

THE DUAL-LAYER TRANSFORMATION OF DRAINAGE CHANNELS: THE FOTANG ANCIENT TOWN' S DONGFENG RIVER ENVIRONMENTAL IMPROVEMENT

Project Address: Fotang Town, Yiwu City, Jinhua City, Zhejiang Province, China

City & Country: Jinhua, China

Project Size: 26,950 m² (including a building area of 7,232 m² and a landscape construction area of 19,718 m²)

Award Category: 1.1 C) Parks and Open space

Project Statement

Yiwu Fotang Ancient Town is situated along the Yiwu River and was historically prosperous due to its reliance on water transportation. The Dongfeng River, originally a simple drainage canal for the ancient town, was formerly known as "Puchuan". Its important role in the spatial layout of the ancient town was often overlooked in relation to the old streets and riverside areas.

The team designed a double-layered river system and chose to purify the river water and redirect it upstream. This not only preserved the original drainage function of the Dongfeng River but also ensured a sustainable source of high-quality landscape water. The renovation work involved underground pipelines, open space design, and building refurbishment, creating a more livable and flexible waterfront public space. Commercial components were added to different areas, and space was reserved for outdoor markets and festivals, successfully activating the new potential of the water street while exploring the value of traditional handicrafts. The Dongfeng River, old streets, and riverside space have become the core triangle of Fotang Ancient Town for public activities, tourism, and local business, revitalizing the town's ecological, economical, and social formation.

Project Narrative

Background

This project is a landscape improvement project under the background of the overall renewal of Fotang Town. Fotang Town is located in Yiwu City, Zhejiang Province, China, with a long history. According to a legendary story related to Buddha, the residents built the "Du Pan Temple" in ancient times. Later, the temple gradually became a market and the town was named "Fotang" because of the temple's "Fotang market is prosperous forever" couplet (in 520 AD).

The ancient town was built along the Yiwu River and relied on water transportation to reach multiple commercial areas. During the period of the Republic of China, it became the largest market in Yiwu and was the birthplace of Yiwu's commercial culture. The East Wind River, where the project is located, was formerly called "Puchuan River". There are ancient poems describing its beauty such as "The scenery of Puchuan is beautiful and thick, with green bamboo reflections. Buildings lean against willow trees, and the scenery is like a painting." It runs through the ancient town from south to north and joins the Yiwu River, together with Fotang Old Street and the Yiwu River bank, to form the three most important linear public spaces in Fotang Town.

The total length of the East Wind River is about 465m, and the project covers the space on both sides of the river and extends to the surrounding alleys, with a total area of 26,950 square meters, including a building area of 7,232 square meters and a landscape construction area of 19,718 square meters.

Landscape as Infrastructure

Landscape as infrastructure refers to the integration of natural and constructed features of the landscape to create functional and sustainable systems that provide social, economic, and environmental benefits for the town. The current status of Dongfeng River is that it is a low drainage channel with upright and hardened walls. For most of the year, the water depth is 30-40cm, but space still needs to be reserved for drainage due to the existence of upstream residential areas. The topography of the river is relatively flat and lacks fluidity, resulting in poor water quality.

The design team and the water conservancy department worked together to improve the water system plan. The final decision was to purify and redirect the drainage water back upstream for landscape usage. Through ecological purification of the planted ponds and water circulation systems, the water quality of the landscape water system meets the Class 1 standard for swimmable water in China.

The design team innovatively transformed Dongfeng River into a three-dimensional river channel, divided into a lower-level municipal canal and an upper-level landscape water system. The design of the lower-level canal is responsible for the original drainage function of Dongfeng River. The upper-level landscape water system is shallower and gradually deepens from upstream to downstream, with a depth of 300-600mm. The position relationship with the lower-level canal includes three structural forms: completely independent, partially overlapping, and completely overlapping. This staggered dual-level river channel structure not only enriches the spatial form of the waterfront space but also stitches the space and programs on both sides of the river. The straight Dongfeng River has now transformed into a waterfront intertwined into the daily activities of the ancient town.

