



A LIVING MEMORY OF SHEKWAN CERAMIC ART: REVITALIZING THE STRIP PARK ON THE NORTH BANK OF DONGPING RIVER

IFLA ASIA-PAC LA AWARDS 2023 - Landscape Architecture Category
Submission of Categories: 1.1 Built Projects - 1.1 C) Parks and Open Space

PROJECT TITLE

A Living Memory Of Shekwan Ceramic Art: Revitalizing The Strip Park On The North Bank Of Dongping River

PROJECT STATEMENT

Dongping River flows through Foshan City, Guangdong Province, South China. Its north riverside is where our site is located, known for the millennium ceramic town Shekwan. The area used to be deserted revetment abandoned by the ceramic industry. Its barren hard ground and contaminated soil prevented residents and passersby from approaching and blocking down the bank. Designers create a continuous eco-friendly riparian public open space by reshaping the pro-water space, restoring the ecological green space, enriching biodiversity, and activating local ceramic culture.

The site runs through 2 kilometers, covering an area of 205000 square meters. Throughout the project, Landscape architects collaborated with experts in botany, hydrology, environmental engineering, ornithology, etc. The integrated design creates various ecological revetment buffering zones, such as marshes, seasonally inundated areas, etc., which enrich habitats and biodiversity. Besides, the project revitalizes the riparian culture venue by recycling, reinterpreting, or rehashing trash ceramic material, combining it with activity space. Consequently, a place equipping integrated riparian promenade system with various perceptions, converting from vacant land to biophilia and resiliency, relating cohesion where ceramic culture and nature coexist harmoniously, brings a brand new life to the public.



PROJECT NARRATIVE AND CONTENTS

1. Site location, Scope and Background

Dongping River flows through Shekwan Town, Foshan City, China, where the earliest ceramic cultural site can date back to 4,000 years ago. Hence, it is also known as the "Ceramic Capital of South China". As one of the critical waterways for transporting ceramics in ancient times, its ceramic artifact is famous at home and abroad, and export trade commenced in the sixth century, the prosperous Sui and Tang Dynasties.

The Project runs through 2 kilometers of the north bank of the Dongping River, covering an area of 205,000 square meters. The water was clear, prolific fishes smoothly dived, and diverse amphibian animals lived there. The riverbank is luxuriant with vegetation. The singing of birds, with the laboring sound of kilning and chopping, was as poetry as song. Hence the sight "Singing Firewood and Kiln Burning Across the River" has become one of the eight ancient scenes of Shekwan.

2. Site Status Base Survey

As one of the indispensable waterways of the city, the past 30 years has seen rapid urbanization and industrialization along both sides of the river, its waterway transport has surged, factories along the river were densely clustered, and large areas of green land converted into poor hard ground. The continuous development of ceramics industry caused the surrounding population explosion and increasing construction of residential buildings. The residents' demand for public open space is becoming more and more significant.

However, over the past decade, with the upgrading of urban industrial structure, gradually, actories along the river were discarded and demolished. Construction waste and industrial pollution have destroyed the ecosystem of the site,where plants and animals have disappeared, and residents and passersby have been unable to access. The site was left behide by the city, its scene of prosperity faded from the urban stage.

3. Reshape Pro-Water Space

As a result of industrial transformation, many factories have been closed or relocated. Dilapidated factory buildings and discarded docks left over during the post-industrial era, were in potential safety hazard, these cut off the routes along the river. Besides, Cement levees with visual gray matter compelled human activity to retreat backward, till the municipal road, out of the site. To Cope with the challenges, a plan of “greenway waterfront promenade system of triple routes integration” was proposed, within which the system includes walkway, jogging trail, and cycling lane.

After demolishing the hazardous constructions, the project team revegetated and regreened the levees. The entire project has constructed 3.8 kilometers of walkway, 2 kilometers of jogging trail, 1.8 kilometers of cycling way, and 1 kilometer of overhead plank road in all, which realizes multi-routes connecting space nodes and multi-access from street interface. Consequently, the original breakpoints of the riverbank are reconnected to form a continuous waterfront promenade, the site has converted from depressed, obstructed space to warm welcomed and unfurled to the public. It regains the longing for pro-water space, and brings people, surrounding communities approaching to the river.

4. Restore Ecological Green Space

Large areas of land use become hard ground since industrial manufacture. Awfully, the 2-kilometer long, 8 to 16 meters wide levee are hardened up to 71.40%.The wasteland soil is doped with industrial trash, including ceramic waste,the poor conditions of plants growing context caused by contaminated manufacturing also worsened water loss and soil erosion.

Hence,this project concentrates on restoration of riverbank and conservation of water and soil substrates. Also, Experts specialize in storm water management has been invited to participate in the project consultation. The scheme proposal fully takes the advice of those expertise into consideration, additional storm water infrastructure has been taken into measures. In addition to improving flora community plant configuration, replacing previous solid hard ground matters to water permeable pavement, so does the surface of newly built sport courts, 67% of public green space has been restored. Materials of multi-voids and porosity promote permeability of rainwater runoff. Furthermore, the design creates rain gardens and ecological grass ditches and swales on both sides of the road. This not only solves the problem of rainwater discharge on the site, but also contributes to rainwater collection, purification, overland runoff mitigation and attenuation, as well as reconstructing water cycle and regulating microclimate, etc.

