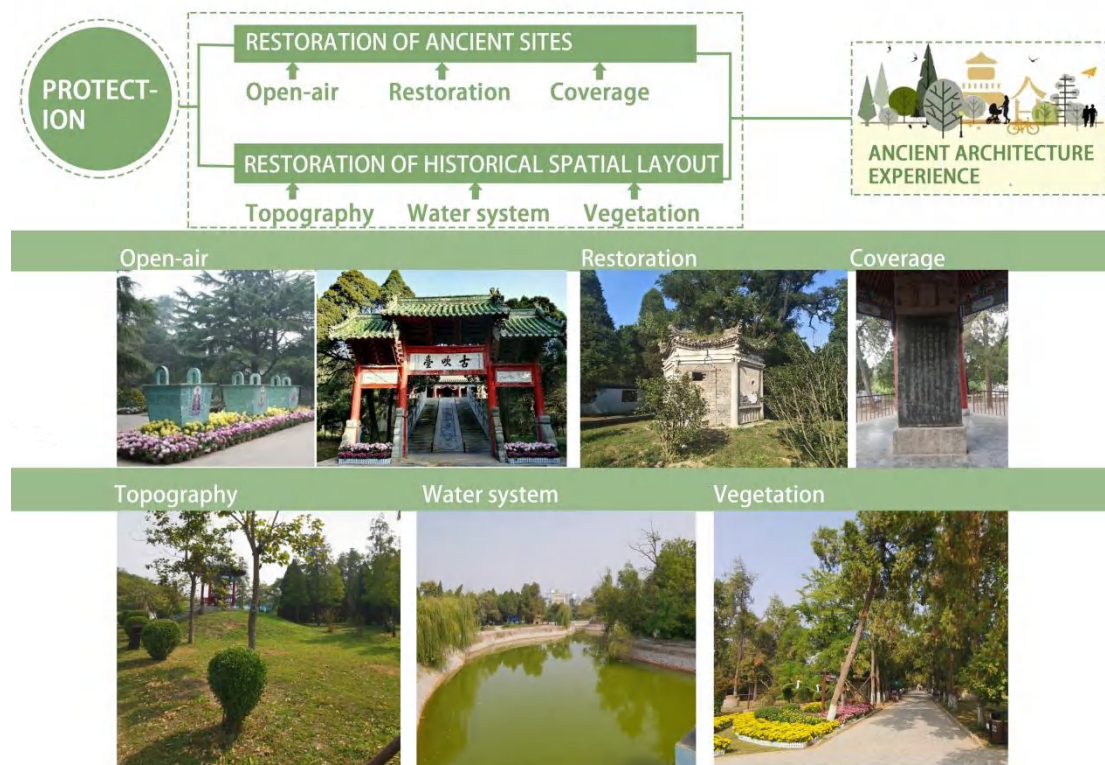
5.2.1 Design strategy of protection

In terms of protection, the restoration of the ancient architecture body and the restoration of the historical spatial layout are used(Figure 5-3).

Ancient architecture protection is the way to present the original appearance of the site, its own value and excavated artifacts to the public. For sites with overlapping remains from different periods, the focus should be highlighted and the logical hierarchy in time and space should be handled.

The current site landscape protection measures and display methods do not have a unified standard, summarized through relevant information, the main object of this study can be divided into open-air protection display, restoration and protection exhibition and site reconstruction display three ways. Historical spatial layout restoration appropriately strengthens the restoration of topography, water system, plants and ancient site boundaries to strengthen the original pattern of the park display. Greening, structures, roads and other means are used to strengthen the existing archaeological zoning boundaries and improve boundary recognition. High platforms, landscape pillars, and landscape frames are set up to guide the control of angular

views, provide multiple perspectives of top, flat, and elevated views, and create a variety of landscapes such as frames and pairs of views to strengthen the viewer's perception of the site.



(Figure 5-3) Design Strategy of protection Diagram

5.2.2 Design strategy of ecological landscape design

In terms of ecological landscape design, the main focus is on the ecological restoration of the site's internal topography, water, plants and soil (Figure 5-4).

The topography design of the site park is to preserve the original topography of the park, while making full use of the current topography to create micro-topography, increase the topographic changes inside the park, and enrich the sense of different spatial experiences.

The ecological nature of the site is improved through planting design and terrain design.

The water design restores the original water pattern of the park, and according to the current conditions of the park, a wetland is designed in the high topography area of the park and a dry creek is designed in the low topography area to establish the first ecological barrier for the internal environment of the site. In addition, permeable pavement is used for roads, squares, parking lots, etc., and grass planting ditches are used around the perimeter to effectively slow down surface runoff and play a good filtering role for rainwater, and the construction and maintenance costs are low, which also follows the principle of economical and applicable landscape ecological restoration construction.

The planting design should take the protection and display of the site as the core, not

to destroy the original vegetation, and to preserve the old trees and well-grown plants in the current situation inside the site. At the same time, some native plants and exotic plants are added to enrich the plant species, create a beautiful plant landscape and a good combination of plant community relationship of trees, shrubs and grasses.



(Figure 5-4) Design Strategy of ecological landscape design Diagram

5.2.3 Design strategy of cultural display

In terms of cultural display, we adopt the current site display, increase the cultural display function area and detail display (Figure 5-5). The current site display is a cultural display through the design of cultural sculpture, ancient trees and antique buildings. The cultural display function area can be designed for handicraft experience, small theater, and souvenir display area. Detail display design refers to the selection of paving materials, signage design, furniture design, and the design of cultural display landscape walls. In the design of historical and cultural park, these details design has good landscape expression effect and can also play the role of cultural communication.



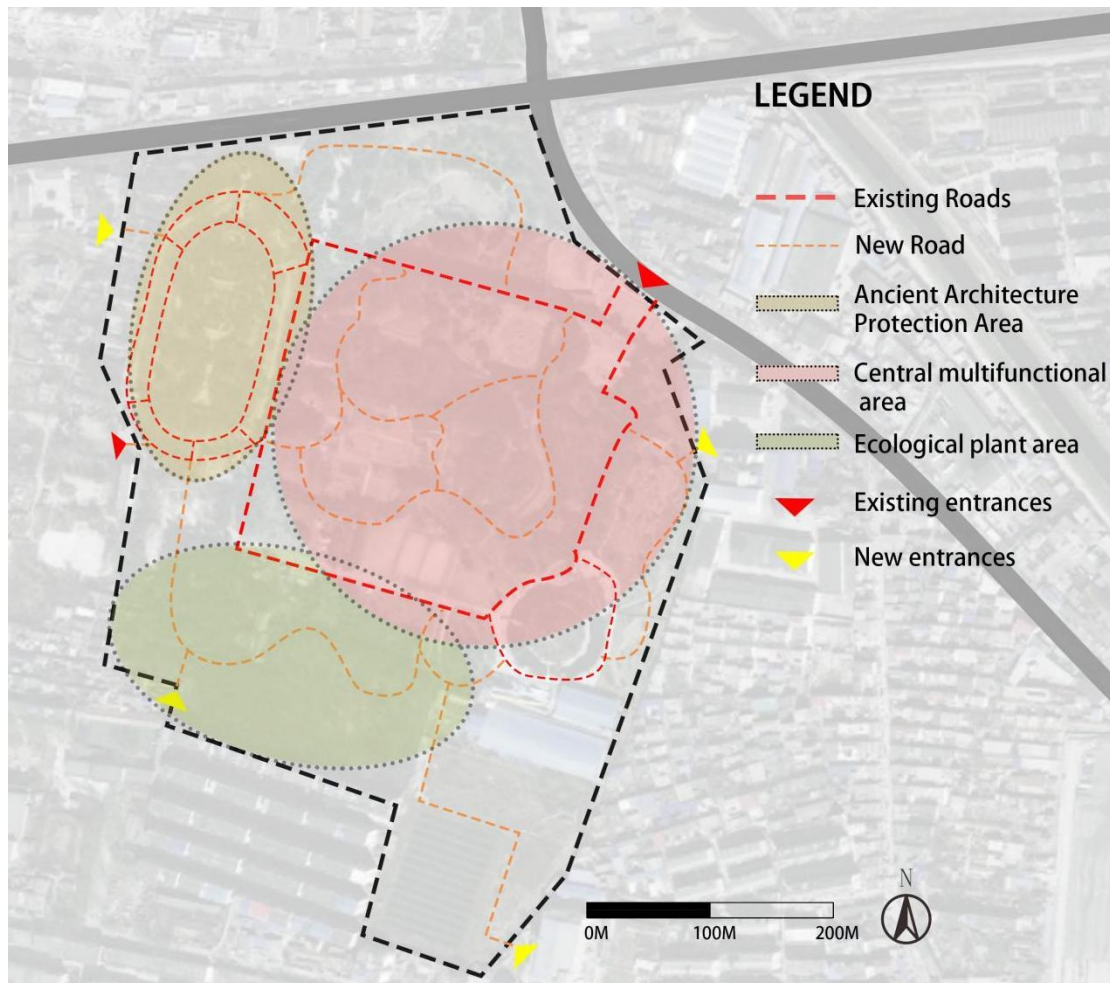
(Figure 5-5) Design Strategy of cultural display Diagram

5.3 Overall planning

Firstly, open more entrances to the park, increase the public openness of the park, and facilitate visitors to enter the park from different entrances.

Secondly, the road system of the whole park will be improved to link three major functional areas, Ancient architecture protection area, Ecological plant area, Central multifunctional area.

At the same time, to protect the original spatial pattern of the site park, the existing main road will remain unchanged, while adding secondary roads and third level paths. Finally, the themes of the three major functional areas are clearly defined, and the landscape design is characterized to enrich the experience of visitors while spreading the history and culture (Figure 5-6).



(Figure 5-6) King Yu's Terrace Park Overall Planning Diagram

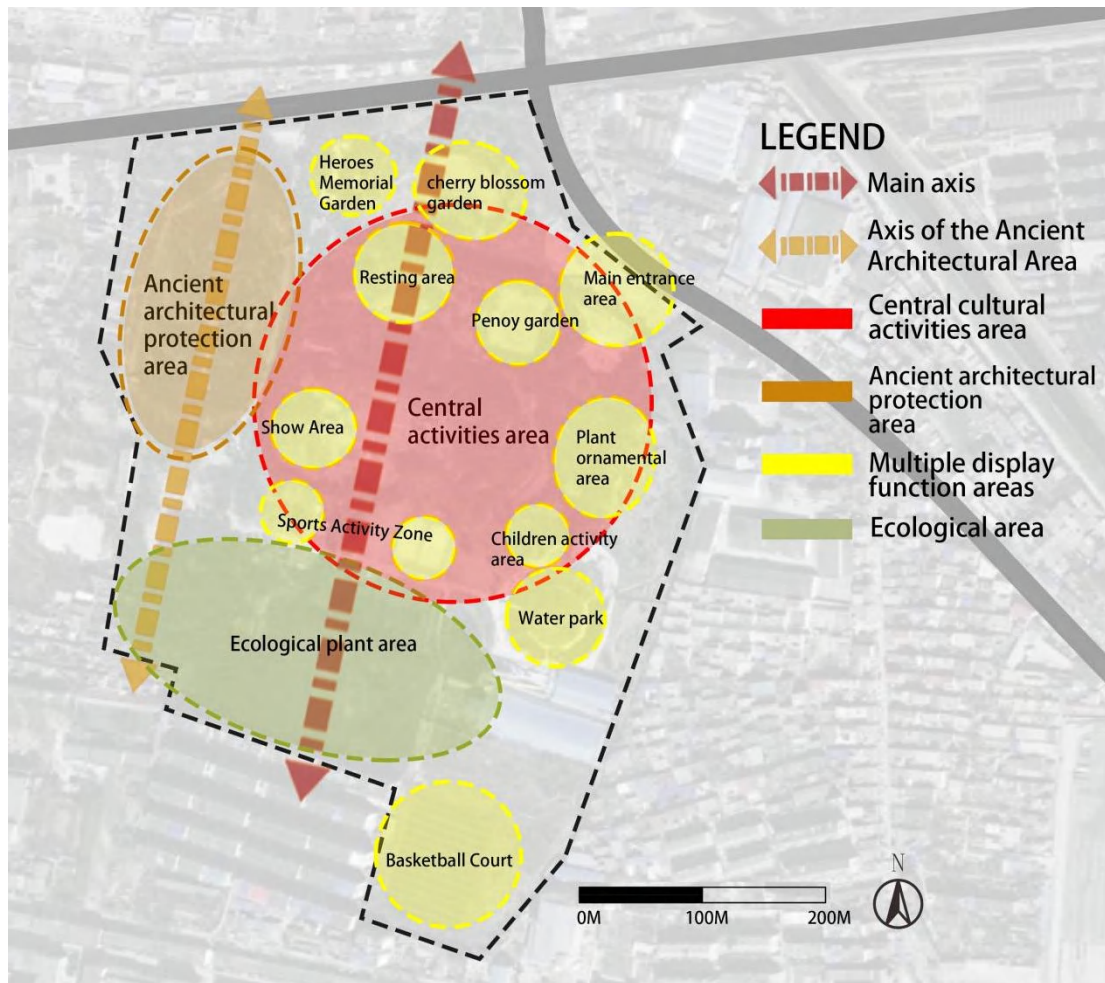
5.4 Overall function design

The overall functional design of King Yu's Terrace Park is called "two axes, three zones and multiple nodes" (Figure 5-7).

Two axes are: Axis of the Ancient Architectural Area. Axis through the whole of the ancient architectural protection area. Main axis Based on the current situation of the park, a main park axis is created parallel to the axis of the ancient architectural area.

Three Zones are: Ancient architectural protection area、 Ecological plant area and Central activities area.

Multiple nodes includes: Main entrance Area, Penoy garden, Central cultural activities area, Children activity area, Water park, Basketball Court, Sports Activity Zone, Show Are, Recreation area, cherry blossom garden, Heroes Memorial Garden. To meet the leisure and entertaining, scientific research and education needs of tourists on the basis of the premise of site protection and display.



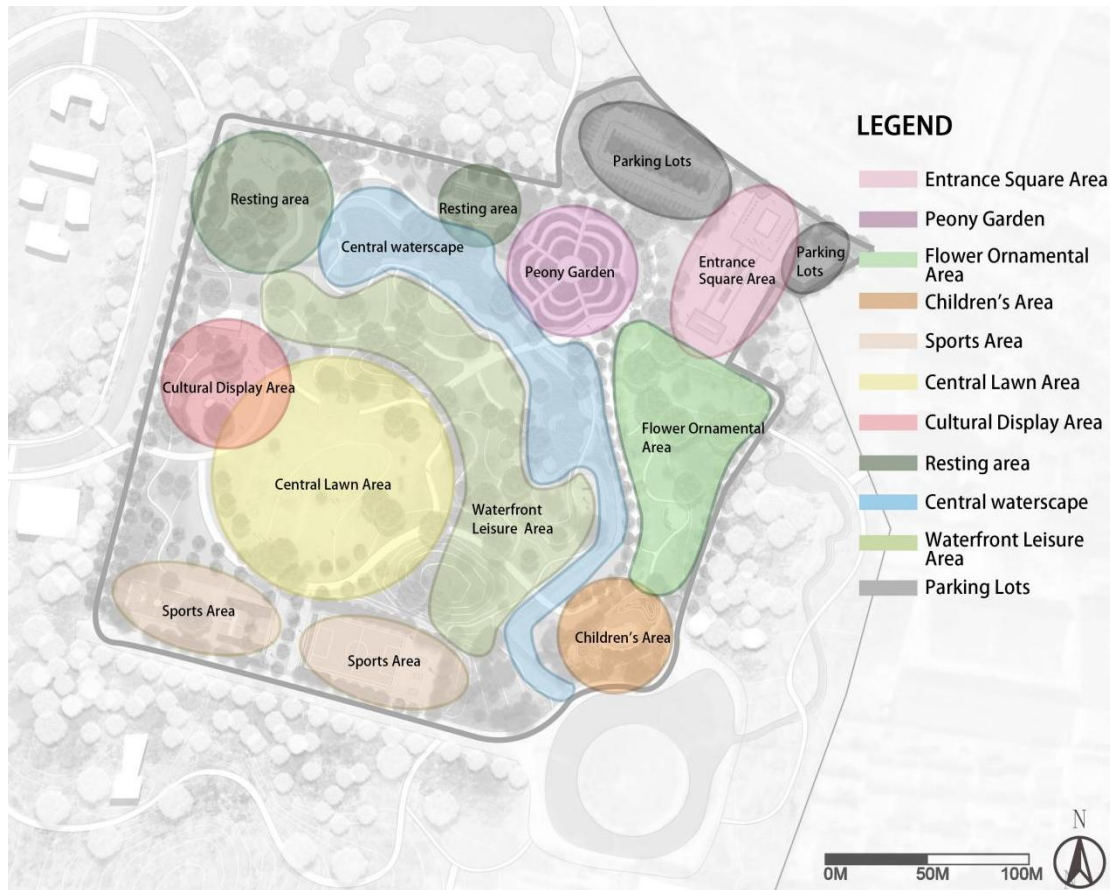
(Figure 5-7) King Yu's Terrace Park Overall Function Design Diagram

5.5 Bubble diagram

The project design focuses on the central activity area within the park, with a total area of 8.2 hectares. Reclassified 11 functional areas based on the current state of the park and design strategy.

3 original functional areas have been kept: these are entrance square area, peony garden and Central lawn area.

