URA

New Connections in Beiyang Township

Yuting Xie, Jie Zou & Yating Zhu

The landscape of Beiyang Town

From 30 September to 6 October 2021, a URA workshop took place at Urban-Rural Living Lab 1: Beiyang Township Area. The workshop was organised by URA Working Package 4 (Urban-Rural Landscapes and Spatial Typologies), led by Dr. Xie Yuting from Zhejiang University. The workshop was attended by the URA team in a hybrid format, with a team from Zhejiang University on-site in Huangyan District, Taizhou City, Zhejaing Province, and the URA team in Germany participating online. During the one-week workshop, three groups exchanged their research and finding. These three groups include Group A, which focused on the inclusive spaces of modern farms in Beiyang town, Group B, which explored sustainable development models for modern agriculture, and Group C, which worked on water-sensitive rural development within territorial planning.

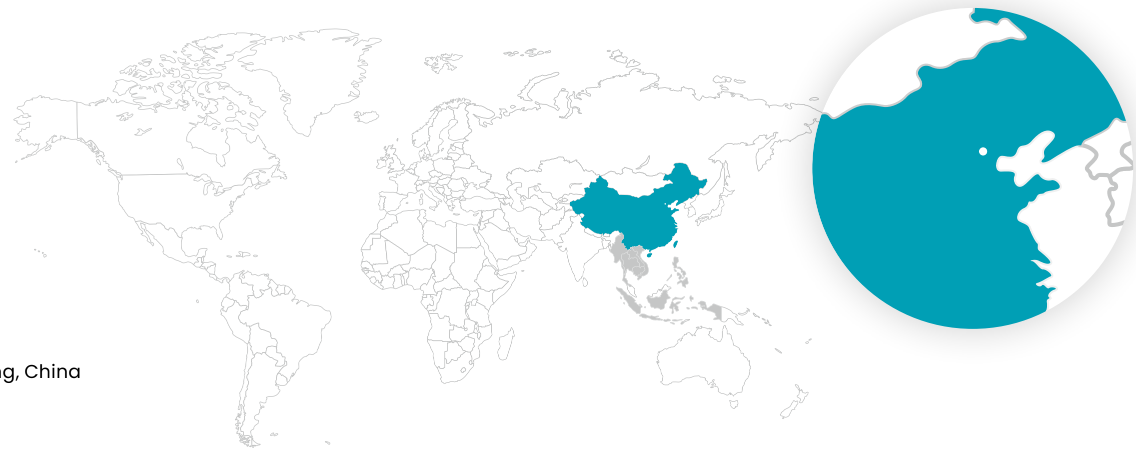
2021 年 9 月 30 日至 10 月 6 日，城乡共构项目组在 "城乡生活实验室 1：北洋镇区 "举办了一 次工作坊。此次研讨会由城乡共构项目组第四小组（城乡景观与空间类型）组织，由浙江大学谢雨婷博士领衔。城乡共构项目组团队以线上线下的形式参加了此次工作坊，其中浙江大学团队在浙江省台州市黄岩区现场参与，城乡共构项目组德国团队在线参加。在一周的工作坊期间，三个小组交流了各自的研究和发现。这三个小组包括关注北洋镇现代农场包容性空间的 A 组、探索现代农业可持续发展模式的 B 组和在国土空间规划中研究水敏感型农村发展的 C 组。

As part of the R&D (Research and Development) phase of the URA (Urban-Rural Assembly) project, consortium partners are exploring the possibilities of URLLs (Urban-Rural Living Labs) in China. The URLL model presents a series of regional community-driven pilot interventions which explore the possibilities of actor-oriented, participatory socio-spatial transformation scenarios with regards to circular economies, cultural heritage, renewable resources and food security. To strengthen ecological-oriented collaborations, Urban-Rural Living Lab #1 ‘Beiyang Township Area’ focuses on enhancing sustainable nutrient and waste cycles to support ecological food production and inclusive eco-tourism. Its aim is to build site-specific implementation strategies, and research the potential of developments that invite rural communities to participate in the integration of agriculture transformation processes.

WP (Work Package) 4 of URA project focuses on

Urban-Rural Landscapes and Spatial Typologies, with the cooperation of parallel and interdisciplinary contextual research performed by other Working Packages (WP2-6). Coordinated by WP4, an open call for participation was launched which invited students from across China to join URA for an interdisciplinary workshop in Beiyang Township, Huangyan-Taizhou. The 11 students who were chosen to participate came from a wide variety of professional backgrounds, and joined URA WP4 for seven days of collaborative research from 30th September to 6th October 2021, with scholars from URA's Sino-German partners providing theoretical and technical support through online lecturs.

The workshop was scheduled for seven days. On Day 1 the workshop was kicked off through group discussions and a first glance of the site. On Day 2 and Day 3 the group undertook questionnaire survey, household interview, and field survey. On Day 4 the team members presented their preliminary findings online. Day 5 and Day 6 were for further field survey and research. On Day 7 the final presentation took place online. During the workshop, experts and scholars from Sino-German consortium partners provided theoretical and technical support for interdisciplinary research through online lectures.



Beiyang, China

Figure 2: Workshop participants in Beiyang Town

German consortium members participated in the workshop through online sessions. On 30.09 Dr. Maria Frölich-Kulik gave a lecture on “Urban Rural Landscape & Typologies – reading and revealing the rurban landscape of Huangyan-Taizhou Region”. On the following day 01.10.2021 Dr. Karl Beelen talked on “Exemploratory Mapping, Narratives & Approaches: Urban Rural Landscape & Typologies – reading and revealing the rurban landscape of Huangyan- Taizhou Region”, followed by Beatrice Chng from ICLEI Southeast Asia, who spoke about “The policy interfaces and the integrative momentum propelling urban-rural governance”. The workshop participants were divided into three groups (Group A, B, C) according to three topics of research aimed at decoding spatial typologies and scenario development.

