

1. PROJECT TITLE:

BEIJING YINLUCHI PARK

2. PROJECT STATEMENT

RECREATE THE HISTORICAL LANDSCAPE OF NANYUAN BY UTILIZING STORM WATER RUNOFF -- BEIJING YINLUCHI PARK

Yinluchi Park is a typical practice of urban renewal and ecological restoration in Beijing in recent years. This project has transformed shantytowns and state-owned farms into a large country park with a construction cost of \$29.50 /sqm serving the southern suburbs of Beijing municipality.

Nanyuan area, where the park is located, was once fenced off as the fifth generation royal hunting park 100 years ago for its abundant springs, a great diversity of wetland flora and fauna and its profound historical and cultural background. To recreate the picture of the peak landscaping environment and historical culture, we intended to build up a dynamic, seasonal-changed wetland landscape by utilizing the precipitation resources based on climate change; integrate modern designed facilities with symbolized cultural elements to recall the royal hunting, idyllic lifestyle, love legends and other historical folktales; serve the neighbourhood community with a lush green, leisured and natural open space. The park was opened to the public in October 2020 and has become a favorite park by the community with its ecological, historical and cultural benefits.

3. PROJECT NARRATIVE AND CONTENTS

3.1 PROJECT SCALE AND BACKGROUND

1) Project Overview

Yinluchi Park is located in Daxing District, Beijing, adjacent to the Southern Fifth Ring Road. The total constructed area is approximately 62.5 hectares. The cost is \$29.5 per square meter. The design and construction phase was from March 2018 to October 2020.

This project was funded by the government aiming to serve the southern suburbs in Beijing and to incorporate with the great green spatial structure of Beijing and the country park network serving the southern suburbs of the municipality.

2) Background

Nanyuan, where Yinluchi Park was located, was a low-lying area of Beijing southern area. The meadow wetland was water-sourced from the Yongding River and North Canal with abundant springs and a great diversity of wetland flora and fauna in history. From Liao Jin to Qing Dynasties (AD938-1912), it has gradually become a royal hunting park since the emperors hunting here and expanded to 210 km² with extensions of palaces, farms, gardens and training fields.

According to the survey, the subject site composed by a series of seasonal changed ponds and springs was originally named “Yin lu chi” by the beautiful scenery that the deer often came to drink around this pond. There was a legend of two giant willows intertwined together on the side of the pond that they were changed from a couple dying for love. Emperor Qianlong of the Qing Dynasty has written many poems for this story expressing his admiration to their loyalty.

3) Concerns and challenges

Due to the process of urban development for the past centenary, the groundwater level was decreasing and the wetland meadow in Nanyuan area was gradually drained, becoming the arid agricultural land, shanty towns and industrial district. In recent years, the People’s Government of Beijing Municipality has implemented actions of urban renewal and ecological restoration towards backward developed areas and ecosystem damaged areas aiming to demolish the shanty towns, increase the leisured green space and return to a harmonious and livable environment.

Yinluchi Park was a significant project in a series of the Southern Urban Renewal Actions as it included 13 hectares of shanty towns to be demolished, whilst the rest of it were state-owned farms previously. An e-commerce industrial district and its residential area are surrounding to the north which had been half constructed and ready in use but lack of sufficient public open space . Obviously the subject site was a weakness in Beijing Southern Green Spatial Structure and a disconnection in Urban Country Park network within the municipality.

3.2 DESIGN STRATEGIES

1) Reconstruction of the historical water landscape system

Recently, due to the global climate change, extreme rainfall has significantly happened more frequently in Beijing which was a great opportunity for us to make use of this circumstances by collecting, diverting and storing the stormwater to reconstruct an inner-sourced sponge green system, and subsequently to recreate the historical sceneries of wetlands, meadows, farms and other featured landscape.

We reorganized the stormwater runoff by reshaping the topography in order to direct the stormwater into various designed water bodies like pools, swamps, puddles, paddy fields, grass drainage and etc. The designed waterscapes incorporated with indigenous vegetation that could survive against seasonal rainfall changes, created a landscaping environment with a high drain/moisture resistance and represent the meadow wetland characteristic in rainy season within Nanyuan area.