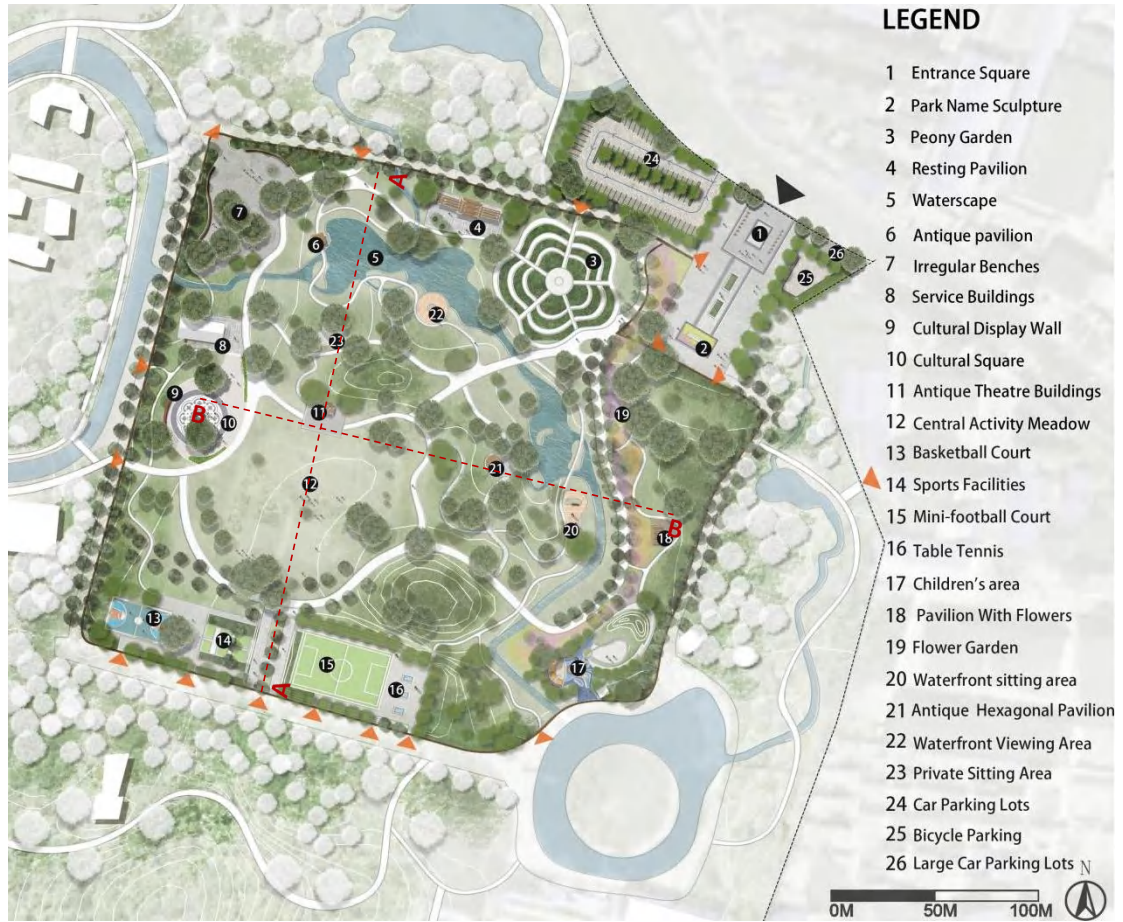
8 new functional areas have been designed, Flower Ornamental Area with flowering plants as the main display, Children's Area with games and entertainment, Central waterscape with water as the main scenery, Resting area with resting under the trees, Cultural Display Area with the history and culture of King Yu as the main display, Sports Area with sports and the car parking area (Figure 5-8).



(Figure 5-8) King Yu's Terrace Park Bubble Diagram

5.6 Master plan

The master plan design for the renewal of the central area of King Yu's Terrace Park includes a total of 26 nodes to meet the needs of visitors for recreation, scientific research and education under the premises of site protection and display (Figure 5-9) .



(Figure 5-9) King Yu's Terrace Park Master Plan Diagram

5.6 Section of master plan

Two sections in different directions, crossing the whole central area of King Yu's Terrace Park, show the topographic and spatial changes inside the park. The vertical section A-A focuses on the open lawn space and the topographic changes of the central lake, the horizontal section B-B focuses on the topographic changes of the cultural display area, waterfront leisure area and flower ornamental area (Figure 5-10).



(Figure 5-10) King Yu's Terrace Park Section Diagram

5.7 Road system design

In order to protect the integrity of the original pattern of King Yu's Terrace Park, The road system is divided into 5 levels for the visitors (Figure 5-11).

The current structure of the existing main road with a total width of 5 meters and a circular runway with a width of 1.4 meters was retained.

The primary road width is 3.5 meters, connecting the entrances and exits, and the pavement is chosen with characteristic patterns for cultural display, while also taking into account the ecological function of drainage, with grass planting ditches designed on both sides of the road.

The secondary road width is 2-2.4 meters, which deeply connects each node and guide the visitors' sight for scenery viewing, and the grass planting ditch is also designed on both sides of the road.

Tertiary roads are 1-1.5 meters wide, with beautiful curves and strong interest, adding spatial layers to the park.



(Figure 5-11) King Yu's Terrace Park Road System Design Diagram

5.8 Cultural services facilities

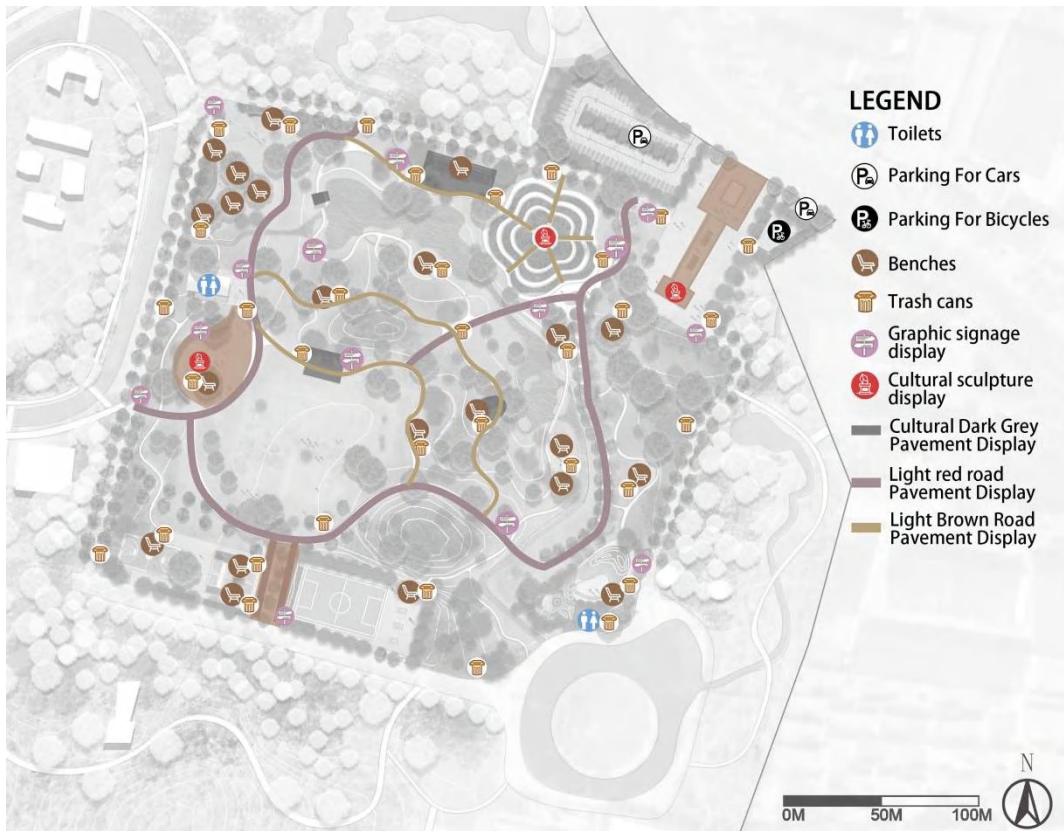
The cultural service facility design adopts a four-level signage system, with the content transitioning from general to detailed level by level (Figure 5-12).

The first level signage is the general guide map, which introduces the park and shows the master plan, and is placed at the entrance of the the park (Figure 5-13).

The second level signage provides three functions: location indication, directional guide and introduction of tour flow, mainly indicating the current location and the location of important service facilities such as parking lots, entrances and exits, public toilets, etc., indicating the direction and distance of park buildings, important service facilities, site nodes and other destinations, and introducing the distribution of each characteristic tour route and node, mainly located at traffic nodes and entrances to the functional areas (Figure 5-14).

The third level signage are mainly for the introduction of sites and attractions, introducing detailed information about sites and attractions and related contents, mainly located at sites and important attractions (Figure 5-15).

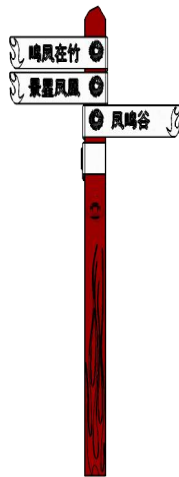
The four levels of signage are furniture categories, seating, lamps and trash cans that provide daily use and are located at each site, plaza and green space. The four level signage are arranged in the sites according to the site conditions. The overall design of the signage system is based on dark red and wood color, which is calm and atmospheric. The design incorporates heavy wooden structures, park logos and other elements with a strong culturally characteristic atmosphere of King Yu (Figure 5-16).



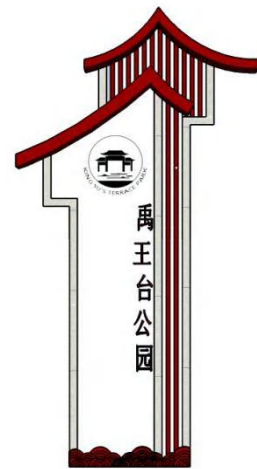
(Figure 5-12) King Yu's Terrace Park Cultural Services Facilities Diagram



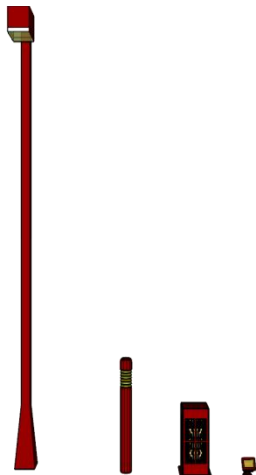
(Figure 5-13) General guide map model



(Figure 5-14) Directional sign model



(Figure 5-15) Information introduction to attractions model



(Figure 5-16) Park lighting model

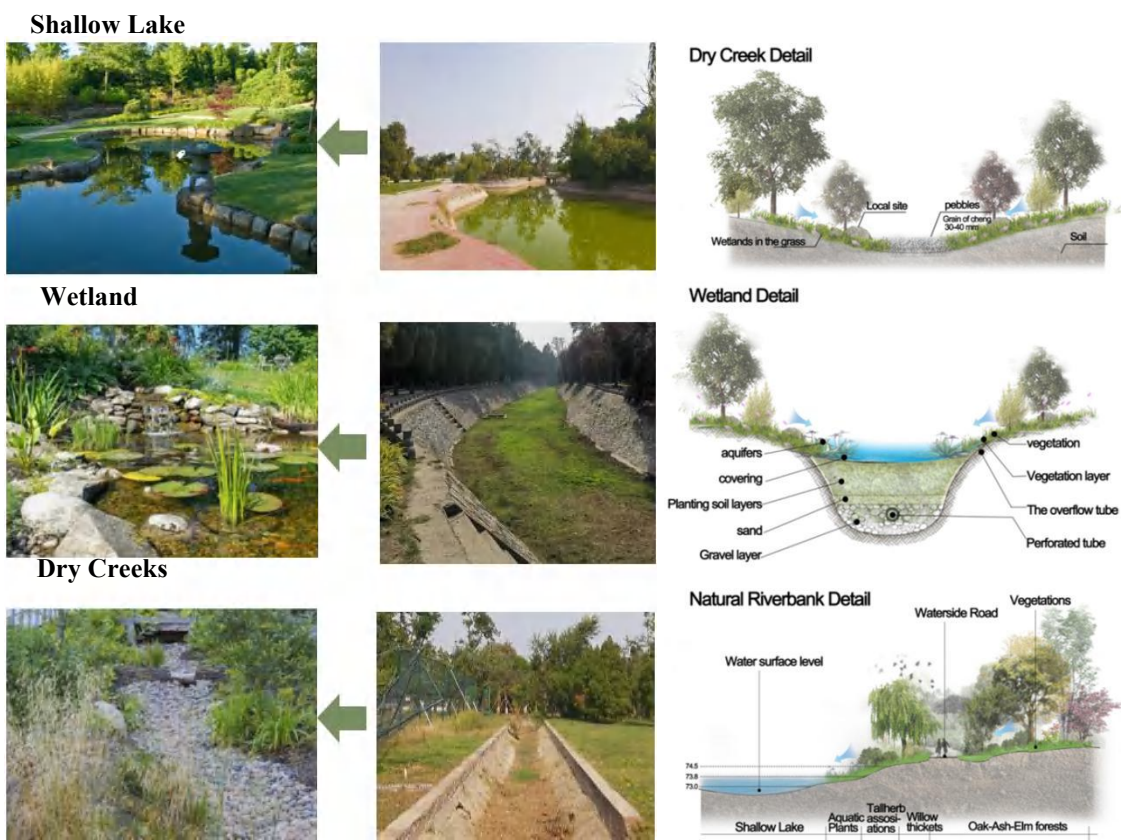


(Figure 5-16) Bench model

5.9 Water system ecological design

Firstly, 3 different forms of waterscape design are used to restore the water system pattern according to the current situation of the whole park. One, the use of natural barge shallow lake to replace the existing artificial lake. Second, the use of wetlands to replace the existing artificial channels. Third, the use of dry creeks to replace the open channels.

In order to create a good water circulation system, Water inside the park from the higher urban river. After being purified by the wetlands and dry creeks, the water flows to the lower urban river. This not only restored the layout of the water system in the park, but also improved water quality throughout the area.



(Figure 5-17) 3 different forms of waterscape Diagram



(Figure 5-18) Water System Ecological Design Diagram

5.10 Drainage ecological design

According to the topography, water drainage inside the park is from high terrain to low terrain. At the same time, wetlands are used in areas of high terrain within the park, and dry streams, road permeable paving and grassed ditches are used for drainage in areas of low terrain, which are finally stored in a central lake within the park (Figure 5-19).



(Figure 5-19) Drainage Ecological Design Diagram

5.11 Plant community ecological design

5.11.1 Planting principles

① Protect and display the site as the fundamental principle

The planning and design of plants should respect the site itself and its characteristics. In the site area, shallow-rooted trees and shrubs Herbaceous plants are used in the site area to prevent the damage of deep-rooted trees to the soil of the site. Choose plants that are more resistant to drought to ensure less watering and protect the site. Because the depth of the planting soil covered above the site is limited, poor-tolerant species should be selected.

② Conform to site chronological properties principle

Select historical plants recorded in the literature to create a plant landscape with historical atmosphere. The main selection is the Poetic Edda to create a historical plant landscape.

③ Ecological principles

Follow the principle of suitable trees for the site, mainly deciduous broad-leaved trees and evergreen coniferous plants, and consider the planting of native plants; respect the

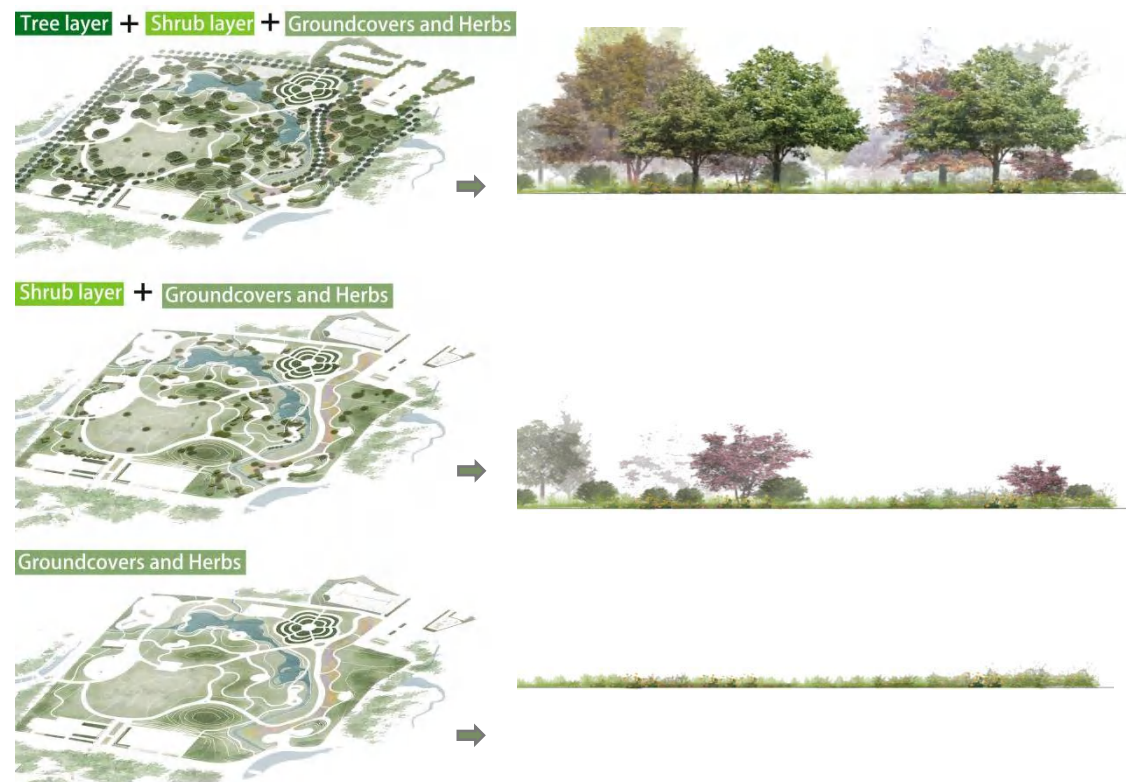
current plants of the site and make use of them.

