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RETHINKING THE COLLECTIVE

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Students and local carpenters at the construction site in the *tulou* courtyard.
Project Details

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Title
Rethinking the Collective

Function
Community spaces in two *tulou*
public library, reading room and viewing platform

Location
Lantian Village, Longyan, Fujian Province, China

Client
Shizhong County Government

Project Completion
August 2019

Funding Body
The Hong Kong Jockey Club
Shizhong County Government
The Tower: viewing platform inside the *tulou*.
1 The *tulou* and the new urban context (Longyan, Fujian, China).
Summary of the Work and its Significance, Originality, and Rigor

This project addresses the activation of abandoned *tulou* in Fujian Province, by implementing new collective programs into the historic buildings.

*Tulou*, large introverted earthen buildings of the Hakka culture, emerged over a 1000 years ago. In southern China, in a fiercely combative culture, extended families built thick earthen walls for collective defence, while maintaining a shared open space for farming activities in the centre. Each family in the traditional *tulou* lived in a vertical section of rooms, accessed through a shared corridor and balcony. Thus, the building establishes a specific relationship
between a number of individual spaces and a collective space.

Over time, as more and more *tulou* dotted across the landscape, new relationships started to form between them. Although the *tulou* has emerged as a traditional form of collective housing in the rural, people began to introduce different functions: religious activities, marketplaces or schools.

As the *tulou* do not correspond with contemporary desires of dwelling anymore, more and more people have abandoned their traditional houses and built up the surrounding landscape with a dense clutter of concrete and brick structures. As a result, in this new urban context the *tulou* would often preserve the only available open space behind their protective walls.
However, not all have dismissed the *tulou*’s notion. Over a period of two years, the GRF Research Vernacular Toolbox has revealed the villagers surprising renovation strategies for traditional houses throughout China. We discovered that it was the residents themselves who made intelligent changes to their vernacular dwellings in order to accommodate new forms of living. Where the *tulou*’s confined perimeter makes it difficult to expand individual living spaces, residents have found radical ways to overcome these limitations: by plugging in a modern house from the outside of the *tulou* wall, or rebuilding the *tulou* section by section each with individual style and layout, but retaining the collective footprint.
Tulou transformations:
1 Family unit plugged in from the outside.
2 New structures and uses in the courtyard.
In addition to this underpinning research, *tulou* case studies in the region around Longyan were documented in cooperation with the local government. The documentation was done through site visits, architectural survey, photographs and interviews. Strategies for the implementation of public programs into these *tulou* were developed. In accordance with the local government and the villagers, two of these were selected to test two different prototypes. These two structures were built from June-August 2019: the Plug-in on the outside of a *tulou* and the Tower on the inner courtyard of another one.
The Tower:
1 Aerial shot.
2 Site plan.
The Plug-in:

1. Aerial shot.
2. Site plan.
Models of the *tulou* renovation strategies.
From top left to right: the Stairs, the Wall, the Corner, the Ground, the Tower, the Roof, the Entrance, the Bridge, the Window.
Responding to the changing relationships between individual and collective, rural and urban, a series of possible interventions are proposed that radically rethink the *tulou* through programmatic, structural and spatial transformations towards a new commons. This design-research addressed the following questions:

- Could these abandoned *tulou* become once again centres for a new form of collectivity?
- What does collectivity mean today?
- What does it mean to rethink a traditionally private building for public use?
- How to address a traditional structure while inserting a new program?
Model of the *tulou* plug-ins strategies.
To transform the old house for collective living into a new house for collective experience, different prototypes in relation to different *tulou* were designed: the Wall, the Ground, the Stairs, the Corner, the Tower, the Roof, the Entrance, the Bridge, the Window.

Each prototype refers to a specific part of a house and challenges the idea of the *tulou* experimenting in shape, proportions, openings, density and height.

Two of these strategies have been built: the Plug-in and the Tower.
Section of the Plug-in: on the left the toilet previously added by the dwellers; on the right the new public program plugged into the new reading room.
The Plug-in challenges the thick defensive wall traditionally characterized by small openings by turning the *tulou* inside out, opening it to the new surroundings.