Apart from to achieve the desirable landscaping effect, it is also intended to be ecologically effective as a “sponge” to maximize the use of regional water resources, to increase the resilience of water conservation and to absorb the drainage pressure.

2) Representation of Historical scenery

Based on the recreation of the natural environment, the site was divided the into five functional zones to reflect the historical stories as below:

- Hunting Garden: inspired by the story of the emperor's hunting experience;
- Forest Garden: representing the wild & rural characteristics;
- Paddy Field: reproducing the rice paddy scenery of Nanyuan;
- Literature Garden: to memorize the love story,
- Recreation Garden: to serve the surrounding communities.

In addition, 10 cultural featured nodes had been designated into the five functional zones based on the cultural elements symbolized and extracted from the local historical stories as memorial spaces to recall the history and culture.

3) Cost effective and eco-friendly construction

The construction cost of the park was only \$29.5/m². We made great effort to reuse the bricks and stones and other recycled materials that demolished from the shantytowns as much as possible endeavor to have all the materials cost effective, durable, eco-friendly and easy to maintain.

In addition, a planting plan composed of self-seeding ground covers and native tree species was designed for the site to achieve natural succession stability.

3.3 VALUES

The park has become a favorite leisure and natural park of neighborhood communities since it's opened in October 2020. Gladly we've received thousands of positive comments of this park in social media network. We believe the following values have been seen through this project:

- Cultural Value: The natural landscaping scenery of the Nanyuan wetland meadow in history has been recreated through a natural design method in terms of collecting and reorganizing the stormwater and reconstructed the landscape structure. And the historical and cultural features are also pictured into the natural background to reflect the memories of emperor hunting and rice paddy field.
- Ecological Value: 625,000 square meters of natural space has been developed as a central green core in Beijing Southern Ecological Development, filling the south -gap in the Beijing Country Park Network, and improving the ecological spatial structure of Beijing.
- Social Value: This project complements the absence of country parks in the south of Beijing, becoming a significant regional park with a 2-5km service radius, improving the development of neighborhood districts.