④ Ornamental principle

The combination of natural and regular planting, the configuration of flowers, fruits, leaves, shapes, tastes and other ornamental characteristics, focusing on the seasonal changes of the site. The vegetation system is also used to create a spatial pattern and create axes and view corridors.

5.11.2 Overall planting community design

Ecological artificial vegetation design can influence carbon stabilization of the land positively and increase the concentration of organic carbon in the soil. The combination of trees, shrubs, ground cover and herbaceous plants has a more significant effect on the stabilization of soil plant organic matter. So, in this scenario, based on the above findings, The plant community is combined with trees, shrubs, ground covers and herbs to maximize the ecological benefits of the plants(Figure 5-20) .



(Figure 5-20) Overall planting community design Diagram

5.11.3 Planting concept design for functional areas

Based on the existing vegetation, 6 different types of planting areas were developed according to the functional areas.

Entrance planting area with trees and shrubs; the meadow planting area with a few deciduous trees and grasses; the ornamental planting area with perennial flowering

plants; the ecological planting area with trees, shrubs, grasses and plant groups; the avenue planting area with existing street trees; and the water planting area with aquatic plants. Different plants are selected for different functional areas to highlight their characteristics.

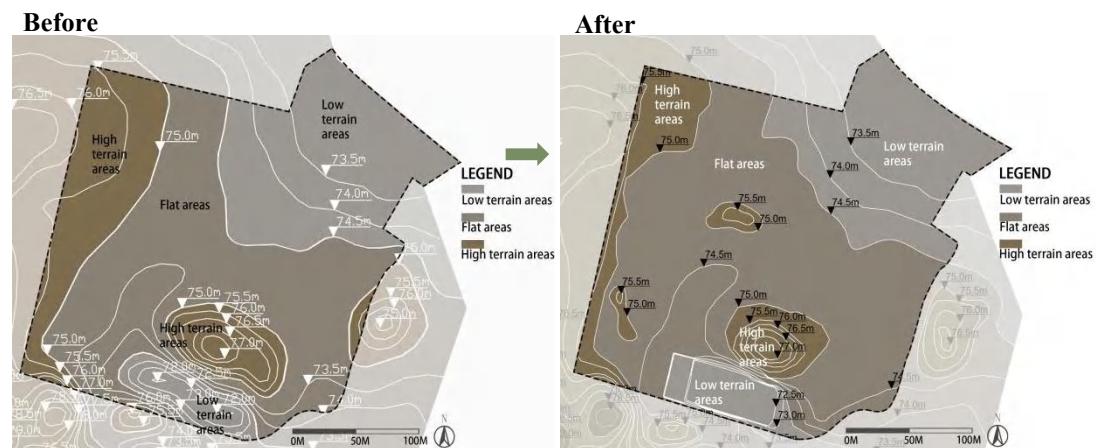


(Figure 5-20) Planting Concept Design For Functional Areas Diagram

5.12 Topographic Ecological Design

In order to restore the original spatial layout of the park, so most of the topography was preserved. The overall site interior is low in the northeast and high in the southwest. The height difference of the site is 3.5 meters.

At the same time, some small adjustments were made to the current topography according to the needs of the site design. The overall flat area was expanded to 75.0m. The area of the high terrain area with an elevation of 77.0 meters was reduced to create two micro terrains within the site with an elevation of 75.5 meters, which were paired with planting to create a greater ecological benefit.



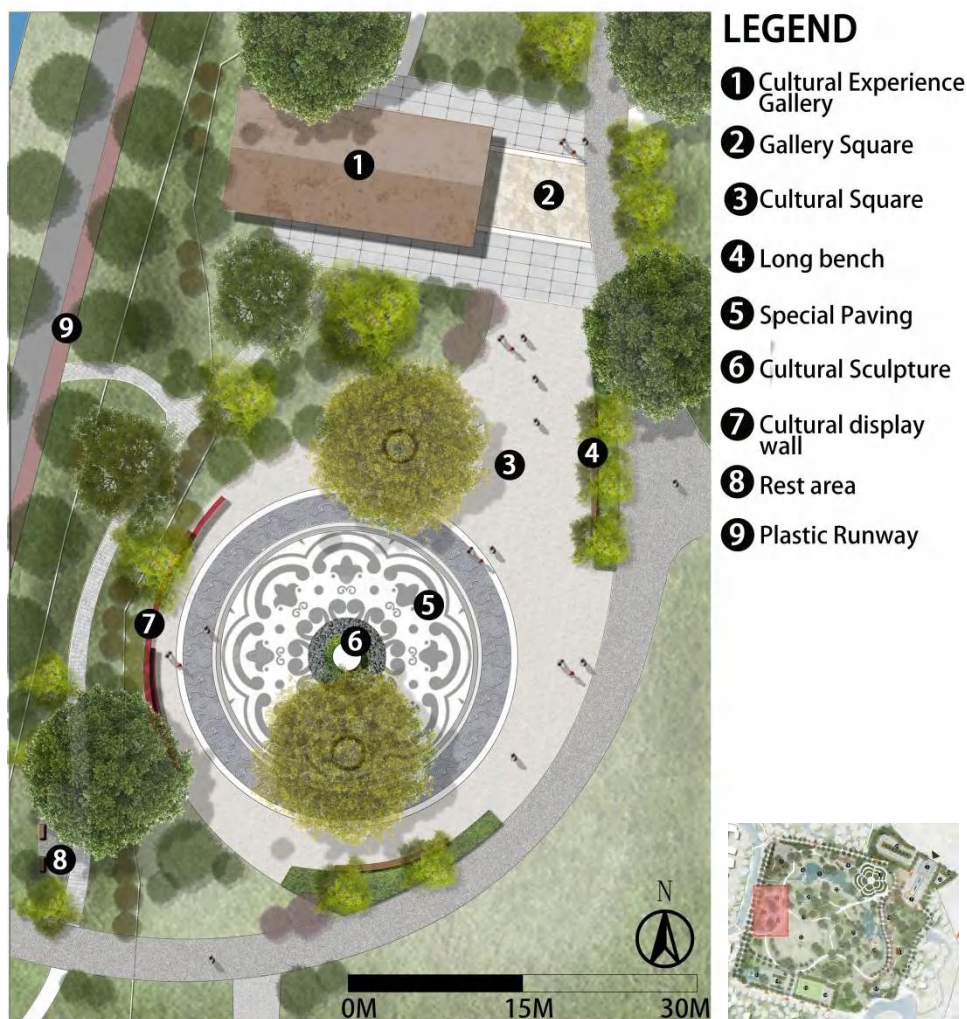
(Figure 5-20) Topographic Ecological Design Diagram

VI Detail Design

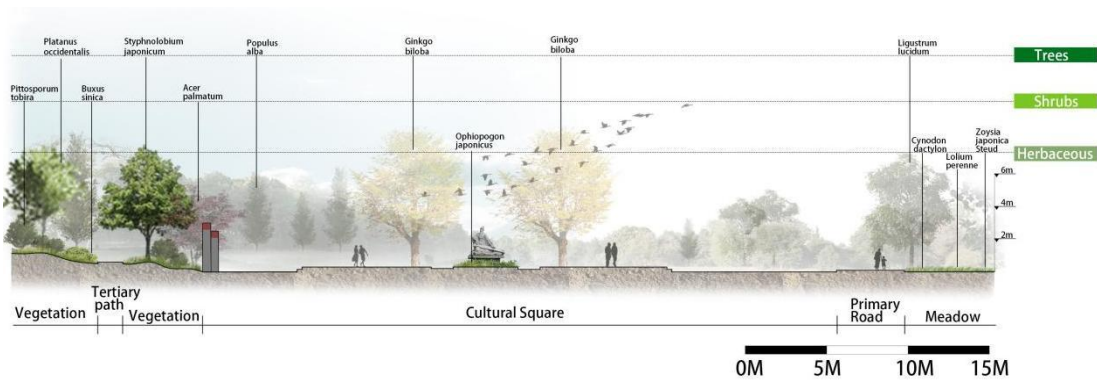
6.1 Zoom in culture square area design

6.1.1 Zoom in master plan - culture square area

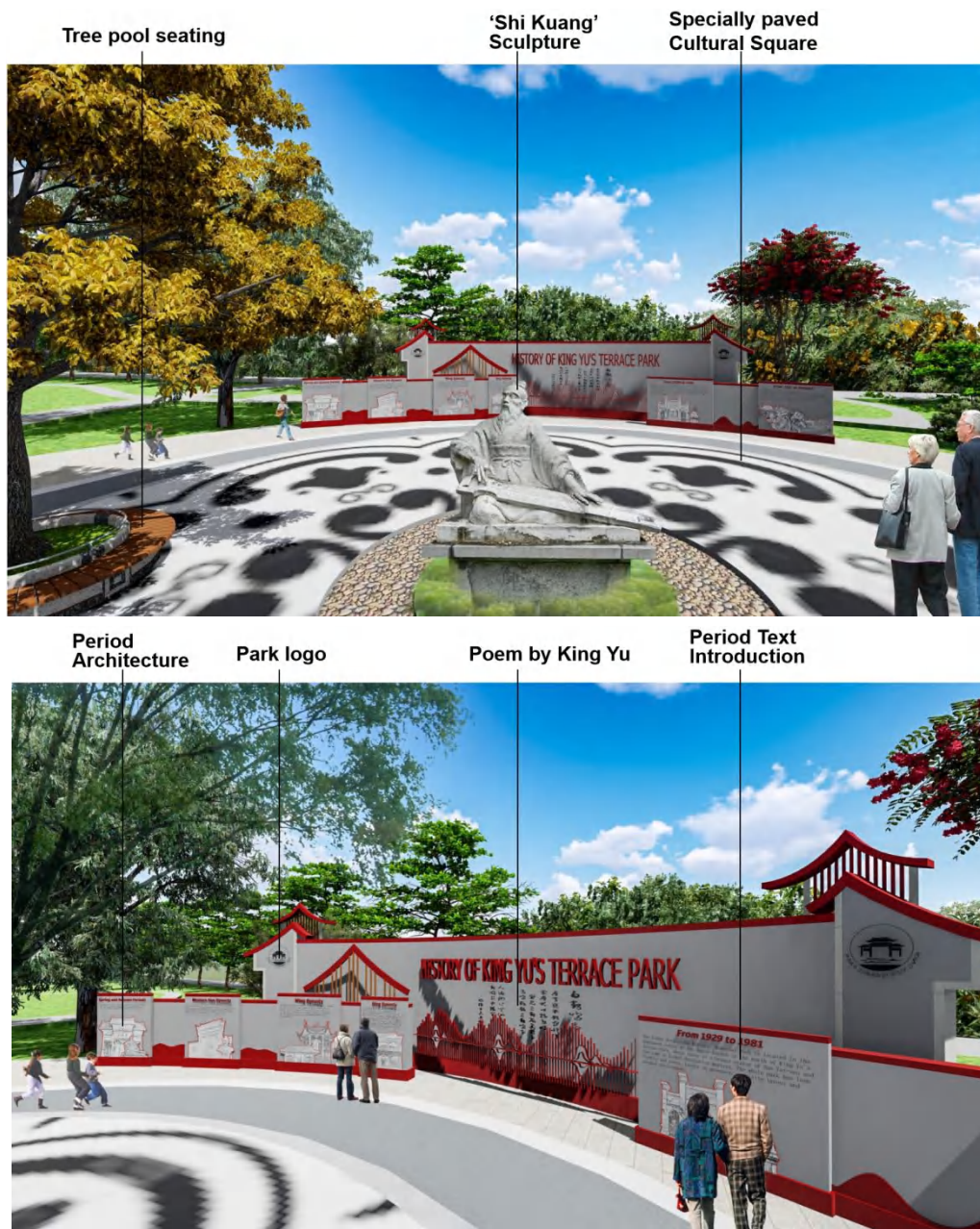
This area is the key area for the cultural display of the park. It combines sculptures, historical and cultural walls and special cultural paving to display the history and culture of King Yu's Terrace Park. The sculpture in the center of the culture square is called "Shi Kuang Fondling the Qin", for which the park is famous (Figure 6-1). Behind the sculpture is the History and Culture Wall, which is a combination of three walls of different heights (Figure 6-2). The first two walls are 2.3 meters high and show the architecture and stories of each period. At the back a cultural wall with a height of 3 meters displays the logo of the park and the poems that King Yu once wrote here. Seats are provided on both sides of the square as a resting place for visitors (Figure 6-3). Near the culture square is an existing abandoned building, which is utilized as a cultural experience hall.



(Figure 6-1) Zoom in Master Plan - Culture square Area Diagram



(Figure 6-2) Zoom in Section — Culture square Area Diagram

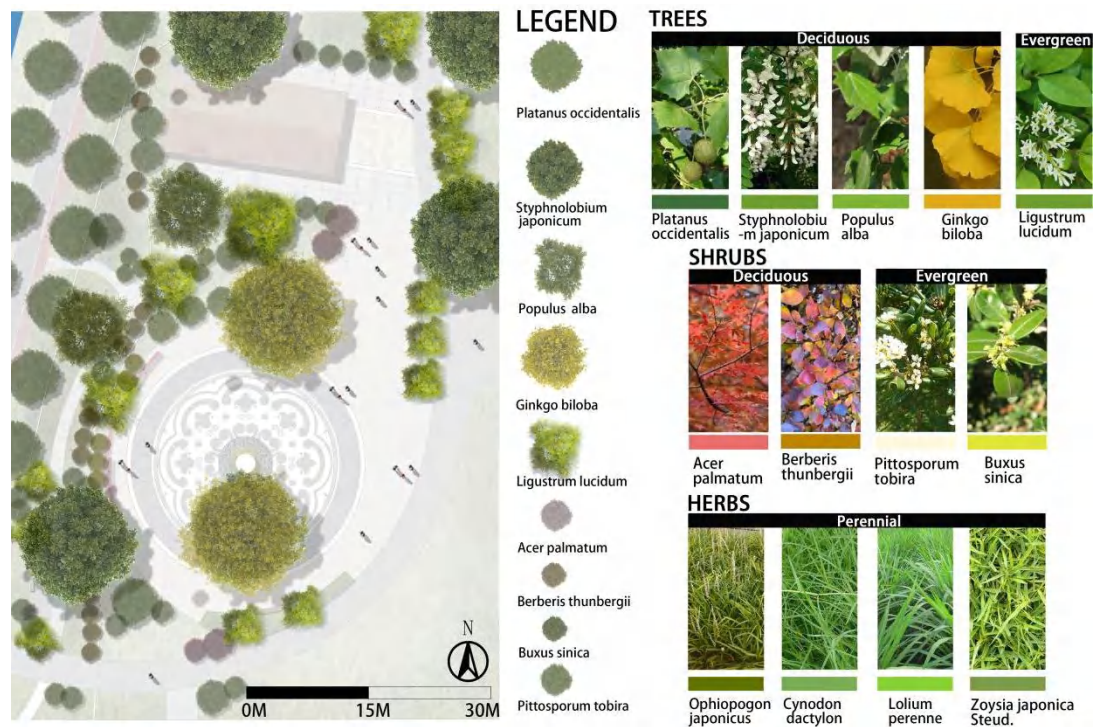


(Figure 6-3) Zoom in Visualization — Culture square Area Diagram

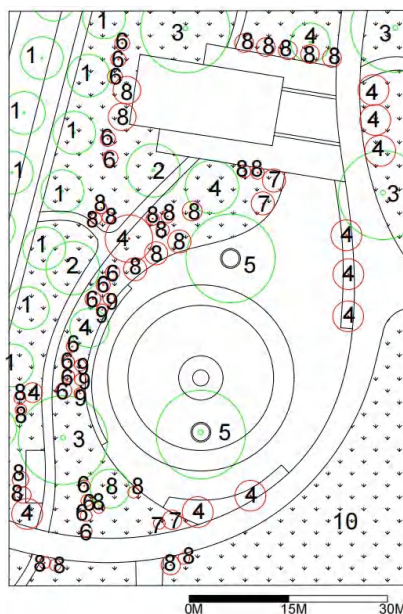
6.1.2 Zoom in planting design - culture square area

The plant design of the cultural square area focuses on ecology, Using a planting style that combines trees, shrubs and herbs. Make the vegetation give greater ecological benefits. Because of the lack of shrubs in the current situation of the site, added some shrubs to make the whole plant community more balanced(Figure 6-3) .

Deciduous trees are: The deciduous trees are: *Platanus occidentalis*, *Styphnolobium japonicum*, *Populus alba*, evergreen trees are: *Ligustrum lucidum*. deciduous shrubs are *Acer Palmatum*, *Berberis thunbergii*, evergreen shrubs are The herbaceous plants are perennial: *Ophiopogon japonicus*, *Cynodon dactylon*, *Lolium perenne* and *Zoysia japonica* Steud(Figure 6-4).