This *tulou* has already been renovated by the local government into a children’s school. Individual transformations have
1 Plug-in exterior: open amphitheatre for activities in the exterior courtyard.
2 Plug-in interior: reading room.
taken place, such as the plug-in of toilets. The Plug-in prototype transforms a small window into a new entrance, introducing a public library to the existing school. The staircase plugs into the enlarged opening, inviting people to sit, read and rest in the shade, while also serving as an open amphitheatre for activities in the exterior courtyard. The Plug-in is entirely built of timber, comprising two main parts and five layers of structure that work together according to a specific hierarchy. An anchored outer frame is built with traditional circular columns and joints. It forms a scaffolding from which the funnel staircase hangs. This results in an enclosed box that frames the view of the landscape while sitting inside it or guides the eye towards the light while going out of the new reading room.
Section and plan of the Tower: the stairway space connects every floor creating a new public space inside and outside the **tulou**.
The Tower rethinks the public space of the *tulou* by raising up the traditional collective courtyard and connecting each floor through a spiral stairway to the sky.
1 Tower: view from the inside corridor.
2 Tower as a new public space for the villagers.
New public programs are introduced along the way. The changing rhythm of the steps encourages people to sit, read, or even drink tea inside the Tower. The bridges connect to the upper corridor of the *tulou*, which becomes a public reading room, whilst the top of the Tower becomes a place to contemplate the view. The materiality of the 500-year-old *tulou* corridor structure is reflected in the new 12-meter-high timber Tower. A continuous timber railing between old and new is connected by the spiral staircase that wraps around the central column. Each floor is connected by a series of bridges. The last step meets at the same height of the interior roof eave, forming a platform that offers a view of the horizon whilst still being inside the calm and sheltered courtyard of the *tulou*. 
Rigor

The project is an opportunity to integrate new public spaces into historic tulou buildings.

Key research and design methods include:

• Conduct research and field surveys to identify tulou transformations built by local builders. Tools for the field work include photography, interviews, plan and axonometric drawings of the houses.
• Compile a documentation of potential tulou for transformation in Longyan in architectural survey, photographs and interviews. Narrow the selection down to 10 case studies.
• Develop a series of 10 possible
strategies to implement public programs.

• Present the strategies to the local government and villagers. Collective decision-making on which ones to implement.

• Create multiple physical models exploring the relationship between the existing *tulou* and the inserted structures.

• Conduct meetings on a regular basis with the county government and local carpenters to discuss implementation.

• Create drawings and models to convey how a project can be built with limited resources.

• Hold a workshop with students to build two timber structures in a collaborative construction process with local carpenters.
Significance

The underpinning research includes a study period that spanned over two years and built on research undertaken by John Lin and Joshua Bolchover (Rural Urban Framework) for nearly a decade.

As the condition of the rural continues its rapid transformation, it becomes critical to understand the perdurance of the *tulou* in the context of adaptation and transformation that afford and sustain changes to come.

The Plug-in and Tower were built by students in collaboration with carpenters as part of the Jockey Club HKU Rural Urban Design Project. Students from The University of Hong Kong and The Hong Kong Design Institute engaged with both carpenters and local residents
1 Students on the construction site working together with local carpenters.

2 Meeting between students and local government.
1 Students engaging with villagers.

2 The whole construction team at the Tower.
to learn about both traditional timber craftsmanship and the challenges that villagers and their *tulou* face when confronted with urbanization.

Three months after construction, a revisit trip has already been done and interviews with the villagers showed a general satisfaction with the new public programs brought by the structures.

New forms of collectivity are not only expressed by the physical adaptations of the *tulou*, but reveal themselves in the collaborative effort of different people and institutions exchanging diverse forms of knowledge.
Dissemination and Evidence of Peer Review

In October 2019, an exhibition and workshop were held at PMQ venue as part of the Hong Kong Jockey Club Rural Urban Project. The exhibition demonstrated the impact design can have and that the process of building itself is a method to bring people together for collective action.

The project “Rethinking the Collective” has recently been shortlisted for the AR award “Old Into New” 2019.
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1 Installation view exhibition and workshop at PMQ venue, October 2019.
Appendix

Exhibitions:


Publications in mainstream media:

Goooood 集体生活的再思 - 福建土楼改造, 2019年10月28日 https://mp.weixin.qq.com/s/UYv-bEW8WfH0FD1b2RM-n0Q (Viewers: 14,200)

Books, journals, and references to the project written by others:


Awards:

2019 Shortlisted for the AR New into Old Award
Installation view exhibition and workshop at PMQ venue, October 2019.
1-3 The Tower
The Department of Architecture educates students in an active culture of service, scholarship and invention. Uniquely situated at the crossroads of China and global influence, the Department takes the approach that design is best explored from a sophisticated understanding of both. With a multidisciplinary curriculum emphasizing technology, history and culture, students gain broad knowledge and skills in the management of the environmental, social, and aesthetic challenges of contemporary architectural practice. With opportunities for design workshops, international exchanges, and study travel, graduates of the Department of Architecture are well prepared for contribution to both international and local communities of architects and designers.