Simultaneously with the transformation of the lower-level canal, the underground work for the original disordered pipelines was also carried out. The design team actively promoted communication and cooperation with the water conservancy, municipal, and construction departments to realize the placement of pipelines along both sides of the lower-level canal and detouring around the only large tree in the site.

Project Narrative

Stiching Commercial to Everyday Landscape

The concept of "stitching commercial to everyday landscape" refers to the integration of commercial elements into the existing old town, without compromising the authenticity and livability of the space. To achieve this, the project site retains four historic buildings that reflect the culture and social structure of a particular historical period in the Dongfeng River area, which is facing architectural degradation and functional deficiencies.

The commerce sector is fundamental to Yiwu, and the ancient town is crucial for the livelihoods of its inhabitants. When renovating the buildings along both sides of the river, the design team ensured that local residents could remain in their original homes after necessary housing improvements. Other buildings were transformed into commercial spaces that integrated into the existing structure of the old town, thereby preventing excessive gentrification of the entire street. To boost the commercial development of the street, the team introduced branded catering and also discovered traditional local crafts such as bamboo steamer processing, cotton ball making, and brown sugar production, to jointly promote small businesses on the water street. The design team also reserved ample space for outdoor activities, such as temporary markets and street stalls, to promote temporal and spatial flexibility and encourage seasonal cultural and public events.

The Dongfeng River Water Street has been transformed into a more contemporary space that incorporates historic buildings, original residential houses, and waterfront activity areas. It now coexists with Fotang Old Street, which has preserved its traditional old shops, to create an everyday landscape that blends both modern and traditional elements.

Cultural Representation

Through a refined analysis of the historical and cultural context of Fotang ancient town, the design team developed a concept of "origin-heritage-promotion" to guide the transformation of the water street into three distinct zones: "Temple Market and Port," "Puchuan Workshop," and "Street Halls." Each zone showcases a different aspect of the town's culture, emphasizing water transportation, traditional handicrafts, and market life, respectively. Six landscape nodes are integrated into these zones, each telling the story of the town's commercial evolution from raw materials to finished products sold on the street. The landscape design incorporates various local intangible cultural heritages to create a spatial memory that highlights Fotang's cultural heritage and provides visitors with a sense of the town's rich history.