5. Enrich Biodiversity

In the preliminary investigation and reconnaissance survey of the site, it is surprisingly to find that the north bank of Dongping River, where our site locates, is one of the key nodes of the ecological corridor of waterfowl. Although there is an ecological island on the south side over the river and a wetland conservation area on the opposite bank, the site land itself suffers from serious soil erosion and presented undiversified vegetation, this habitat isolation and destruction cuts off the flying routes of birds here. By renovation and restoration, the original 4,720 square meters of marshes have been conserved and restored. The formation of Gentle slope bank modified by the appropriate modification of the overhead upright revetment topography, enhances excellent multi-segmented and high-quality growing base for plants. Moreover, the accomplishment of 14,250 square-meter ecological buffer zone plays the ecological functions of water runoffs purification, mitigation and filtration.

Furthermore, addressing the matter of restoring the food chain in riparian ecosystems is critical. According to the eco-tope in which species is spatially active and reproductive, the project team has constructed the corresponding water-level gradient strip-type flora communities. Statistically, scope of 23070 square meters aquatic flora communities and occupation of 5110 square-meters ecological grass ditches are accomplished. Diverse habitats reshaped by the buffe zone are conducive to amphibian activity and reproduction and enhancement of biodiversity. Soon after the completion of the project, it is exhilarating that visitors can observe the flight paths of migratory birds which fly from the wetlands on the opposite bank to our site, the north bank, via or roost on the central Island. The banks of the river come back to life, vibrant and revitalized.

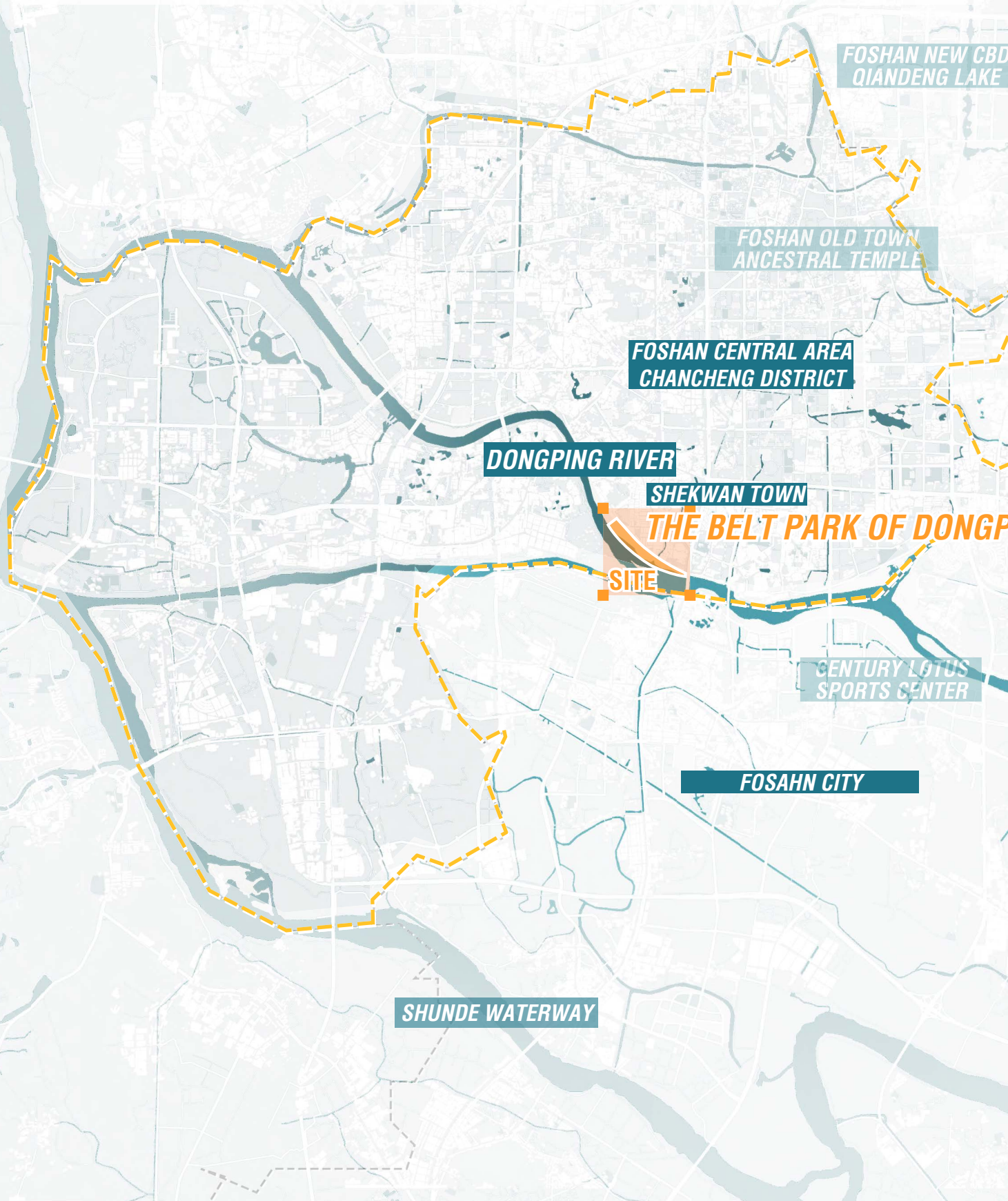
6. Activate Venue Culture

Based on Shekwan, the over-forty-centuries history of ceramic capital town, the project team works to inherit and spread up the history of Shekwan ceramic culture, in a more interesting form to the young people in the community and integrate them into the venue. We recycle the discarded ceramic pieces on site, applied them in the landscape construction through artistic treatment. Also, we consulted local ceramic culture scholars, sorted out several significant nodes of developments, placed them on the feature wall to display the ceramic culture and crafts. In addition to reusing and rehashing ceramic trash, we tried to explore the connotation of ceramic materials and reinterpret ceramic culture with new non-ceramic material. Furthermore, the culture is integrated into activity space within the place, these measures revitalize the culture venue of the community, increasing cultural cohesion and place identity.

