

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

Memorial Park of An Urban Catastrophe in Changsha City

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Budapest, 2024

MATE Organizational and Operational Regulations

III. Requirements for Students

III.1. Study and Examination Regulations

**Appendix 6.13: The MATE Uniform Thesis /
thesis / final thesis / portfolio guidelines**

Annex 4.1: Consultancy statement

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Annex 4.2: Declaration of public access and authenticity of the thesis/thesis/dissertation/portfolio

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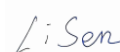
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I INTRODUCTION

A memorial park is built to commemorate significant historical events or outstanding individuals. As a modern park and an important component of the urban green space system, memorial parks are the most intuitive expression of commemorative landscapes in modern urban life. Through carefully designed memorial parks, people's instinctive commemorative emotions can be stimulated, resonate with the environment, and provide high-quality outdoor activity space for urban residents. Meanwhile, memorial parks located in cities often have extremely important educational significance and value. They not only have profound significance for residents living in the city and the entire city, but this influence will continue into the future and even future generations.

Through lots of reference literature, a urban catastrophe in Changsha City — due to World War II, the entire city was burned down and suffered a large number of casualties among residents, as well as damage to property and culture —— is seen as the historical background to design a memorial park. After conducting field research and analyzing relevant cases, summarize the design principles and methods to maximize the advantages of the site and utilize reasonable ways to avoid disadvantages. The design should emphasize related elements about significant historical event in Changsha city and convey information and emotions to people, in addition, the commemorative space of park can be constructed according to local conditions to make people remember history and promote peace, while also taking into account the participation and recreation of citizens. Since being located in a bustling city, it is also necessary to achieve better integration of the surrounding environment while meeting commemorative values and multiple functional needs.

1.1 Introduce of Site Location

The project is situated on Baisha Road, within the Tianxin District of Changsha City, Hunan Province, China. Changsha, the provincial capital of Hunan, spans an area of 11,819 square kilometers and, as of October 2023, boasts a permanent resident population of 10,420,600 individuals.

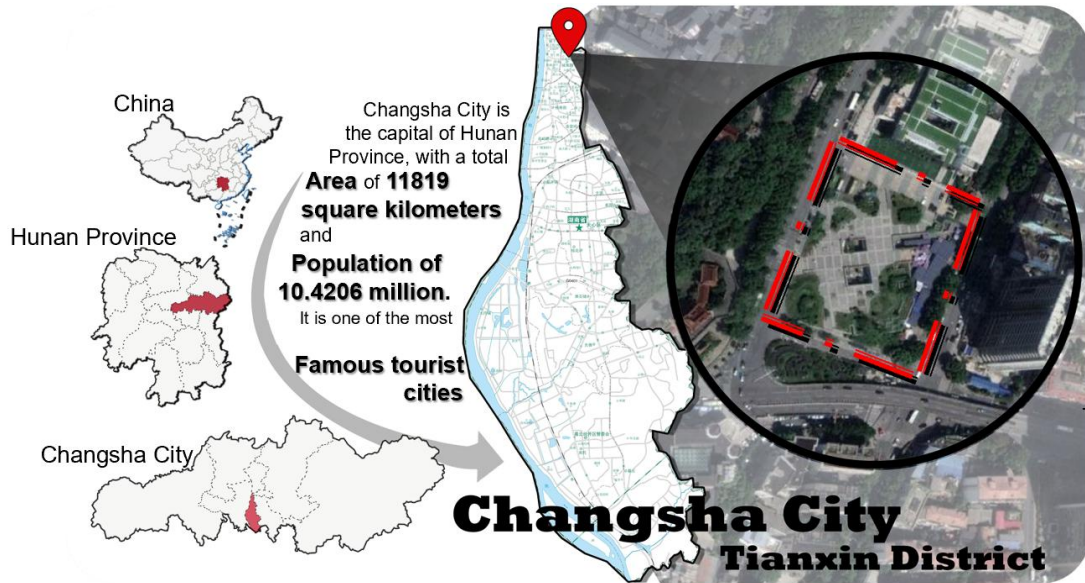


Fig.1-1. Site location

When it comes to Changsha city, there is some information that needs to be understood. Renowned as one of China's leading tourist destinations, Changsha ranked 15th among Chinese 337 cities in terms of tourist arrivals in 2023. Notable tourist attractions here include the statue of Mao Zedong, Yuelu Mountain, and Huangxing Pedestrian Street. Moreover, Changsha also is the birthplace of the esteemed Chinese leader, Mao Zedong.

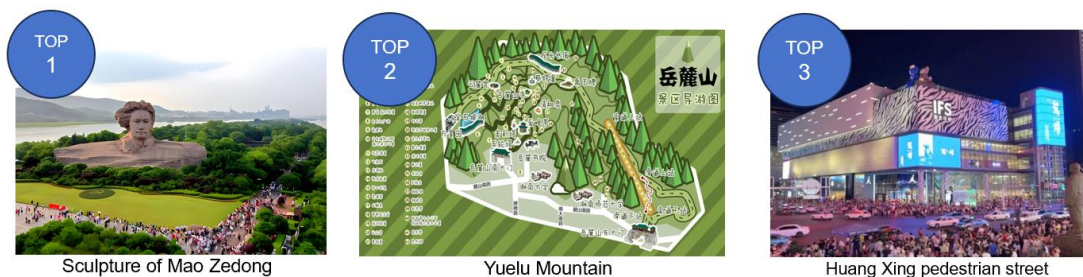


Fig.1-2. Tourist attractions

1.2 Introduce of the Historical Background

This project—the design of commemorative park— should feature a very clear theme. Center around the catastrophic historical event that occurred in Changsha in 1938, relevant designs will be implemented, utilizing sculptures, scene reconstruction, functional zoning, plant arrangement methods, and so forth. Ultimately, it aims to create a park that provide emotional support and evoke empathy among tourists, enabling tourists to remember those who lost their lives in the disaster and also to cherish, advocate for peace.

So, in order to design a commemorative park related to real historical events, it is necessary to study and summarize this period of history.

1.2.1 The Process of Historical Event

(1) Summary of the event

The "Great Fire of Changsha," was a catastrophic event that occurred on November 13, 1938.

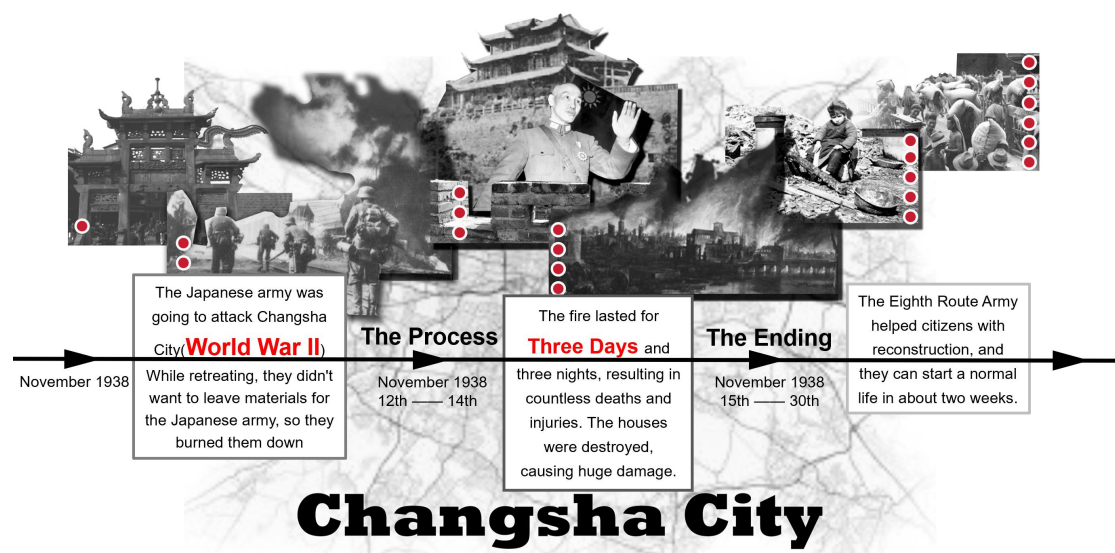


Fig.1-3. Summary of “Great Fire of Changsha”

The fire was ignited by the retreating Kuomintang army as a strategic measure to hinder the advancing Japanese forces during the Second World

War. However, the fire quickly spread out of control, resulting in the destruction of large parts of the city, including residential areas, businesses, and cultural heritage sites. The loss of life and property was devastating, leaving a deep scar on the history of Changsha and its people.

(2) Detailed process of the event

In early 1938, because of World War II, some provinces and cities in China were invaded and occupied by the Japanese army, and Changsha city was ordered to evacuate its population. Starting from June 1938, residents were planned to evacuate, but due to a strategic change by the Japanese army, Changsha suddenly became a target of Japanese aggression. This disrupted the original plan of the Chinese military, causing the evacuation plan to not proceed normally. What's even worse is that from October 9th, the Japanese army will carry out large-scale airstrikes from time to time.

Seeing the evacuation plan fail, in order to avoid leaving behind favorable materials and a place for rest for the Japanese army, the Nationalist Party leader Chiang Kai shek (Kuomintang party leader and head of Nationalist Government in mainland China and Taiwan) (1887-1975) urgently held a meeting with his subordinates and formulated a terrible plan - to burn down Changsha City.

Subsequently, the "Destruction Command Headquarters in Changsha" was established, with district command and several arson teams under its command. The Changsha Command Headquarters actively prepared arson equipment and stacked flammable materials on various transportation arteries. Before waiting for the arrival of the Japanese army, burn all useful things and strive not to leave any favorable resources for the Japanese army.

On the morning of November 12, 1938, the commander standing at the

Tianxin Pavillon began to be implemented, and flammable materials were placed in various districts of Changsha city. However, at this time, the masses had not yet fully evacuated, and the military only believed that burning shops and supplies would not harm innocent civilians.

At 2 a.m. on the 13th, the military radio received an incorrect message, mistakenly believing that the Japanese army was approaching the city, causing great panic among the soldiers. The burning plan was immediately carried out. The arsonists who were preparing to wait around quickly mobilized, carrying kerosene firearms and setting fire to all shops and houses. In an instant, Changsha became a sea of fire. The fire lasted for 72 hours.

On November 22, 1938, the Hunan Provincial Government established the Changsha Temporary Relief Committee. The staff of the communication office of the Eighth Route Army stationed in Hunan formed a "post disaster work assault team" and also carried out post disaster relief work.

By the end of November, small businesses, open-air shopping malls, hotels and restaurants in Changsha will gradually resume, and daily necessities will be basically met in supply; The salt and rice public sales office set up. The blocked traffic is gradually recovering, and Changsha Station resumed operation on November 29th, with southbound trains traveling twice a day.

1.2.2 The Tragic Consequences

(1) Historical and Cultural losses

“The Great Fire of Changsha” destroyed the cultural relics and buildings on the ground in Changsha City, causing serious losses in historical research.

Xiang embroidery is one of the four famous embroideries in China. Since the end of the Qing Dynasty, the embroidery industry in Changsha has been very

developed and prosperous, with more than 40 companies before the fire.



Fig.1-4. Staff recorded burnt ancient buildings

But in the fire, almost all the embroidery and paintings were burned down along with the storefront. Like the Jin Huali family on Yaowang Street, they burned down the excellent paintings and versions in the three major rooms.

(2) Total economic losses

According to the "Statistics on the Losses of the Anti-Japanese War in Hunan Province" compiled by the Statistics Office of the Hunan Provincial Government of the Kuomintang, it is estimated that the economic losses caused by the fire were about 1 billion-yuan, equivalent to 1.7 trillion yuan after the victory of the Anti-Japanese War, accounting for about 43% of the total economic value of Changsha.



Fig.1-5. Waiting for the distribution of daily necessities

(3) Personnel casualties

According to a report in the Xinhua Daily on November 20, 1938, the military

and political authorities organized manpower to bury more than 600 bodies in the fire. But the bodies that were burned cannot be counted.



Fig.1-6. Homeless child

According to a report by the Central News Agency on November 19th, the fire caused more than 20000 citizens to fail to escape in time, and most of their bodies have been buried so far.

(4) Building losses

The biggest loss is in the housing and architecture of Changsha, including residential buildings, shops, schools, factories, government agencies, banks, hospitals, newspapers, warehouses, cultural and entertainment venues, as well as many historical buildings such as palaces, temples, private gardens, and former residences of celebrities. Among them, houses and shops were destroyed the most, followed by factories and schools.



Fig.1-7. The building was being burned down

More than 440 streets in the city have not been completely destroyed. Among them, only one or two houses remain undamaged in over 190 streets, and only three or four buildings remain undamaged in over 130 streets. There are over 60 streets and alleys, accounting for about 6%, among the 30-40 surviving houses; More than 30 streets and alleys in buildings 11-20, accounting for about 3%; 10 streets and alleys in buildings 21-30, accounting for approximately 1%; Three buildings with more than 30 buildings account for approximately 0.26%.

1.2.3 The Existing Memorial Activity and Structure

(1) Warning Bell

The Tianxin Pavilion, built during the Ming Dynasty, has always been regarded as a symbol of the ancient city of Changsha. The Tianxin Pavilion also records the history, glory, and humiliation of Changsha.

But after the great fire, the Tianxin Pavilion became a ruin with broken walls and charred beams and pillars. It was not until 1983 that the majestic appearance of the ancient pavilion was restored to its original site. According to the proposal of the Municipal Committee of the Chinese People's Political Consultative Conference on the restoration of key anti-Japanese war relics in Changsha, and on November 12th every year, a warning bell (Fig.1-8), which is



Fig.1-8. The building was being burned down

sounded at Tianxin Pavilion to commemorate the deceased and promote world peace.

(2) Memorial Wall

The Memorial Wall of the Electric Lamp Company Site is located at the intersection of the Xiangjiang Scenic Belt and Labor Road. It is the first building in Changsha to commemorate the "The Great Fire of Changsha" and was completed in July 2005.



Fig.1-9. The building was being burned down

1.3 Introduce of The Reasons and Aims

1.3.1 The Reasons of Design

(1) There is no commemorative park associated with this significant historical event. Changsha city only exist a historical site and an activity. After conducting a series of research on the historical event, we find the reality to be deeply distressing. The statistical data available in the literature is astonishing, yet it still fails to elicit empathy in people.

(2) The catastrophe never should be forgotten. We are not born with a sensitivity to history. Many primary school students and even young adults in Changsha are unaware of this event's existence, let alone outsiders like us. However, such a catastrophe serves as a lesson that everyone should learn to prevent similar tragedies from occurring in the future.

(3) The original site should be enhanced. The original site design was unreasonable and few people used it. A commemorative park not only fulfills people's spiritual needs and provides a strong sense of atmosphere, but also possesses the basic functions of a park: rest, recreation, socializing, necessary infrastructure, plants, and beautiful park scenery.

1.3.2 The Aims of Design

(1) To commemorate and honor those significant figures and important events that have passed away. They or they have left profound marks in the long river of our history, and their spirit and stories are worth remembering and inheriting forever.

(2) Cherish and promote the value of peace. Because peace is the cornerstone of social development, human progress, and civilization prosperity, only a peaceful environment can enable us to better realize our dreams and pursuits.

(3) By educating the public and widely disseminating the influence of historical events, we can better understand the past, recognize the present, and look to the future. The "Great Fire in Changsha City" event not only shaped the city's history and culture, but also provided valuable experience and lessons.

(4) Improve landscape quality and benefit the people. Reasonable functional area planning improves the travel experience of surrounding residents or tourists, as well as the utilization rate of the site itself, to meet people's daily needs for the park.

II METHODOLOGY

(1) Literary Reading Method

Through targeted data collection and literature review for this research topic, we aim to understand the current status and trends in the development of memorial parks both domestically and internationally. By systematically summarizing relevant theories and methods, and analyzing the strengths and weaknesses of existing memorial parks, this approach provides a theoretical reference and guidance for in-depth research in the paper.

(2) Case Study Method

This paper analyzes renowned domestic and international cases of memorial landscapes. The practical implementation of these projects enhances the feasibility of this research topic. Meanwhile, favorable factors from the selected cases, based on the historical background and environmental status of the proposed project, are applied in the design.

(3) Field Research Method

Through field research, we conducted an in-depth understanding of the traffic conditions, built environment, and terrain of the project site within Tianxin District, Changsha City. Preliminary summaries were made on the existing summaries were made on the existing issues, feasibility, and strengths and weaknesses of the project.

Date: January 23, 2024

Location: Intersection of Baisha Road and Chengnan West Road, Tianxin District, Changsha City

Research Content: Upon arriving at the designated area, we walked through the entire region and took photographs for documentation.

(4) Software-Assisted Method

Using satellite imagery as the information source and supported by GIS technology, we interpreted the current land use status of the design site. Additionally, software such as Google Earth, AutoCAD, SketchUp, and Adobe Photoshop were utilized in combination with field research data for surveying, modeling, and design.

III CASE STUDIES

3.1 Victory Square in the last battle of the Anti-Japanese War

3.1.1 Project Overview

The Victory Plaza of the Final Battle of the Anti-Japanese War, situated in Gaoyou City, Jiangsu Province, serves as a profound commemorative space dedicated to China's victory in the Anti-Japanese War, particularly highlighting the historical significance of the Battle of Gaoyou. This plaza is designed with thoughtful art installations, including sculptures depicting key historical events, which vividly represent the resilient spirit and immense sacrifices of the Chinese people during their arduous 14-year struggle. At its heart, the Anti-War Victory Memorial Hall houses a treasure trove of historical artifacts and photographic materials, providing a place for future generations to learn and remember. Therefore, this plaza stands not only as a physical testament but also as a carrier of national memory and spirit, offering profound educational and historical insights.



Fig.3-1. Aerial view of case study I

3.1.2 Overall Layout

The entire plaza occupies a vast area and revolves around the theme of the Anti-Japanese War. Through various forms such as sculptures, reliefs, and walkways, it showcases the heroic resistance and victorious achievements of the Chinese people during the war. The plaza is divided into multiple zones, each with its unique commemorative significance and educational value.

