Learning from the Locals: Design for Tai O Twin Bridges
What would local villagers do if they have to build a bridge for themselves?

Po Chue Tam Boat Bridge 寶珠潭船橋

Design Concept: One Bridge, Two Uses 設計概念: 一橋兩用

The proposed design seeks to respect the special history of the site and the tradition of daily worship in Tai O. Po Chue Tam is located at the southeastern tip of Tai O, where the river enters the sea. Surrounded by the Little Island on the east and the Tiger Hill on the west, it is a water passage from Tai O to the Pearl River Delta. Guarding this important passage is the Temple of Young Hua, which is built by the villagers to protect Tai O against the wind between the two hills.

Provide Temporary Connection During the Yeung Hau Festival 楊公侯寶誕期間 提供臨時橫水渡

The Temple of Young Hua is located in close proximity to the proposed bridge at Po Chue Tam. Aware of the importance of this temple to the locals, we propose to install a bridge that can serve dual functions on a normal day: the bridge serves its basic function to connect the two sides of the passage during the Yeung Hau Festival, part of the bridge will be transformed into a crossing boat, providing temporary connection from the temple to the opposite shore, where a bamboo boat house is built every year to celebrate the festival.

Respect the Water Culture of Tai O 融合大澳水鄉文化

Historically Tai O is a fishing village. Most of the villagers live close to the water. The use of boats, the boat in particular, is deeply embedded in the villagers' daily lives. The boat is the source of design inspiration for our Po Chue Tam Bridge.

消失的橫水渡

During the festival, a bamboo opera house, where opera is performed as a gesture of gratitude to the deity, will be constructed on the opposite shore to the Temple of Young Hua. The nature of the opera will be moved from the temple to the bamboo opera house, symbolizing the presence of the deity at the opera performance.
SUBFRAME JOIST
TRANSVERSE BEAM
GLULAM GIRDER
ELECTRICALLY OPERATED PULLEY SYSTEM
1100 1650 3000 CLEAR
PRESSURE-TREATED HARDWOOD DECK BOARD
1600 EMERGENCY VEHICLE

ELEVATION 1: 200
CROSS SECTION 1: 30

OPENING MECHANISM
Transforming the bridge to crossing boat (龍舟渡)
Design Concept: Life on the Stilted Deck  設計概念: 棚上生活

The proposed design seeks to respond to the architectural tradition of Tai O. The site offers a panoramic view of the stilted houses, the fishing ponds, the mangrove forest, and the mountains in the background. As such, the proposed bridge should be simple and subtle so that visitors to the site can enjoy the picturesque panorama. To match the environment, the proposed bridge consists of a number of stilted wooden decks similar to those built by the locals. Extending from the two sides of the river, these wooden decks are on mechanical sliding tracks and can be positioned to form a linking bridge.

Adopt a Humble Design to Fit the Environment  採用樸實設計

The design of the Yim Tin Bridge should respond to the strong characters of the stilted house. An elaborated bridge which blocks the view to the stilted houses is inappropriate to the site context and should be discouraged. In our proposal, we adopt a humble bridge design that goes harmony with the surrounding stilted houses. Whenever the locals need to link up two places, they build a stilted wooden desks as the passageway. This kind of stilted passageway spread all over Tai O. Our proposed bridge design seeks to follow this design tradition and language.

Respect Local Construction Tradition  保育大澳建築傳統

Tai O has a strong self-build tradition. Most of the stilted houses are constructed by the villagers themselves. Most stilted houses are attached to a wooden desk which serves as an extended living space for the villagers’ family. Oftentimes, the stilted decks of individual families are connected to form a continuous passageway.

Use Eco-Friendly Building Material  使用環保建材

Traditionally, local villagers prefer to use a special type of wood called kun dian for the construction of their stilted houses. Kun dian wood offers strong resistance to water and is an ideal building material for our bridge. The main structure of the bridge will be made of glulam beams and girders to offer bigger strength and longer spans. The finished glulam structure will be suitably coated with either a penetrating sealer or film-forming coating. The surfacing material of the bridge will be made of pressure-treated hardwood boards. It provides a durable surface able to withstand the weight of vehicles.

Yim Tin Sliding Bridge 鹽田活動棚橋

Tai O was once famous for the manufacturing of salt. The proposed bridge at Yim Tin is located at the original site of the old Tai Shan salt fields. In the past, a row of stilted houses were built on the embankment separating the salt fields and the river. Unfortunately, the stilted houses and the salt fields have been gone and they remain only in the memory of the Tai O people. In our public space design, we propose to construct a number of stilted wooden decks on the embankment which follows the old footprint of the demolished structures to retrieve the memory to the historic salt industry in Tai O.

Avoid Strong Visual Impact on the Site

Tai O is dominated by the stilted houses built over or on the edge of the river. Constructed by the villagers themselves, these stilted houses formed the unique character of Tai O. They are, and should continue to be, the main focus of the site. Most stilted houses are attached to a wooden desk which serves as an extended living space for the villagers’ family. Oftentimes, the stilted decks of individual families are connected to form a continuous passageway.

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Timber construction is undergoing a significant revival nowadays because the material is strong, durable, and renewable. The timber bridges of today offer the same standard of performance and technical lifespan as bridges made of steel and concrete.