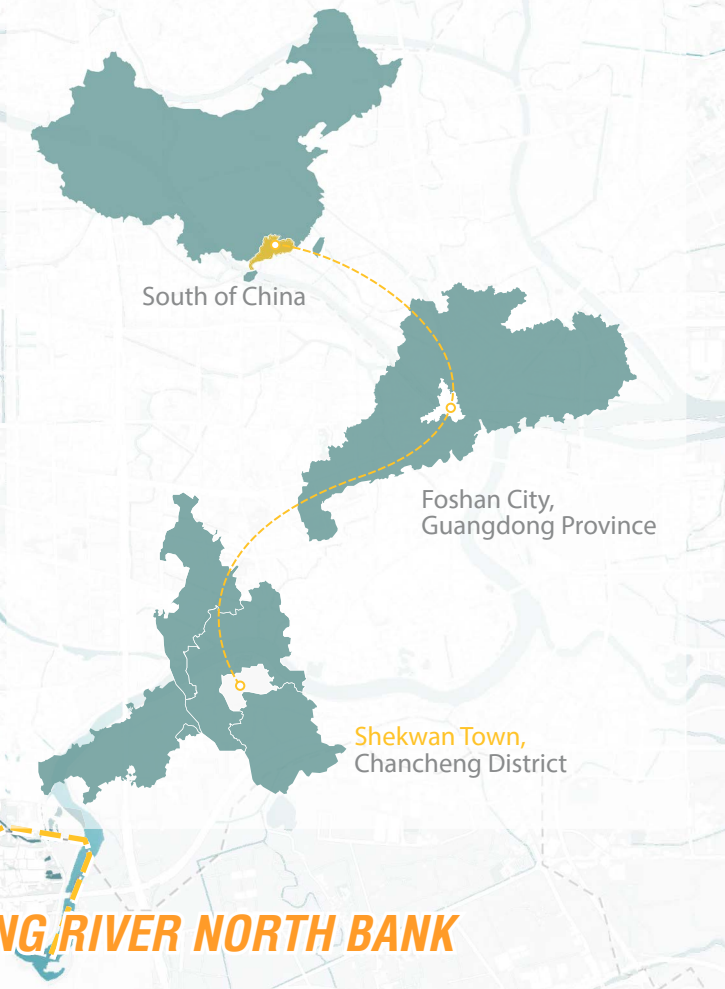
Therefore, visitors are immersed in the diverse and interesting perception of waterfront activity space infiltrating ceramic culture, exercising such as jogging, skateboarding, basketball, football, cycling, etc., participating in carnivals or festivals such as hiking, camping, and marathon. Incredibly, the known and unknown activities acted by friends, family, lovers, pets, take place here, varied in seasons. Hence, the memory of traditional culture is imperceptibly passed on to the next generation, the brand-new scene of “Breeze Riverside Ditty” is being staged, and the storytelling placemaking narratives is continuously going on.....

SITE LOCATION AND BACKGROUND

Dongping River flows through Shekwan Town, Foshan City, China, where the earliest ceramic cultural site can date back to 4,000 years ago, known as the "Ceramic Capital of South China". Its export trade commenced from the sixth century, the prosperous Sui and Tang Dynasties. Once , the water was clear, where prolific fishes smoothly dived and diverse amphibians lived in groups. The riverbank is luxuriant with vegetation, people lives and works on both sides of the river, hence “Singing Firewood and Kiln Burning Across the River” has become one of the eight ancient scenes of Shekwan. The north bank of the river is where our site located.



SITE LOCATION

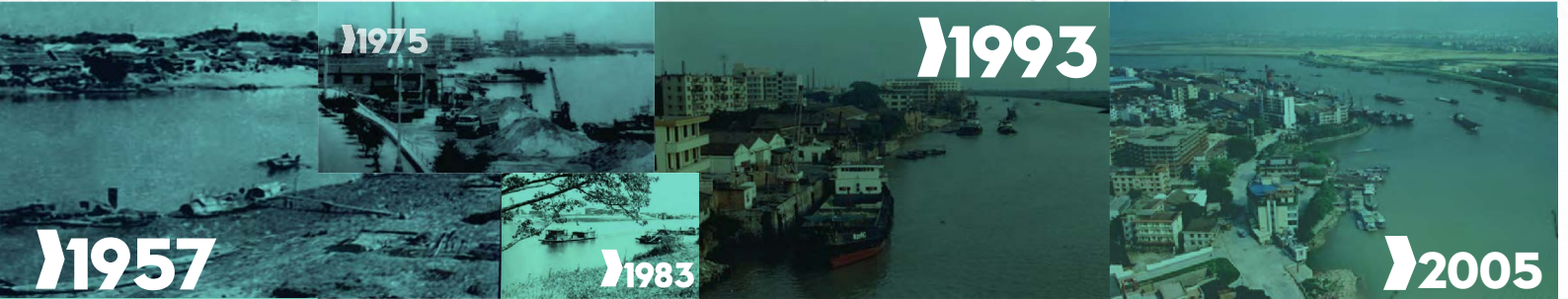


KEY INDEX



THE MEMORY OF THE DONGPING RIVER - A RIVER OF CERAMIC CULTURE

Shekwan Town - Southern Ceremic Capital



“Singing Firewood and Kiln Burning Across the River” - one of the eight ancient scenic spots in Shekwan Town



In the period of Ming and Qing Dynasty, many people live on both sides of the Dongping River, most of them were engaged in ceramics. The illustration above is from the Dongping River Atlas archived in shekwan Ceramic Museum in Guangdong Province.