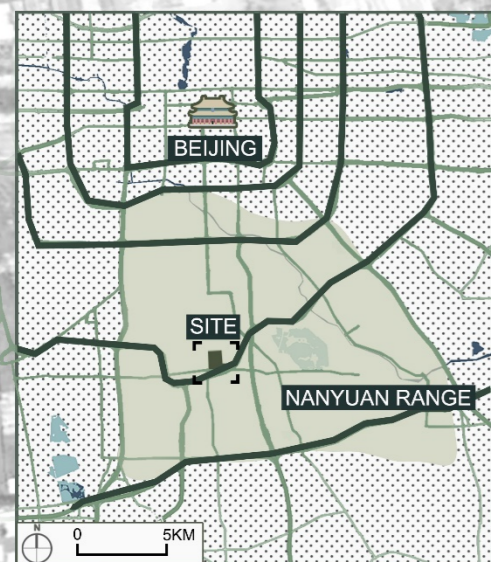
BEIJING YINLUCHI PARK

RECREATE THE HISTORICAL LANDSCAPE OF NANYUAN BY UTILIZING STORM WATER RUNOFF

m² SITE AREA 449000m²

PROJECT COST 29.5\$/m²

SITE LOCATION



SITE PLAN



CURRENT SITE STATUS

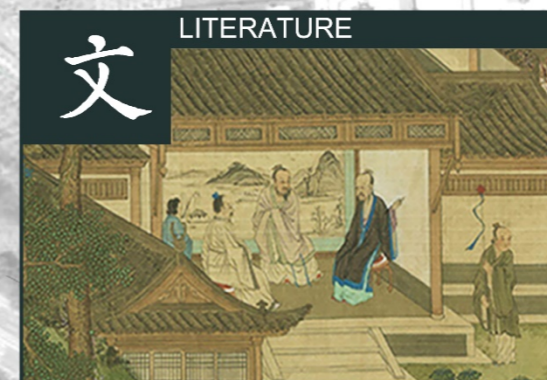


- 1 NORTH MAIN ENTRANCE
- 2 CHILDREN'S PLAYGROUND
- 3 NORTH DEER POOL
- 4 SAND PIT
- 5 HUMING SWAMP
- 6 WOSI GARDEN

- 7 DANCING SQUARE
- 8 BAICAO MEADOW
- 9 WEST ENTRANCE
- 10 FENFANG VALLEY
- 11 MAPLE RAIN GARDEN
- 12 DAOHUA FIELD

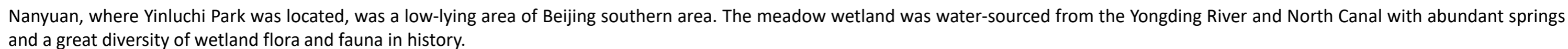
- 13 PADDY FIELD SHED
- 14 MOONLIGHT SHADOW BAY
- 15 DEER HUNTING PAVILION
- 16 RANQIU RIDGE
- 17 SOUTH DEER POOL
- 18 SOUTH ENTRANCE

FUNCTION DIVISION



To recreate the picture of the peak landscaping environment and historical culture, we intended to build up a dynamic, seasonal-changed wetland landscape by utilizing the precipitation resources.