(Figure 6-3) Zoom in Plant Design - Culture square Area



Culture square Area Plant List								
	Latin name	Common name	Size	Pieces/m ²	Area	Total	Flower Colour	Types
1	Koelreuteria paniculata	Golden Rain Tree	100CM-220CM	/	/	10	Gold/Yellow	Tree
2	Populus alba	/	100cm-250cm	/	/	2	/	Tree
3	Styphnolobium japonicum	Chinese Scholar Tree	120cm-220cm	/	/	4	Green	Tree
4	Ligustrum lucidum	Glossy Privet	100cm-150cm	/	/	14	Green	Tree
5	Ginkgo biloba	Ginkgo biloba	150CM-300cm	/	/	2	Gold/Yellow	Tree
6	Berberis thunbergii	Japanese Barberry	10-30cm	/	/	16	Gold/Yellow	Shrub
7	Acer palmatum	Japanese Maple	30-100cm	/	/	4	Red/Burgundy	Shrub
8	Buxus sinica	Boxwood	10cm-25cm	/	/	30	Green	Shrub
9	Pittosporum tobira	Australian Laurel	20cm-30cm	/	/	5	Cream/Tan	Shrub
10	Ophiopogon japonicus	Dwarf Lilyturf	0cm-20CM	20/m ²	2051	41020	White	Herb
	Cynodon dactylon	Bermudagrass	0cm-15cm	20/m ²	2051	41020	/	Herb
	Lolium perenne	Perennial Ryegrass	0cm-15cm	20/m ²	2051	41020	/	Herb
	Zoysia japonica Steud.	/	0cm-20CM	20/m ²	2051	41020	Cream/Tan	Herb

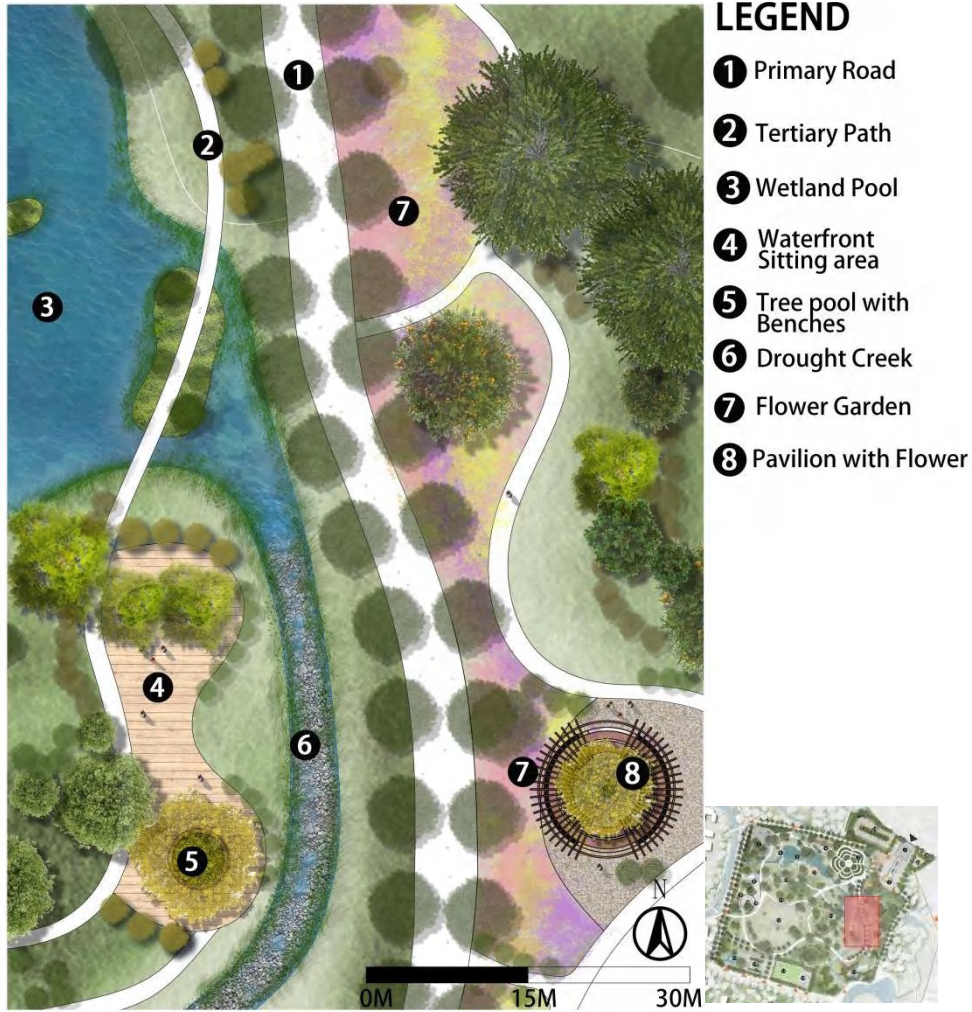
(Figure 6-4) Zoom in Plant List - Culture square Area

6.2 Zoom in flower ornamental area design

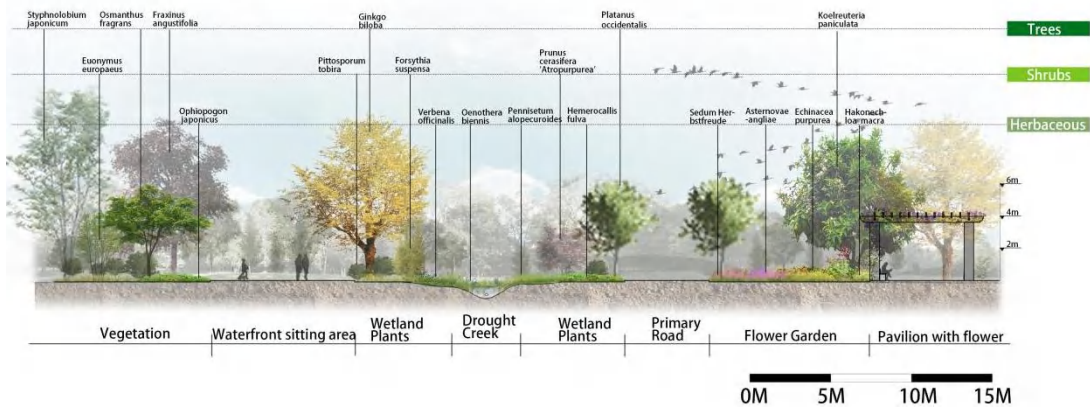
6.2.1 Zoom in master plan -flower ornamental area

The Flower Ornamental Area focuses on the display of flowering plants and the ecological restoration of plant communities, and is the highlight of the park's design. The winding three-stage path leads visitors to play. The semi-open circular flower pavilion allows visitors to take a rest, and at the same time, with the rich variety of plants, it achieves a cultural and educational effect of education and fun.

On the other side of the main path is a wetland and dry stream landscape, which not only purifies water quality but also provides a beautiful waterfront landscape.



(Figure 6-5) Zoom in Master Plan — Flower Ornamental Area Diagram



(Figure 6-6) Zoom in Section — Flower Ornamental Area Diagram



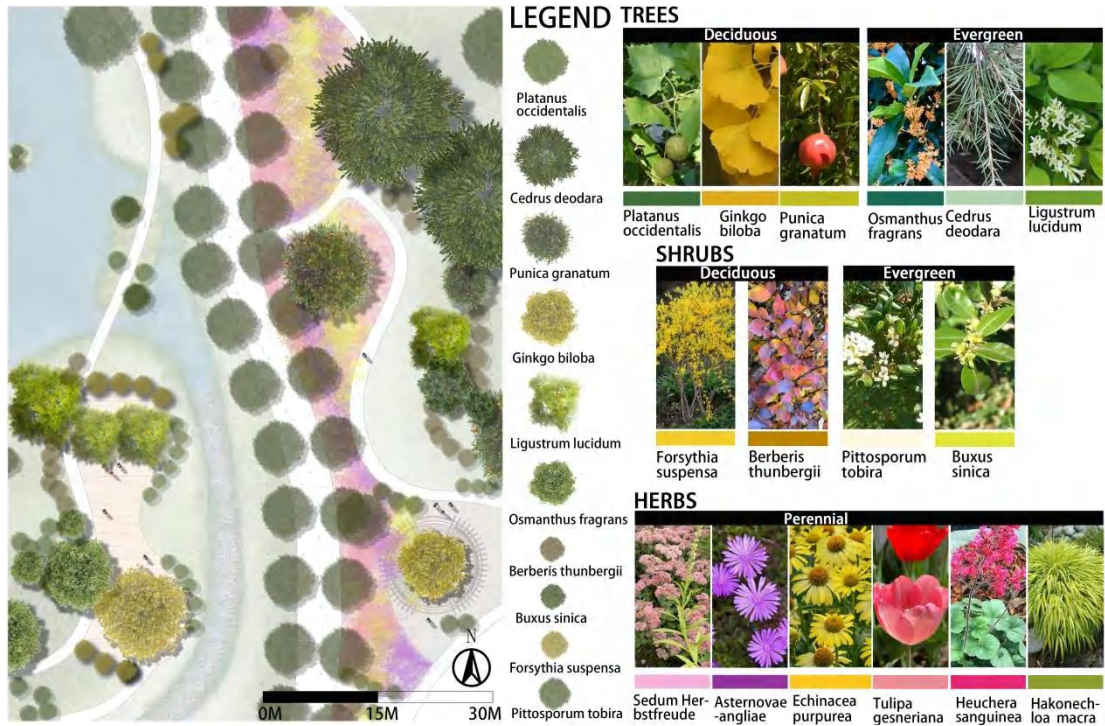
(Figure 6-7) Zoom in Visualization — Flower Ornamental Area Diagram

6.2.2 Zoom in planting design -flower ornamental area

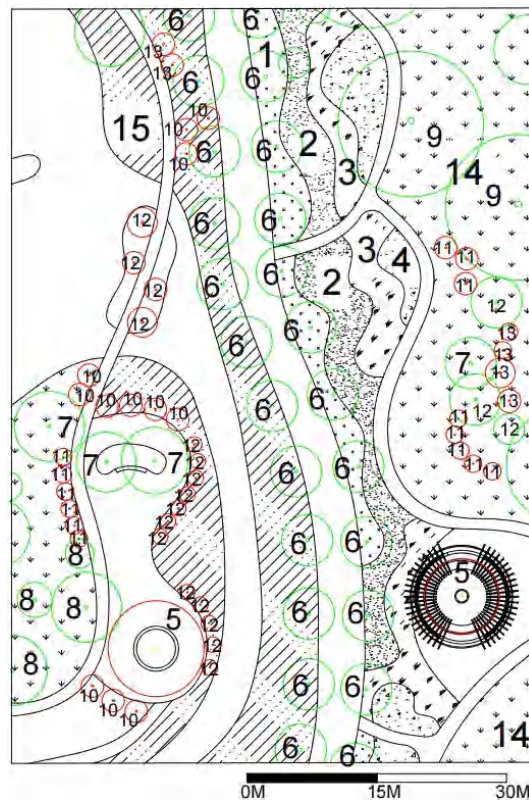
The area is dominated by flowers and trees, with a few shrubs. The selection of plants is more strict. Firstly, the flowering plants should have sufficient shade tolerance. Secondly, the plants are mainly perennial plants to reduce the maintenance cost of plants later. Finally, in order to enrich the layers of the plant landscape, the planting height, flowering time and flower color should also be considered (Figure 6-8).

Deciduous trees include *Platanus Occidentalis*, *Ginkgo Biloba*, *Punica Granatum*, *Koelreuteria paniculata*, and evergreen trees include *Osmanthus fragrans*, *Cedrus deodara*, *Ligustrum lucidum*. Deciduous shrubs include *Forsythia suspensa*, *Berberis*

thunbergii, evergreen shrubs include *Pittosporum tobira*, *Buxus sinica*, and perennial flowering plants include *Hosta plantaginea*, *Hakonechloa macra*, *Sedum Herbstfreude*, Aquatic plants include: *Verbena officinalis*, *Oenothera biennis*, *Pennisetum alopecuroides*, *Hemerocallis fulva* (Figure 6-9).



(Figure 6-8) Zoom in Plant Design— Flower Ornamental Area Diagram



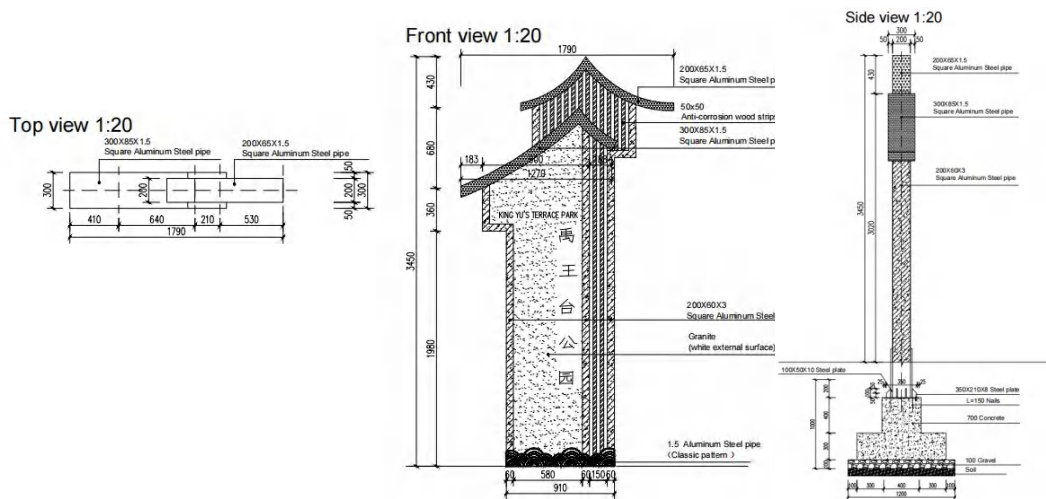
Flower Ornamental Area Plant List								
	Latin name	Common name	Size	Pieces/m ²	Area	Total	Flower Colour	Types
1	Hosta plantaginea	August Lily	10-60cm	8/m ²	180m ²	1440	White	Perennial
	Hakonechloa macra	Golden Hakonechloa	20-40cm	10/m ²	180m ²	1800	Gold/Green	Perennial
2	Sedum 'Herbstfreude'	/	15-60cm	15/m ²	270m ²	4050	Pink	Perennial
	Aster novae-angliae	New England Aster	8-20cm	8/m ²	270m ²	2160	Purple/Lavender	Perennial
3	Echinacea purpurea	Coneflower	5-15cm	15/m ²	245m ²	3675	Gold/Yellow	Perennial
	Echinacea purpurea	Coneflower	5-15cm	6/m ²	245m ²	1470	Purple/Lavender	Perennial
4	Tulipa gesneriana	Garden tulip	5-10cm	20/m ²	140m ²	2800	Pink	Perennial
	Tulipa gesneriana	Garden tulip	5-10cm	15/m ²	140m ²	2100	Orange	Perennial
5	Ginkgo biloba	Ginkgo biloba	150CM-200CM	/	/	2	Gold/Yellow	Tree
6	Koelreuteria paniculata	Golden Rain Tree	100cm-220cm	/	/	24	/	Tree
7	Ligustrum lucidum	Glossy Privet	100cm-150cm	/	/	4	Green	Tree
8	Osmanthus fragrans	Fragrant Tea Olive	100cm-200cm	/	/	4	White	Tree
9	Cedrus deodara	Deodar Cedar	100cm-400cm	/	/	2	/	Tree
10	Berberis thunbergii	Japanese Barberry	10-30cm	/	/	12	Gold/Yellow	Shrub
11	Forsythia suspensa	Weeping Forsythia	50-120cm	/	/	14	Gold/Yellow	Shrub
12	Buxus sinica	Boxwood	10cm-25cm	/	/	19	Green	Shrub
13	Pittosporum tobira	Australian Laurel	20cm-30cm	/	/	6	Cream/Tan	Shrub
14	Ophiopogon japonicus	Dwarf Lilyturf	0cm-20CM	20/m ²	974	1948	White	Herb
	Cynodon dactylon	Bermudagrass	0cm-15cm	20/m ²	974	1948	/	Herb
	Lolium perenne	Perennial Ryegrass	0cm-15cm	20/m ²	974	1948	/	Herb
15	Verbena officinalis	/	2cm-8cm	5/m ²	672	3360	Purple/Lavender	Aquatic Plants
	Oenothera biennis	Evening Primrose	2cm-10cm	5/m ²	672	3360	Gold/Yellow	Aquatic Plants
	Pennisetum alopecuroides	/	10cm-30cm	5/m ²	672	3360	Cream/Tan	Aquatic Plants
	Hemerocallis fulva	Daylily	5cm-15cm	5/m ²	672	3360	Orange	Aquatic Plants

(Figure 6-9) Zoom in Plant List —Flower Ornamental Area Diagram

6.3 Technical details

6.3.1 Technical details of explanation board

The whole shape and color are evolved according to the form of the existing ancient buildings. The main colors are gray, white and dark red. The materials used are: iron bars, concrete and wood. The park text information can be introduced on the concrete(Figure 6-10).