CHALLENGES



- Abandoned Factory under Safety Hazard & Inaccessibility
- Passersby away from the shore & No affinity for Rive Bank

01 ENCLOSING DESERTED REVETMENT



- Flood Flush Formed Upright Bare Revetment
- Mono-Ecological Structure

03 FRAGILE REVETMENT BIOTOPE & ECO-ENVIRONMENT DEGRADATION



02 SOIL CONTAMINATION

- Soil Layer Doped with Contaminated Industry Waste
- Rain Wash Caused Soil Erosion
- Barren Land with Poor Planting Growth Condition Provided



04 FADING CERAMIC CULTURE & LACK OF VITALITY

- Fading Ceramic Culture
- Deficiency of Activity Space

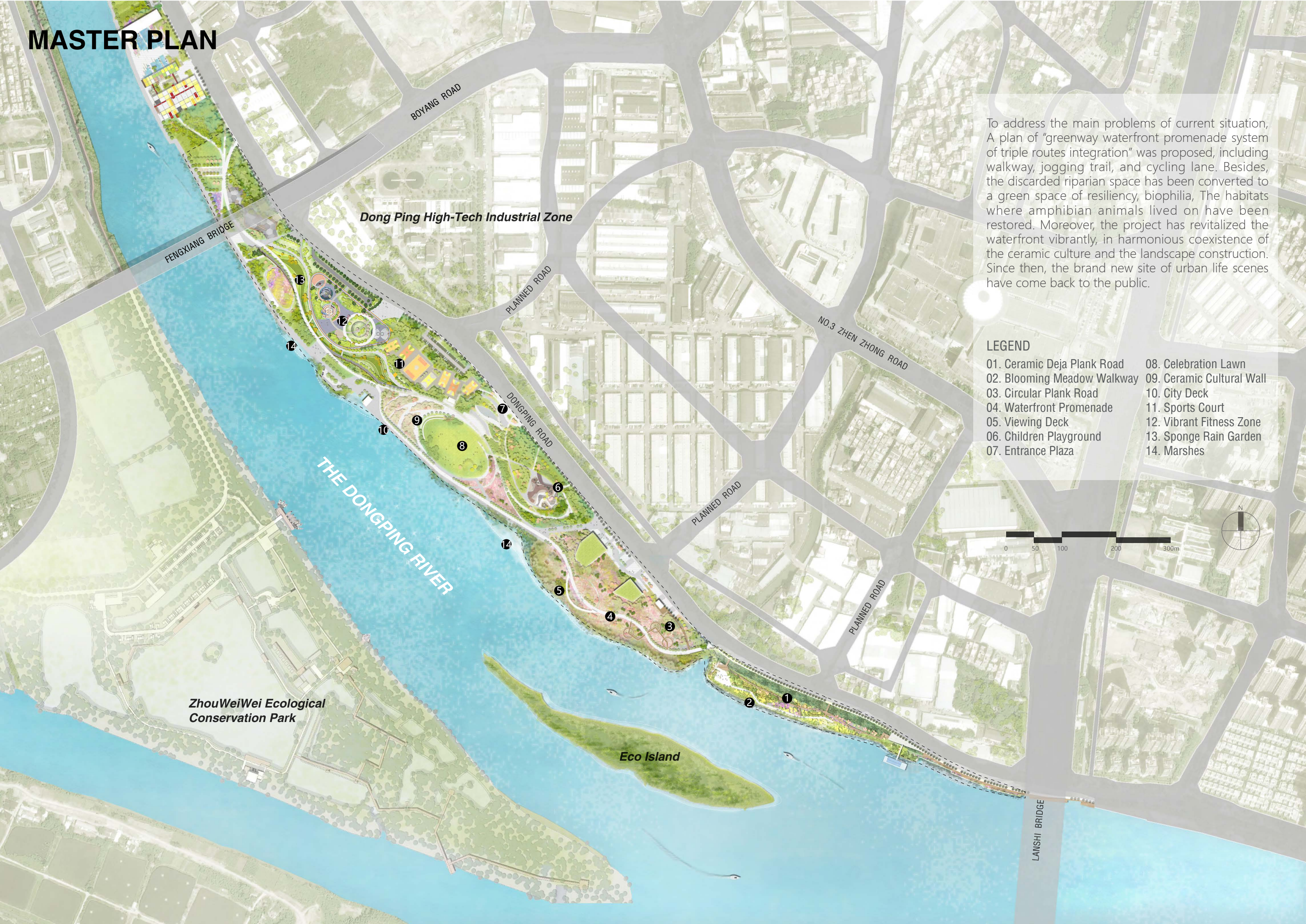


With the acceleration of urbanization, industry has developed rapidly. Also, the waterway traffic was increasing. Dense factories caused the hardening of large areas of green land on the north bank of the Dongping River. In the past decade, the city industrial structure has been upgraded, factories on the north bank were gradually discarded and demolished. Construction waste and industrial contamination damage the ecosystem of the north bank, animals and plants disappeared from the banks. The site prevented nearby residents from approaching, and the river scenery gradually faded away from the city life.

TECHNICAL METHODOLOGY



MASTER PLAN



To address the main problems of current situation, A plan of "greenway waterfront promenade system of triple routes integration" was proposed, including walkway, jogging trail, and cycling lane. Besides, the discarded riparian space has been converted to a green space of resiliency, biophilia, The habitats where amphibian animals lived on have been restored. Moreover, the project has revitalized the waterfront vibrantly, in harmonious coexistence of the ceramic culture and the landscape construction. Since then, the brand new site of urban life scenes have come back to the public.