THE LANDSCAPE OF NANYUAN WETLAND MEADOW CREATED BY BEIJING'S PHYSICAL GEOGRAPHY PATTERN





BEFORE: THE SCENE OF THE PARK BEFORE CONSTRUCTION AND AFTER DEMOLITION, 2019 Jan

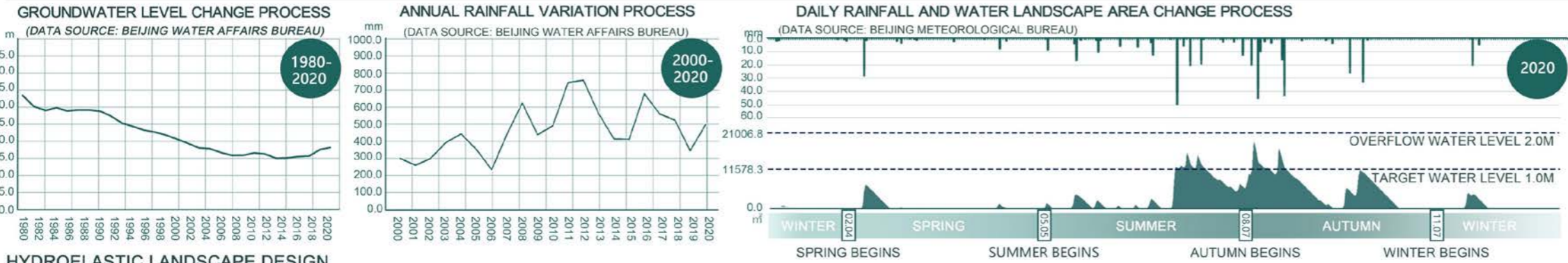


AFTER: HUMING SWAMP(FALCON SINGING SWAMP) IN ITS SECOND YEAR, 2022 Mar

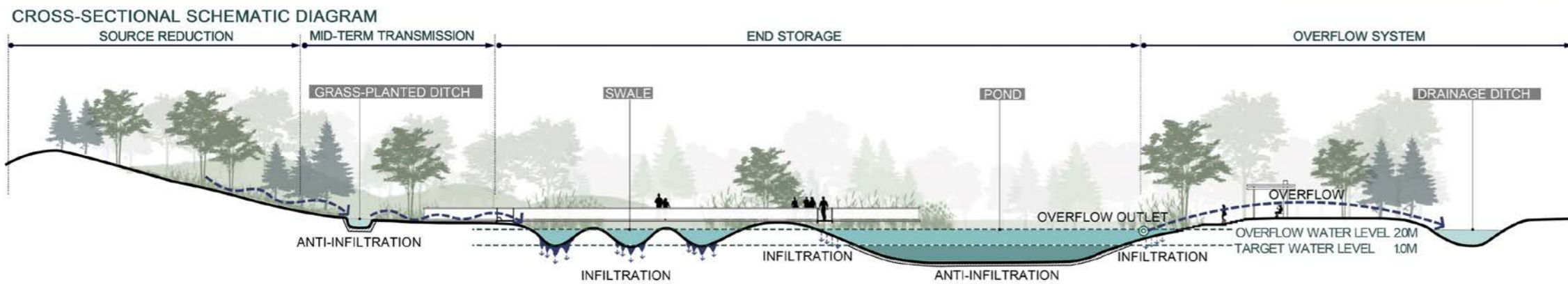
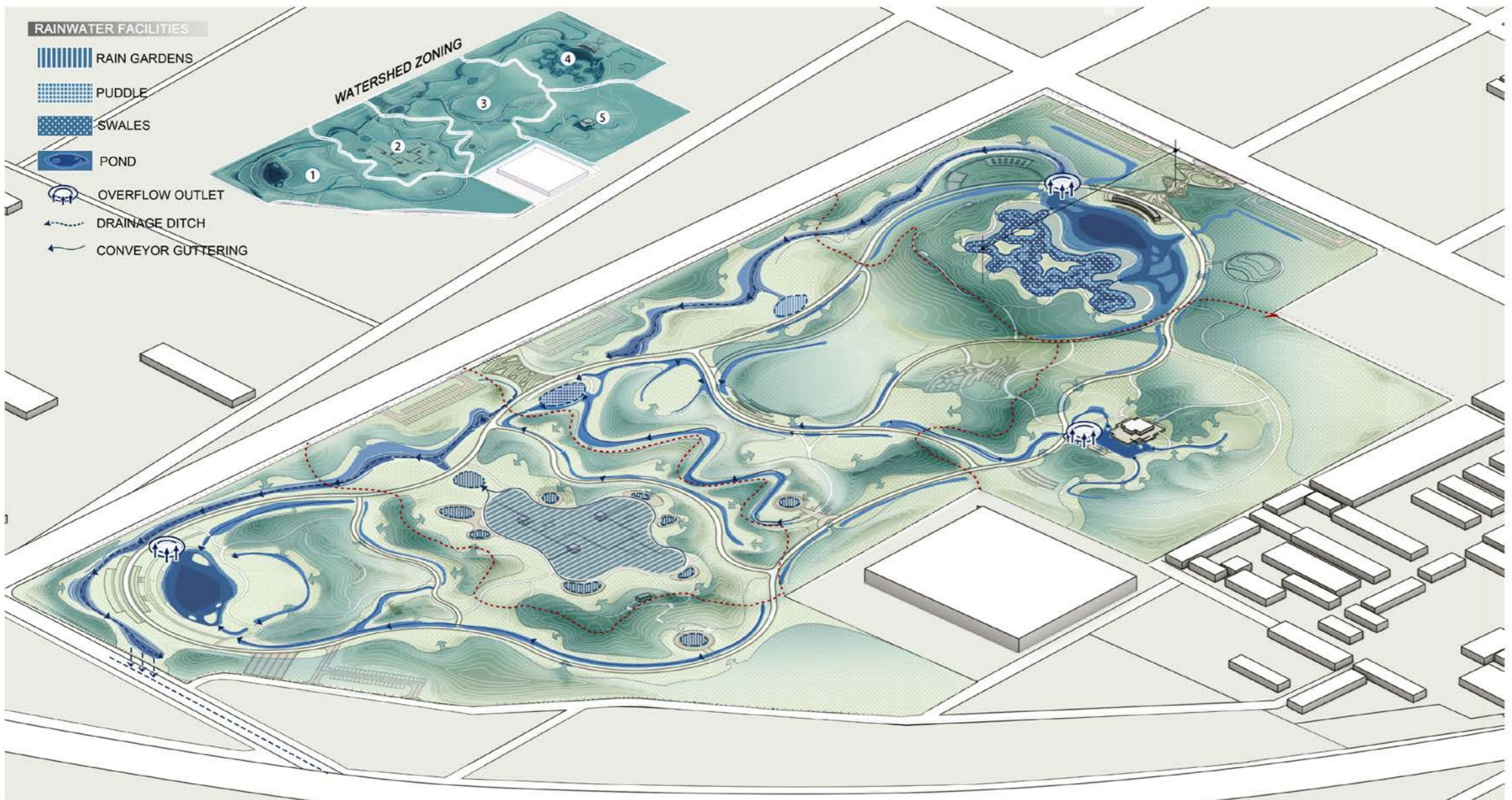
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BEIJING YINLUCHI PARK

NATURAL SYSTEM



HYDROELASTIC LANDSCAPE DESIGN



Recently, extreme rainfall has significantly happened more frequently in Beijing which was a great opportunity for us to make use of this circumstances by collecting, diverting and storing the stormwater to reconstruct an inner-sourced sponge green system.