This plaza serves as a commemorative and educational space, reminding visitors of China's history and the importance of peace. There are main zones:

(1) South Entrance Plaza:

Located on the southeast side of People's Park, the South Entrance Plaza features a trapezoidal layout.

- To the south of the plaza, a parking area is provided for both motorized and non-motorized vehicles.
- The central part of the plaza is predominantly paved with hard surfaces

to facilitate the gathering and dispersal of crowds.

- To the north, irregularly shaped flower beds segment and guide pedestrian flow, directing visitors into the War of Resistance Pathway and People's Park, respectively.

(2) War of Resistance Pathway:

Extending from the South Entrance Plaza to the Victory Plaza, the War of Resistance Pathway forms a memorable corridor.

- The pathway spans approximately 125 meters in length, with widths ranging from 5 to 13 meters and heights from 5 to 7 meters.
- Designed with the concept of "Cracks," it is constructed from rust-red weathering steel, symbolizing the pain and emotional scars inflicted by Japanese imperialism on the Chinese people.
- Within the pathway, there are 14 sculptural units depicting historical events such as the September 18th Incident, the Marco Polo Bridge Incident, and the Nanjing Massacre, as well as relief sculptures of songs like "The Song of the New Fourth Army" and "The Song of the Eighth Route Army."

(3) Victory Plaza:

Located at the end of the pathway, the Victory Plaza features a sunken design, sitting 2.6 meters below the original ground level.

- The plaza's main sculpture, "Moment of Victory," stands at 12.26 meters tall, symbolizing the liberation of Gaoyou City on December 26, 1945. The upper part of the sculpture depicts an abstract silhouette of a national flag, while the base features a relief of reeds. The middle section portrays five New Fourth Army soldiers celebrating victory.
- To the south of the plaza, a large curtain wall made of weathering steel is inscribed with the 16 characters: "Remember History, Honor the Martyrs, Cherish Peace, Create the Future."
- To the north, the Memorial Hall of the Last Battle of the War of Resistance occupies a building area of 3,000 square meters, housing

exhibition halls, lecture halls, reading lounges, and other functional spaces.

3.1.3 Design Features

(1) Historical Commemoration

The project uses narrative design with weathering steel walls and bronze sculptures to recreate the War of Resistance, immersing visitors in history. Sculpture units depict key events and songs, symbolizing the Chinese people's bravery and victory. The main sculpture, "Moment of Victory," stands tall, marking Gaoyou's liberation.

(2) Spatial Layout & Atmosphere

A sunken Victory Plaza creates a solemn atmosphere, contrasting with the narrow, descending steel walls symbolizing the war's difficult path. This leads visitors to the plaza's climax.

(4) Design & Materials

Rust-red weathering steel, chosen for its durability and aesthetic aging, forms the pathway and walls. Irregular flower beds guide visitors and beautify the space. The project incorporates green building practices, reflecting ecological values.

(5) Functional Diversity

The project serves as an educational base, providing historical insights. It also offers recreational space and an exhibition hall, allowing visitors to learn, remember, and relax.

3.1.4 Lessons learned

(1) Narrative Design: The project artistically narrates the War of Resistance, boosting history's appeal and fostering deeper understanding. This approach offers a blueprint for historical projects.

(2) Material Choice: Weathering steel and bronze, evoking history and resilience, contrast with surroundings for striking visuals, while their durability ensures long-term excellence.

(3) Spatial Layout: A thoughtfully designed sunken plaza and descending steel walls evoke a solemn atmosphere, immersing visitors in historical context.

(4) Green Ecology: The project integrates eco-friendly principles, respecting the environment and aligning with contemporary trends.

(5) Functional Versatility: Beyond education, it offers leisure, entertainment, and exhibitions, catering to diverse visitor needs and enhancing engagement.

3.1 Diana, Princess of Wales Memorial Fountain

3.2.1 Project overview

The Diana, Princess of Wales Memorial Fountain, located in Hyde Park, London, is a meticulously designed public artwork by American designer Kathryn Gustafson in honor of Diana, Princess of Wales, who passed away in 1997. The fountain features a heart-shaped water channel surrounding an oval green space, composed of 545 precisely carved granite blocks, with diverse water flow patterns symbolizing Princess Diana's love and inclusiveness. It has become a popular spot for visitors to connect with nature

and remember the princess.

As a new landmark in London, the Diana Memorial Fountain not only carries the deep memory of the princess but also embodies the harmonious coexistence of environmental protection and humanity. It attracts visitors from around the world, serving as a must-visit destination to understand British royal culture and experience the charm of London. Additionally, it serves as a continuation and tribute to Princess Diana's charitable spirit.

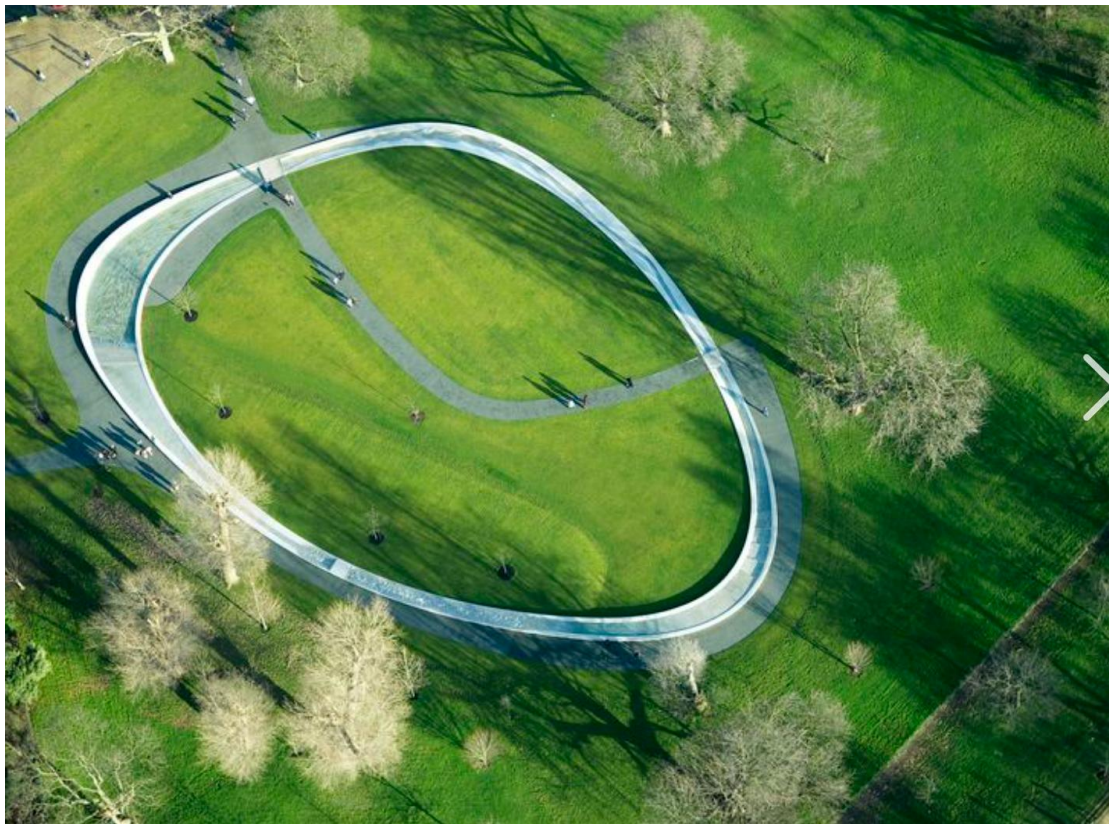


Fig.3-2. Aerial view of case study II

3.2.2 Overall Layout

The overall layout of the Diana, Princess of Wales Memorial Fountain is both exquisite and profound, fully demonstrating the designer's deep understanding and expression of Princess Diana's spiritual traits. Here is a brief description of its overall layout:

(1) Heart-shaped Water Channel:

- The heart of the memorial fountain is a heart-shaped water channel surrounding an oval green space. This design is not only aesthetically pleasing but also carries deep symbolism, representing Princess Diana's love and inclusiveness.
- The water channel is composed of 545 meticulously carved granite blocks, which have undergone special anti-slip treatment to ensure visitor safety while adding a natural and rustic beauty.

(2) Water Flow Design:

- The water flow starts from the highest point, flowing into the circular water channel from two directions through winding bridges, and ultimately converging into the shallow pool at the bottom.
- The water flows through the stones, forming various forms such as cascading water, small waterfalls, and vortices, providing visitors with a rich audio-visual experience.

(3) Auxiliary Functional Area Layout - Refined

- **Oval Green Space:** Nestled at the heart of the water channel, this oval green space serves as an idyllic retreat for visitors to unwind and observe. Beautifully landscaped with flora and illuminated by gentle lights during the evening, it casts a romantic glow over the memorial fountain.
- **Walking Paths & Viewing Platforms:** Spacious, inviting paths circle the water channel, providing ample opportunities for leisurely strolls and close-up observations. Strategically positioned viewing platforms offer visitors breathtaking vistas of the fountain's entire splendor and unique design aesthetics.

3.2.3 Design Features

(1) Shape and Symbolism: The fountain is shaped like a delicate pearl necklace, which symbolizes the elegance and grace of Diana, Princess of Wales. This shape also serves as a lasting tribute to her memory.

(2) Natural and Cultural Integration: The design seamlessly integrates natural elements, such as water and granite, with cultural significance. The use of granite adds a touch of solidity and stability, while the water represents fluidity and life.

(3) Dynamic Water Features: The water in the fountain flows dynamically, creating a visually appealing and calming effect. The varying water movements reflect the diverse aspects of Diana's personality and life.

(4) Public Interaction: The design incorporates features that encourage public interaction and engagement. Visitors can walk through the shallow water channels, making it a fun and interactive space for all ages.

(5) Emotional Connection: The fountain serves as an emotional link between the past and the future, reminding people of Diana's legacy and the impact she had on the world.

3.2.4 Lessons learned

(1) Fusion of Site Spirit and History:

Need to deeply understand the history and characteristics of Hyde Park, harmoniously integrating the memorial fountain with its surrounding environment to exhibit unique charm.

(2) Innovative Design:

By adopting the principle of polarity and duality to solve physical challenges, and utilizing topographic elevation differences to create a water cycle, the fountain was endowed with dynamic beauty.

(3) Material Contrast:

The use of materials such as granite and metal created sharp contrasts, enhancing the visual impact.

(4) Engagement and Interaction:

The fountain design emphasized interaction between people and water, bringing viewers closer to the landscape.

(5) Balance of Memorial and Functionality:

The fountain not only serves as a memorial but also as a public activity space, achieving a perfect combination of memorial significance and functionality.

IV STUDY ON DESIGNING MERTHODS FOR MEMORIAL PARK

In order to better design a memorial park based on significant historical events in Changsha, it is essential to discuss and study the design methods for memorial parks. The design approach for a memorial park involves multiple aspects, ensuring it not only possesses profound commemorative significance but also practicality and artistic quality.

4.1 Clarity of Theme and Emotional Resonance

(1) Highlighting Memorial Themes

The design of this memorial park is centered around a distinctive theme: the catastrophic fire that devastated Changsha in 1938. This theme serves as the key of the entire design, guiding every aspect : Sculptures, structures, functional zoning, plant arrangements, etc.

(2) Emotional Resonance

Through meticulously crafted thematic sculptures and landmark buildings, the commemorative theme is vividly and intuitively displayed, capturing visitors' attention immediately. These elements evoke a profound emotional resonance, enabling visitors to personally feel the sorrow and devastation wrought by war and disaster. They are thereby inspired to sincerely mourn the deceased in the fire, deeply reflect on the fragility of life, and cherish the peace and prosperity they enjoy today.

4.2 Rational Layout and Functional Improvement

(1) Layout Planning

The layout of this memorial park should fully consider its functionality and practicality, satisfying the needs of commemorative activities while also accommodating recreation and leisure functions. The main area centered on sculptures is at the core of the plan, creating a strong visual impact.

(2) Road System

Based on site analysis, the road system should be reasonably planned to ensure visitors can smoothly tour the entire park. Internal roads should be designed to be spacious, flat, and varied, guiding visitors along the established tour route. External roads should connect with the surrounding

urban space for convenient visitor access.

(3) Supporting Facilities

Design structures and sculptures related to historical events based on "The Great Fire of Changsha," providing seating for rest, shade trees, beautiful flowers and plants, information boards, etc., to ensure the park's basic functions are complete.

4.3 People-Oriented and Emphasis on Experience

(1) Psychological Needs

The design of modern memorial parks should focus on people's feelings and needs, emphasizing a people-oriented design concept. In the design process of this scheme, full consideration should be given to visitors' psychological and behavioral characteristics, enhancing their tour experience through landscape creation and facility arrangement.

(2) Functional Zoning

Corresponding functional zones should be designed based on early analysis and main historical event information, combining practicality. Without being detached from the surrounding environment, it should better integrate into the city while expressing the theme, fully leveraging the role of each functional area. Especially for this plan, interactive display facilities and educational activity areas should be established to allow visitors to better understand history through interactive means, thereby enhancing their sense of participation and overall experience.

(3) Facility Arrangement

The design and placement of facilities should also aim to stimulate people's emotions and express a strong central idea, providing sufficient space for

contemplation and meditation. Additionally, there should be diverse and sufficient leisure areas to accommodate people of all age groups.

4.4 Overall Unity and Harmonious Coexistence

(1) Visual Style

The design of a memorial park should emphasize overall unity, making various elements coordinate and complement each other. The history background is about fire, so the elemental characteristics of fire are relatively obvious, which can create a unified visual style through color matching, material pairing, and design language.

(2) Environmental Integration

This project is located in Changsha city, and designs that are detached from the environment will not be recognized. So full consideration should be given to the relationship between the park and the surrounding urban space, organically integrating the park with the urban space through greenbelts, landscape walls, and other means. At the same time, reasonable planting and citizen use of plants should be considered to enhance the park's ecological benefits, ornamental value, usability and safety.

4.5 Element Integration and Expression Techniques

(1) Design Elements

In the design of a memorial park, different design elements and techniques can be incorporated. Relevant elements should be closely related to historical events, creating a unique and infectious commemorative space.

Different elements should have clear priorities and be strongly connected using appropriate design language to avoid disrupting the overall sense of the solution.

(2) Expression Techniques

The sculpture design of this scheme can adopt symbolic expression techniques, extracting several elements that represent the event to convey the commemorative theme in a simpler and more powerful form. At the same time, the atmosphere and disseminating of the commemorative space can be enhanced through means such as plants, paving, and water features.

4.6 Ecological and Sustainable Development of Parks

(1) Ecological Development

The road system and planting arrangement should be carefully planned, preserving usable plants to minimize damage to plant resources and maximize the ecological benefits of urban parks.

(2) Sustainable Development

Long-term operation and maintenance of the park must be considered in the design phase. In particular, it is important to consider that sculptures are not prone to significant changes over time. The use of environmentally friendly materials and energy-saving technologies is crucial to reducing the park's energy consumption and operational costs. By adopting sustainable practices, we can ensure that the park remains a vibrant and meaningful space for future generations, reflecting a commitment to preserving both historical memory and beautify the urban landscape.

In summary, the design principles of memorial parks cover multiple aspects, including the embodiment of memorial themes, overall layout and planning, balancing functionality and aesthetics, coordination with the surrounding environment, and sustainability and environmental protection concepts. These

principles collectively constitute the core elements of memorial park design, providing visitors with a garden space that is both commemorative and enjoyable.

V ANALYSIS

This chapter will analyze the external and internal environments of the project site, summarizing its strengths and weaknesses. This provides necessary preliminary analysis for the design of the scheme. Such analysis is conducive to giving the memorial park a stronger atmosphere and uniqueness, designing more reasonable functional areas to serve different groups of people.

5.1 External Environment Analysis

5.1.1 Analysis of Traffic System

The existing traffic conditions at the site are favorable, with smooth and unobstructed roads facilitating easy access and usage by citizens.

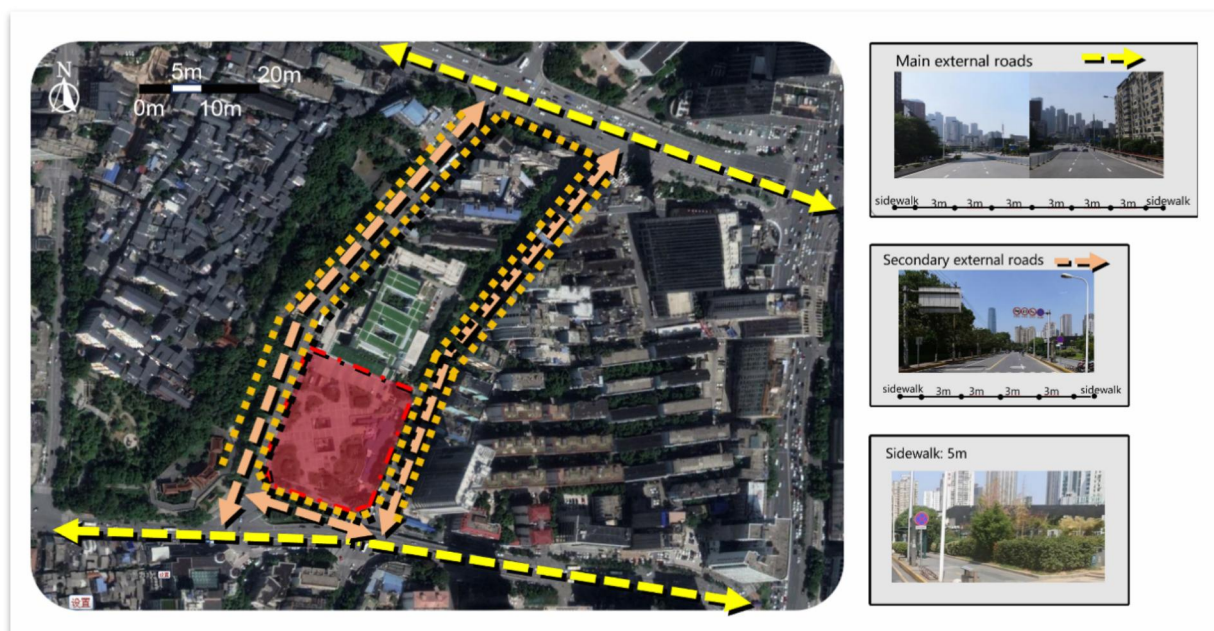


Fig.5-1. Analysis of road conditions

In terms of public transportation, there is a subway station located 800 meters away and four nearby bus stops, offering six different bus routes for citizens and tourists to choose from. Additionally, there are multiple parking lots surrounding the project site, and the conditions of both the vehicular roads and sidewalks are in good condition.