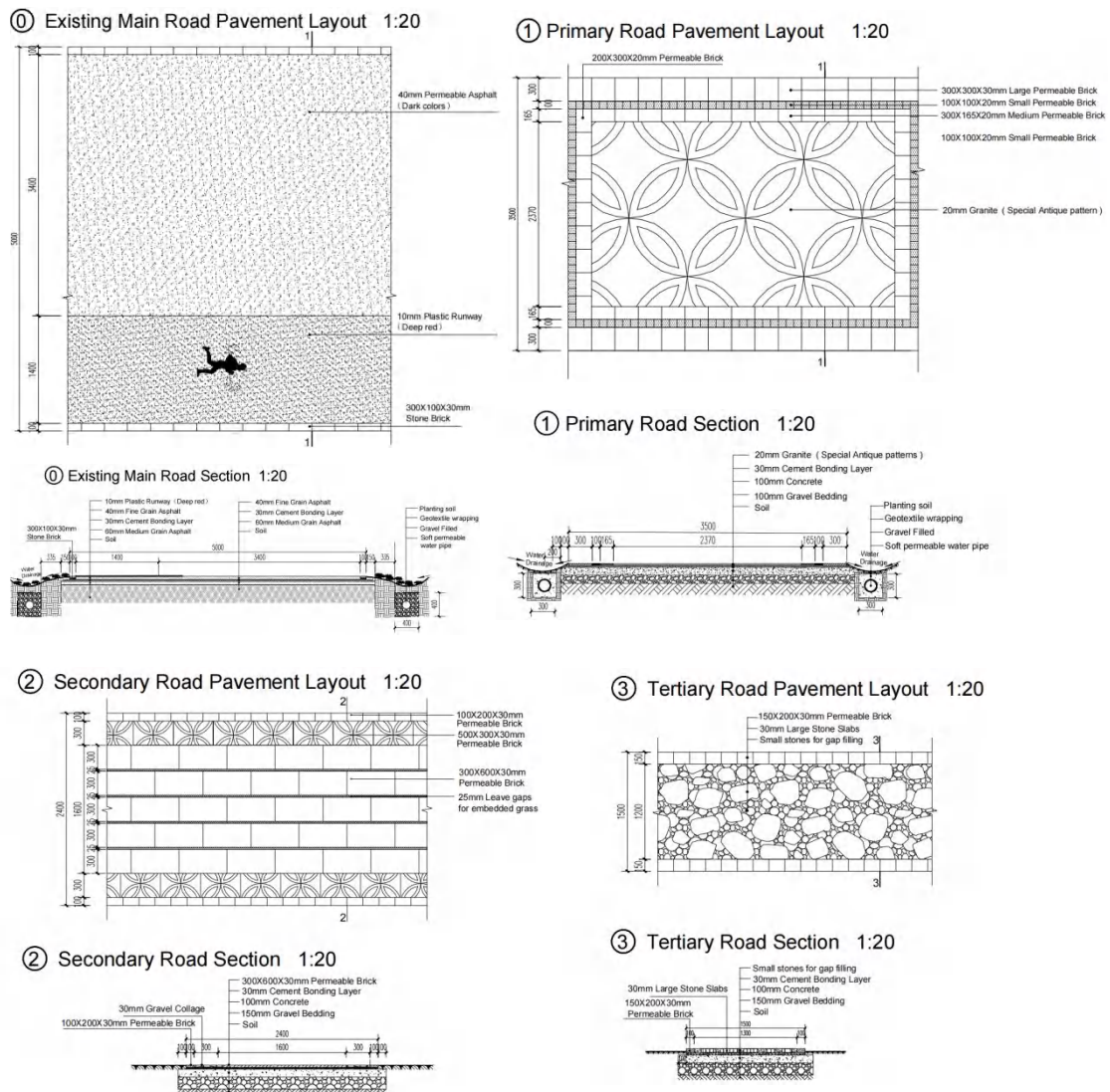
(Figure 6-10) Technical Details of Explanation Board Diagram

6.3.2 Technical details of road pavement

Using an ecological design approach, all road pavement materials are permeable. The 5m wide existing road is divided into two parts, one is a 3.4m wide sidewalk or carriageway with permeable concrete pavement. The other part is a 1.4m wide runway with permeable rubber pavement. Ecological planting ditches are designed on both sides of the road for daily drainage.

The primary road width is 3.5 meters and the paving material is permeable tiles with a specially designed pattern inspired by the existing peony garden plan structure inside the park.

The secondary road width is 2-2.4 meters, and the paving material is also permeable bricks with gaps left for grass inlay, and also has a specially designed pattern on both sides of the road. The width of the tertiary road is 1-1.5 meters, and the paving material is permeable gravel.



(Figure 6-11) Technical Details of Road Pavement Diagram

VII Conclusions and Deficiencies

7.1 Conclusions

In this paper, the design of King Yu's Terrace Park is renewed from the perspectives of ancient architectural protection, ecological landscape design and cultural display. In the heritage park heritage protection should be the priority principle, and then combined with the historical and cultural characteristics of the site, ecological design methods are used to form a unique public green activity space. Through a study of the concept, definition, classification and relevant cases of the site park, a systematic study is conducted to sort out. The history, culture, site composition and design site location, superstructure planning, transportation and green space of the site park are analyzed. The design strategy of the site park is summarized and applied to the site design of this King Yu's Terrace Park.

The specific conclusions are as follows:

Define the problems and pain points of the site park, take protection as the first principle, display the site to the viewer in the best light under the premise of good protection, bring into play the cultural value and educational value of the site itself, and empower the site park site. It makes the site talk, promotes the charm of the site itself, and becomes a recognizable and perceptible cultural heritage.

When designing cultural displays. It is necessary to fully understand the cultural background of the city and the history and culture of the park in order to better utilize it and display it to visitors.

The ecological landscape design process should follow the original historical layout of the site and be restored with ecological design methods.

Ecological landscape restoration design is a long process. A set of ecological strategies suitable for the long-term development of this heritage park should be designed with full integration of the current situation of the park. Reshape the ecological landscape space of the site to create a new ecological value and promote the benign development of the urban ecological environment.

In the preliminary stage of design, the current problems of the site should be fully understood, and the sense of participation and demand of the surrounding residents should be respected.

From the actual needs, create a green public activity space that the public enjoys.

7.2 Deficiencies

There are no important ancient architecture and few leisure facilities in the central area of the park, which will affect the visitors' enjoyment of ancient culture. However, it is possible to enjoy the park in the ancient architecture protection area.

In addition, it is not enough to promote the 'Song' culture of Kaifeng through King Yu's Terrace Park, but it is necessary to integrate and systematize the design of the heritage park and the heritage sites inside and outside the city, as well as the city walls,

rivers, residential and living sites to achieve the best effect. Due to the time and workload, the design of the whole King Yu's Terrace Park cannot be realized, and more landscape architects are needed to improve it.

References

Bibliography:

1. Li Xiaoli, Ma Snap. Exploration on the construction of Yinxu Archaeological Site Park and economic development in the protected area[J]. Journal of Anyang Engineering College, 2013(6): 86-88.
2. Jiang Mingchen. Synergistic study on the conservation of large heritage sites and urban development [D]. Northwestern University, 2015.
3. Historical Landscape Elements: Part of our Cultural Heritage - A Methodological Study from Saxony
4. Power of Place - Heritage Policy at the Start of the New Millennium
5. Tiamsoon Sirisrisak. Conservation of Bangkok old town[J]. Habitat International, 2009(33): 405-411.
6. Expanding Histories / Expanding Preservation: The Wild Garden as Designed Landscape
7. Xie Jiaqi. Planning and design of Ming Great Wall heritage park based on living display[D]. Beijing Forestry University, 2021.
8. Wang Xi. Research on the planning and design of Nanchang Han Dynasty Haiyang Hou site park featuring cultural experience[D]. Zhejiang Agriculture and Forestry University, 2021.
9. Tan Tingting. Research on the design of archaeological site park based on conservation and display [D]. Soochow University, 2017.
10. Zhang Susu. Research on landscape ecological restoration design of industrial manufacturing waste sites[D]. Xi'an University of Architecture and Technology, 2022.
11. Zhou Min. Research on the planning and design of heritage parks based on conservation and display [D]. Beijing Forestry University, 2021.
12. Feng Zhimin. Research on the design of industrial heritage park based on ecological restoration [D]. Hubei University of Technology, 2021.
13. Huang Yihan. Research and practice of ecological restoration design of mine site park[D]. Guangxi Arts College, 2020.

Website:

1. <http://www.kfyuwangtai.com/>
2. <https://www.meet99.com/shijing-kaifengyuwangtai.html>
3. <http://zrzyhghj.kaifeng.gov.cn/ShowImg.aspx?Id=248>
4. <http://zrzyhghj.kaifeng.gov.cn/ShowImg.aspx?Id=249>
5. <https://baike.baidu.com/item/%E7%A6%B9%E7%8E%8B%E5%8F%B0%E5%85%AC%E5%9B%AD/7836122?fr=aladdin>
6. <http://zrzyhghj.kaifeng.gov.cn/>

List of Figures

- (Figure 3-1) Liangzhu Ancient City Heritage Park layout Diagram.
- (Figure 3-2) Liangzhu Ancient City Heritage Park display designs Diagram.
- (Figure 3-3) Yoshinogari Historical Park layout Diagram.
- (Figure 3-4) Yoshinogari Historical Park Functional Zones Diagram.
- (Figure 3-5) Yoshinogari Historical Park Current Situation Diagram.
- (Figure 3-6) Museumsdorf Düppel Park layout Diagram.
- (Figure 3-7) Museumsdorf Düppel Park Current Situation Diagram.
- (Figure 4-1) Location Analysis Diagram.
- (Figure 4-2) Park Location Diagram
- (Figure 4-3) Kaifeng Central City Masterplan Diagram
- (Figure 4-4) Kaifeng Conservation Planning of the ancient city layout Diagram
- (Figure 4-5) Kaifeng Current situation of tourism resources Diagram
- (Figure 4-6) King Yu's Terrace Park Historical and cultural Diagram
- (Figure 4-7) King Yu's Terrace Park Surrounding traffic Diagram
- (Figure 4-8) King Yu's Terrace Park Surrounding green space Diagram.
- (Figure 4-9) King Yu's Terrace Park Surrounding Landuse Diagram
- (Figure 4-10) King Yu's Terrace Park Internal traffic Diagram
- (Figure 4-11) King Yu's Terrace Park Internal functions Diagram.
- (Figure 4-12) King Yu's Terrace Park Internal building Diagram
- (Figure 4-13) King Yu's Terrace Park Internal water resources Diagram
- (Figure 4-14) King Yu's Terrace Park Internal spatial structure Diagram.
- (Figure 4-15) King Yu's Terrace Park Internal planting Diagram
- (Figure 4-16) King Yu's Terrace Park Users Diagram
- (Figure 4-17) SWOT Diagram
- (Figure 4-18) Current issues Diagram
- (Figure 5-1) Design goal Diagram
- (Figure 5-2) Design Strategy Diagram
- (Figure 5-3) Design Strategy of protection Diagram
- (Figure 5-4) Design Strategy of ecological landscape design Diagram
- (Figure 5-5) Design Strategy of cultural display Diagram
- (Figure 5-6) King Yu's Terrace Park Overall Planning Diagram
- (Figure 5-7) King Yu's Terrace Park Overall Function Design Diagram
- (Figure 5-8) King Yu's Terrace Park Bubble Diagram
- (Figure 5-9) King Yu's Terrace Park Master Plan Diagram
- (Figure 5-10) King Yu's Terrace Park Section Diagram
- (Figure 5-11) King Yu's Terrace Park Road System Design Diagram
- (Figure 5-12) King Yu's Terrace Park Cultural Services Facilities Diagram
- (Figure 5-13) General guide map model
- (Figure 5-14) Directional sign model
- (Figure 5-15) Information introduction to attractions model
- (Figure 5-16) Park lighting model

(Figure 5-16) Bench model
(Figure 5-17) 3 different forms of waterscape Diagram
(Figure 5-18) Water System Ecological Design Diagram
(Figure 5-19) Drainage Ecological Design Diagram
(Figure 5-20) Overall planting community design Diagram
(Figure 5-21) Plant Concept Design For Functional Areas Diagram
(Figure 5-22) Topographic Ecological Design Diagram
(Figure 6-1) Zoom in Master Plan - Culture square Area Diagram
(Figure 6-2) Zoom in Section — Culture square Area Diagram
(Figure 6-3) Zoom in Visualization — Culture square Area Diagram
(Figure 6-4) Zoom in Plant Design — Culture square Area
(Figure 6-5) Zoom in Plant List - Culture square Area
(Figure 6-6) Zoom in Master Plan— Flower Ornamental Area Diagram
(Figure 6-7) Zoom in Section — Flower Ornamental Area Diagram
(Figure 6-8) Zoom in Visualization — Flower Ornamental Area Diagram
(Figure 6-9) Zoom in Plant Design - Flower Ornamental Area Diagram
(Figure 6-10) Zoom in Plant List - Flower Ornamental Area Diagram
(Figure 6-11) Technical Details of Explanation Board Diagram
(Figure 6-12) Technical Details of Road Pavement Diagram

DECLARATION

on authenticity and public assess of master's thesis

Student's name: Zhang Qianqian
Student's Neptun ID: VNXB26
Title of the document: Renewal design of an urban heritage park
Year of publication: 2023
Department: Garden and Open Space Design

I declare that the submitted final essay/thesis/master's thesis/portfolio¹ is my own, original individual creation. Any parts taken from an another author's work are clearly marked, and listed in the table of contents.

If the statements above are not true, I acknowledge that the Final examination board excludes me from participation in the final exam, and I am only allowed to take final exam if I submit another final essay/thesis/master's thesis/portfolio.

Viewing and printing my submitted work in a PDF format is permitted. However, the modification of my submitted work shall not be permitted.

I acknowledge that the rules on Intellectual Property Management of Hungarian University of Agriculture and Life Sciences shall apply to my work as an intellectual property.

I acknowledge that the electric version of my work is uploaded to the repository sytem of the Hungarian University of Agriculture and Life Sciences.

Place and date: 2023 year 5 month 2 day

Zhang Qianqian

Student's signature

¹Please select the one that applies, and delete the other types.


STATEMENT ON CONSULTATION PRACTICES

As a supervisor of Zhang Qianqian (Student's name) VNXB26 (Student's NEPTUN ID), I here declare that the master's thesis has been reviewed by me, the student was informed about the requirements of literary sources management and its legal and ethical rules.

I recommend/don't recommend¹ the final essay/thesis/master's thesis/portfolio to be defended in a final exam.

The document contains state secrets or professional secrets: yes no^{*2}

Place and date: 2023 year 5 month 2 day

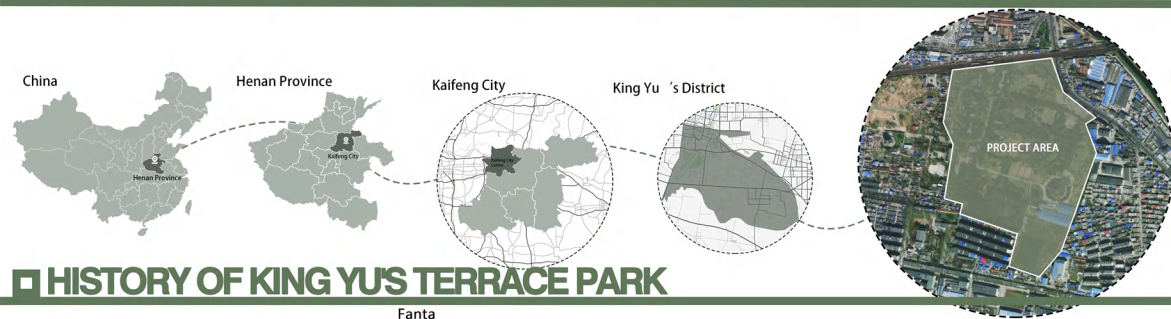


Internal supervisor

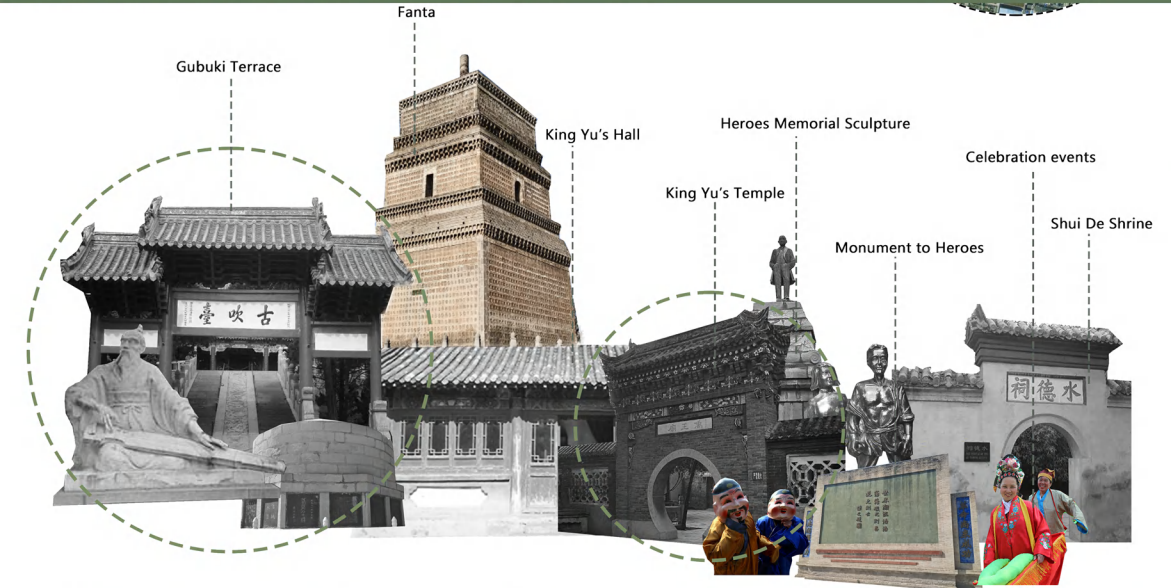
¹ Please underline applicable.