STORMWATER RUNOFF

We reorganized stormwater runoff by reshaping the topography to direct the stormwater into various designed water bodies like pools, ponds, puddles, paddy fields and grass drainage. The designed waterscapes incorporated with indigenous vegetation created a landscaping environment with good drainage..



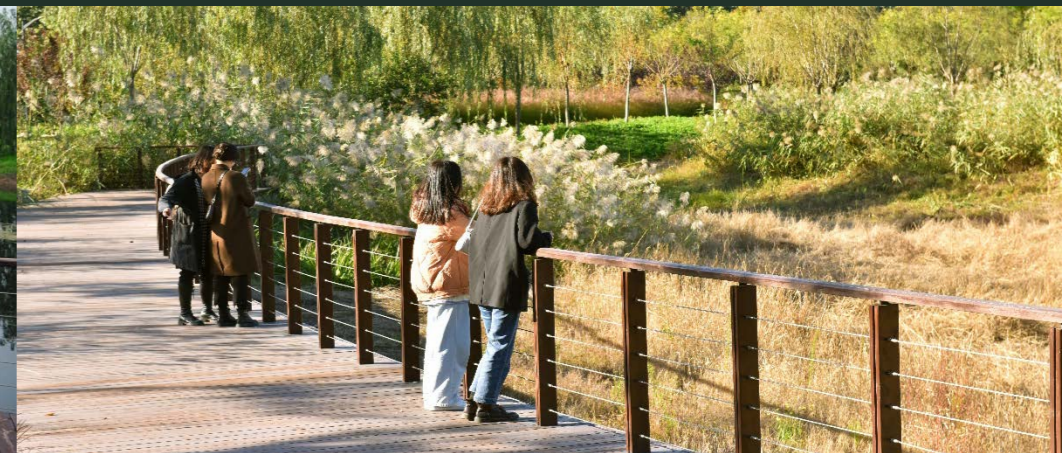
DEER POOL IN THE RAINY SEASON



DEER POOL BEFORE THE RAINY SEASON



DEER POOL IN SUMMER FLOOD SEASON



DEER POOL IN AUTUMN DRY SEASON

Deer Pool are the montage reflections of the historical scene. It is also ecologically effective as a “sponge” to maximize the use of regional water resources, to increase the resilience of water conservation and to absorb the drainage pressure.



BAICAO MEADOW(HUNDRED MEADOW) SIMULATING THE HISTORICAL MEADOW OF NANYUAN



‘Baicao Meadow’, ‘Fenfang Valley’ and ‘Ranqiu Ridge’ correspond to the historical scenes of the spring and autumn. And a planting plan composed of self-seeding ground covers and native tree species was designed for the site to achieve natural succession stability.



THE FARMLAND LANDSCAPE OF "DAOHUA FIELD(RICE PADDY FIELD)"



The farmland landscape of "Daohua Field(Rice Paddy Field)" is mainly structured with drought and waterlogging tolerant gramineous ornamental grasses, representing the disappeared farmland of Nanyuan, and complimenting the traditional Chinese farming culture.



The shed inspired by the shading structure in the farm in ancient times, was recreated as a cultural meaningful space. Ornamental grass was selected to replace rice of high water consumption to simulate the scene of ancient rice paddy fields.



"Wosi Garden(My Missing Garden)", was structured with a double box nested courtyards and centralized by a pair of existing willow trees, symbolizing the soul of the legendary lovers dying for love and expressing the implicit beauty of traditional Chinese culture.



'North Deer Pool', 'Hundred Meadow' and 'Falcon Singing Swamp' are the spatial representation of 'Deer Pool', a historical and natural waterscape, and are the core features of Beijing Yinluchi Park.