Fig.5-2. Analysis of public transportation

5.1.2 Analysis of Surrounding Structures

The project site is located in an area rich in historical and cultural information. Compared to the project, the surrounding structures occupy elevated positions, with many offerings' panoramic views of the entire site. Therefore, the impact and influence of viewing angles should be considered during the design process.

There are three closely adjacent structures: Tianxin Pavilion, the Museum of Chinese Characters, and the Viaduct.

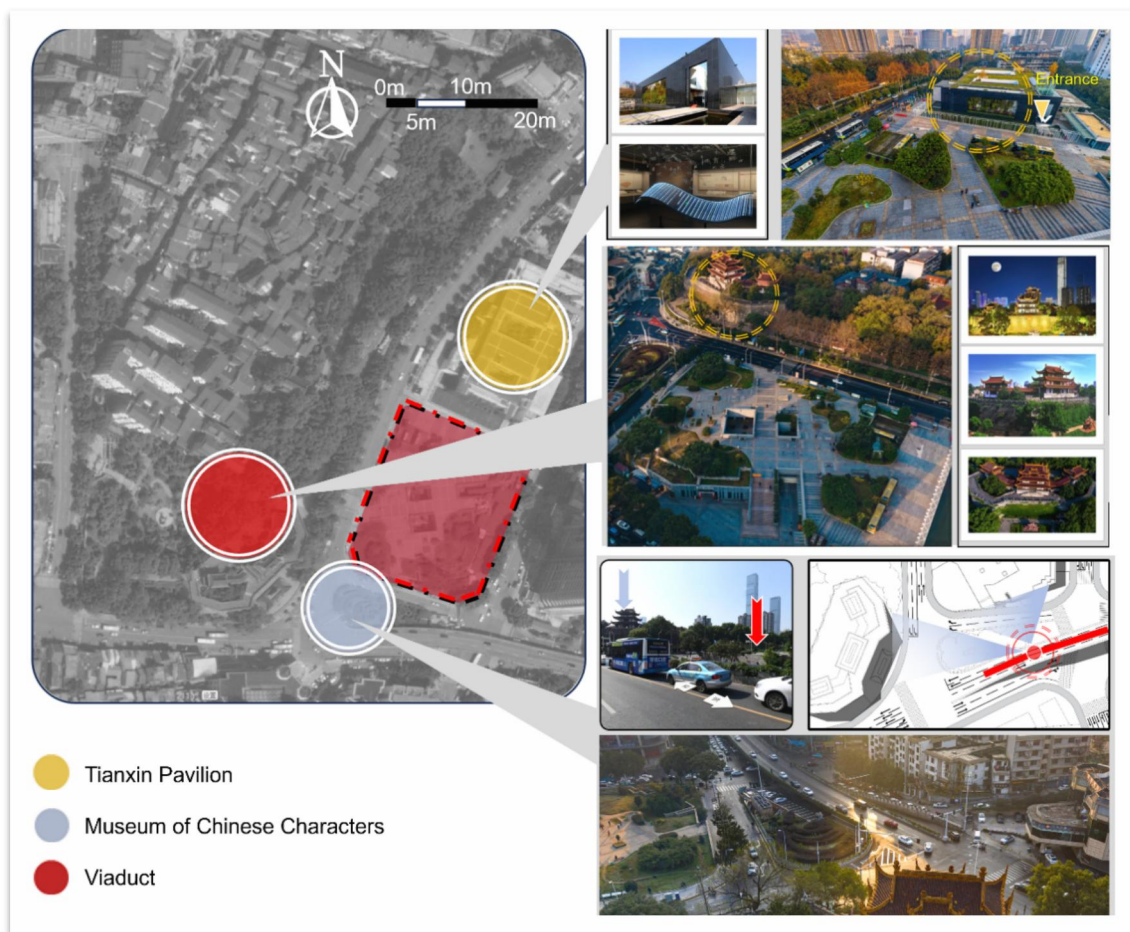


Fig.5-2. Analysis of surrounding structures

Tianxin Pavilion: This significant historical building was the starting point of a catastrophic event where the commander ordered the city to be set on fire from the top of Tianxin Pavilion. Nowadays, after restoration, Tianxin Pavilion stands as one of the landmark buildings of Changsha. Designing around this building can help people recall the past. Additionally, if you stand on the site, you can look up at Tianxin Pavilion and, through design, recreate the scene of the pavilion being set on fire, allowing people to feel the sufferings brought by war and to cherish and advocate for peace, as well as to remember those who died in war.

Museum of Chinese Characters: As its name suggests, it is a museum dedicated to Chinese characters. The Changsha Bamboo and Silk Scripts Museum covers an area of 2.5 hectares with a main building area of 14,100

square meters. Every year, many primary school students come to learn and visit the museum, providing an opportunity for the next generation to learn about the city's background and develop a love for peace through their visits to the park.

Viaduct: This road is typically built as an expressway away from the city, meaning that many residents from outside the city drive along it.

Therefore, designing a memorial park here can utilize the overhead perspective to catch the attention of passing people, inspiring them to visit. This will give more people the opportunity to come to the park, learn about history through the design, and in turn, remember those who died in war and cherish peace even more.

5.1.3 Analysis of Pedestrian Flow

Based on the experience gained from studying the city's top tourist attractions and my own research, as well as considering the primary and secondary

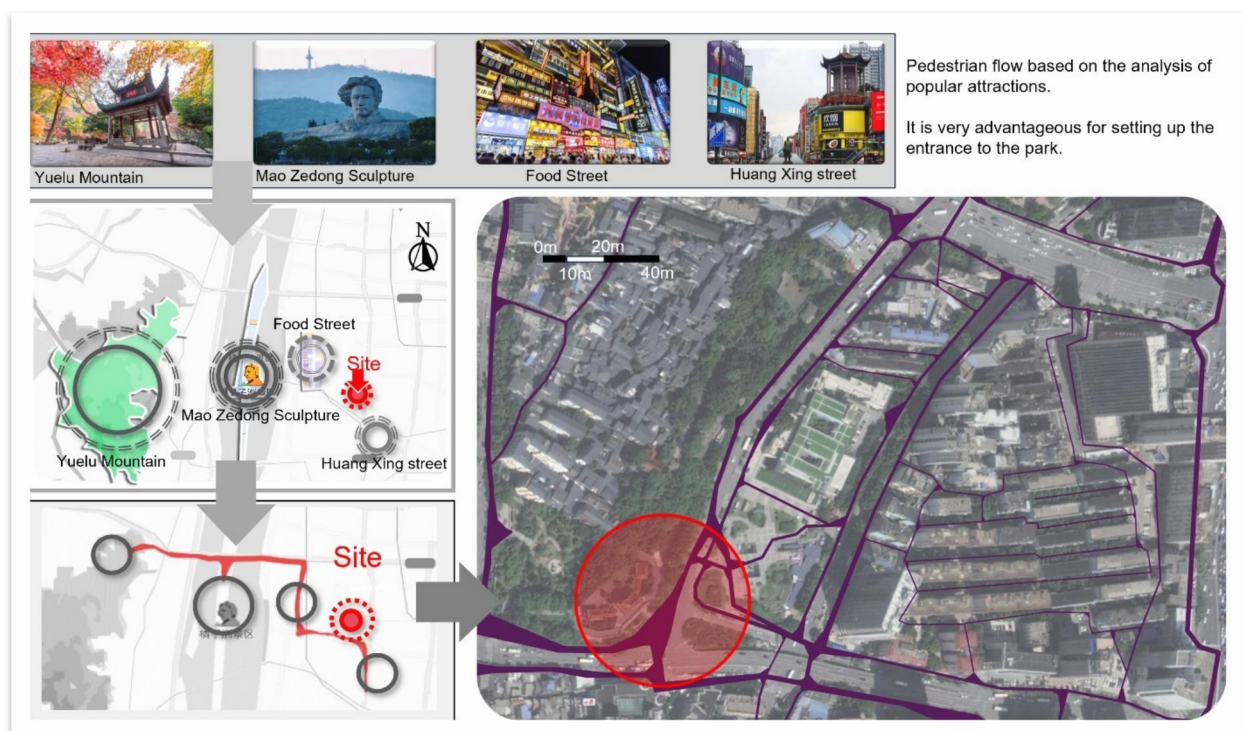


Fig.5-2. Analysis of pedestrian flow

roads in urban planning, it is evident that the main pedestrian flow travels from west to east. This has resulted in the following pedestrian flow map.

So, the analysis of pedestrian flow will better assist me in designing the park entrances and exits according to the size of pedestrian traffic. It allows for a more rational arrangement of the locations where people enter the park, enhancing accessibility and objectively increasing the likelihood of people visiting the park.

5.2 Internal Environment Analysis

5.2.1 Introduction to Basic Information about the Site

Currently, this site consists of a 1.5-hectare public plaza and a parking area. It boasts smooth access with no particular public facilities in place.

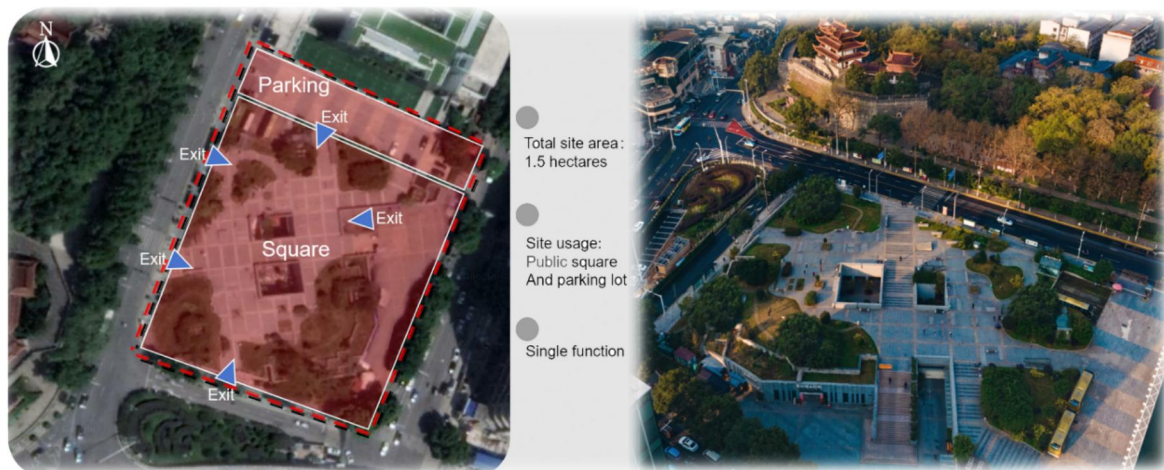


Fig.5-2. Basic Information about the Site

The pedestrian traffic is low, with only a few people stopping by for a rest. However, it is noteworthy that the site features a unique terrain, roughly divided into two sections of the plaza with a height difference of approximately 5 meters. The upper section comprises normal ground level and a rooftop garden, while the lower section is an open plaza.

5.2.2 Analysis of Site Topography

The topography of the site, as depicted in the diagram, features a height difference of 5.8 meters due to an overall slope of approximately 4.5 degrees. This height difference has been utilized to create indoor spaces. Notably, this spatial design results in two open-air courtyards, allowing views from the inside out.

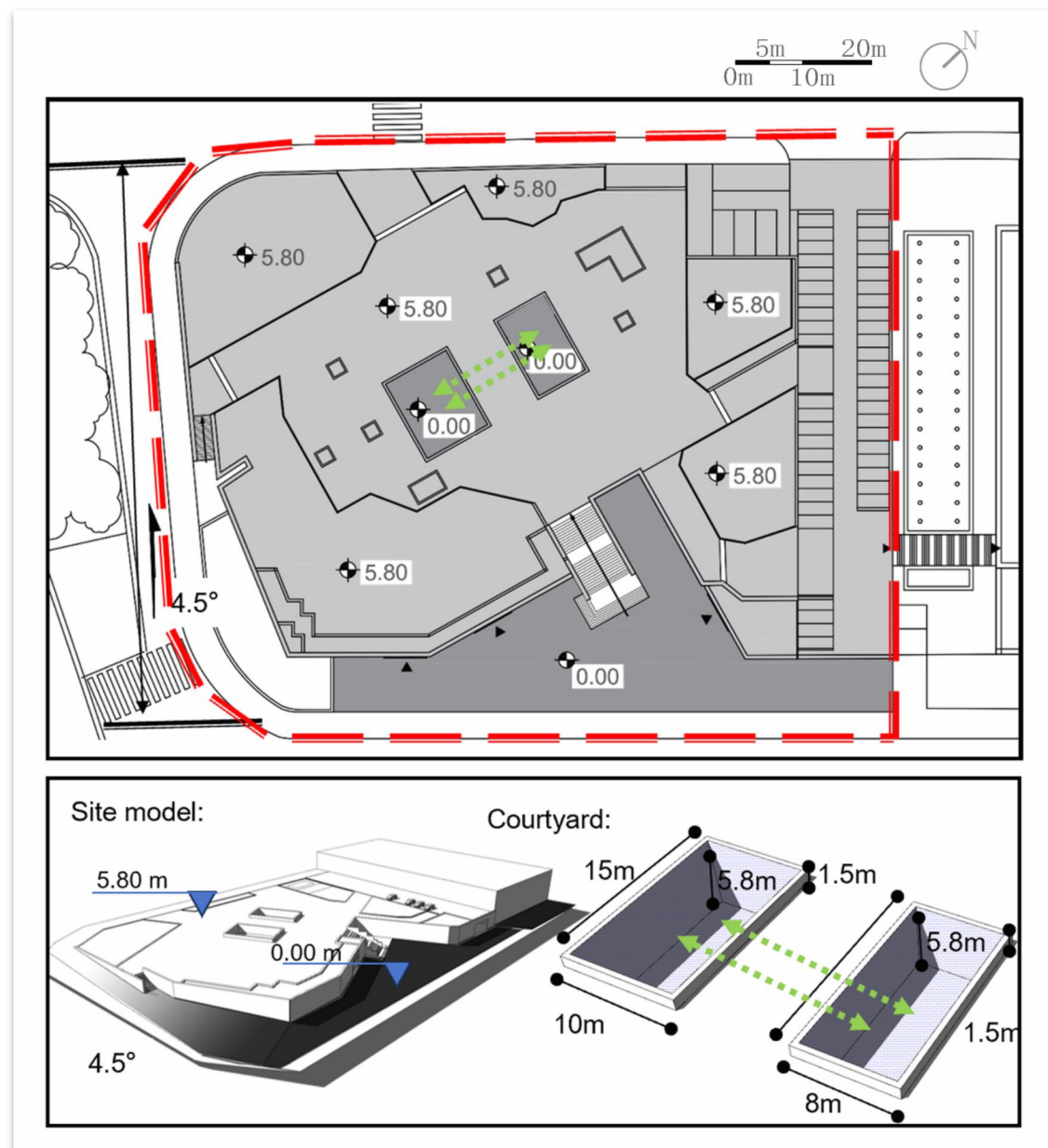


Fig.5-3. Analysis of site topography

By designing in accordance with this unique environment, the combination of

space and perspective can enhance user experience and add to the project's uniqueness and appreciation value.

5.2.3 Analysis of Indoor Space

Further research has revealed the indoor space dimensions as shown in the diagram. Understanding the size of the rooftop garden is crucial for intentionally avoiding structural damage to it caused by deep-rooted plants and facilities during the later stages of plant and facility design.

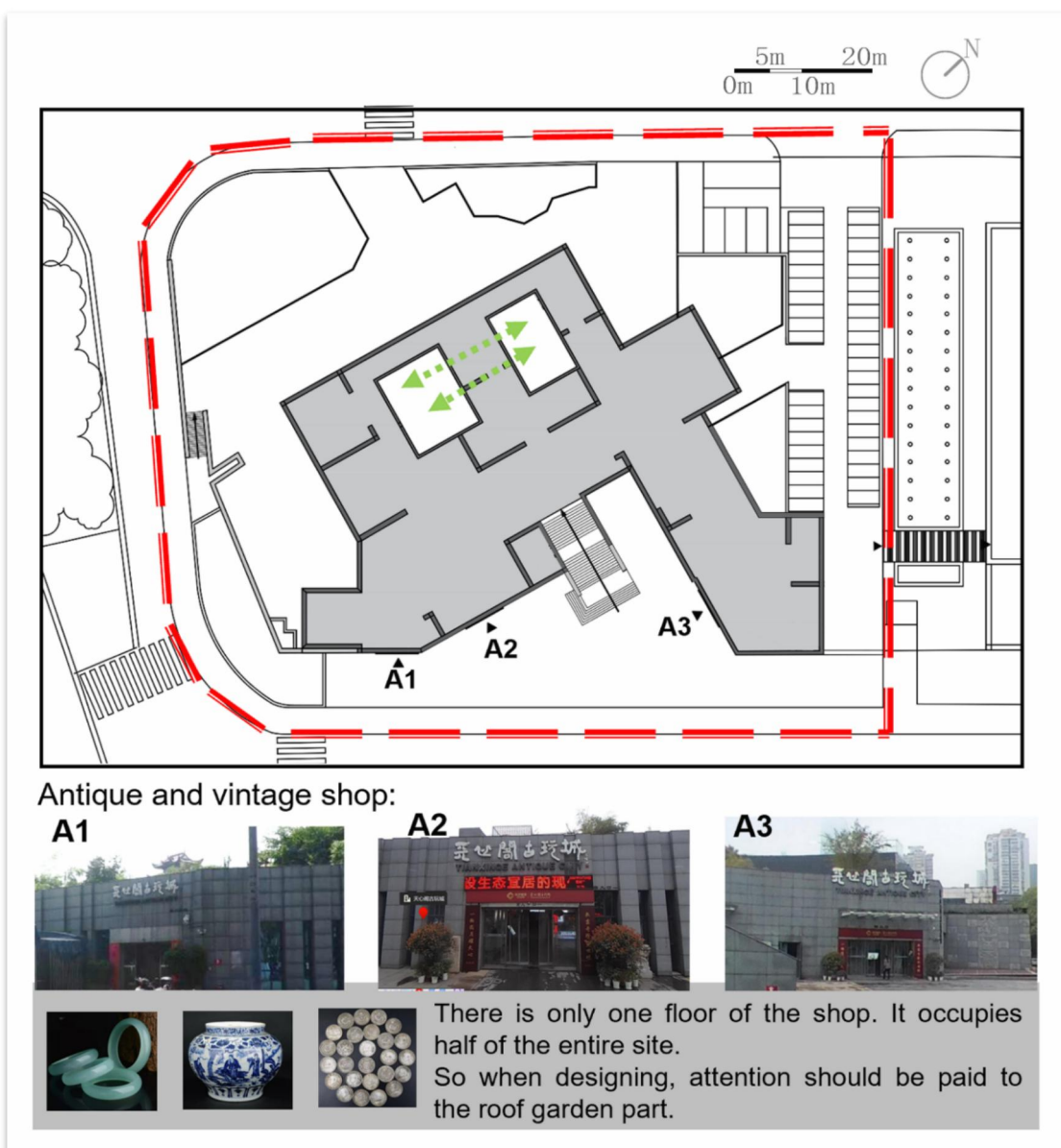


Fig.5-4. Analysis of Indoor Space

The indoor space is occupied by shops selling antiques and relics, with three main entrances and exits as shown.