LEGEND

- | | |
|-----------------------------|---------------------------|
| 01. Ceramic Deja Plank Road | 08. Celebration Lawn |
| 02. Blooming Meadow Walkway | 09. Ceramic Cultural Wall |
| 03. Circular Plank Road | 10. City Deck |
| 04. Waterfront Promenade | 11. Sports Court |
| 05. Viewing Deck | 12. Vibrant Fitness Zone |
| 06. Children Playground | 13. Sponge Rain Garden |
| 07. Entrance Plaza | 14. Marshes |

ZhouWeiWei Ecological
Conservation Park

Eco Island

LANSHI BRIDGE

FENGXIANG BRIDGE

Dong Ping High-Tech Industrial Zone

BOYANG ROAD

PLANNED ROAD

DONGPING ROAD

NO.3 ZHEN ZHONG ROAD

PLANNED ROAD

PLANNED ROAD

THE DONGPING RIVER

STRATEGY 1 - RESHAPE THE RIVERFRONT SPACE



STRATEGY 1 - RESHAPE THE RIVERFRONT SPACE



Walking



Running



Cycling



Viewing



STRATEGY 1 - RESHAPE THE RIVERFRONT SPACE

1.2 VARIED RIVERFRONT SPACE PERCEPTION: OVERHEAD UPRIGHT WHARF, WATERFRONT PROMENADE, AND RIPRAP



BEFORE

Passersby away from the shore &
No affinity for Rive Bank



Along a side of the main parkway, the white trestle with parametric design of
ever-changing shading and selective focus bring people closer to the river.

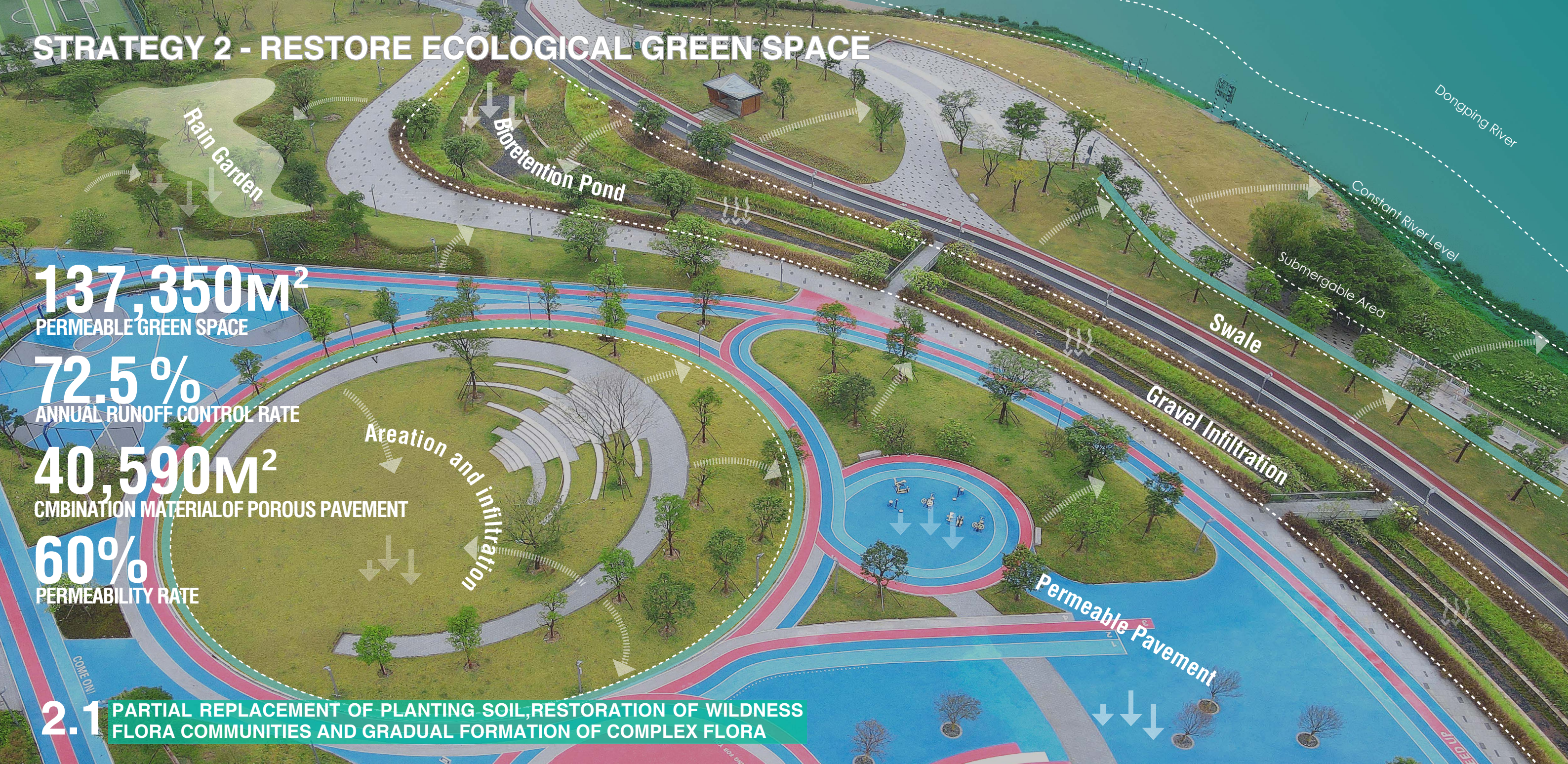


Partial trail combined with functions of cycling and jogging, enables
visitors approach to the waterfront wharf with enjoyable sight views.