Project Narrative

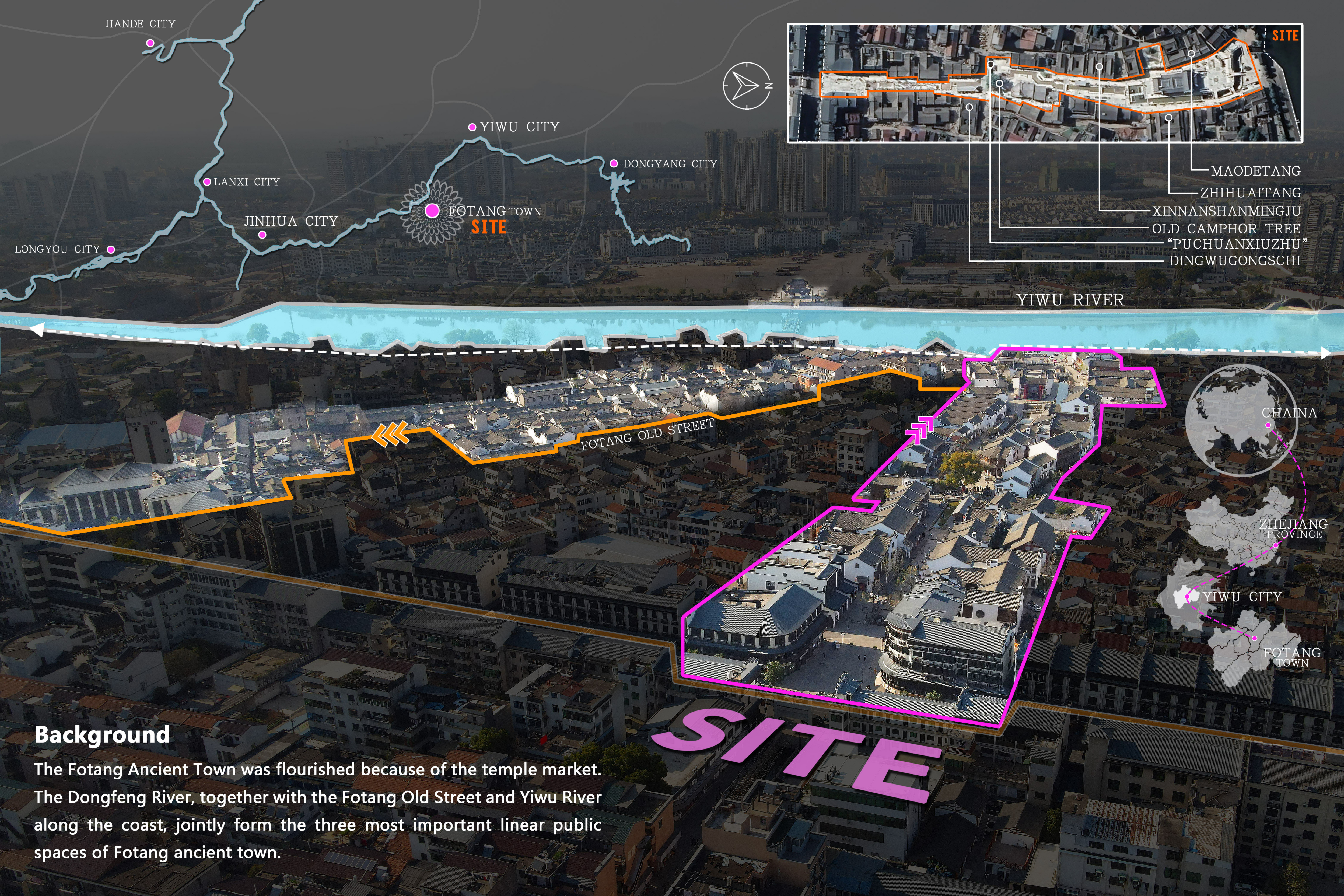
Green up the Ancient Town

To prevent a fragile ecological system in the ancient town, the design incorporates various local vegetation to enhance its ecological resilience and improve the water system. Besides preserving existing trees, the design team adds green space in four main ways:

1. Pocket parks: Two pocket parks are arranged along the 400-meter-long Water Street, one is the Shiji Central Square, which is planted with native trees such as sandalwood and magnolia, and the other is the Puchuan Bamboo Garden, which features ornamental bamboo arranged according to classical records, forming a small bamboo garden.
2. Aquatic plants: Aquatic plants such as lotus, reed, yellow iris, and water caltrop are planted along the river.
3. Outdoor plants: Other plants such as money tree grass, orchids, and azaleas are planted in the town's old stone troughs and mills.
4. Vertical greening: Climbing plants such as ivy and creeping fig are planted on building walls to increase three-dimensional greenery and soften building interfaces.

Social Impacts

The project's successful integration of the Dongfeng River with the everyday life of Futang Ancient Town has transformed the once-overlooked drainage canal into the vibrant Puchuan Water Street. The revitalization of the area has not only led to the growth of local culture, economy, infrastructure and public space, but has also created a sustainable water-town ecological system. Its novelty and uniqueness have made it a popular destination among residents and tourists during holidays and traditional festivals, with daily visitor counts reaching as high as 17,000 people. This has directly boosted the tourism economy of Futang town and increased the ancient town's publicity and appeal.