These shops are also historically related, and due to their scarcity in China, the attraction of these shops to people may increase the likelihood of more visitors to the project site.

5.2.4 Analysis of Existing Plants

The site's trees are mainly of four species and stay in a good condition.

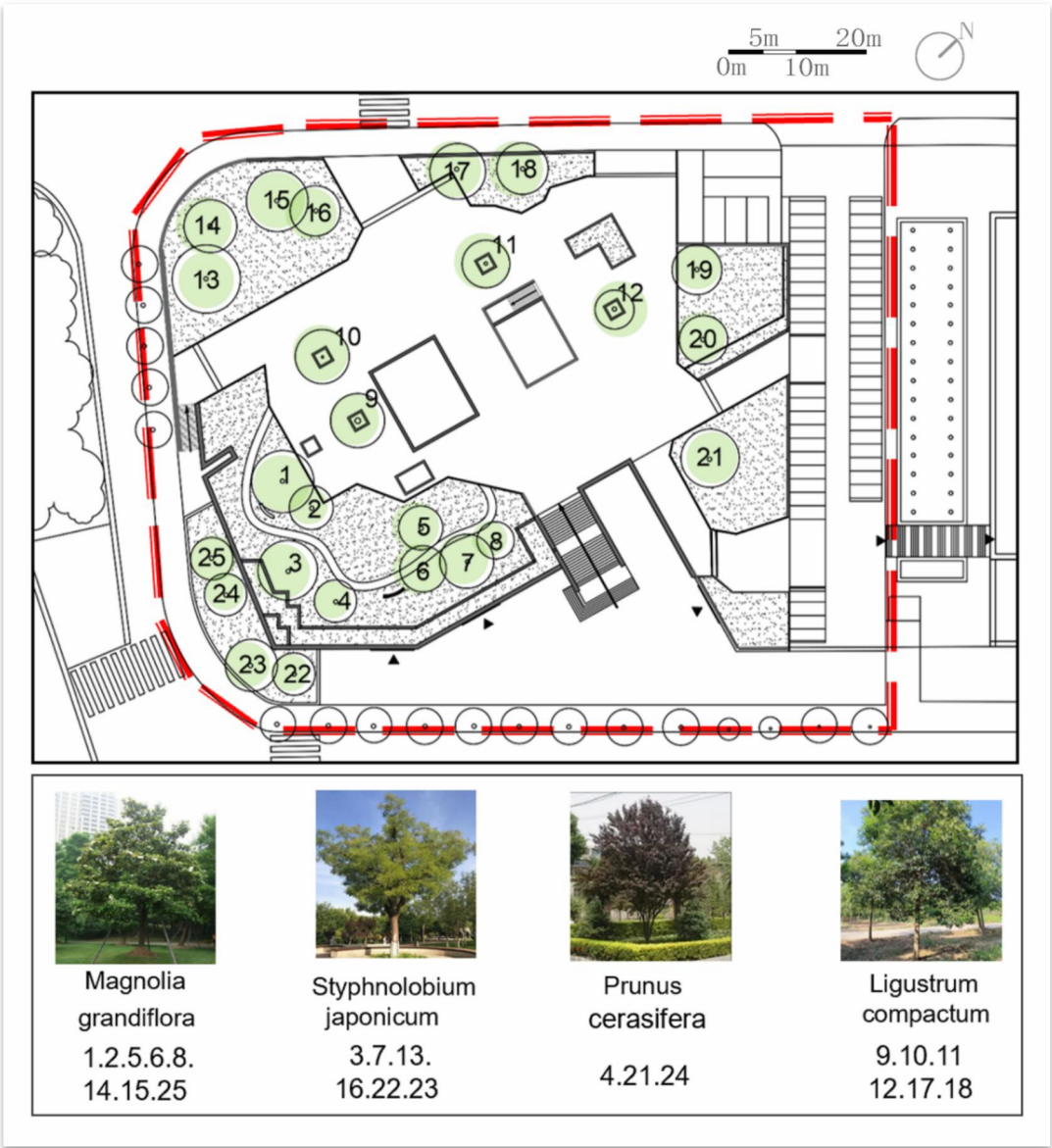


Fig.5-5. Analysis of existing plants

From this, I can infer that trees of this size and type can be planted in the rooftop garden area.

The green spaces on the original site, which have withstood decades of weathering, still host healthy plants, thus validating the feasibility of planting and reducing the risk of trial and error in plant design.

5.2.5 Analysis of Site Pavement

There are a total of four types of paving materials on the site. Due to the site

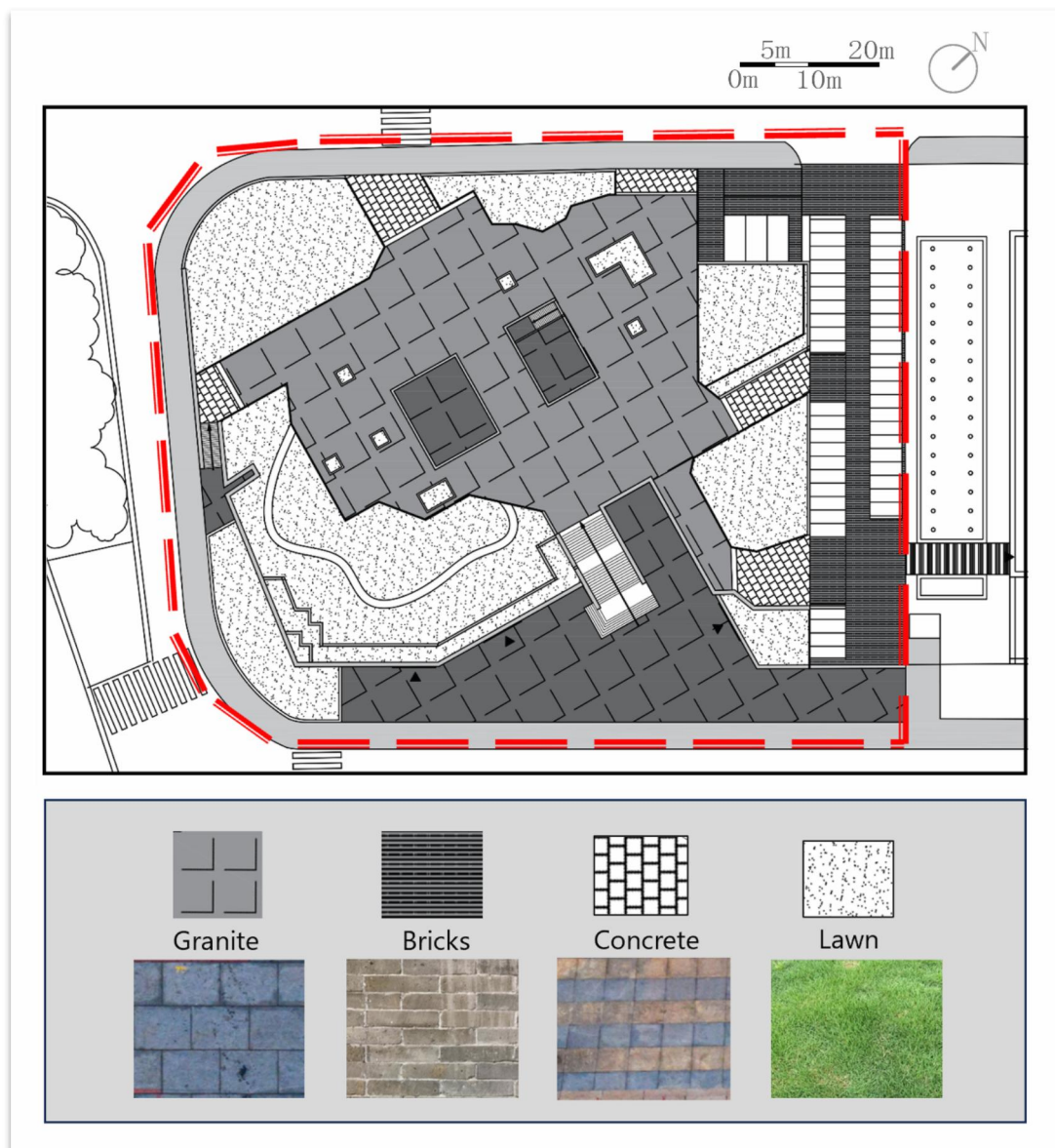


Fig.5-6. Analysis of site pavement

being divided into upper and lower levels, with the upper level including a parking lot So besides lawn , it may be different —— including cement, bricks, and marble.

These materials are not very durable or permeable. As seen in the photos, the bricks are slightly raised, and there is ponding around the edges of the materials.

5.2.6 Analysis of Project Section View

Through the section view, we can more intuitively understand why this site was chosen for the project: 1. The visual impact created by the height difference; 2. The seamless integration of historical context; 3. The uniqueness brought by the site's inherent special terrain.

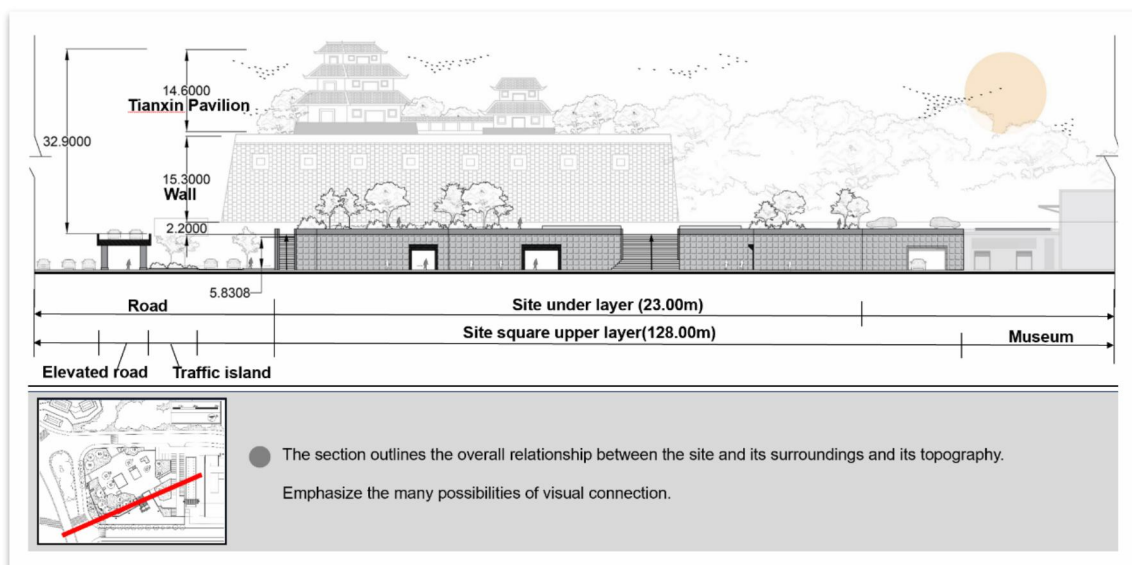


Fig.5-7. Analysis of project section view

5.2.7 Summary of Preliminary Analysis

(1) Advantages:

Excellent Cultural Environment: According to historical accounts, Tianxin Pavilion played a significant role during the fire incident. Establishing the

project site next to Tianxin Pavilion allows for a strong connection to historical events, better fulfilling the purpose of a memorial park.

Topographical Advantages of the Site: The project site boasts diverse terrain, which can be designed according to different needs and existing conditions to enrich the project's content and functionality. It offers multiple viewing angles, enhancing the project's appeal. The height difference with Tianxin Pavilion is the most valuable aspect to exploit.

Favorable Traffic Environment: Field research shows that the roads are well-connected and in good condition. Various transportation infrastructures are available, including bus stops, subway stations, and parking lots.

Necessity of the Project: Online searches and questionnaires reveal that most young people are unaware of the incident. Currently, there are only one or two commemorative activities related to the event, and no memorial park has been built.

(2) Disadvantages:

Complexity of the Site: The rooftop garden area has restrictions on plant planting, requiring consideration of issues such as water infiltration and durability.

Scale of the Site: The site is not big enough, making it challenging to meet people's spiritual needs while also providing a park for rest and recreation within limited space.

Connection with the Surrounding Environment: The presence of museums, ancient buildings, and commercial shops raises the question of how to establish a place that allows people to immerse themselves in

commemoration amidst these surroundings.

VI SYSTEMATIC PLANNING

6.1 Design Concept

In the design of a commemorative park, the most crucial aspect is to link the park with historical figures and events, offering visitors an opportunity to understand the past and foster reflections on both history and the present. This plan is not solely about designing sculptures; I have also chosen to utilize a combination of sculptures and plant arrangements to create a powerful atmosphere and evoke strong emotions.

With Tianxin Pavilion serving as the backdrop, the red plants swaying in the wind, accompanied by textual cues, evoke the scene of Tianxin Pavilion being engulfed in flames. This scene brings to mind the infernal fire that turned Changsha into a hellish scene in 1938. Additionally, I will incorporate the element of water to symbolize: the extinguishing of fire, providing a calming influence to soothe uneasy emotions.

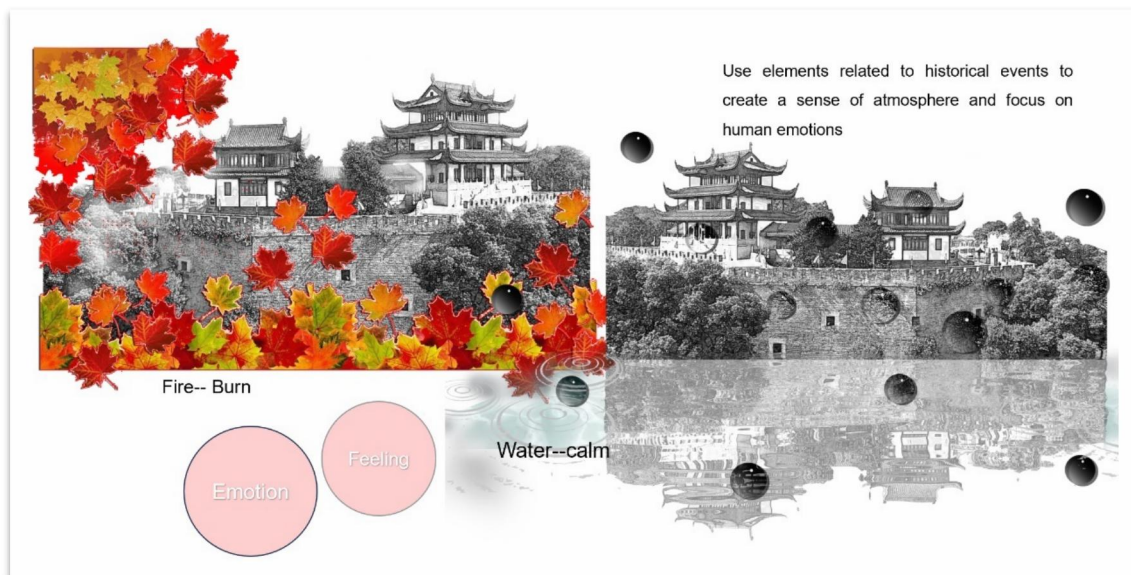


Fig.6-1. Design concept

By using scenarios to tell stories, I aim to touch people's hearts, inspire them to actively seek out historical events, mourn the deceased, and ultimately cherish and advocate for peace even more.

6.2 Design Strategy

After I have studied more about memorial parks—as illustrated by most famous memorial parks—when the site size is limited, memorial parks are often simple and straightforward, highlighting a space for contemplation created mainly by sculptures or structures.