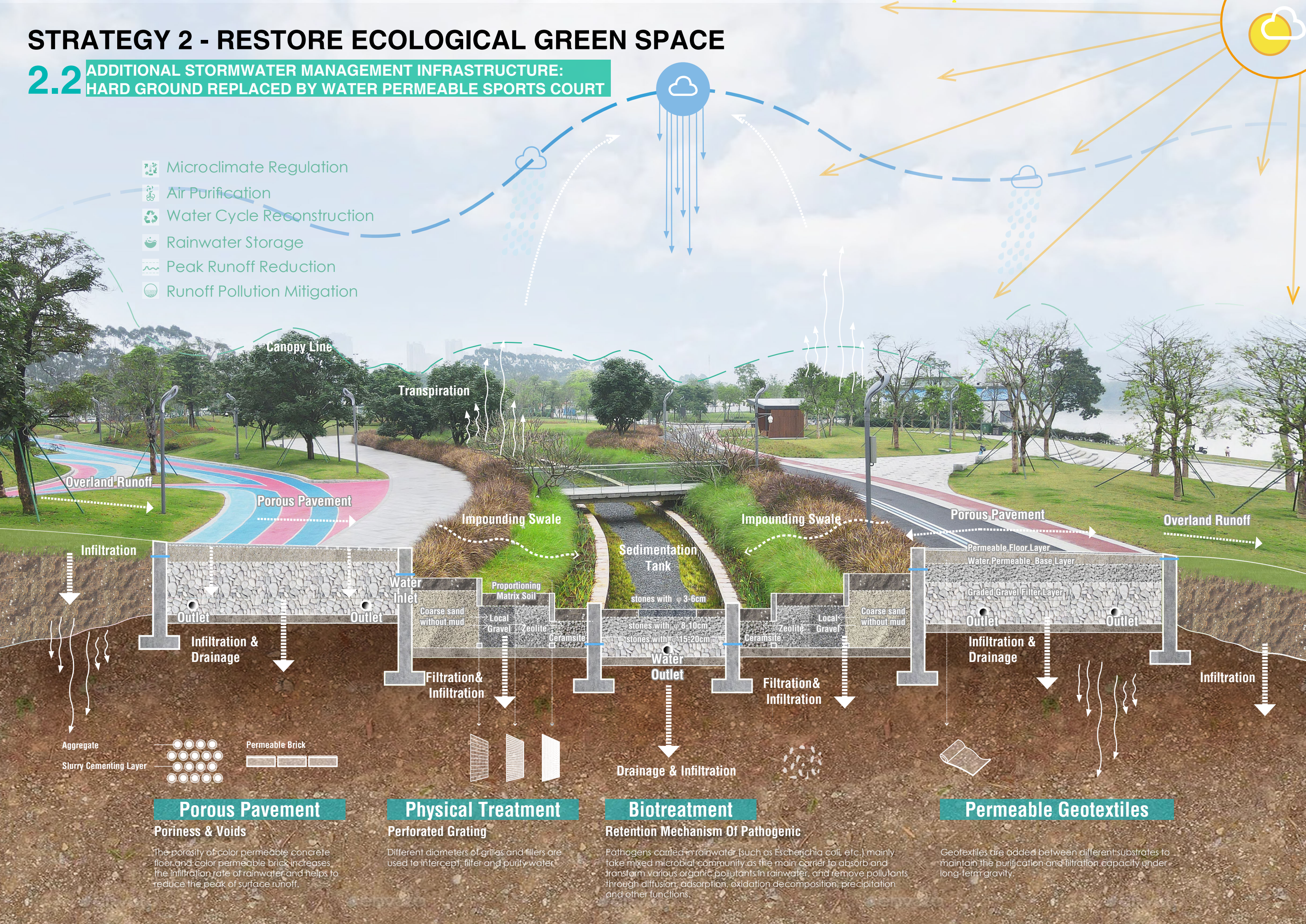
The red water permeable concrete jogging trail enables passersby
approaching to the water bank.