² Please underline applicable.

PROJECT LOCATION



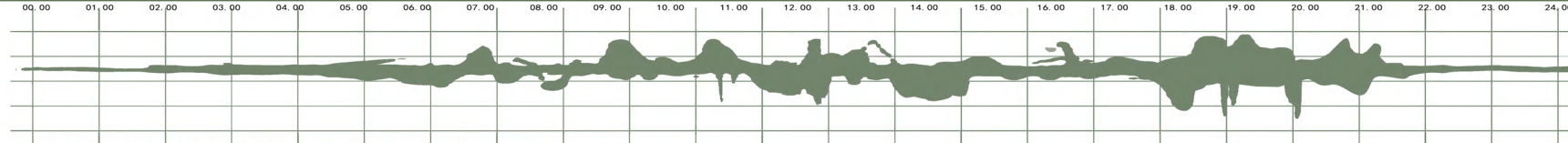
HISTORY OF KING YU'S TERRACE PARK



USER ANALYSIS



USER TIMELINE



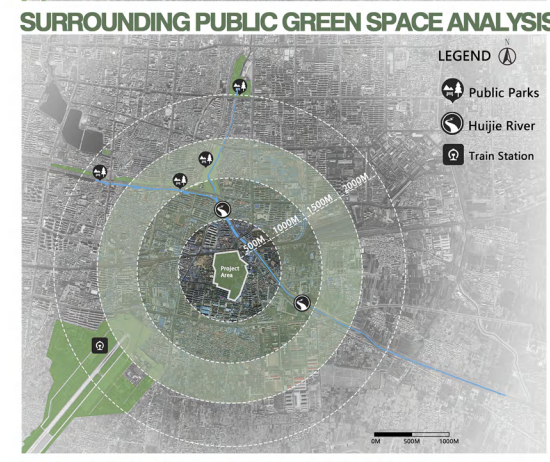
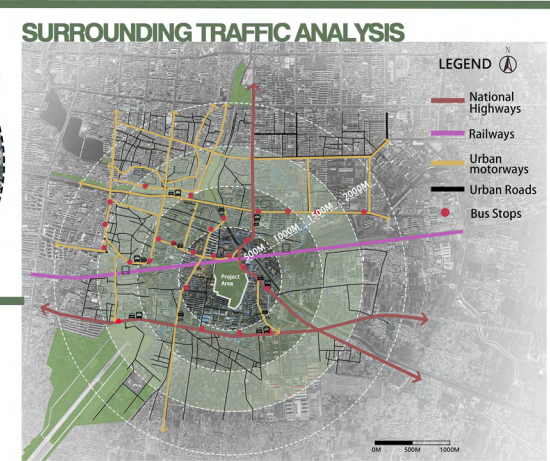
SUMMARY OF CURRENT PROBLEMS

ARCHITECTURE	<ul style="list-style-type: none"> - Well preserved ancient architecture. - Other modern structures in disrepair. - Lack of special architectural culture display.
FACILITIES	<ul style="list-style-type: none"> - Little recreational infrastructure. - Existing sports facilities and benches are disrepair. - Lack of cultural display facilities.
PAVEMENT	<ul style="list-style-type: none"> - The main paving materials are bricks, gravel, asphalt concrete. - Lack of permeable pavements.
VEGETATION	<ul style="list-style-type: none"> - Some large trees, but the overall plant design is poor. - Not attractive. - Lack of shrubs.
WATER RESOURCES	<ul style="list-style-type: none"> - Most of the water has dried up. - A few surviving bodies of water are in the river. - Historical water system patterns have been destroyed.

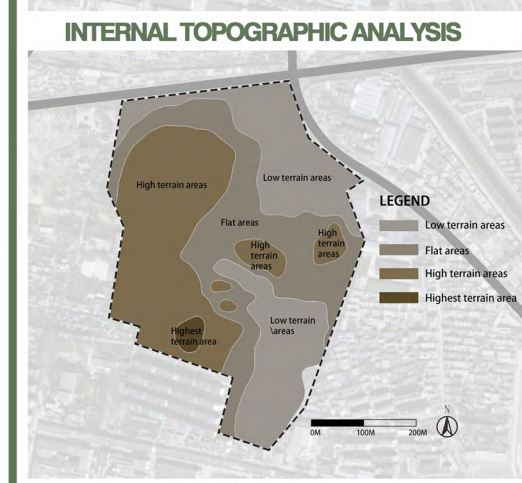
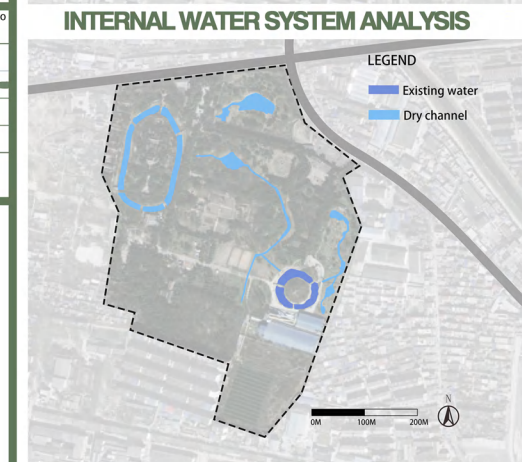
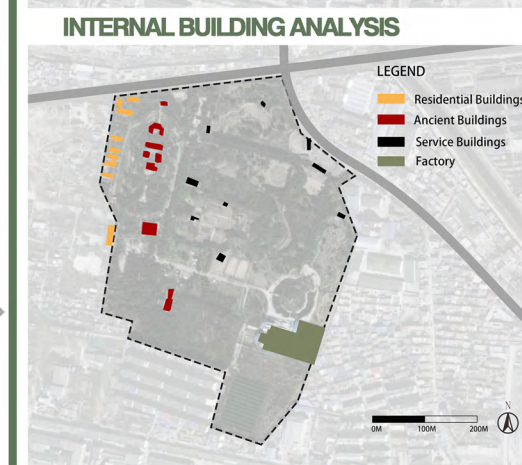
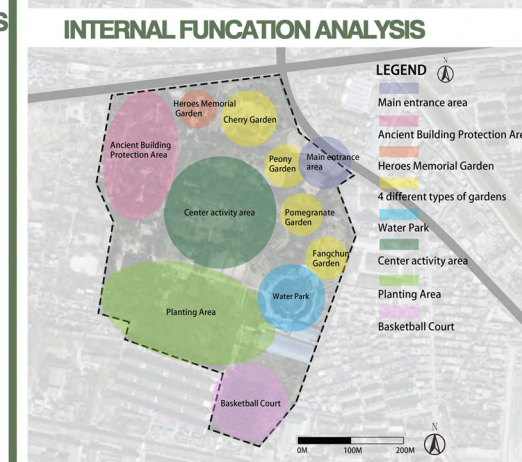
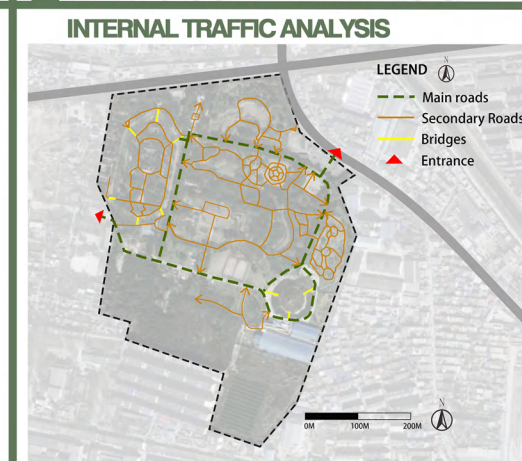
SWOT ANALYSIS

<h3>S Strengths</h3> <ul style="list-style-type: none"> - Convenient traffic - Rich planting - Rich in ancient buildings - Long history 	<h3>W Weaknesses</h3> <ul style="list-style-type: none"> - Park in disrepair - Lack of cultural promotion - Single plant design - Single activity facilities 	<h3>O Opportunities</h3> <ul style="list-style-type: none"> - City Tourism Development - National policy supports the renewal of heritage parks - The park is close to the city center and surrounded by many residents. 	<h3>T Threats</h3> <ul style="list-style-type: none"> - Lack of promotion - Located in the suburbs - Balance heritage protection and display
---	--	---	---

MACRO SCALE ANALYSIS



MICRO SCALE ANALYSIS

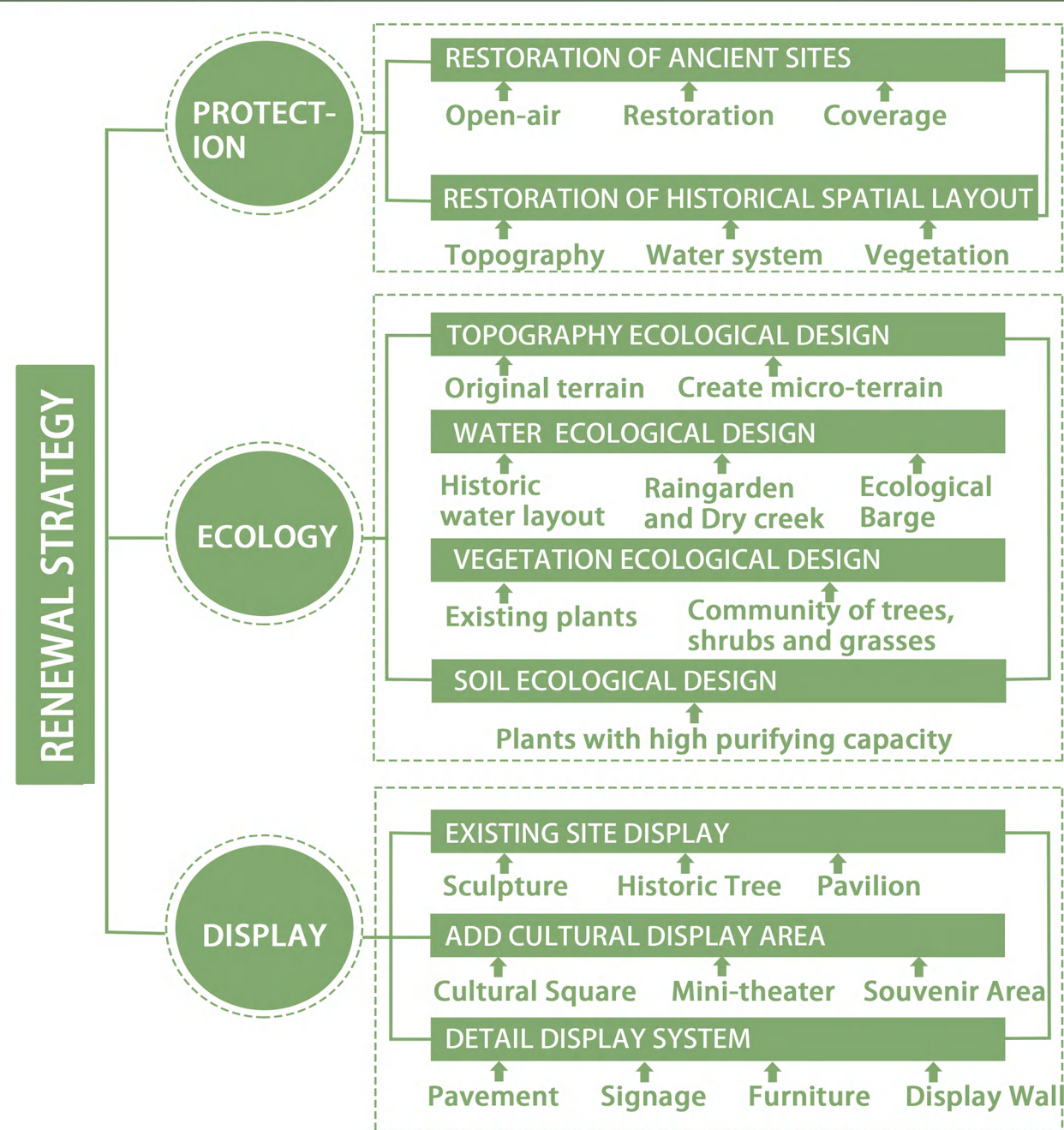


DESIGN GOALS



GOALS: Heritage park focus on the protection of ancient architecture and ecological landscape design, display the culture of King Yu's.