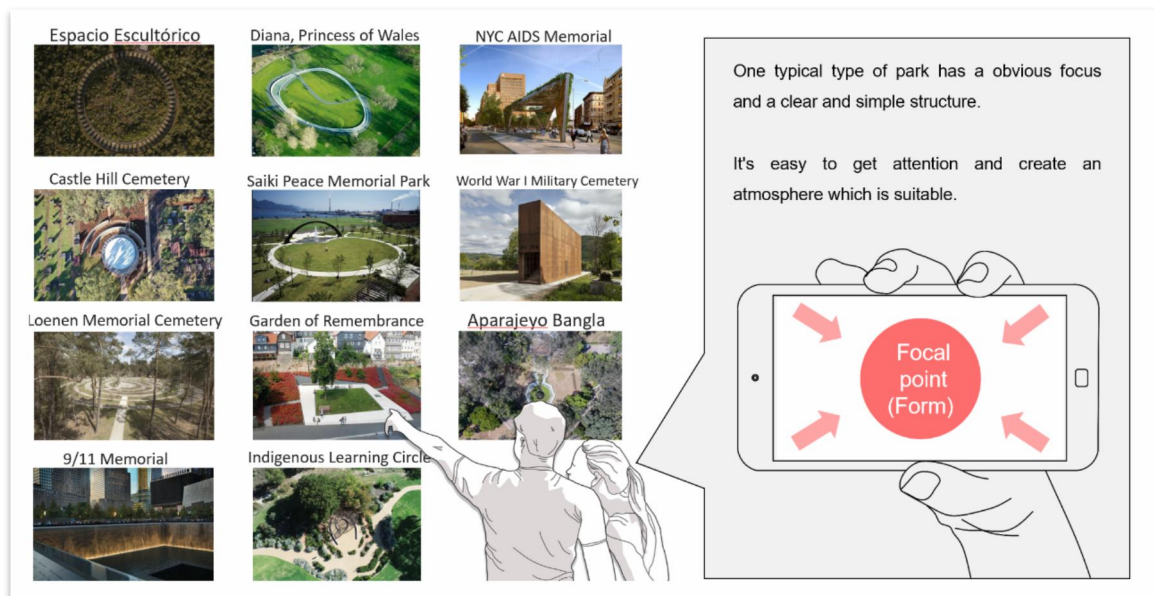


Fig.6-2. Design strategy

Therefore, based on my preliminary analysis and site research, this design concept is also suitable for this project. By utilizing sculptures and space, the design aims to create a place where people can pause, voluntarily learn about the story of the 1938 fire in Changsha, and be moved by the atmosphere created by the design, making it a qualified memorial park.

6.3 General Design

6.3.1 Bubble Diagram

This bubble diagram will be designed based on previous environmental analysis. The bubble diagram is determined by analyzing some element: the human activity route, surrounding building environment, road environment, the special terrain of the project site, and the visual connections between the site and its surroundings.

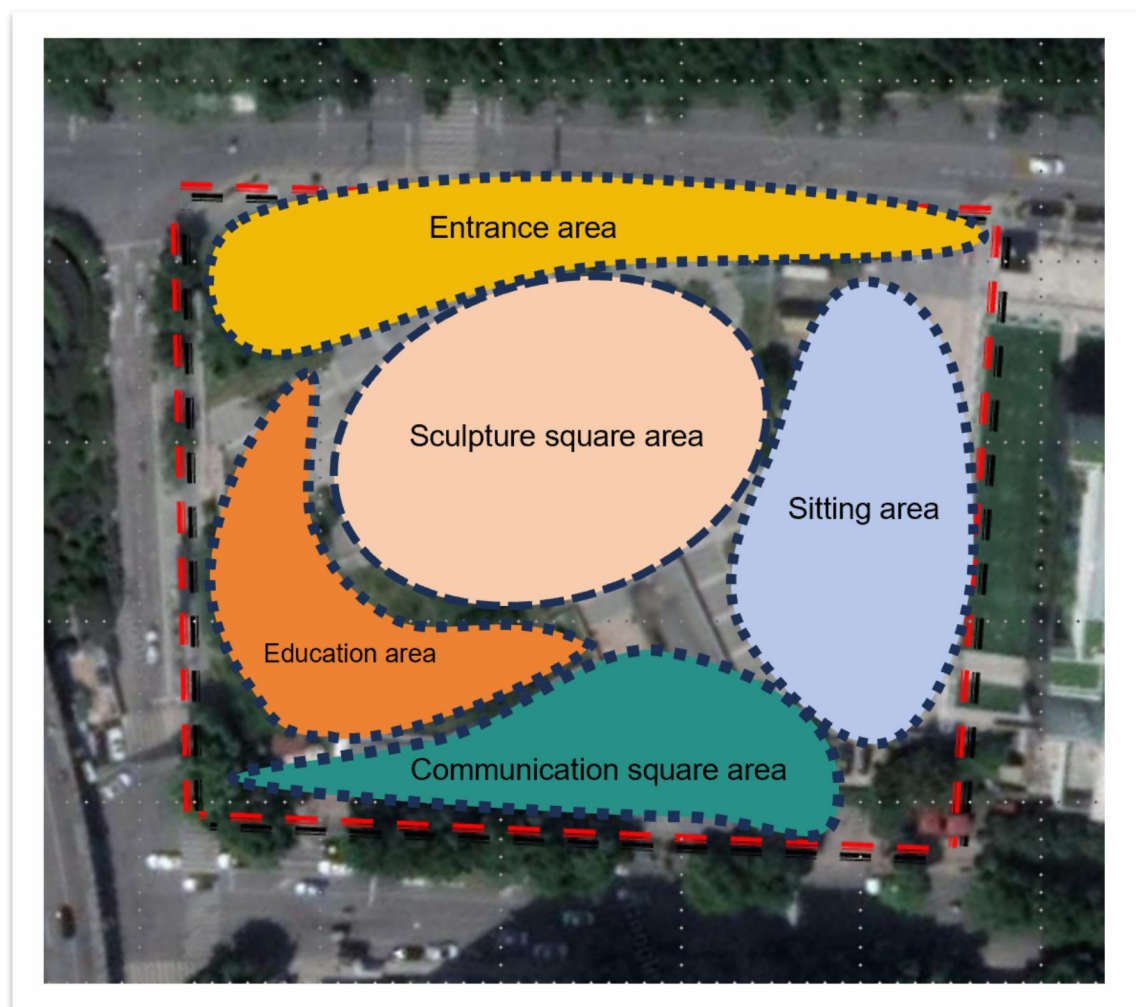


Fig.6-3. Bubble diagram

(1) Entrance Area

Based on the insights gathered from previous crowd analysis, the entry has been strategically placed in a high-traffic area to seamlessly connect with the urban roadway and surrounding environment. The elongated shape of the entry area serves as a buffer zone, revealing only a glimpse of the sculpture within the memorial park, thereby intriguing visitors and enticing them to explore further.

(2) Sculpture Square area

The focal point of the project, this space in the memorial park is designed with a keen emphasis on visitors' emotional and psychological experiences. The open layout encourages people to pause, observe, and contemplate. Positioned centrally, the sculpture ensures that no visitor to this site will miss it. Notably, this location offers an ideal vantage point for the sculpture to interact with the Tianxin Pavilion, enhancing visitors' interpretation of the sculpture and fostering a profound sense of resonance.

(3) Education Area

While viewing the sculpture may provide visitors with a general understanding of the event, it may not convey the full story. This area complements the sculpture with a serene environment and historical text, offering a clear narrative of the events' sequence and context. It prompts visitors to remember those who have passed, cherish the present, and advocate for peace.

(4) Rest Area

This space is thoughtfully designed considering that visitors may feel fatigued after exiting the museum and engaging in educational activities. Additionally, it accommodates nearby staff who may need a brief respite. The rest area

boasts a beautiful setting and provides infrastructure that allows for rest and relaxation. It is appropriately (Note: The original text ended abruptly here, so "appropriately" has been added to complete the sentence in a contextual sense.) suited to meet these needs.

(5) Communication square area

The Memorial Park Project, as illustrated in the bubble diagram, carefully plans each area to cater to visitors' needs and emotional responses. From the entry area that captures attention and primes visitors for exploration, to the sculpture square that serves as a centerpiece for contemplation and emotional connection, the project thoughtfully navigates through spaces dedicated to education, rest, and commerce. Each zone respects the park's thematic essence while providing practical amenities and fostering a profound appreciation for history and peace.

6.3.2 Master Plan Introduction

The design revolves around the historical background of a major fire that actually occurred in Changsha City. It centers on a commemorative sculpture and is complemented by surrounding designs to create a memorial park. By browsing and observing, visitors confront a scene where the sculpture and park landscape are integrated with historic buildings, telling the true face of this historical event. This triggers their empathy for those who suffered in the fire, prompting visitors to cherish and advocate for peace. The final design not only achieves a place for contemplation and remembrance but also fulfills the needs for rest and activities.



Fig.6-4. Bubble diagram

Main Entrance Area: A small water feature guides visitors in. The zigzag design, combined with the visual obstruction of flower beds, creates a slower entrance into the main plaza compared to a straight design, serving as a buffer zone connecting the city and the park.

Monumental Sculpture Square: This area centers on the sculpture. The waving, red sculpture paired with the pond below and the historic building backdrop inevitably reminds people of those who suffered during the disaster, evoking empathy among park visitors and achieving the purpose of mourning the deceased, advocating for peace, and cherishing the present.

Historical Story Area: Focuses on conveying the true history, using physical text to inform visitors of more historical truths.

Sitting Area: Provides necessary functions such as rest, casual conversation, and observation. It fulfills people's daily needs while maintaining the sensory experience of a memorial park.

Communication Square: A more open space that gives the park more potential. It can serve as a space for commercial activities, cultural promotion and education, and is adaptable to changing needs based on people's demands.

6.3.3 Road System

The design of the area is meticulously crafted based on the natural movements of pedestrians and the unique entrance space created by the inherent terrain features.

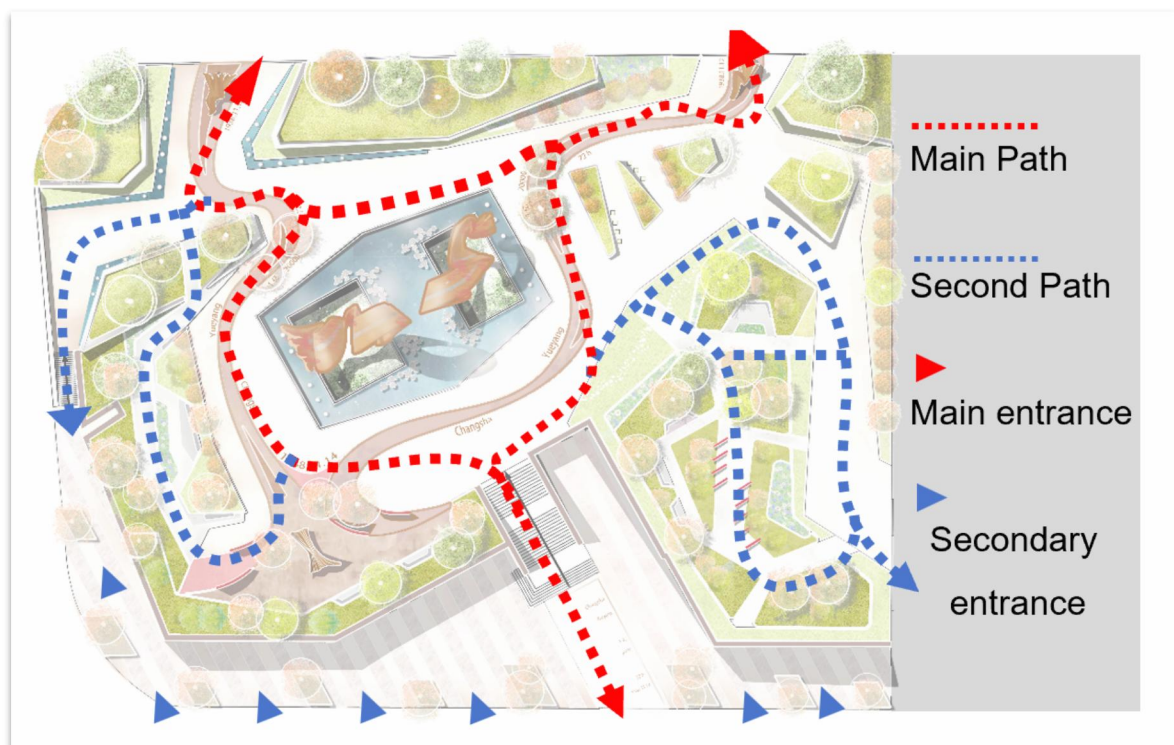


Fig.6-5. Road system

The primary and secondary roads are clearly distinguished from each other, ensuring a logical and intuitive navigation system while consistently maintaining vital road connections throughout the space. In order to maximize the efficient use of the limited available space, the secondary roads are thoughtfully intertwined with beautifully landscaped flower beds.

This strategic integration not only provides pedestrians with more varied and intriguing walking route options but also significantly enhances the overall pleasure and aesthetic enjoyment of exploring the area.

The master plan integrates various functional areas and design elements to create a cohesive and meaningful memorial park that respects history while catering to the needs of visitors.

6.3.4 Sculpture Construction

The most important facility for this project is the sculpture, which is an important carrier for conveying information and emotions. The sculpture will be inspired by the historical background of Changsha City - "The Great Fire in Changsha City".

The sculpture is mainly inspired by the element of fire, reflecting the raging flames, and guiding people to relate to the historical events and arouse emotional resonance. There are a total of four sculptures scattered in different locations throughout the project, with one main large-scale sculpture forming a sculpture plaza in the center of the scheme. The remaining three are smaller sculptures with a guiding and appealing overall effect.



Fig.6-4. Sculpture construction

In addition, in order to enrich the emotions of the visitors, and the beauty of the landscape, a water feature is constructed based on another element of this historical event.

6.3.5 Planting Design

Due to the unique and challenging topography of the project site, careful consideration was given not only to the overall planting plan but also to the specific details such as the size of the flower beds and the thickness of the planting soil. These meticulous decisions were made to ensure the healthy survival and growth of the plants, while simultaneously guaranteeing the structural safety and integrity of the building. By balancing these elements, the project aims to create a harmonious and sustainable environment that respects both nature and architecture.

The different heights of the planting beds are shown in the diagram.

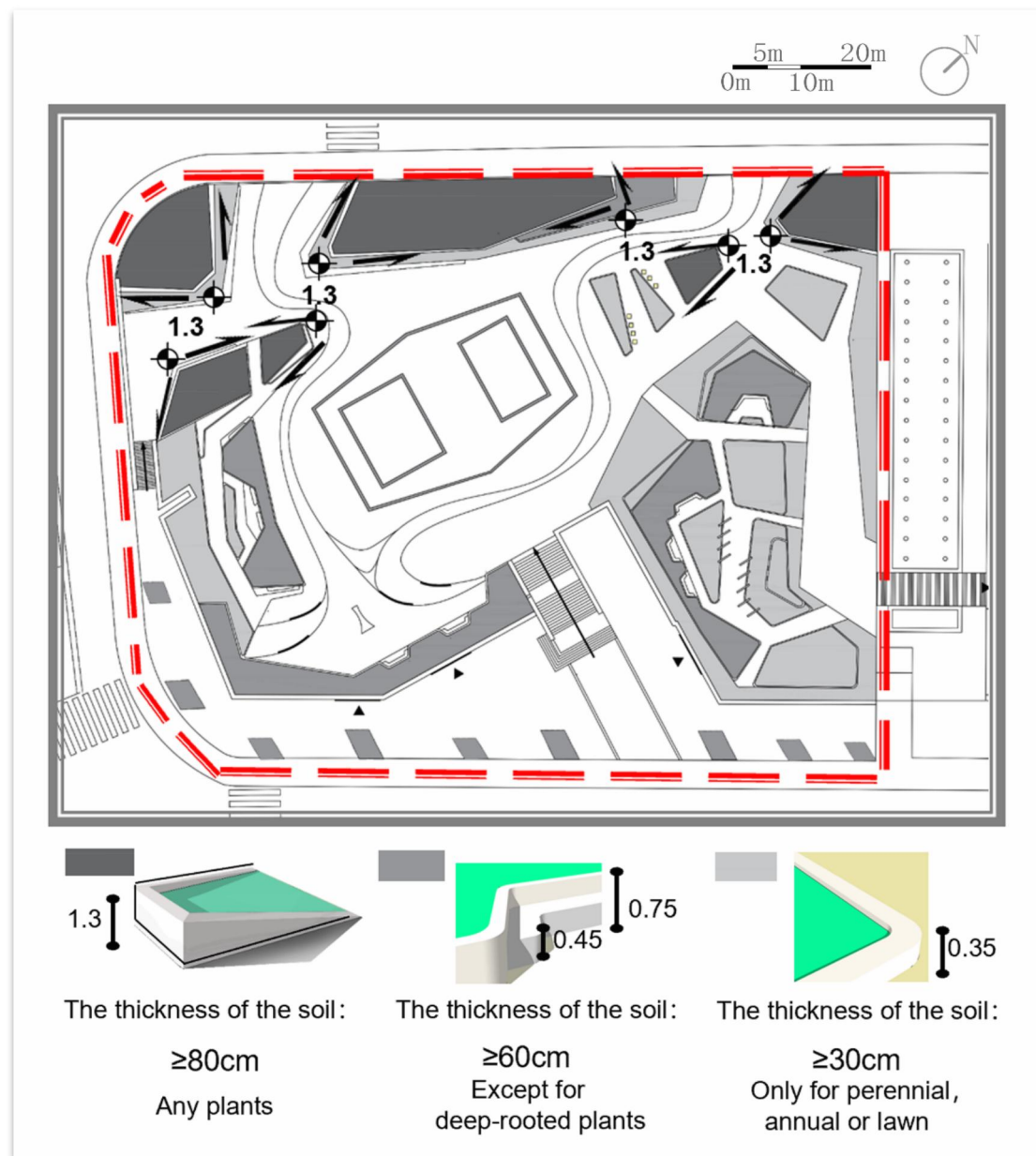


Fig.6-5. Planting beds

(1) 1.3-metre-high planting beds

Sight and Guidance: The maximum 1.3-metre-high planting beds at the entrance area is designed to screen the view and create a buffer zone, and the edge of beds from low too high to guide people to get in main square.

Emotions and Atmosphere: when they are walking into the sculpture square and seeing the words about the catastrophe, the entrance space will give

them time to get the serious atmosphere and sentimental emotions.

Connection with City: considering the integration with the surrounding urban environment such as roads, city walls, etc., a linear design is a relatively stable approach.

(2) 0.75-metre-high planting beds

The planting beds with a height of 0.75 meters serves as a seating area, providing a resting space and a communication space that can provide a relatively quiet environment and closeness to nature.