STRATEGY 2 - RESTORE ECOLOGICAL GREEN SPACE



STRATEGY 2 - RESTORE ECOLOGICAL GREEN SPACE

2.2 ADDITIONAL STORMWATER MANAGEMENT INFRASTRUCTURE: HARD GROUND REPLACED BY WATER PERMEABLE SPORTS COURT



STRATEGY 3 - ENRICH BIODIVERSITY

3.1 CREATE GENTLE SLOPE REVETMENT TO SHAPE AMPHIBIAN ECO-BUFFER ZONE



Riparian Grass Slope



Eco Island



Riprap



Marshes



FIR FOREST IN TIDAL ZONE



DEEP WATER ZONE AND ECO ISLAND



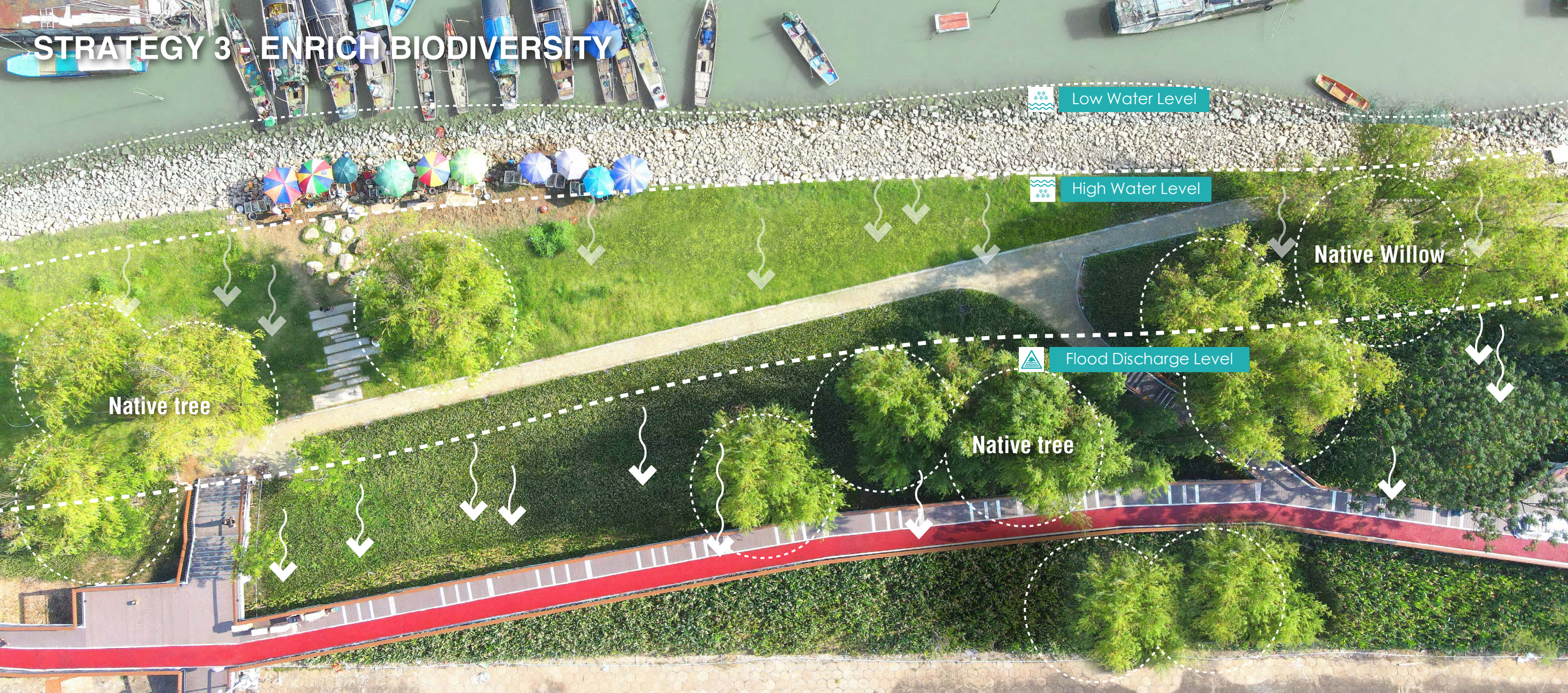
MARSHES ON SHALLOW WATER ZONE

137,350M²
GREEN SPACE

47,150M²
WILDLIFE HABITAT

1,170M
ECOLOGICAL REVETMENT

STRATEGY 3 - ENRICH BIODIVERSITY



Acorus calamus L. 4300 m²

12930kg

Biomass

5420.35g

Total Nitrogen Removal

58.08g

Total Phosphorus Removal



Iris tectorum Maxim. 7040 m²

34600kg

Biomass

27700.84g

Total Nitrogen Removal

415.45g

Total Phosphorus Removal



Canna glauca L. 18900 m²

34600kg

Biomass

27700.84g

Total Nitrogen Removal

415.45g

Total Phosphorus Removal



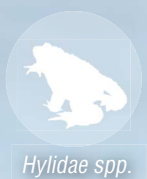
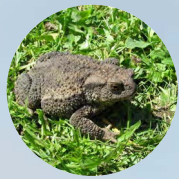
The project has restored complex and stable aquatic flora and wetland grove, as well as constructed resilient animal habitats for birds and fishes.

STRATEGY 3 - ENRICH BIODIVERSITY

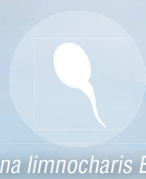
3.2 REPAIRING FOOD CHAINS IN RIPARIAN ECO-SYSTEM

Contiguous Aquatic Plants
Ecological Buffer Zone

Amphibians & Reptiles



Hylidae spp.



Rana limnocharis Boie



Panophrys acuta



Liuxalus feii

Insects



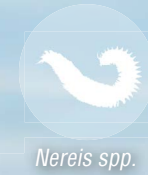
Papilio spp.



Gerridae spp.



Argia apicalis



Nereis spp.