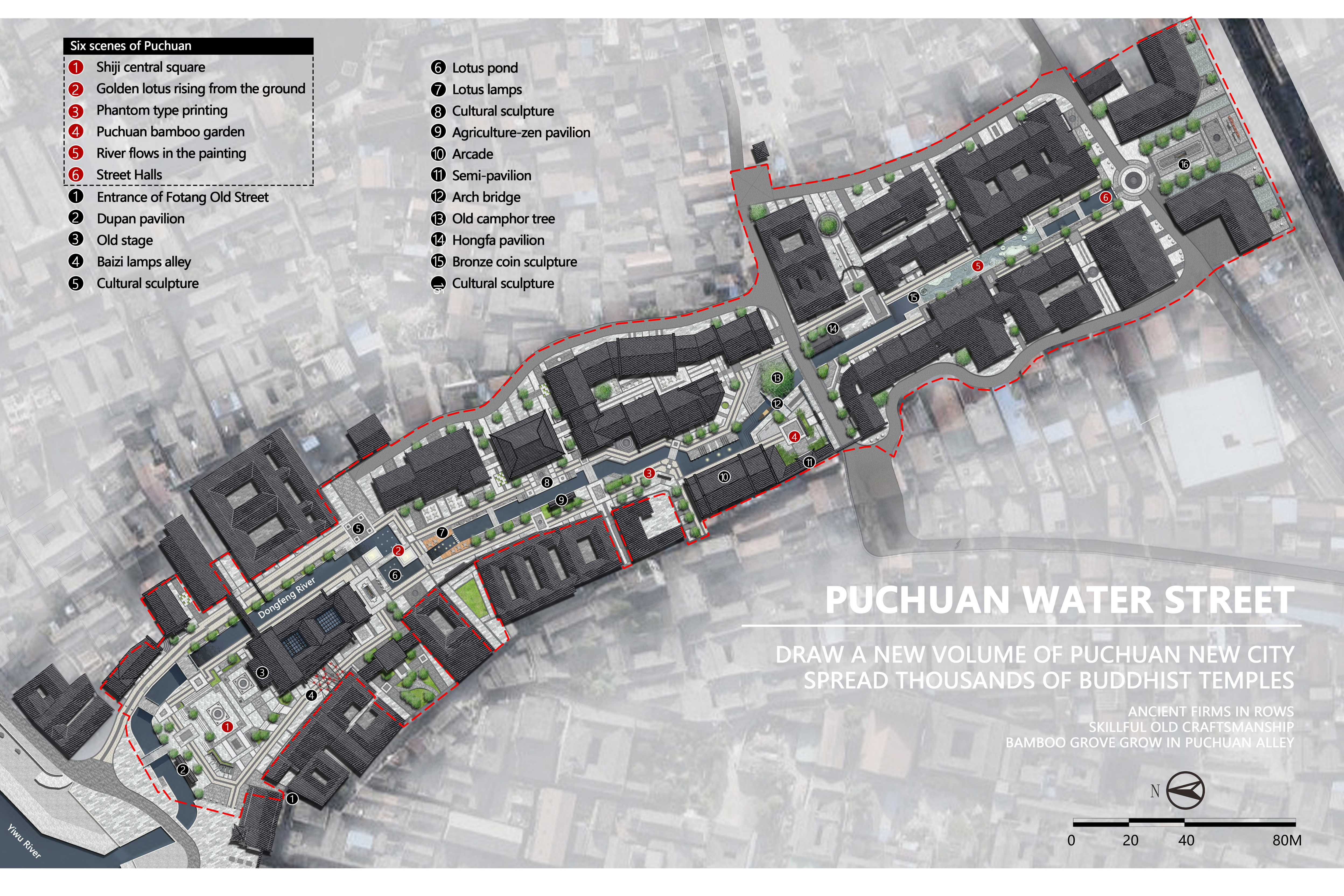
Background

The Fotang Ancient Town was flourished because of the temple market. The Dongfeng River, together with the Fotang Old Street and Yiwu River along the coast, jointly form the three most important linear public spaces of Fotang ancient town.