(3) 0.35-metre-high planting beds

The planting beds with a height of 0.35 meters covers the most, which reduces the weight of the soil carried by the rooftop garden and is lighter than the original site's soil weight.

Planting Design of Plants Varieties

Plants are a relatively important part, especially trees located in rooftop gardens, which need to consider their size and the root growing. Based on the comprehensive consideration of the selected trees, the sculpture designed according to the history of the project, and the historical architectural background, both trees and shrubs in the plant configuration should be mainly in red color.

At the same time, after investigating the health status of trees, it is also appropriate to retain the trees shown in the picture: *Styhnolobium japonicum*, *Prunus cerasifera*. Then, three small trees with red leaves, *Prunus cerasifera*, *Osmanthus fragrans*, and *Malus halliana*, are mainly added, which Will not damage the site structure.



Fig.6-6. Trees position

Other types of plants also meet the color requirements and consider the safety of the project site structure. In addition, Changsha City is located in the southern part of China, with distinct four seasons, abundant but unevenly distributed precipitation, sufficient but intense sunlight in summer, large temperature changes, and the impact of air quality on plant growth when selecting plants.

In summary, the plant configuration is as follows. It indicates the color

changes of the trees throughout the year and the main colors of the annual and perennial, which are in line with the theme and help improve the atmosphere and integration of the commemorative park.

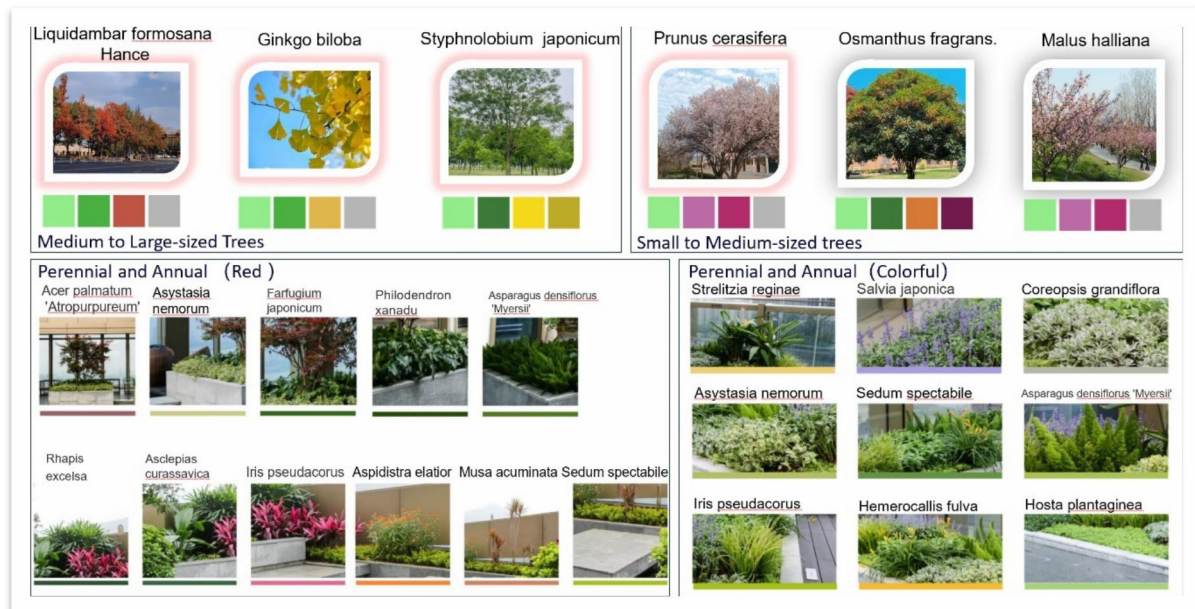


Fig.6-7. Main plant applications

6.3.6 Pavement Design Solutions

Based on previous environmental investigation, existing pavement issues have been identified: lack of durability, impermeability, and aesthetic appeal. These issues can be addressed by altering the paving materials and methods employed.

For instance, options such as concrete permeable bricks, ecological sand-based permeable bricks, and polymer fiber concrete permeable bricks can be considered. When paving with permeable bricks, a specific gap is left between each brick to facilitate the infiltration of rainwater. Meanwhile this solution will enhance the sustainability and durability of the solution.

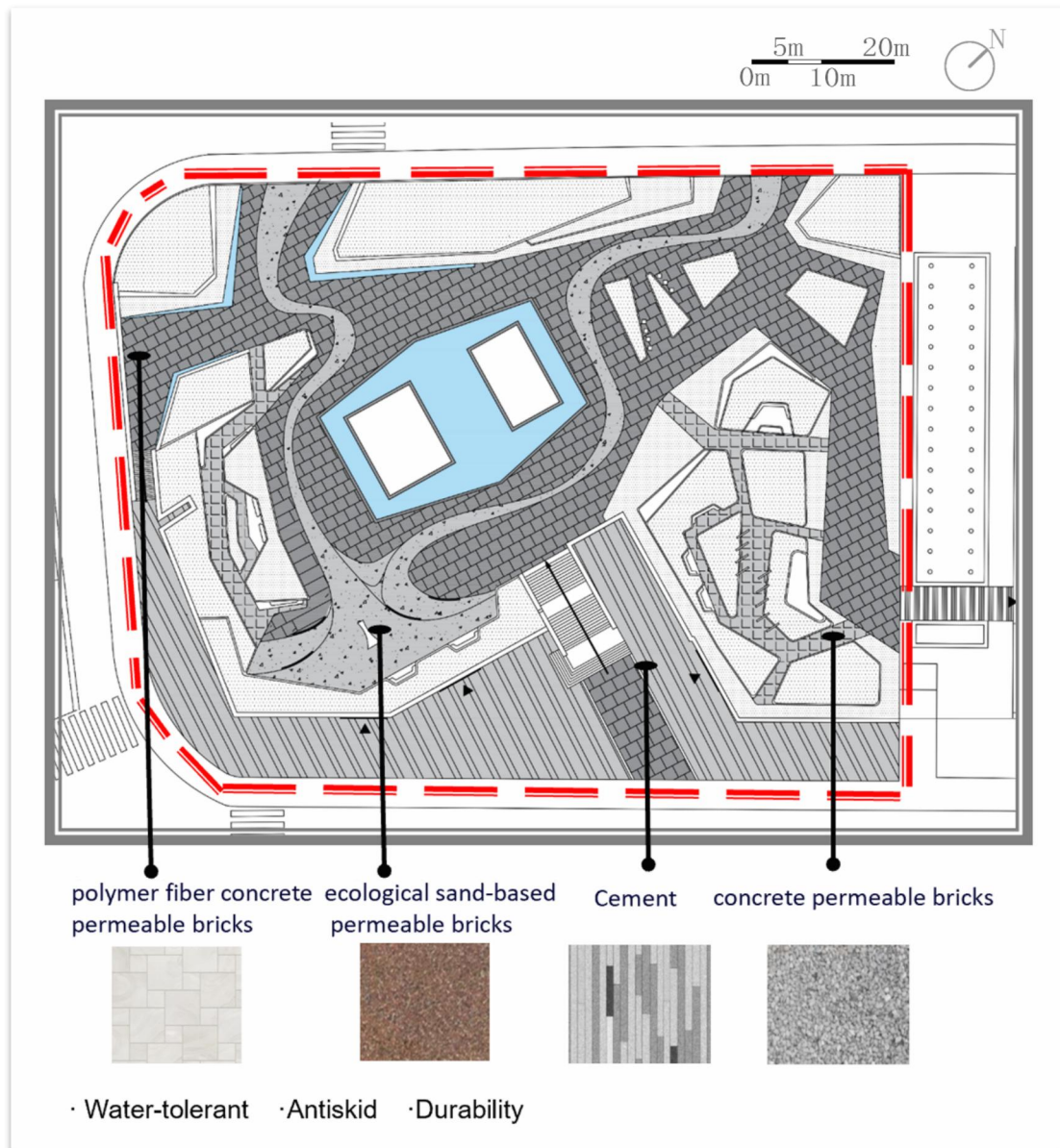


Fig.6-9. Pavement design solutions

6.3.7 Drainage System

Based on the preliminary analysis of site, part of the site is a rain garden, so drainage for this area needs to be considered. The solution proposed for this project is to utilize the paving to create a slight slope, allowing rainwater to drain into normal ground areas, drainage channels, and ponds, thereby avoiding excessive accumulation of rainwater that could damage the structural layer of the roof garden.

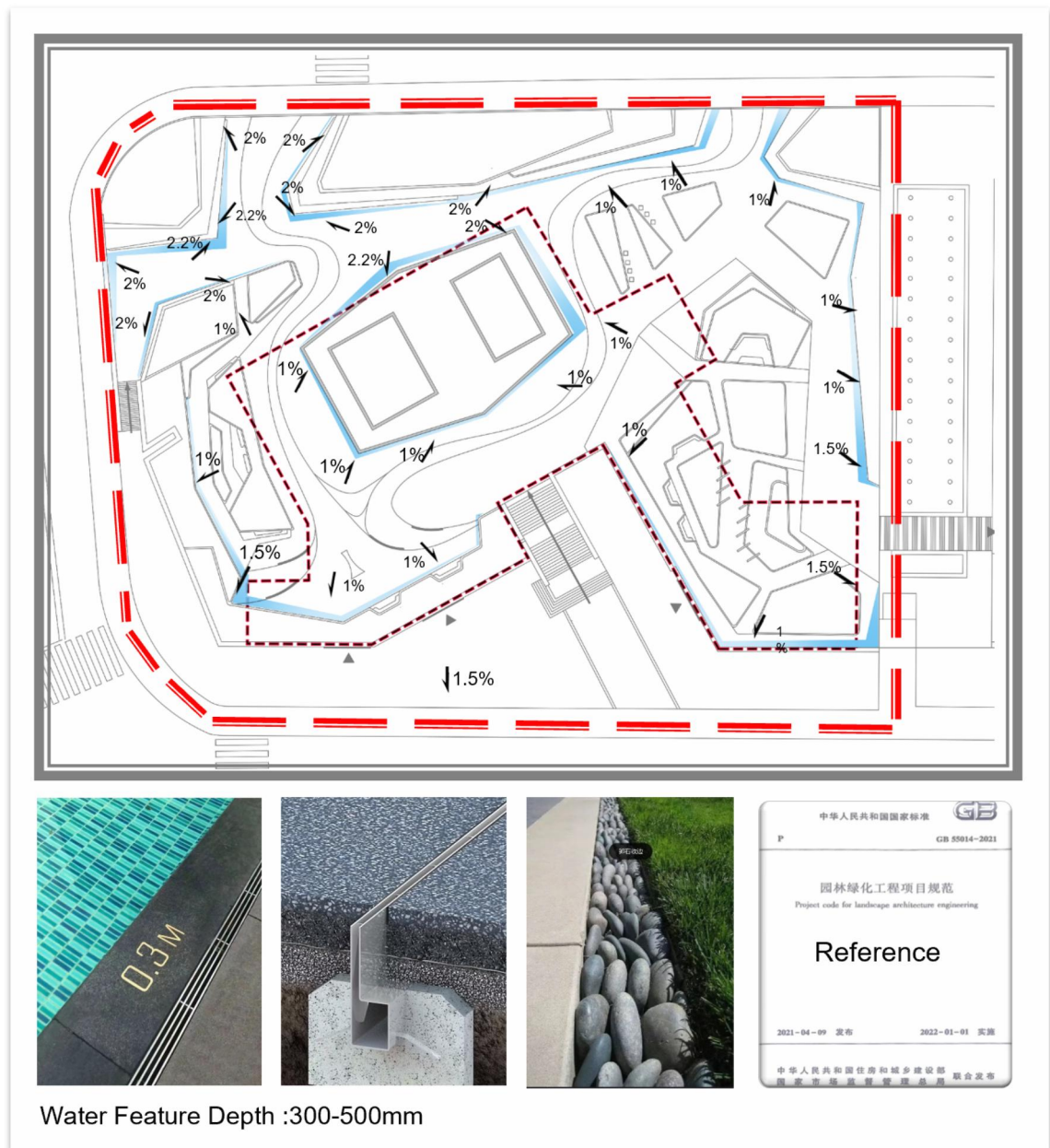


Fig.6-8. Drainage system

As for the communication square, a slope is also utilized to disperse rainwater into the drainage ditches of the road.

VII DETAILED DESIGN

This chapter will figure out the specific design of sculptures, analyze how sculptures appeal to the theme of the design plan, and the correlation

between sculptures and the whole design plan. Then, it will introduce the design of commemorative sculpture squares, entrance area design, historical story area, and sitting area in sequence.

7.1 Design of Main Sculpture and Monumental Sculpture Square

7.1.1 Inspiration for the Sculpture Design

(1) Association with Catastrophe of Changsha City

The inspiration for the sculpture stems from the ravaging, relentless flames. By observing numerous photographs of fires, three key words were extracted: red, waving, and immense. Based on these fire-derived terms, the sculpture evolved into the shape depicted, and with consideration of the site's dimensions, precise length, width, and height measurements were established for the sculpture. Inspiration of the sculpture

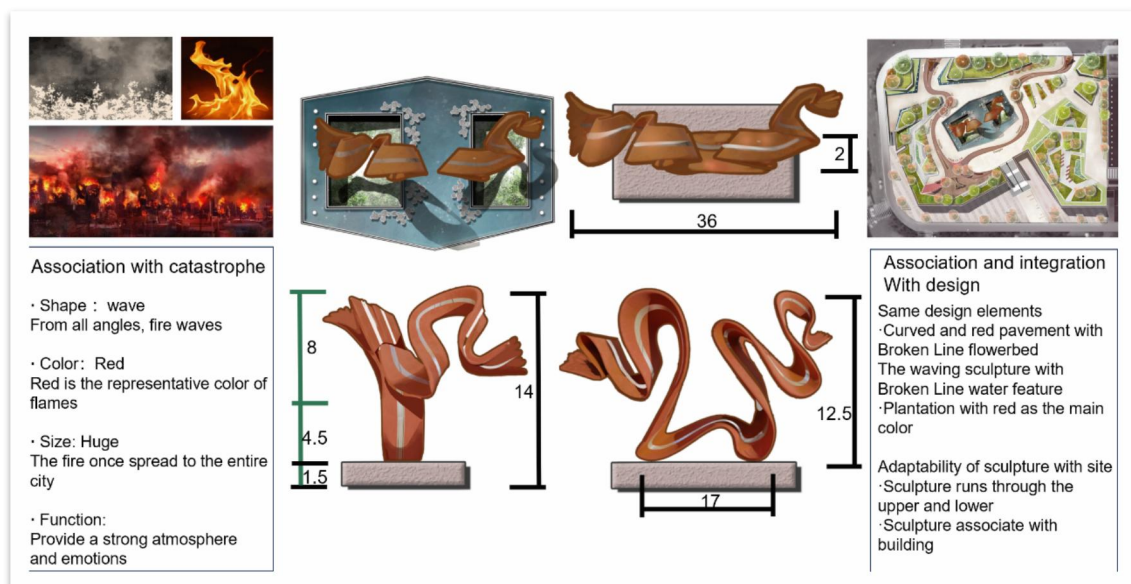


Fig.7-1. Inspiration of the sculpture

The placement of the sculpture also capitalizes on the uniqueness of the site, extending from the courtyard below to the sculpture plaza above, which facilitates visitors in gaining different perspectives and insights as they

observe the sculpture from various angles.

(2) Association and integration with Overall plan

Same design elements: The design language of the sculpture's plan and the overall plan is the same, such as the bending of lines corresponding to the paving, the water feature under the sculpture corresponding to the overall line shaped design, and the red material also echoing the plant design and some facilities and paving.

Sculpture adaptation with site: The sculpture is located in the courtyard, extending from the inner courtyard to the outer square to form different landscapes. At the same time, the sculpture was designed taking into account the existence of the main historical building, Tianxin Pavilion, and the crucial scene it constitutes.

In summary, the design of the sculpture aims to connect visitors to "The Great Fire in Changsha City" for mourning and contemplation, while also creating beautiful landscapes in different spaces.

7.1.2 Material of the Sculpture - Fire and Disaster

The overall structure of the sculpture is made of Weathering resistant steel, which has high corrosion resistance and reduces the impact of different weather conditions such as wind, rain, and sun exposure on the sculpture.

The sculpture is also interspersed with Aluminum alloy, a material that allows you to blend in with the sculpture through mirror reflection when standing in front of it. At this moment, you will feel as if you are immersed in flames, and the presence of sculptures, historical buildings such as the Tianxin Pavilion,

and nearby red plants will drag you back to the fire in 1938 .

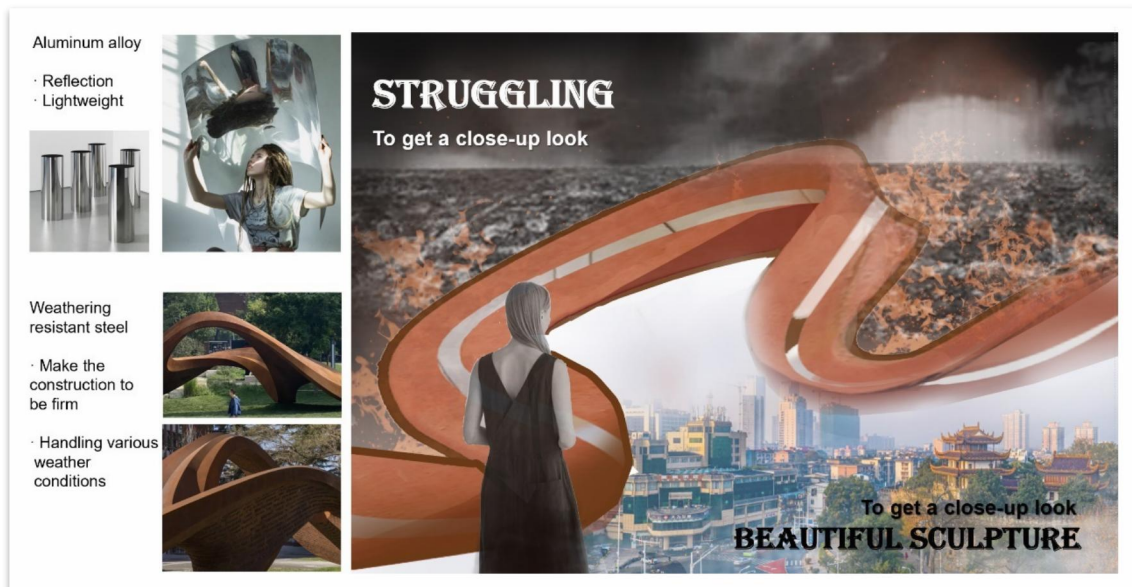


Fig.7-2. Material of the sculpture

7.1.3 Water Feature below the Sculpture - Peace and Tranquility

The design of this pool has two functions: one is for safety protection, and the other is to express special symbolic connotations and aesthetic effects.