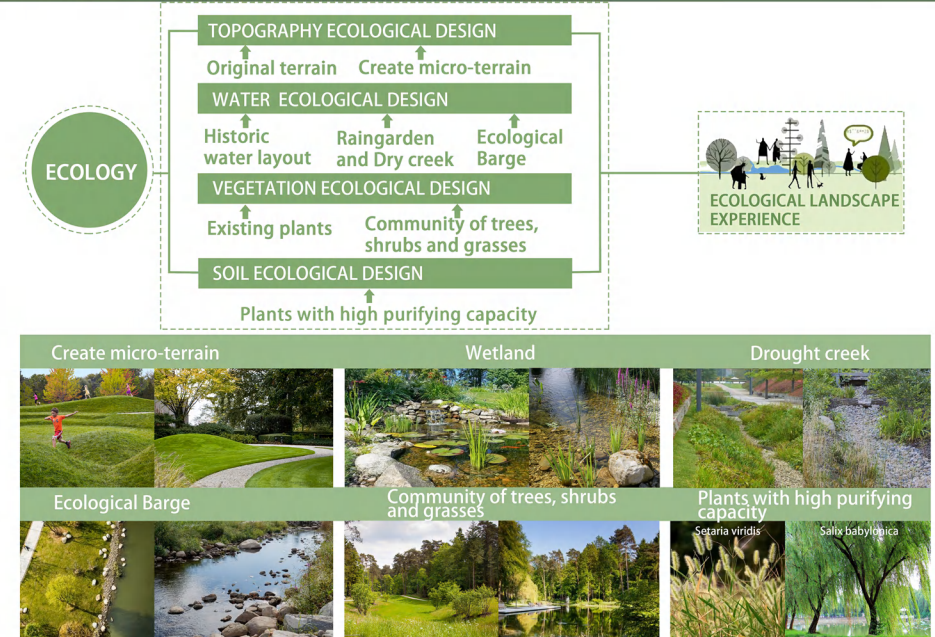
DESIGN STRATEGIES



STRATEGIES — PROTECTION



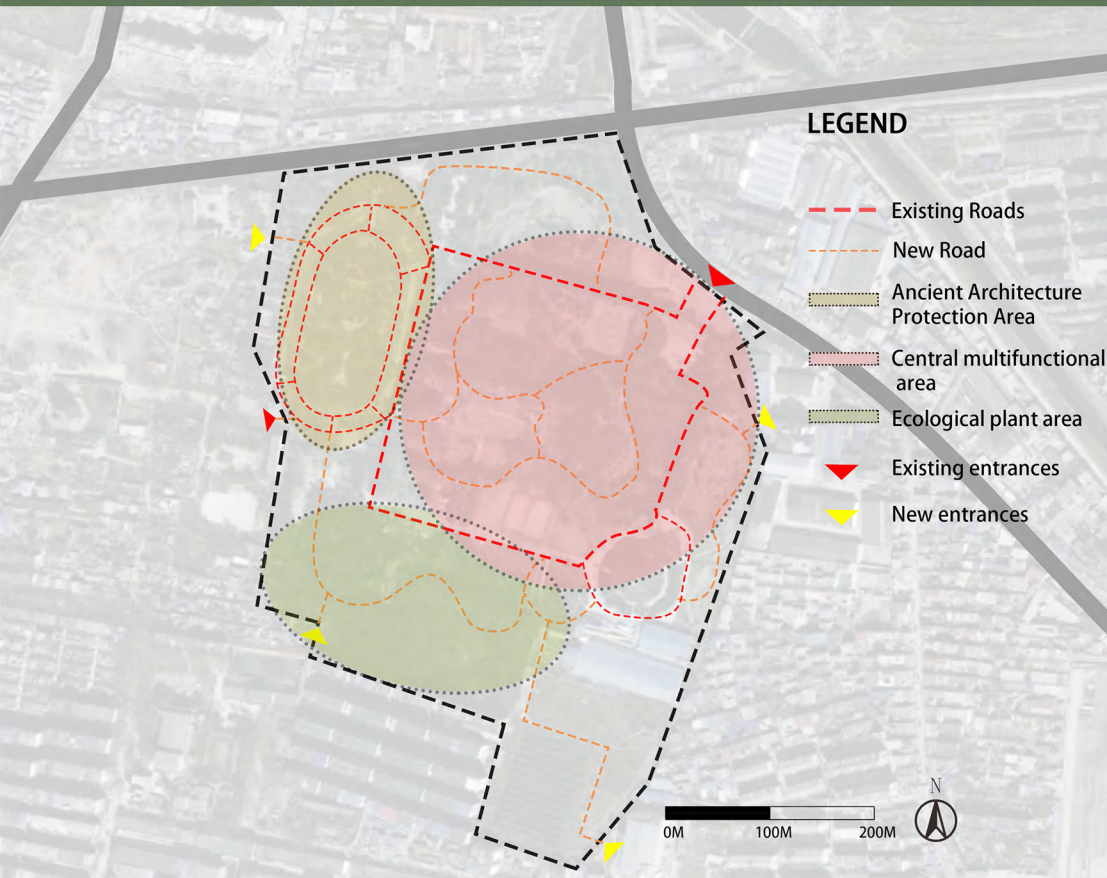
STRATEGIES — ECOLOGICAL



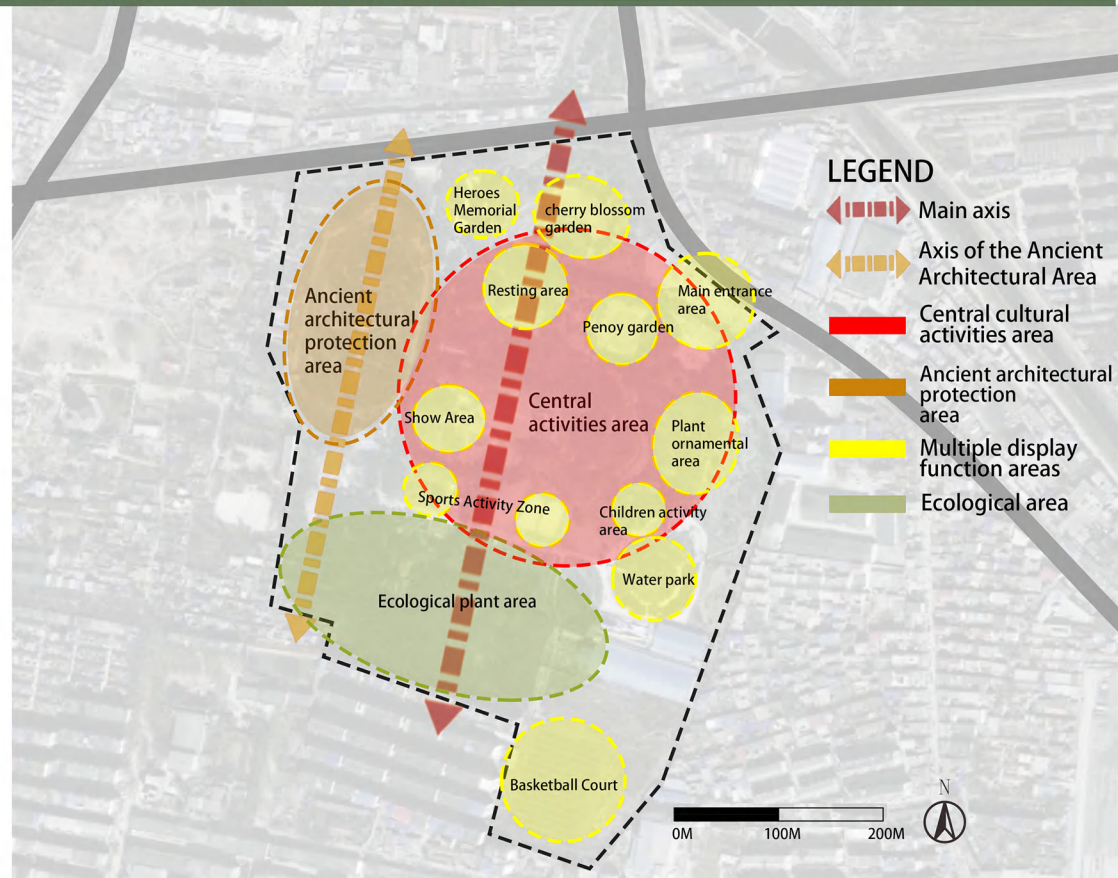
STRATEGIES — DISPLAY



OVERALL PLANNING



OVERALL FUNCTION DESIGN



AUTHOR: Zhang Qianqian
SUPERVISOR: Albert Fekete

-THE CASE OF KING YU'S TERRACE PARK

HUNGARIAN UNIVERSITY OF
AGRICULTURE AND LIFE SCIENCES

MASTER PLAN

DESIGN DESCRIPTION

The project design focuses on the central activity area within the park, with a total area of 8.2 hectares. Reclassified 11 functional areas based on the current state of the park and design strategy. And includes a total of 26 nodes to meet the needs of visitors for recreation, scientific research and education under the premises of site protection and display.



LEGEND

- | | | | | | |
|-----------------------|---------------------|------------------------------|------------------------|----------------------------|----------------------------|
| 1 Entrance Square | 5 Waterscape | 9 Cultural Display Wall | 13 Basketball Court | 17 Children's area | 22 Waterfront Viewing Area |
| 2 Park Name Sculpture | 6 Antique pavilion | 10 Cultural Square | 14 Sports Facilities | 18 Pavilion With Flowers | 23 Private Sitting Area |
| 3 Peony Garden | 7 Irregular Benches | 11 Antique Theatre Buildings | 15 Mini-football Court | 19 Flower Garden | 24 Car Parking Lots |
| 4 Resting Pavilion | 8 Service Buildings | 12 Central Activity Meadow | 16 Table Tennis | 20 Waterfront sitting area | 25 Bicycle Parking |
| | | | | 21 Antique Pavilion | 26 Large Car Parking Lots |

VISUALIZATION



BUBBLE DIAGRAM



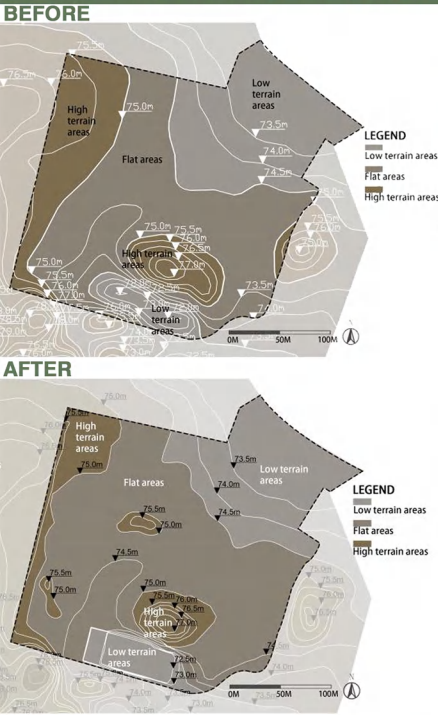
ROAD SYSTEM DESIGN



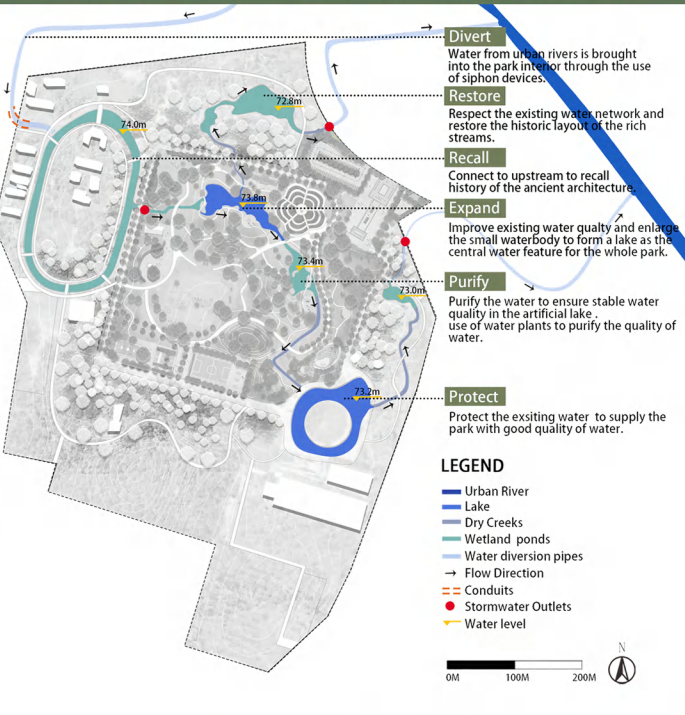
CULTURAL SERVICES FACILITIES



TOPOGRAPHIC DESIGN



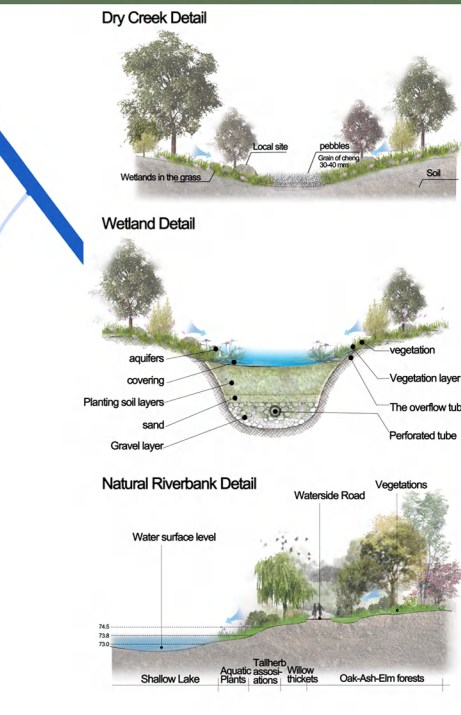
WATER SYSTEM ECOLOGICAL DESIGN



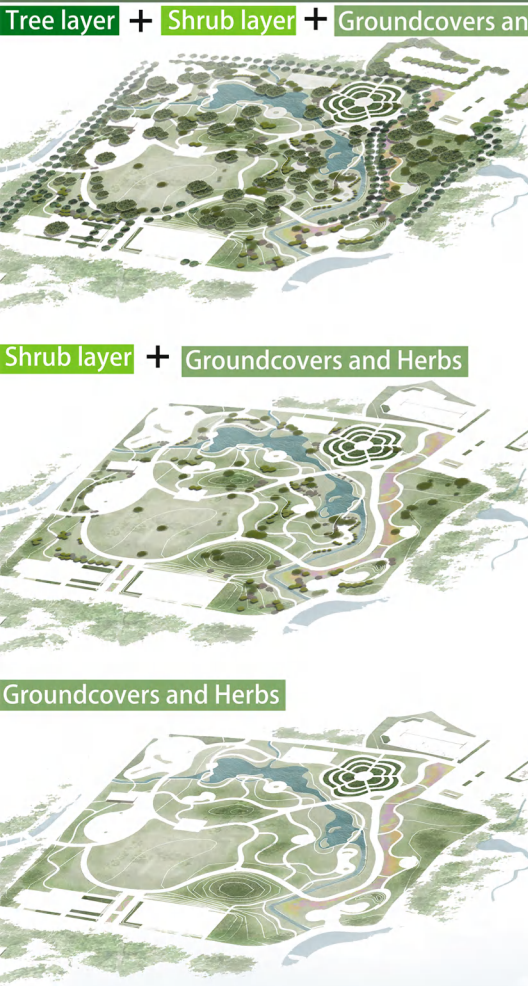
DRAINAGE ECOLOGICAL DESIGN



DRAINAGE DETAILS



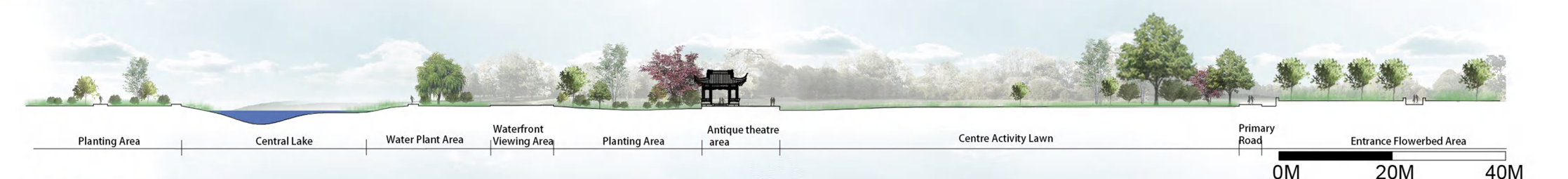
PLANT COMMUNITY DESIGN



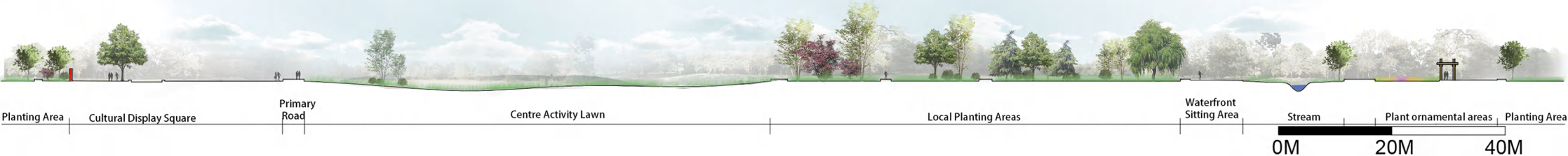
PLANT CONCEPT DESIGN FOR FUNCTIONAL AREAS



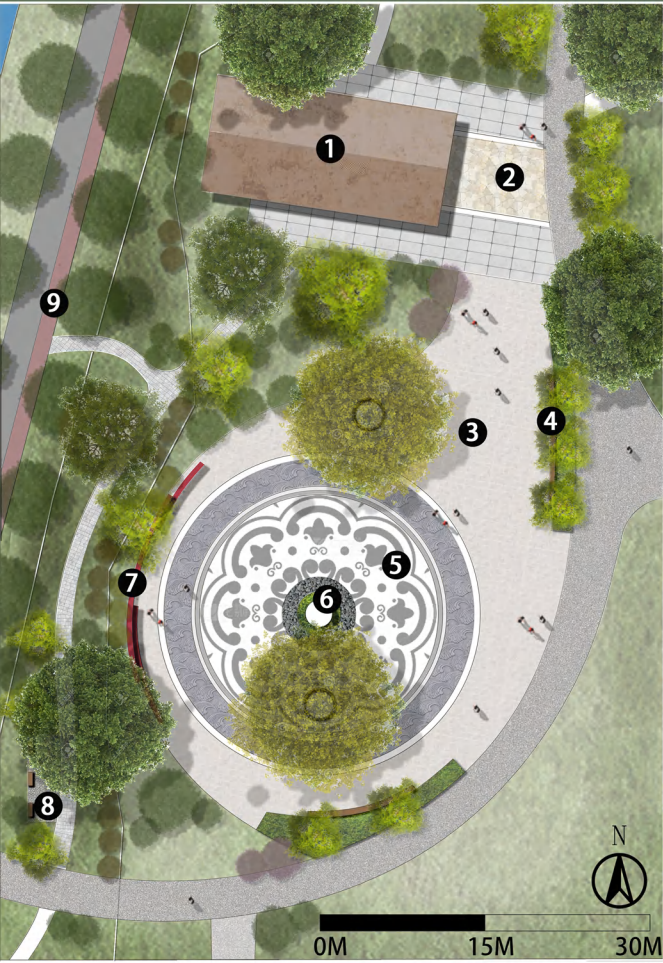
SECTION A-A



SECTION B-B



ZOOM IN MASTER PLAN — CULTURE SQUARE AREA

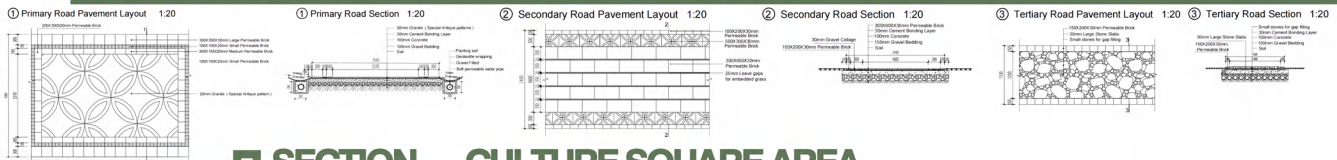


- ### LEGEND
- 1 Cultural Experience Gallery
 - 2 Gallery Square
 - 3 Cultural Square
 - 4 Long bench
 - 5 Special Paving
 - 6 Cultural Sculpture
 - 7 Cultural display wall
 - 8 Rest area
 - 9 Plastic Runway

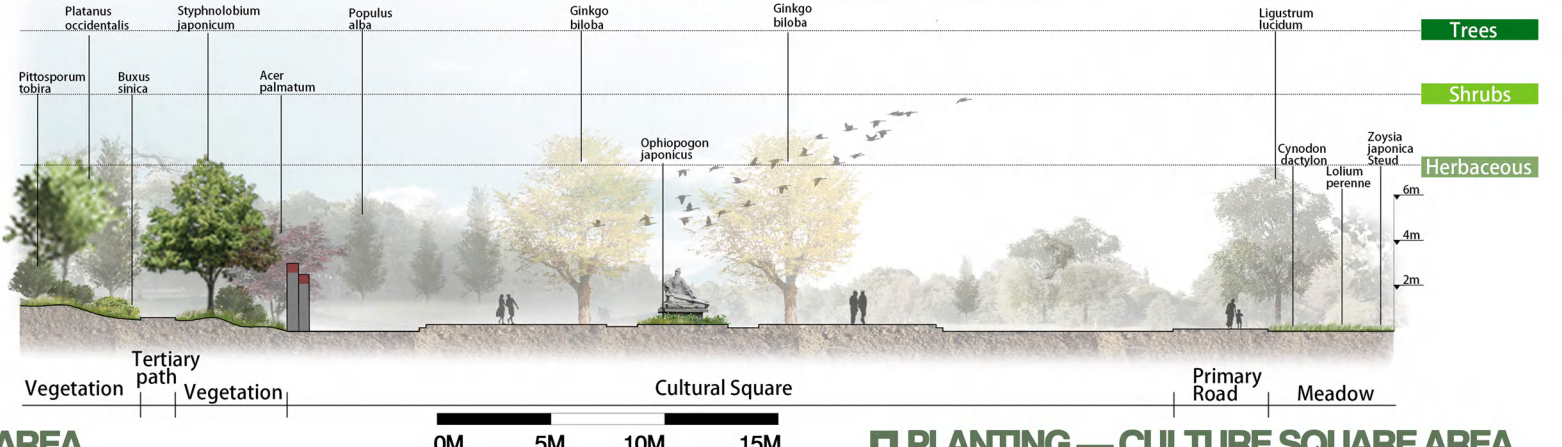
PLANT LIST — CULTURE SQUARE AREA

	Latin name	Common name	Size	Pieces/m ²	Area	Total	Flower Colour	Types
1	Koeleruteria paniculata	Golden Rain Tree	100CM-220CM	/	/	10	Gold/Yellow	Tree
2	Populus alba	/	100cm-250cm	/	/	2	/	Tree
3	Styphnolobium japonicum	Chinese Scholar Tree	120cm-220cm	/	/	4	Green	Tree
4	Ligustrum lucidum	Glossy Privet	100cm-150cm	/	/	14	Green	Tree
5	Ginkgo biloba	Ginkgo biloba	150CM-300cm	/	/	2	Gold/Yellow	Tree
6	Berberis thunbergii	Japanese Barberry	10-30cm	/	/	16	Gold/Yellow	Shrub
7	Acer palmatum	Japanese Maple	30-100cm	/	/	4	Red/Burgundy	Shrub
8	Buxus sinica	Boxwood	10cm-25cm	/	/	30	Green	Shrub
9	Pittosporum tobira	Australian Laurel	20cm-30cm	/	/	5	Cream/Tan	Shrub
10	Ophiopogon japonicus	Dwarf Lilyturf	0cm-20CM	20/m ²	2051	41020	White	Herb
	Cynodon dactylon	Bermudagrass	0cm-15cm	20/m ²	2051	41020	/	Herb
	Lolium perenne	Perennial Ryegrass	0cm-15cm	20/m ²	2051	41020	/	Herb
	Zoysia japonica Steud.	/	0cm-20CM	20/m ²	2051	41020	Cream/Tan	Herb