- Six scenes of Puchuan
- ① Shiji central square
 - ② Golden lotus rising from the ground
 - ③ Phantom type printing
 - ④ Puchuan bamboo garden
 - ⑤ River flows in the painting
 - ⑥ Street Halls

- ① Entrance of Fotang Old Street
- ② Dupan pavilion
- ③ Old stage
- ④ Baizi lamps alley
- ⑤ Cultural sculpture

- ⑥ Lotus pond
- ⑦ Lotus lamps
- ⑧ Cultural sculpture
- ⑨ Agriculture-zen pavilion
- ⑩ Arcade
- ⑪ Semi-pavilion
- ⑫ Arch bridge
- ⑬ Old camphor tree
- ⑭ Hongfa pavilion
- ⑮ Bronze coin sculpture
- ⑯ Cultural sculpture



PUCHUAN WATER STREET

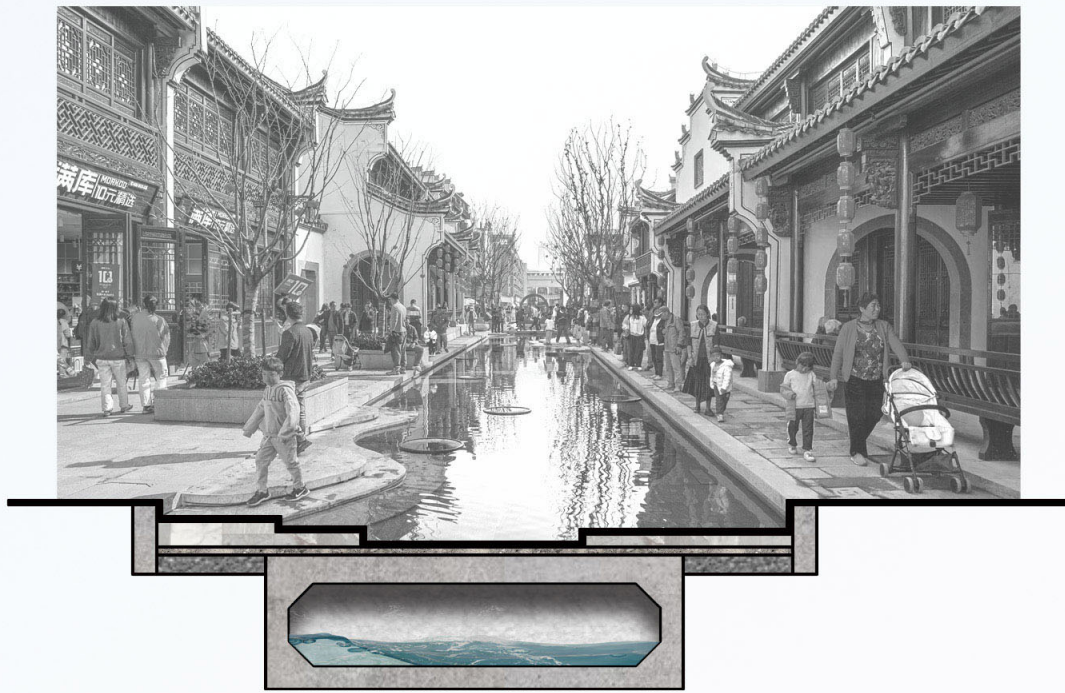
DRAW A NEW VOLUME OF PUCHUAN NEW CITY
SPREAD THOUSANDS OF BUDDHIST TEMPLES

ANCIENT FIRMS IN ROWS
SKILLFUL OLD CRAFTSMANSHIP
BAMBOO GROVE GROW IN PUCHUAN ALLEY

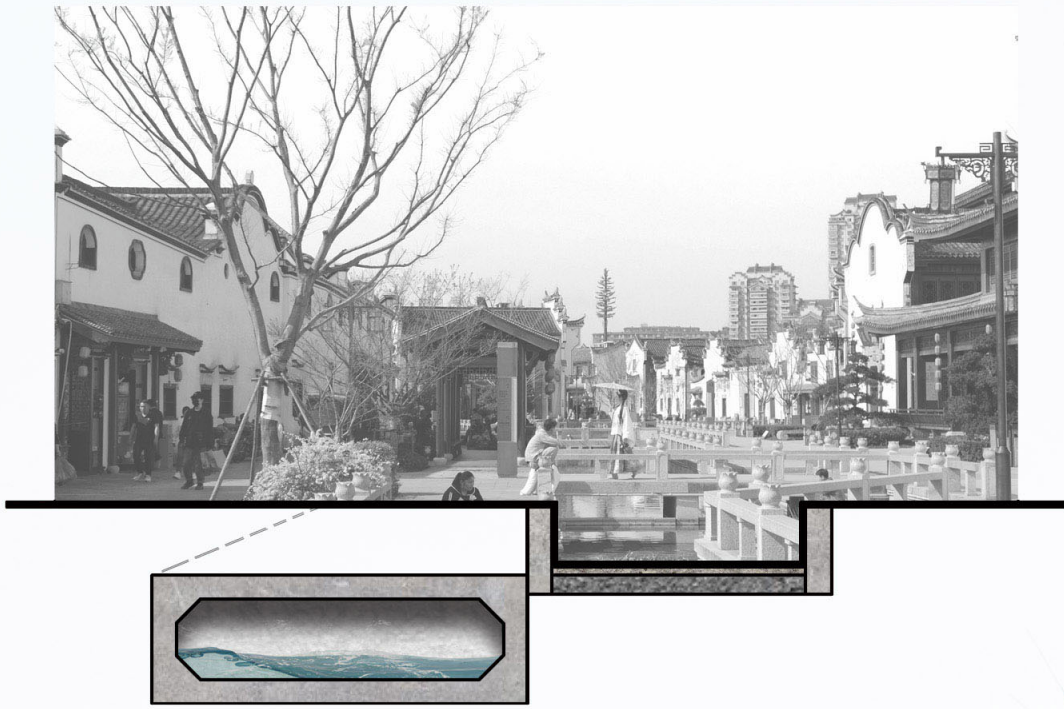


Dual-layer channel

The design adopts a double-layered three-dimensional waterway, where the upper-level landscape water system and the lower-level municipal waterway are structured in different relationships, creating a more flexible and dynamic water street.



Parallelism of upper and lower layers



Separation of upper and lower layers



Interlace of upper and lower layers



Historical buildings

The historical buildings on the site are only repaired and preserved to maintain their original characteres, and are revitalized for internal use as public spaces.



Stiching commercial to everyday landscape

The commercial areas have been integrated with the surrounding indoor and outdoor public spaces along the river landscape. Furthermore, the rejuvenation of local traditional handicrafts through local businesses has resulted in the creation of numerous job opportunities.



Cultural node: Golden lotus rising from the ground

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Cultural node: Puchuan bamboo garden

Based on the allusion of "Puchuan Xiuzhu (reeds and bamboo growing along a river)" an bamboo-themed pocket park is designed, which serves as a place for visitors to rest and relax, as well as a green playground for local residents.



Old camphor tree

The only large tree on the site has now become a center for community activities, where traditional prayers and blessings from the old times intersect with modern live performances and exhibitions.

Plant landscape construction

By various means, greenery is added to create a green ecological environment in the water town streets and alleys.





Inheritance and renewal

From the neglected drainage ditch to Puchuan Water Street, the lives of the local people and their culture have been fully respected and inherited, and integrated with tourism and public activities to drive the new growth of regional economy.