(1) Safety protection function

The design of the pool is based on the safety of tourists. According to the previous research, the courtyard of the underground space has two openings but is surrounded by a wall, which will make the overall appearance less beautiful. Therefore, the pool design can replace the wall to form a defense line on the one hand. In order to ensure the feasibility of the pool scheme, the depth of the pool was reduced to reduce stress, as shown in the length, width, and height data in the figure and light blue — 0.1 meters deep, and dark blue — 0.3 meters deep. Considering the possibility of overflow, small

drainage channels and safety signs should be set up in the surrounding area.



Fig.7-3. Water feature

(2) Expression of connotation and aesthetic effect

The entire sculpture mainly aims to express fire and fire elements, depicting that although fire is cruel and ruthless, it is ultimately extinguished by the efforts of the country and the people. That is why I chose water as part of the landscape. When the sculpture is reflected in the water, it can also be associated with the scene of a fire being extinguished by water, which can give people hope and relieve suppressed emotions.

The element of lotus leaf is also added, which has a good symbolic meaning in China - calm and peace. In order to keep it in water for a long time and In order to appeal for the material and long-term use of the main sculpture, aluminum was chosen into my design.

7.1.4 The Sculpture of Courtyard Part - Hope and Renewal

When same sculptures are placed in different environments, their meanings may also change according to the environment. The intention diagram shown in the picture will give people a sense of rebirth, a state that is about to break through the soil, and coupled with light and shadow, it will give people infinite hope. The tabletop below the sculpture is planted with some plants, bringing vitality to the courtyard and endowing the sculpture with vitality.

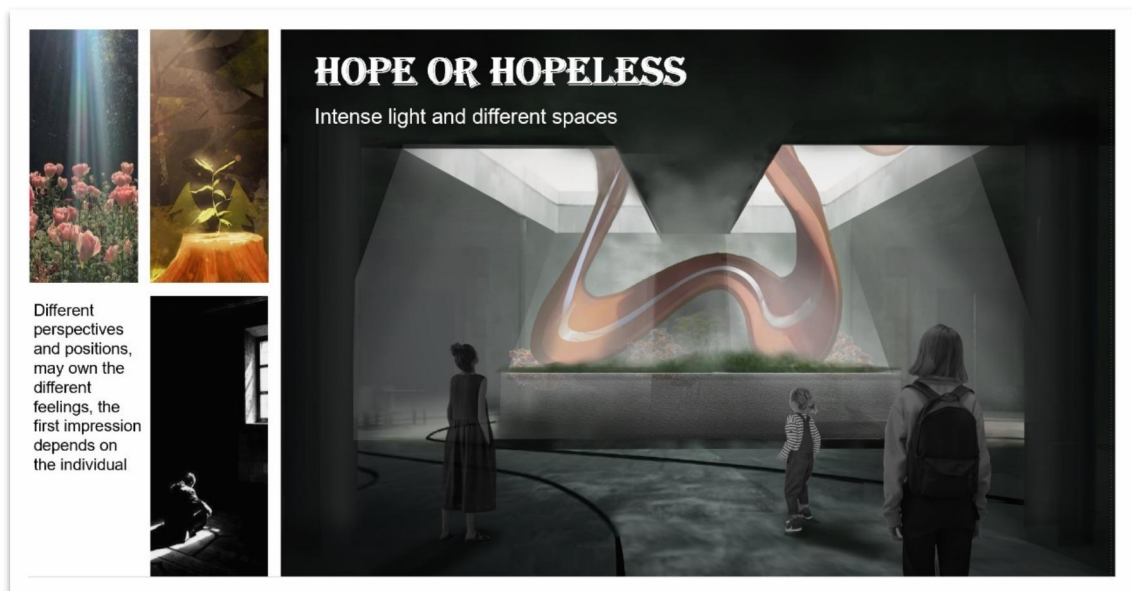


Fig.7-4. Courtyard part of the sculpture

As a result, tourists will have different feelings when viewing sculptures at different locations: sculptures not only recreate the most significant fire scene in Changsha's history with historical background and plants, but also provide a calm state of mind when looking down at the pool. Looking up at the sculptures extending from the courtyard gives people a hopeful feeling.

7.1.5 Monumental Sculpture Square

(1) Through the sectional view, it can be found that the Sculpture Square wants to create the positional relationship between scene designs from multiple angles.

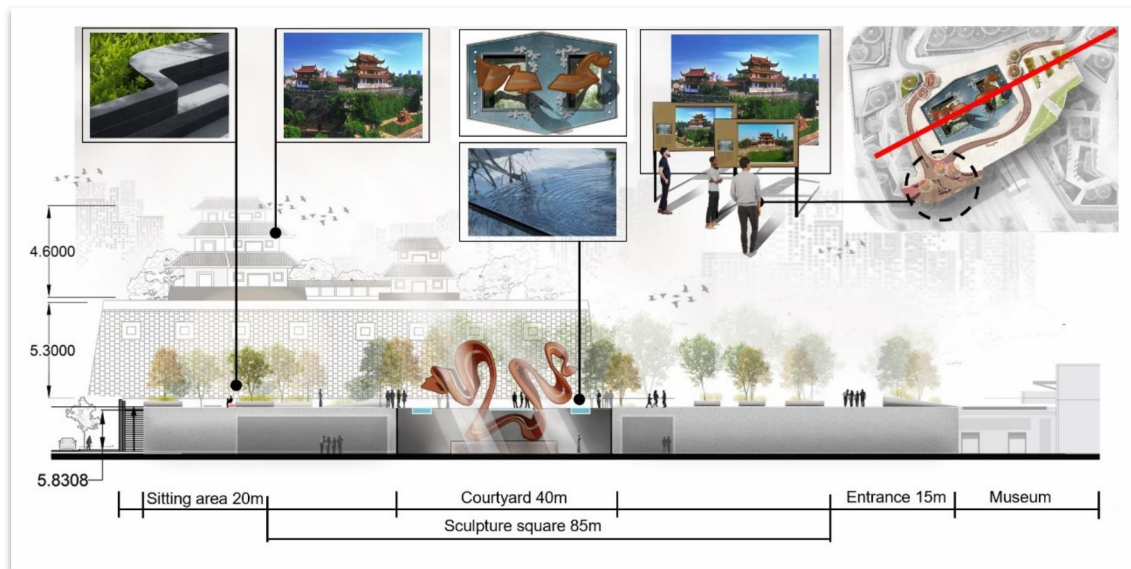


Fig.7-5. Section of sculpture square

Cooperating with the surrounding environment will result in three visual senses: users can look up, look down, and look at the sculpture on an equal footing, which can give them different emotions in a sculpture.

As users connect with 'The Great Fire Chang City', it is not only a tribute and sadness, but also a way for you to think about the catastrophe from different perspectives.

This square is the most expansive, panoramic, and central location in the entire plan, complemented by sculptures that make it the most suitable place for people to express emotions and engage in thinking.

(2) The scene shows the autumn leaves turning red and then falling down, together with the red waving sculptures, and then with the Tianxin Pavilion - the starting point of the Changsha fire in 1938 as the background, it instantly pulls people into the historical scene of the blazing fire. The atmosphere of the



Fig.7-6. Visualization of the sculpture square

scene is created to mobilize people's emotions instantly, and after slowly learning about the event, you find that you have stayed here for a long time.

7.2 Main Entrance Area

In this plan, the main entrance area not only needs to consider its connection with the city, but also serves as a commemorative park main entrance to create an atmosphere, introduce and guide information, which enables users to have a better viewing experience.

7.2.1 Connection with City

Based on the building environment opposite the main entrance, the ancient

city wall, and the ancient architecture, I chose a planting beds with a similar line shape, and used similar materials, colors, and hues to complement it. The elevation of the planting pond from low to high creates serious atmosphere.

7.2.2 Emotional build-up

In terms of visual relationship, passersby can only vaguely see the sculptures inside, which will inevitably generate curiosity and attract tourists to enter the park. The design of relatively open space but closed view is also a way to enhance the overall atmosphere of the commemorative park.

7.2.3 Information and Leading

The pavement with cultural information on the ground informs people of what kind of park this is, combined with planting ponds, water features, and sculptures. Even without a large park name, it will inform you that this is a commemorative park.

Planting bed form and Streamlined paving, water feature, all of them like a arrow which guide you get into the park.

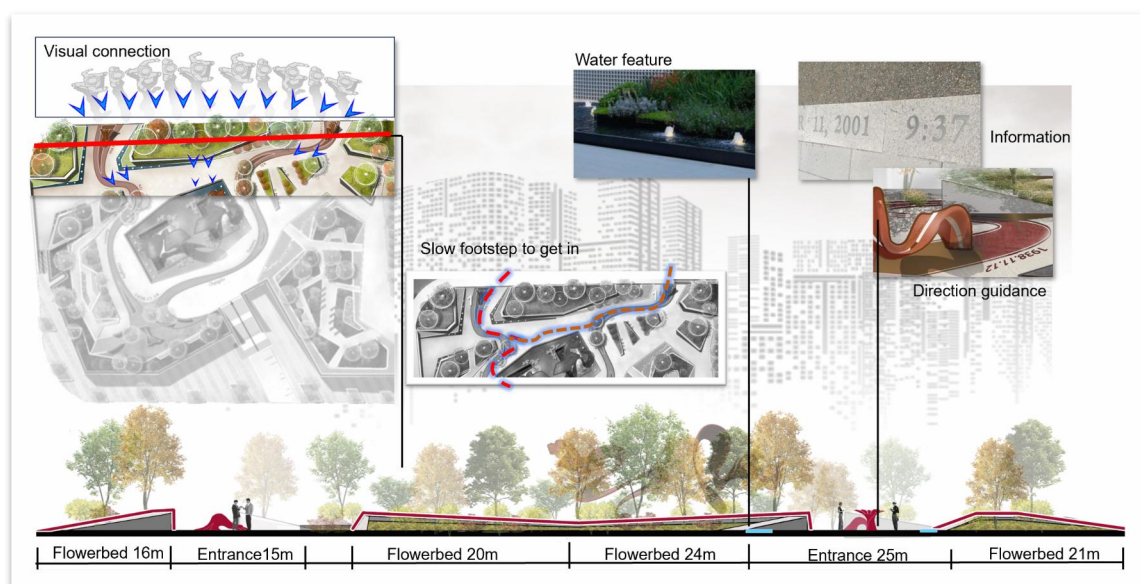
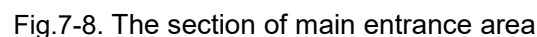


Fig.7-7. The section of entrance area

The engineering drawing provides a detailed introduction to the design of the entrance water feature facility, which combines durability and permeability to ensure the normal operation of the water feature facility.



The pictures primarily showcase the remarkable adaptability of the entrance and exit design concepts that bridge the gap between cities. These designs are intended to encapsulate not only a profound sense of historical weight, paying homage to the rich cultural heritage of the region, but also to seamlessly integrate modern elements. By doing so, they create a cohesive

and visually appealing transition point that respects the past while embracing the present.



Fig.7-9. Visualization of the sculpture square

7.4 Historical Education Area

The historical education area primarily focuses on disseminating comprehensive and accurate historical information to visitors. Strategically positioned at the conclusion of the red pavement in the meticulously planned layout, there stands an intricately designed information board.

The board serves as an invaluable guide, meticulously curated to lead you through an in-depth understanding of the specific content, nuances, and broader implications of various historical events.

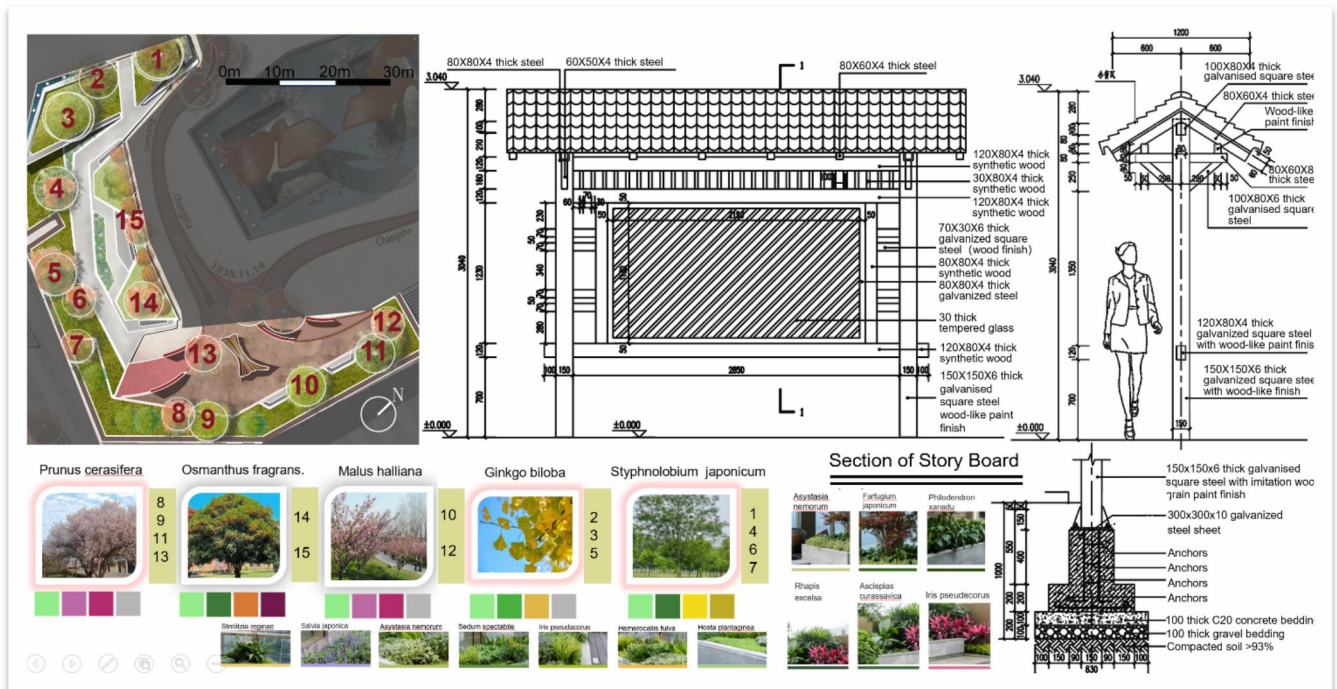


Fig.7-10. Detail of the historical education area

The area has a rooftop garden, and considering planting more small trees is easier for building safety. Some spaces also have rest areas that meet the basic needs of users, allowing them to appreciate the different scenery and happiness brought by the corresponding structures, plants, and surrounding environment at the same time.

The panel of the Information board is made of glass material and engraved with text, clearly recording the cause, process, and outcome of "The Great Fire of Changsha City", with particular emphasis on information such as losses and fatalities.

From the vantage point of the site, with Tianxin Pavilion as our focal point, we will find ourselves directly confronting a collection of historical buildings that serve as living testaments to the past. By engaging with these structures, we

embark on a journey to understand history in a deeply immersive and personal way. This direct interaction not only informs our knowledge of past events and eras but also has the profound ability to better stimulate empathy within us. It allows us to connect on a more profound level with the individuals who lived through those times, the challenges they faced, and the achievements they accomplished. In this way, the historical buildings become more than just inanimate objects; they become bridges that carry us across the chasm of time, fostering a deeper appreciation and understanding of our collective heritage.



Fig.7-10. Visualization of the historical education area

7.5 Sitting Area

The Sitting area is the area that connects the Chinese Characters Museum. Considering that employees and visitors will enter the park from the museum, the sitting area also serves as a buffer zone, allowing visitors to rest and gain emotional preparation. The area has been designed with many features,

including beautiful plant arrangements for tourists to enjoy and engage in activities such as conversation, rest, and entertainment.

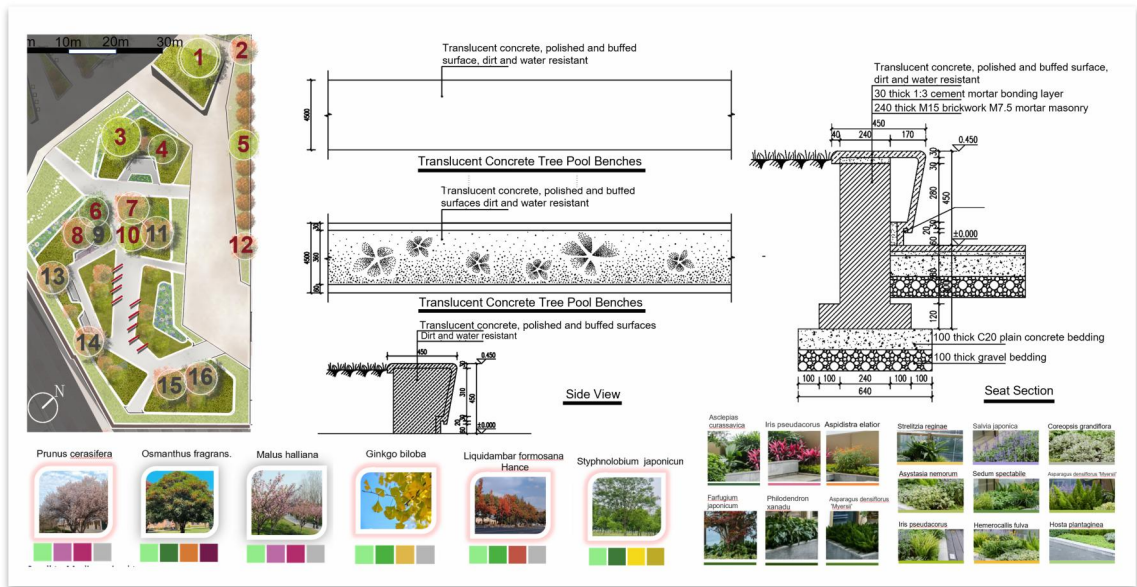


Fig.7-11. Detail of the sitting area

The sitting area is rich in color, with most of the plants being of lower height, providing a picturesque view throughout the four seasons. Planting racks have been installed in the passage to provide privacy for people resting.