TECHNICAL DETAILS — ROAD PAVEMENT



SECTION — CULTURE SQUARE AREA



PLANT CONCEPT — CULTURE SQUARE AREA



LEGEND

- Platanus occidentalis
- Styphnolobium japonicum
- Populus alba
- Ginkgo biloba
- Ligustrum lucidum
- Acer palmatum
- Berberis thunbergii
- Buxus sinica
- Pittosporum tobira

TREES

Deciduous

- Platanus occidentalis
- Styphnolobium japonicum
- Populus alba
- Ginkgo biloba

Evergreen

- Ligustrum lucidum

SHRUBS

Deciduous

- Acer palmatum
- Berberis thunbergii

Evergreen

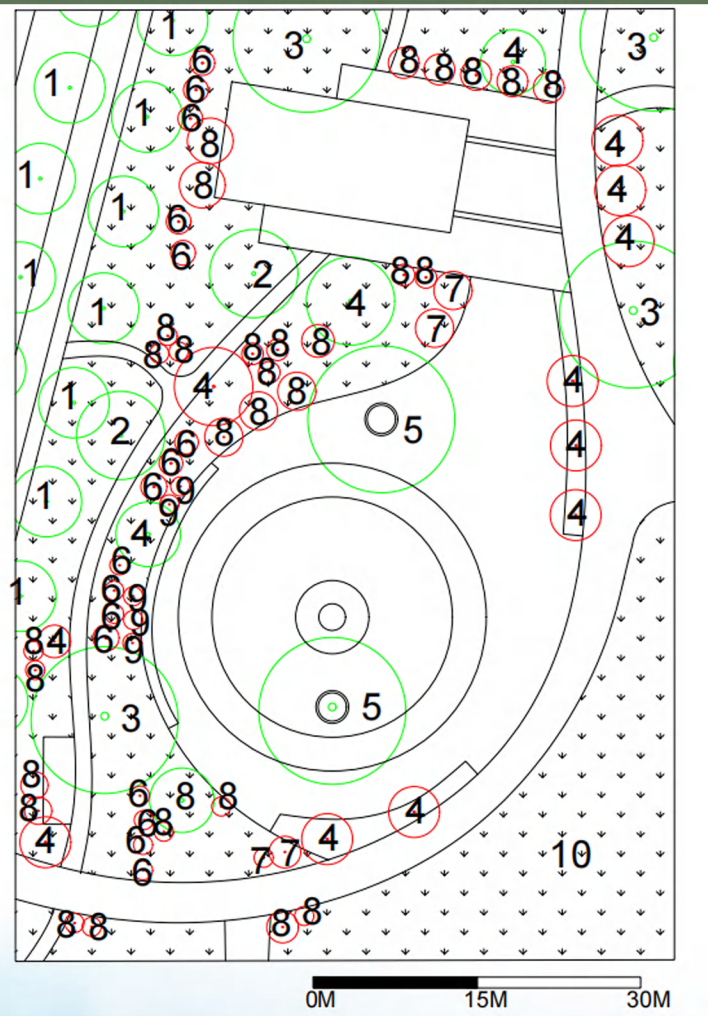
- Pittosporum tobira
- Buxus sinica

HERBS

Perennial

- Ophiopogon japonicus
- Cynodon dactylon
- Lolium perenne
- Zoysia japonica Steud.

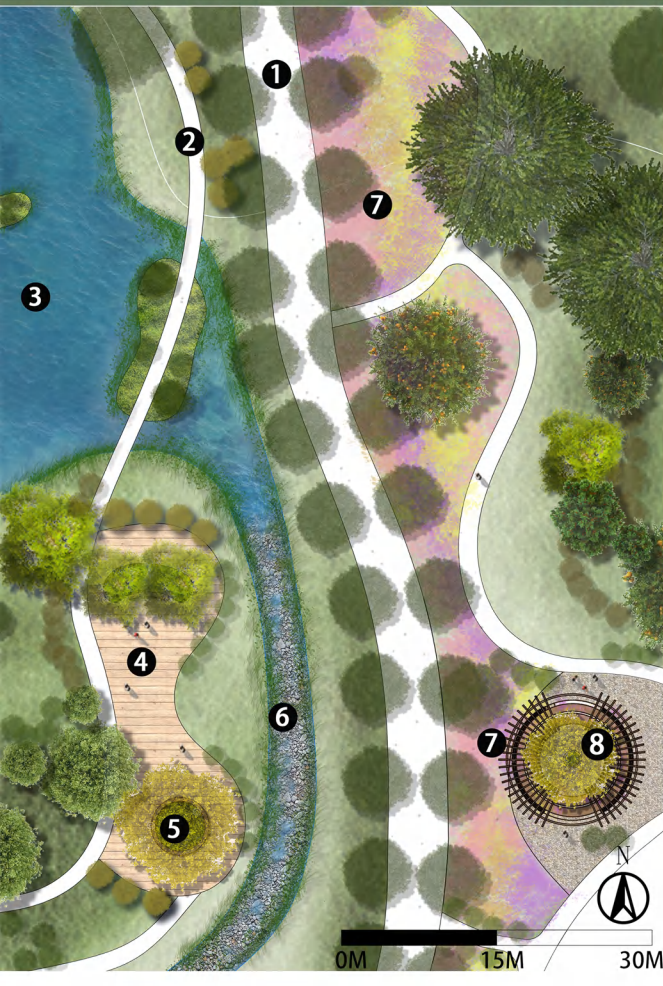
PLANTING — CULTURE SQUARE AREA



AUTHOR: Zhang Qianqian
SUPERVISOR: Albert Fekete

-THE CASE OF KING YU'S TERRACE PARK

ZOOM IN MASTER PLAN — CULTURE SQUARE AREA

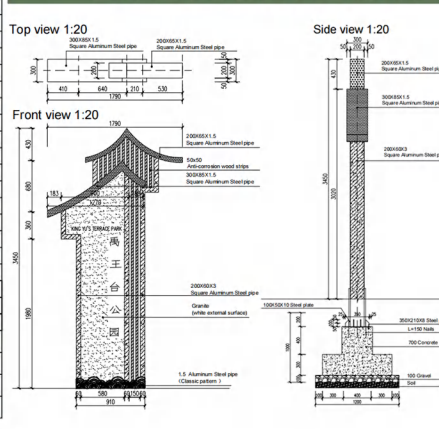


- #### LEGEND
- ① Primary Road
 - ② Tertiary Path
 - ③ Wetland Pool
 - ④ Waterfront Sitting area
 - ⑤ Tree pool with Benches
 - ⑥ Drought Creek
 - ⑦ Flower Garden
 - ⑧ Pavilion with Flower

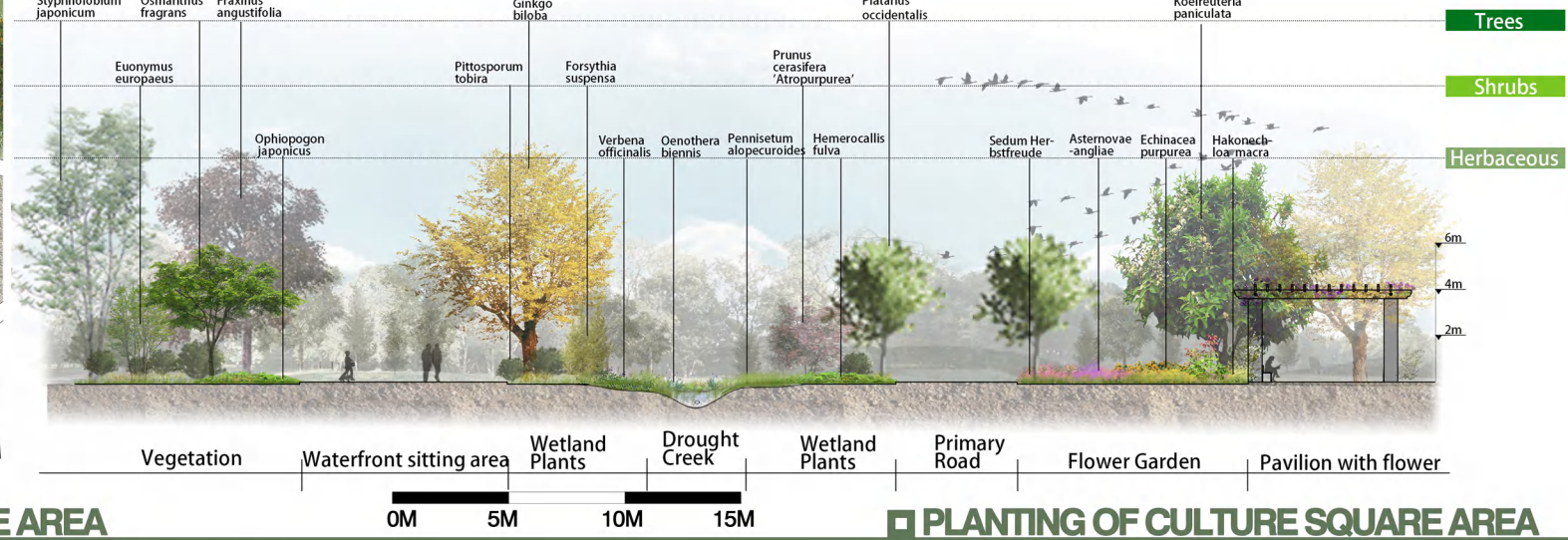
PLANT LIST OF CULTURE SQUARE AREA

	Latin name	Common name	Size	Pieces/m ²	Area	Total	Flower Colour	Types
1	<i>Hosia plantaginifolia</i>	August Lily	10-50cm	8/m ²	180m ²	1440	White	Perennial
	<i>Hakonechloa macra</i>	Golden Hakonechloa	20-40cm	10/m ²	180m ²	1800	Gold/Yellow	Perennial
2	<i>Sedum 'Herbstfreude'</i>	/	15-50cm	15/m ²	270m ²	4050	Pink	Perennial
	<i>Aster novae-angliae</i>	New England Aster	8-20cm	8/m ²	270m ²	2160	Purple/Lavender	Perennial
3	<i>Echinacea purpurea</i>	Coneflower	5-15cm	15/m ²	245m ²	3675	Gold/Yellow	Perennial
	<i>Echinacea purpurea</i>	Coneflower	5-15cm	6/m ²	245m ²	1470	Purple/Lavender	Perennial
4	<i>Tulipa gesneriana</i>	Garden Tulip	5-10cm	20/m ²	140m ²	2800	Pink	Perennial
	<i>Tulipa gesneriana</i>	Garden Tulip	5-10cm	15/m ²	140m ²	2100	Orange	Perennial
5	<i>Ginkgo biloba</i>	Ginkgo biloba	150CM-200CM	/	/	2	Gold/Yellow	Tree
6	<i>Koeleruteria paniculata</i>	Golden Rain Tree	100cm-220cm	/	/	24	/	Tree
7	<i>Ligustrum lucidum</i>	Glossy Privet	100cm-150cm	/	/	4	Green	Tree
8	<i>Osmanthus fragrans</i>	Fragrant Tea Olive	100cm-200cm	/	/	4	White	Tree
9	<i>Cedrus deodara</i>	Deodar Cedar	100cm-400cm	/	/	2	/	Tree
10	<i>Berberis thunbergii</i>	Japanese Barberry	10-30cm	/	/	12	Gold/Yellow	Shrub
11	<i>Forsythia suspensa</i>	Weeping Forsythia	50-120cm	/	/	14	Gold/Yellow	Shrub
12	<i>Buxus sinica</i>	Bowwood	10cm-25cm	/	/	19	Green	Shrub
13	<i>Pittosporum tobira</i>	Australian Laurel	20cm-30cm	/	/	6	Cream/Yan	Shrub
14	<i>Ophiopogon japonicus</i>	Dwarf Lilyturf	0cm-20CM	20/m ²	974	1948	White	Herb
	<i>Cynodon dactylon</i>	Bermudagrass	0cm-15cm	20/m ²	974	1948	/	Herb
	<i>Lolium perenne</i>	Perennial Ryegrass	0cm-15cm	20/m ²	974	1948	/	Herb
	<i>Verbena officinalis</i>	/	2cm-8cm	5/m ²	672	3360	Purple/Lavender	Aquatic Plants
	<i>Oenothera biennis</i>	Evening Primrose	2cm-10cm	5/m ²	672	3360	Gold/Yellow	Aquatic Plants
	<i>Pennisetum alopecuroides</i>	/	10cm-30cm	5/m ²	672	3360	Cream/Yan	Aquatic Plants
	<i>Hemerocallis fulva</i>	Daylily	5cm-15cm	5/m ²	672	3360	Orange	Aquatic Plants

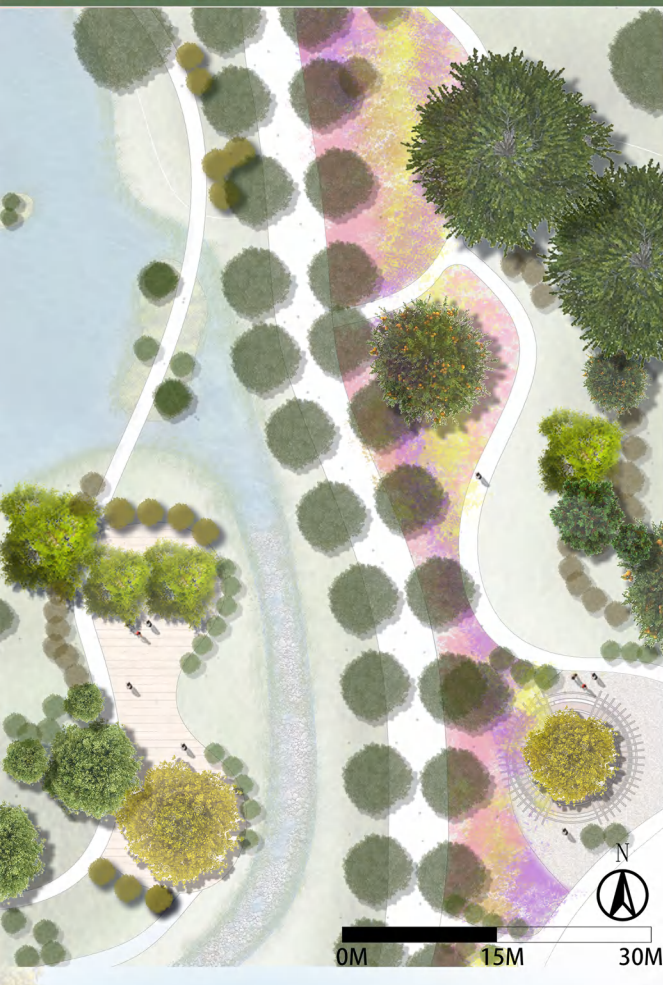
TECHNICAL DETAILS — EXPLANATION BOARD



SECTION OF CULTURE SQUARE AREA



PLANT CONCEPT OF CULTURE SQUARE AREA



LEGEND

- Platanus occidentalis*
- Cedrus deodara*
- Punica granatum*
- Ginkgo biloba*
- Ligustrum lucidum*
- Osmanthus fragrans*
- Berberis thunbergii*
- Buxus sinica*
- Forsythia suspensa*
- Pittosporum tobira*

TREES

Deciduous			Evergreen		
<i>Platanus occidentalis</i>	<i>Ginkgo biloba</i>	<i>Punica granatum</i>	<i>Osmanthus fragrans</i>	<i>Cedrus deodara</i>	<i>Ligustrum lucidum</i>

SHRUBS

Deciduous		Evergreen	
<i>Forsythia suspensa</i>	<i>Berberis thunbergii</i>	<i>Pittosporum tobira</i>	<i>Buxus sinica</i>

HERBS

Perennial					
<i>Sedum Herbstfreude</i>	<i>Aster novae-angliae</i>	<i>Echinacea purpurea</i>	<i>Tulipa gesneriana</i>	<i>Heuchera sanguinea</i>	<i>Hakonechloa macra</i>

PLANTING OF CULTURE SQUARE AREA