Fish



Cyprinus carpio



Lateolabrax japonicus



Cirrhinus molitorella



Aristichthys nobilis

Water Birds



Egretta garzetta



Ardeola bacchus



Rallus indicus



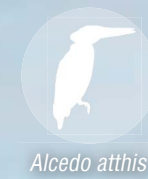
Vanellus cinereus



Amaurornis phoenicurus



Nycticorax nycticorax



Alcedo atthis



Gallinula chloropus



Charadrius dubius



Charadrius alexandrinus

Eco Island in the River
Ecological Conservation Area

Eco Island



Fruit Trees

Foraging



Water Birds



Insects



Amphibians & Reptiles



Fish



Plankton

STRATEGY 4 - REJUVENATE THE CULTURAL VITALITY

4512 People/ Day
AVERAGE DAILY VISITS

34150 People/ Day
PEAK VOLUME OF VISITS

Festive Activities



Celebration



Lawn Concert



Camping

Leisure Activities



Children's Play



Bird Watching



Yoga



Fly A Kite

Daily Activities



Bird Watching



Plant Science



Viewing



Drink Coffee

Fitness Activities



Skateboard



Play Basketball



Play Football



Walking



Running



Cycling



STRATEGY 4 - ACTIVATE VENUE CULTURE

4.1 REUSE OF DISCARDED CERAMIC TILES



The Original Dumped Ceramic Tiles



Reinterpretation



Multicolored Glass

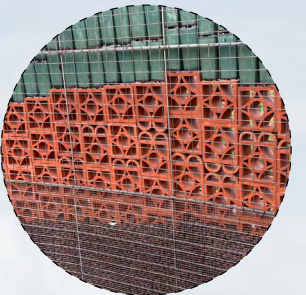


Color Changing Glass

Rehash



Playground Equipment



Material Display

Recycle



Paving



Entrance Logo

Landscape Wall

STRATEGY 4 - ACTIVATE VENUE CULTURE

4.2 REVITALIZE CERAMIC CULTURAL HERITAGE



More elements of ceramic culture emerged on the children's playground, have created a playing space of exploration.



The Waste Mosaic Ceramic Logo

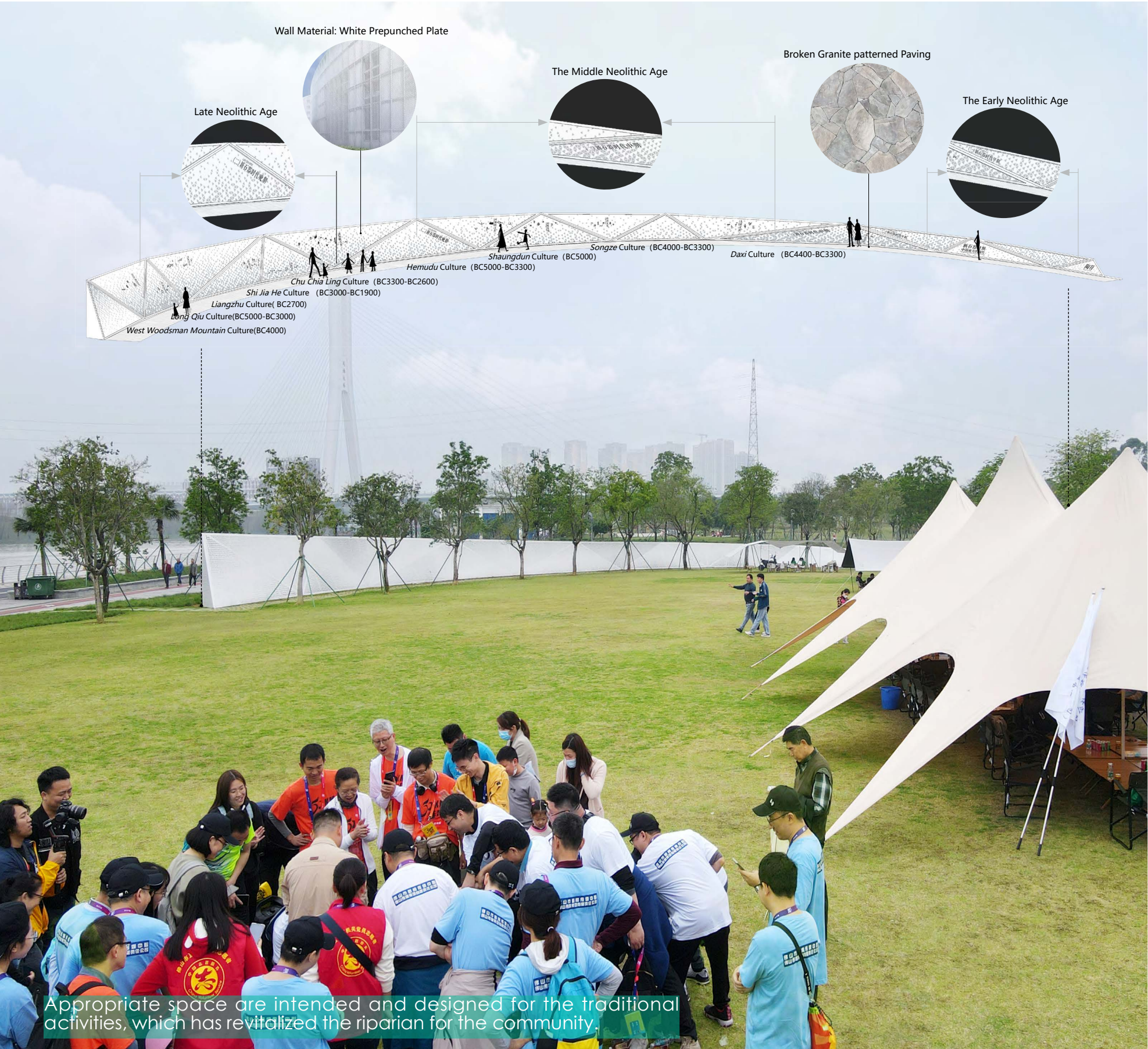


Playing Facilities Decorated By The Discarded Tiles

The extracted conventional ceramic colors have been utilized on the floor of the basketball court.

STRATEGY 4 - ACTIVATE VENUE CULTURE

4.3 INCREASE ACTIVITY SPACE CREATE A DYNAMIC RIVERFRONT AREA



STRATEGY 4 - ACTIVATE VENUE CULTURE



The known and unknown activities acted by friends, family, lovers, pets, take place here, varied in seasons, and the memory of traditional culture is imperceptibly passed on to the next generation.