Fig.7-12. Visualization of the sitting area

VIII CONCLUSION

This project, "Memorial Park of An Urban Catastrophe in Changsha City," is designed based on real historical events. The main goal is to build a high-quality landscape and commemorative park that meets the needs, to commemorate the deceased, feel the pain of disasters, cherish the present, and promote the perception of peace. The project conducted site analysis before design, combined with research and analysis of the internal and external environment of the site, to grasp the main contradictions, use its advantages to avoid its weaknesses and connect with history, and better integrate with the city.



Fig.8-1. Visualization of whole project

Commemorative parks mainly bring about emotional changes, with the main space being the reproduction of historical scenes and the corresponding expression of emotions. Other spaces, while meeting the basic needs of park functions, help users gradually lay the groundwork for emotions, briefly

leaving the busy city and entering a commemorative space.

The construction of sculptures is designed in connection with elements related to historical events, based on spatial size, terrain characteristics, and surrounding environment to create different ways of thinking. Perhaps due to factors such as time, location, angle, season, etc., different scenes may be discovered to gain different insights.

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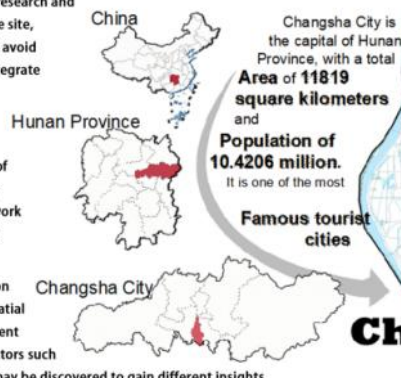
3 Posters

Memorial Park of An Urban Catastrophe in Changsha City

This project, "Memorial Park of An Urban Catastrophe in Changsha City," is designed based on real historical events. The main goal is to build a high-quality landscape and commemorative park that meets the needs, to commemorate the deceased, feel the pain of disasters, cherish the present, and promote the perception of peace. The project conducted site analysis before design, combined with research and analysis of the internal and external environment of the site, to grasp the main contradictions, use its advantages to avoid its weaknesses and connect with history, and better integrate with the city.

Commemorative parks mainly bring about emotional changes, with the main space being the reproduction of historical scenes and the corresponding expression of emotions. Other spaces, while meeting the basic needs of park functions, help users gradually lay the groundwork for emotions, briefly leaving the busy city and entering a commemorative space.

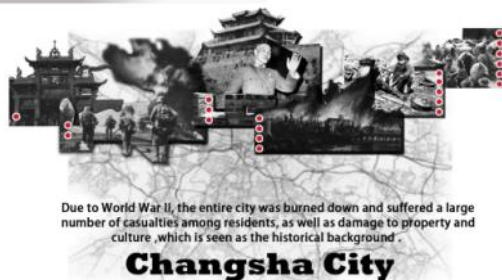
The construction of sculptures is designed in connection with elements related to historical events, based on spatial size, terrain characteristics, and surrounding environment to create different ways of thinking. Perhaps due to factors such as time, location, angle, season, etc., different scenes may be discovered to gain different insights.



1..The Site Location of Project

Changsha City
Tianxin District

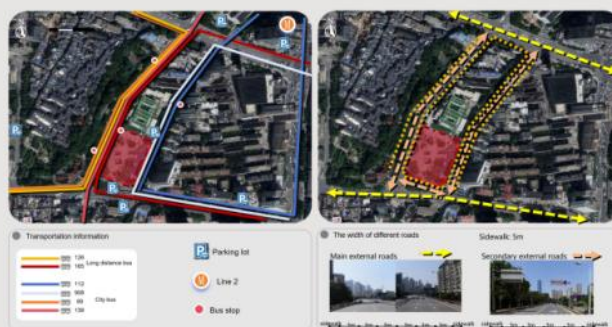
2.The Process of Historical Event



3. Reasons and Goals



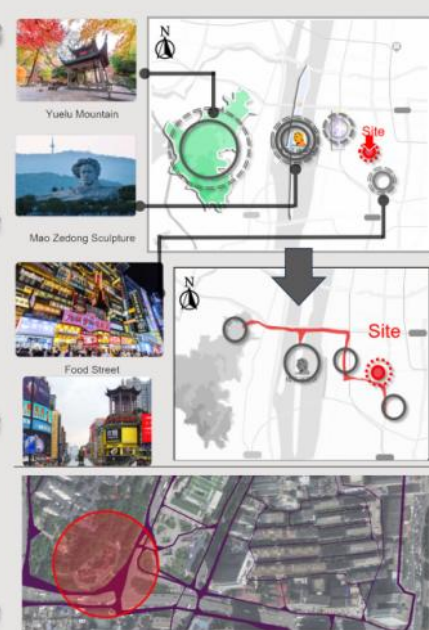
4.Analysis of Traffic System



5.Analysis of Surrounding Structures



6.Analysis of Pedestrian Flow



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Memorial Park of An Urban Catastrophe in Changsha City

2

1. Introduction to Basic Information about the Site



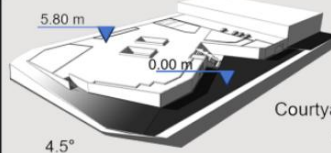
Currently, this site consists of a 1.5-hectare public plaza and a parking area. It boasts smooth access with no particular public facilities in place.

The pedestrian traffic is low, with only a few people stopping by for a rest. However, it is noteworthy that the site features a unique terrain, roughly divided into two sections of the plaza with a height difference of approximately 5 meters. The upper section comprises normal ground level and a rooftop garden, while the lower section is an open plaza.

2. Analysis of Site Topography



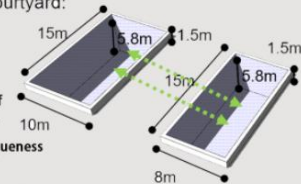
Site model:



By designing in accordance with this unique environment, the combination of space and perspective can enhance user experience and add to the project's uniqueness and appreciation value.

The topography of the site, as depicted in the diagram, features a height difference of 5.8 meters due to an overall slope of approximately 4.5 degrees. This height difference has been utilized to create indoor spaces. Notably, this spatial design results in two open-air courtyards, allowing views from the inside out.

Courtyard:

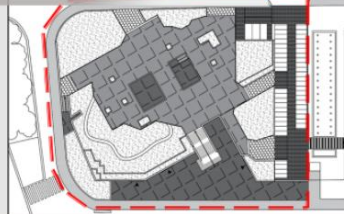


3. Analysis of Existing Plants



- 1 Magnolia grandiflora 2 Styphniobolus japonicum 3 Prunus cerasifera 4 Ligustrum compactum
- 1.2 5.6 8.14 15.25 3.7 13.16 22.23 4.21 24 9.10.11.12.17.18

4. Analysis of Site Pavement



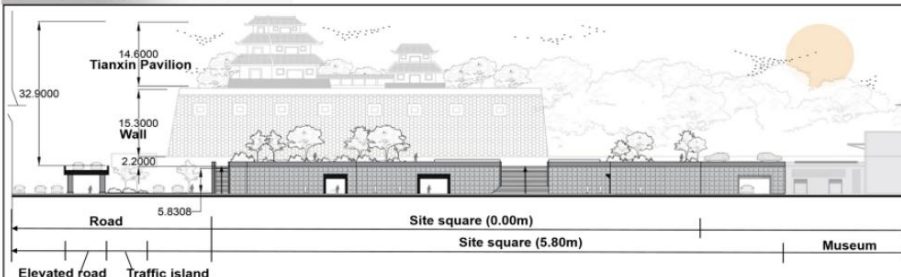
- The area of green space is a quarter of the total area 1/4.
- The paving of the site is not beneficial to rainwater infiltration, and not durable.

5. Analysis of Indoor Space



- Antique and vintage shop: A1, A2, A3
- There is only one floor of the shop. It occupies half of the entire site. So when designing, attention should be paid to the roof garden part.

6. Analysis of Project Section View



1. The visual impact created by the height difference;
2. The seamless integration of historical context;
3. The uniqueness brought by the site's inherent special terrain.



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Memorial Park of An Urban Catastrophe in Changsha City

3

1.Design Concept



Fire-Burn



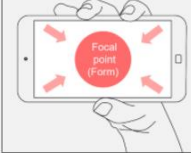
Water-calm

Use elements related to historical events to create a sense of atmosphere and focus on human emotions

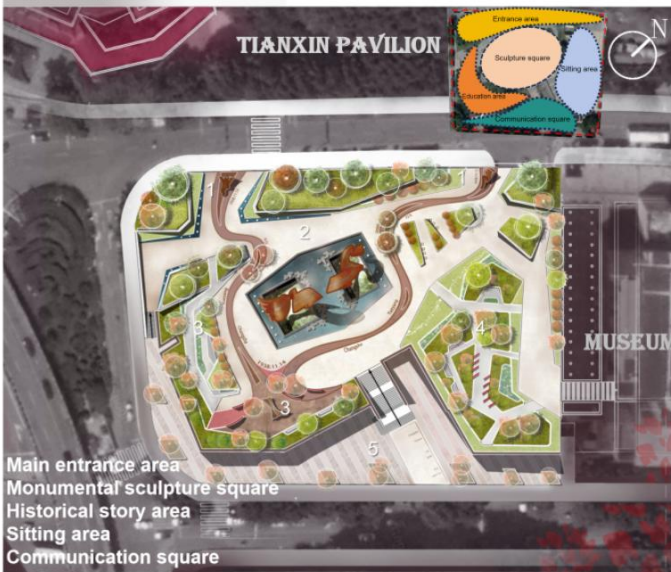


2.Design Strategy

One typical type of park has a obvious focus and a clear and simple structure.
It's easy to get attention and create an atmosphere which is suitable.



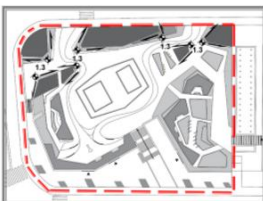
3.Master Plan



4.Road system



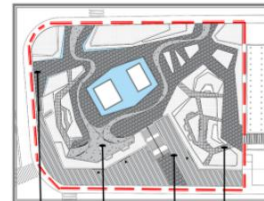
4.Plants Design



The thickness of the soil:
≥80cm Any plants
≥100cm Except for deep-rooted plants
≥300cm Only for perennial, annual or lawn

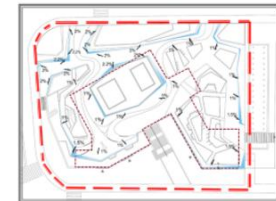


Roof garden tree
Prunus cerasifera
Quercus fragrans
Malus halliana
Remains
Fragaria vesca
Prunus cerasifera



Water-tolerant, arboreal, durability

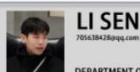
4.Paving Design



Reference: 1:1000
Floor plate Depth: 300-500mm

5. Plants Strategy

Plant configuration is as follows. It indicates the color changes of the trees throughout the year and the main colors of the annual and perennial, which are in line with the theme and help improve the atmosphere and integration of the commemorative park.



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4



1. The Inspiration of Sculpture

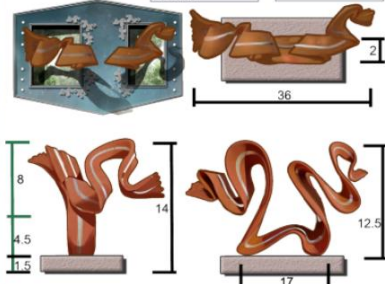
The design of the sculpture aims to connect visitors to "The Great Fire in Changsha City" for mourning and contemplation, while also creating beautiful landscapes in different spaces.

Association with catastrophe

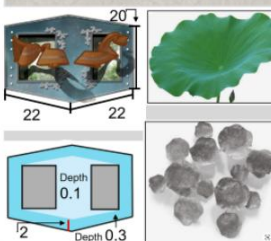
- Shape - wave
- From all angles, fire waves
- Color - Red
- Red is the representative color of flames
- Size - Huge
- The fire once spread to the entire city
- Function - Provide a strong atmosphere and emotions

Association and integration With design

- Same design elements
- Curved and red pavement with Broken Line flowerbed
- The existing sculpture with Broken Line water feature
- Plantation with red as the main color
- Adaptability of sculpture with site
- Sculpture runs through the upper and lower
- Sculpture associate with building



2. Water Feature below the Sculpture - Peace and Tranquility

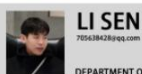
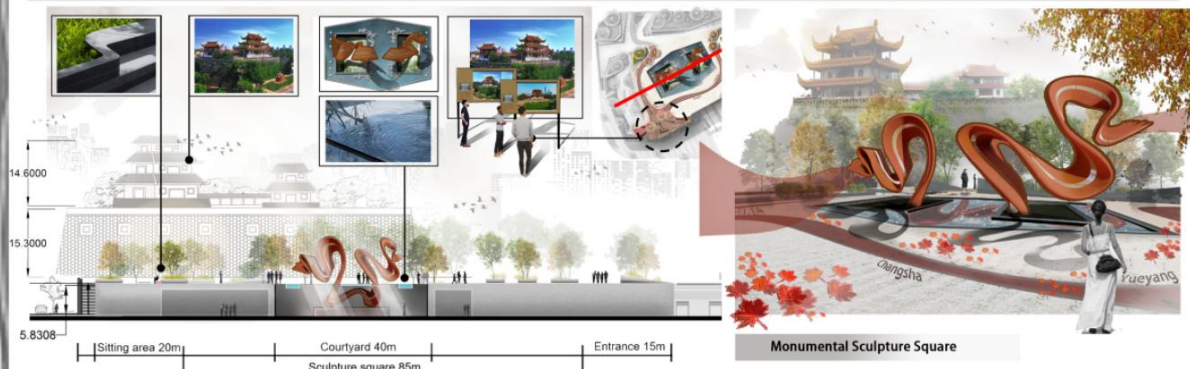
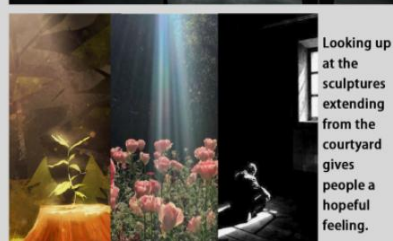


The design of this pool has two functions: one is for safety protection, and the other is to express special symbolic connotations and aesthetic.

3. Material of the Sculpture - Fire and Disaster



4. The Sculpture of Courtyard Part - Hope and Renewal



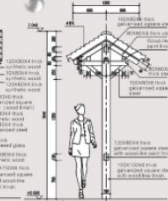
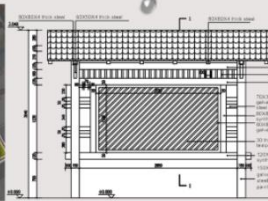
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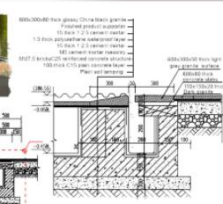
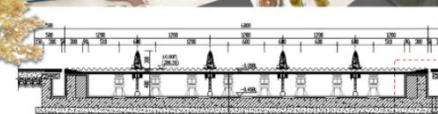
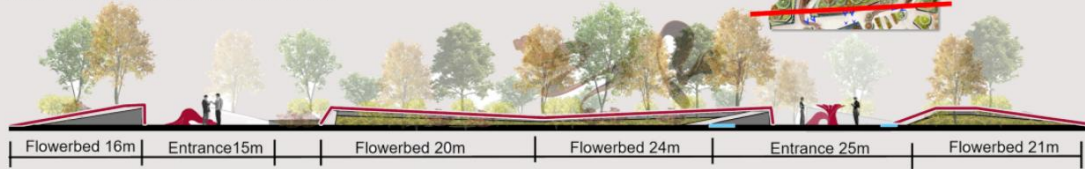
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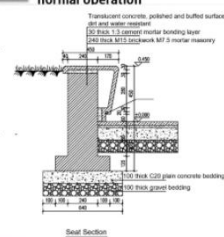
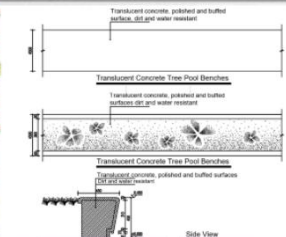
5



The Sitting area is the area that connects the Chinese Characters Museum. Considering that employees and visitors will enter the park from the museum, the sitting area also serves as a buffer zone, allowing visitors to rest and gain emotional preparation. The area has been designed with many features, including beautiful plant arrangements for tourists to enjoy and engage in activities such as conversation, rest, and entertainment.



The engineering drawing provides a detailed introduction to the design of the entrance water feature facility, which combines durability and permeability to ensure the normal operation



The Sitting area is the area that connects the Chinese Characters Museum. Considering that employees and visitors will enter the park from the museum, the sitting area also serves as a buffer zone, allowing visitors to rest and gain emotional preparation. The area has been designed with many features, including beautiful plant arrangements for tourists to enjoy and engage in activities such as conversation, rest, and entertainment.

The design of park lighting should blend seamlessly with the environment, creating a harmonious landscape effect. Designers need to fully consider the park's natural setting, cultural landscape, and visitors' viewing needs, utilizing design elements such as lighting layout, height, and angle to create an illuminating effect that coordinates with the park's environment. For instance, in densely wooded areas, floodlights can be used to illuminate trees, highlighting their contours and textures; in waterscape areas, underwater lights or shoreline lights can be employed to illuminate the water surface, creating a shimmering visual effect.



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