Reflection

Track Landscape Architecture
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This file represented a reflection of the graduation project "Retrofitting Panyu- Adapting green-blue infrastructure to sustain waterlogging and regenerate Panyu by industrial transformation" on the relationship to Flowscapes Studio, through the process, on the outcome, on the social significance of landscape architecture.

Reflecting on the relationship to Flowscapes Studio

This research project belongs to the graduation lab- Adaptive landscape transformation (Pearl River Delta), and the lab focuses on the existing opportunities, challenges, and adaptive transformation methods in the Pearl River Delta region.

The Pearl River Delta region is an area that has developed rapidly over the past 40 years. The development here includes the increase in the size of land reclaimed from land and the economic changes in GDP growth. Today, "Pearl River Delta" is not just a concept of geographic location, but also an overall cooperating economic zone. There are many problems in the Pearl River Delta region, including water security, industrial transformation, urban villages, ecological environment, and so on. And these problems are not existing independently, they can all be regarded as the legacy of urban development, or urban planning and design. For example, in order to obtain urban expansion land, some original water bodies, forests, and agricultural land have become construction land, and the reduction of green land and water bodies has brought pressure on urban water storage and drainage, which indirectly caused waterlogging problems. In order to develop the economy through industrialization, factor ies of various types and sizes were built, but nowadays, many factories have been eliminated because of low output value or inferior industrial types. These empty and abandoned factories have become unsightly, worthless, and unattractive elements in the city.

The studio responded to urban issues such as urban waterlogging, industrial transformation, and urban villages, and proposed projects to build green-blue structure, reuse old industrial areas, and renovate urban villages. The purpose of this studio is to find the landscape approach that can solve the existing problems of the city and adapt to the urban development. The studio hopes that the ultimate goal is to create a better environment for the society through different forms of flow in the landscape, thereby reflecting the value of the landscape in environmental protection and social development.

Reflecting through the process

Stage1. Data analysis and site visit
The initial data collection was difficult, and the lack of mappings and data needed to be overcome. After the preliminary data analysis, the whole group conducted a field survey of Guangzhou and Foshan in December 2019. The site visit made clear that the metropole not only faces water challenges but also with rapid urban transformation.

Based on the above information, waterlogging was selected as the main research object, and industrial transformation may provide some opportunities for problem-solving.

Stage 2. Summarizing and refine the design principle - "Landscape as infrastructure" approach and Green-Blue structure

After comprehensive consideration, the establishment of a new Green-Blue structure based on the theoretical basis of "landscape as infrastructure" was taken as the main design direction. The project hopes to add water bodies and green spaces to form a new connected Green-Blue network that is conducive to urban drainage. At the same time, providing local residents with public green space to improve their living quality.

Stage 3. Applying design strategies in planning and design - Reclamation of left over "buffer" spaces and industrial areas to sustain the metropole

In the process of establishing the new framework, possibilities for abandoned factories are discovered. Because many small factories are close to residential areas and urban roads, and urban roads are the main places where have waterlogging problem. They can become an important part of the new Green-Blue structure. After that, each site itself is designed with its unique functions. These functions can give new meaning to abandoned factories and spaces according to their own problems and needs.

Because each component can combine its own problems and requirements, this new structure is adaptable and flexible. At the same time, this method does not directly limit the development of the city, but explores the possibility of problem areas, and the Green-Blue structure itself can generate value, such as reducing the need for urban grey infrastructure. The public green and blue spaces can bring vitality to the surrounding area.

Reflecting on the outcome

The multi-scale green-blue structural design reflects the above advantages. For the large-scale Green-Blue structural design, the structure must be large enough and well connected to play a role in helping drainage and storage. Neighborhood scale design can be seen as the connection between the macro scale and the micro scale, which can more clearly express the unclear water flow direction and drainage facilities on the macro scale. Miniature design sites are the scale for people to feel the spatial quality. These selected locations not only solved their own problems and paid attention to the needs of the local people around them, but also formed a complete blue-green structure.

Of course, the design of the blue-green frame is somewhat idealized. To truly realize this structure, the project needs the support of local government policies and the cooperation and understanding of local people. But it is a meaningful attempt and a solution that can be considered. For governance, it is important to acquire the Green-Blue structure in a growing metropolitan area. The structure is not the only way to solve the problem, but it is more sustainable and flexible. Green spaces add value to surrounding communities. Because the entire Pearl River Delta region has similar geographical characteristics and similar development models, many cities are facing similar problems, such as industrial transformation and urban waterlogging. If this method proves to be effective and can be implemented, then for the entire region, this is a new possibility that can be widely used.

Reflecting on the social significance of landscape architecture

Landscape architecture not only helps the water strategy but also becomes a 'human' strategy.

From the wildfires in Australia, the locust plague in Africa to the COVID-19 that swept the world, it was difficult by the beginning of 2020, which reminds people that the development of many regions was initially at the expense of the environment. Since the beginning of the Industrial Revolution, every country in the world has gone through a similar process. The vigorous development of industry quickly realized the blowout of economic, cultural and technological development. Next, they must face the pollution problems caused by industrial and urban expansion before they begin to address pollution and protect the environment. The problem people face today is actually paying for past actions. When mankind seeks its own development space only from the perspective of utilitarianism, they should also consider respecting the infinite value of the environment and the environment itself.

After all, human development must depend on environmental resources and space, but the environment does not require humans. Therefore, protecting and respecting the environment is also beneficial to mankind, especially after people have to face serious environmental problems, they should seriously carry out various actions to affect the environment. Landscape architects are happy to address these environmental issues from a landscape perspective in a sustainable and adaptable perspective. For example, landscape architects will be involved in projects that rehabilitate contaminated areas, rainwater management, soil and water purification, and nature reserve design. All of these can contribute to environmental protection and sustainable development.