Group A: Research on Inclusive Space of Modern Farms in Beiyang Town

Group A focused on the spaces of modern farms in Beiyang town with the cooperation of WP2 (Urban-Rural Socio-spatial Practices) and WP6 (Urban-Rural Mobilities and Social Inclusion).

Group A summarized four interdependent modes between villagers and modern agriculture, including the cooperation of abandoned family farms, farms run by villagers, farms run by businessmen, and integrated farms of agriculture and tourism. Based on villagers' daily-life map tracking and space syntax analysis, qualitative and quantitative analysis methods are used to discover inclusive space mainly concentrated in modern agriculture.

Through comparative interviews, case studies, and quantitative analysis of location-based services (LBS) and space syntax, inclusive space in modern agriculture mainly concentrated on the river, canteen, and village Bridges. The findings from field surveys coincide with high flow areas from space syntax analysis, but not all high accessibility spaces are densely active.

Group B: Exploring the Sustainable Development Model of Modern Agriculture

Group B explored sustainable development models of modern agriculture in collaboration with WP3 (Urban-Rural Material Cycles).

Through questionnaire survey and household interview, Group B investigated the differences in landscape, material circulation, industrial composition, income, and stakeholders of the four major local farms and made recommendations for sustainability development. The results show that:

1. a healthy, independent, and ecological self-circulation system should be formed in farm development;
2. the soilless cultivation should not be encouraged where the land conditions are superior;
3. a flexible buffer represented by plant boundaries and canals instead of fencing can reduce agricultural pollution and increase biodiversity and landscape effects; and
4. the government and large enterprises can influence modern agricultural development, and the attitude of the stakeholders often changes with demands.

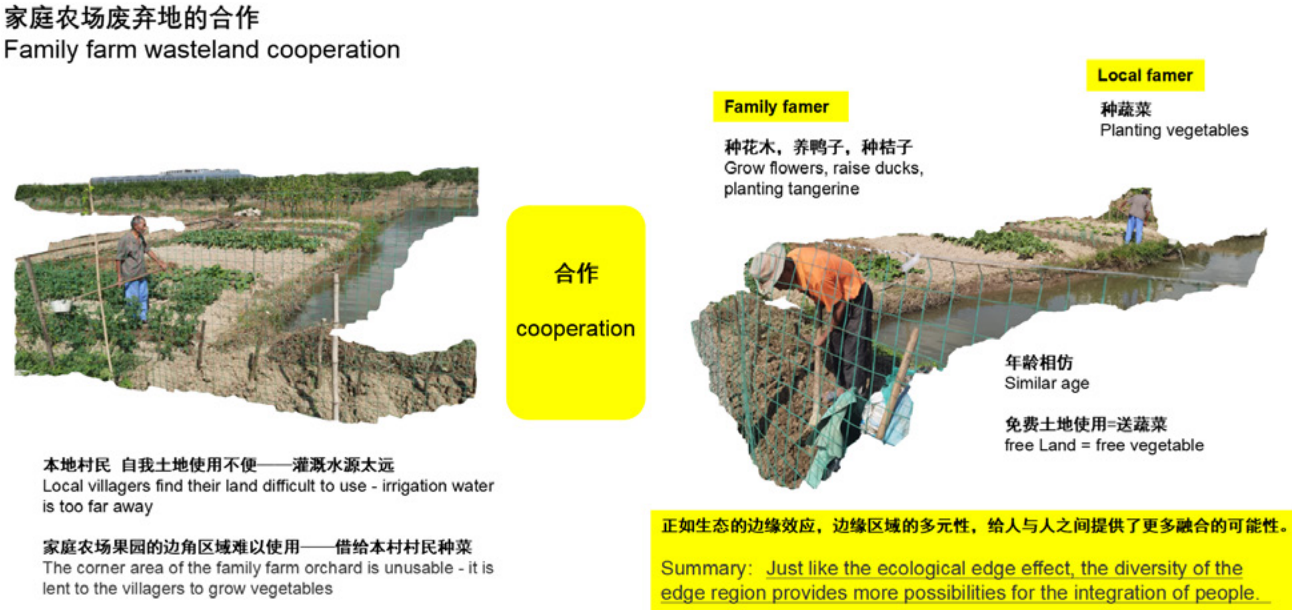


Figure 3: Research outcomes on inclusive space of modern farms in Beiyang town

Group C: Water-Sensitive Rural Development under Territorial Planning

Group C looked into water-sensitive rural developments with the cooperation of WP5 (Urban-Rural Ecosystems).

Through field survey and mapping, Group C drew out the spatial distribution of the major water systems, sorted out the categories of water ecosystem services, and discovered a spatial mismatch between the supply and demand. Water ecosystem services are provided by water systems, including reservoirs, rivers, ponds, and ditches. The reservoir mainly provides water supply and regulation services. However, the low frequency of water discharge leads to the decline of the water level of Yongning River, and the cutting of irrigation water in the upstream area leads to the abandonment of ditches. There is a spatial mismatch between the supply and demand of water ecosystem services, mainly reflected in the contradiction in water supply services in upstream and downstream areas and the imbalance that other types of services caused. Strategies for improving water ecosystem services include control of agricultural non-point source pollution, ecological restoration of rivers and ditches, and coordinating stakeholders to improve reservoir operation and management mode.

Figure 4 (top): Site visit of the workshop participants
Figure 5 (bottom): Group discussion of the workshop participants