Reflection

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This research includes three parts: 'Dutch experience', 'Chinese application' and 'Reflection'. The Dutch experience chapter starts from the relevant theories study. By sorting out the classic theories, such as 'node & place', 'butterfly model', 'network layers', etc, the general analysis method of this specific problem could be clarified. The concept of connectivity could be defined as four aspects: network operation, economic performance, environmental quality and urban identity, according to the Dutch experience Then taking Rotterdam Central Station as an example to test the feasibility of these analyzing methods, I compared the theoretical result with the actual design plans. Afterward, the Dutch Railway Station area redevelopment projects were collected for understanding how the Dutch deal with the side effects of the train station areas within city centers. It is worth noting that in the second half period of the thesis, I changed the research question from how to reduce the barrier effect of the railway station area to how to use this area as a tool to organize the fragmented urban setting together, for not only solving the existing negative Impacts but also benefiting future development? (Fig.1)
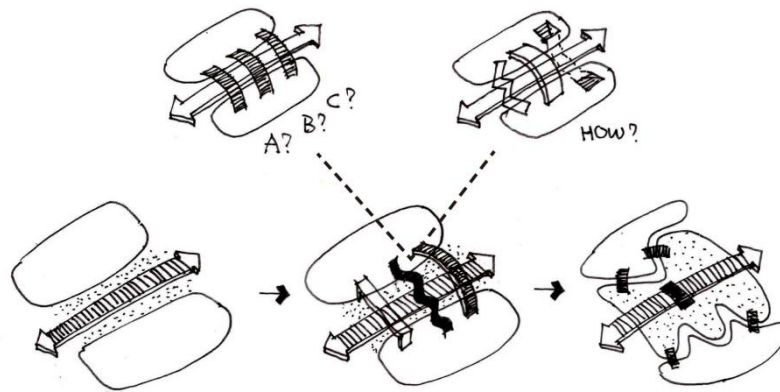

Fig.1 the shift of research questions

As for the application in China, Shanghai station area was selected as the study case. The analysis of the Shanghai railway station starts from the overall situation. First, it discusses which potential areas should be prioritized in terms of traffic operation, economic structure, environmental quality and urban identity. After discovering those precise locations, specific design can be used to correct, improve or upgrade them. These designs are not only for the current issues, but also present proposals in light of the vision for the future. In the integration of these four aspects, two pilot areas are standing out, showing more values for the overall public. This section emphasizes the value of combining the various components as an integrated system.

As for the feasibility of the Dutch experience for China, different from P2, the P4 period paid less attention to achieve a rigorous theoretic structured discussion, instead, emphasized my personal understanding of different design approaches, values behind designs, and the possible difficulties of implementation.

1. Summary of design framework

Reviewing the entire design process, even though the starting points and the tactics are totally varied, most designs still share the same logic in terms of thinking structure.

1.1 Finding potentials from the big picture, instead of only focusing on current issues.

Start with a big picture could help me to assess the priority and emergency issues for a city. Some current problems may be softened by themselves as time goes by, but some even worse. Only staring the current issues without considering for possible future may consume a lot of useless efforts without achieving a lasting effect, due to the changing trends. So a wise way to do it might be considering the big picture first. Two birds with one stone. Along the process of getting prepared for future trends, the current problems are solved as well. Right now, after almost one year's research, I see more potentials rather than negative sides when I look at the satellite map of Shanghai railway station area. Also from this point of view, I realized the value of scenario and vision. By creating a vision for Shanghai railway station area based on the master plan of Shanghai (2016-2035), a clear strategic framework could be made, which helps me much to organize small-scale and detailed designs.

In addition, the big picture helps me to do decisions since diverse results which based on the different perspectives confused me sometimes. For example, some certain road could be proved that it is able to contribute to the spatial connectivity most from the space syntax analysis. But it has poor performance when I use economic value to assess it. So if it is a real project, it has more possibilities to fail since people have less willing to walk along a street with lots of vehicles and few shops, even though it is a spatial shortcut.

From spatial, economic, environmental and network aspect, different valuable areas are selected. Without doubts, those areas which overlapped each other should have the priority, and the rest should be sequenced according to the city's aim. Like Shanghai Master Plan, the document shows the local government has more willing to reduce the vehicle usage and improves the walkability in the city center. Considering this intention, those narrow and fine-grid streets with less vehicle capacity are deserved more attention.

1.2 Space-making

Space is the material basis for design. After discovering the valuable locations, extra development space must be discovered both from city scale and street scale.

One of the most important tools I learned in TUD is mapping by layers. It helps me to be able to clarify the complex logic of urban formation and also the complex phenomenon of space use. Then combined with the further scenarios, I am allowed to predict the possible future. For instance, by overlapping the current economically developed areas and metro stations, a strong relationship could be discovered. On the other hand, those undeveloped metro nodes have more financial values than the others. Plus the low building quality map, some possible areas are selected. The final decision of whether to invest these areas is, of course, depending on a commercial behavior, but my theoretical research can at least offer the options which are worth to be considered, since those selected areas meet the general patterns of development and also

might benefit more groups.

As for the street scale, my research mainly employed street section adjustment to create extra space. By tracing lots of street sections, I found most streets can be summarized into the combination with three components: passage corridor, building front space, and facility belt. With these three types, all kinds of complaints on the street can be explained. So playing with those three elements, like adjusting the proportion and order of them, could act as a tool to do the design on street level.

1.3 Adding values to create urban quality

After space-making, it is still not a quality place yet. So except the spatial factor, other added values must be put under considerations in order to maximize the overall benefits.

One example from the chapter about transforming the surrounding neighborhood and opening gated community to reduce the barrier effect of the station area. I intend to demolish all the enclosing walls of residential blocks, but I also know this is too ambitious, so my design suggests first open those neighborhoods blocking the routes leading to metro stations. We can change the dull and monotonous atmosphere along residential functions, and also can improve the network operation in the regional scale. After those pilot areas, we can give further interventions according to the users' reactions. This proposal stems from network operation analysis, but ends at the neighborhood transformation action. This reminds me the value of mix things up. After we clarify a complex issue into different portions and give corresponding designs, it is also necessary and important to combine them together again.

1.4 Feasibility assessment based on financial cost and the difficulty of implementation

Concerning one research question, one year long continuous thinking leads me to realize that many designs should not be a binary opposition, either achieved or abandoned. Taking into account the reality, economic costs and difficulty of implementation, we, as designers, should not think of compromises first, but must identify which values cannot be changed even facing the resistance. In fact, we can gradually achieve an ambition by setting priorities and phases. Identifying which locations need to be implemented first can bring greater benefits and serve as a showcase. For example, one of my visions is to open the railway fence to form a readable railway image. This proposal obviously has more social significance, but the design should not just stop here. First I consider the reasons for its existence: due to the huge population, using fences to limit people's behavior and possible crimes is the simplest measure to ensure the security of the railway region in China. However, for this basic requirement, we were forced to abandon other added values. So I started to think about which part of enclosing wall should be and could be removed first, on the premise of guaranteeing safety. I discovered the railway museum which next to the railroad tracks. It could serve as a window to visually open the railway area to the public. At least the brick wall can be changed into a transparent material, and even platforms, cafes and so on can be elevated standing out of the boundary, in order to test the public's reactions to this opened-up border.

2. Look back and look ahead

2.1 The difficulty of implementation

First, the overall urban design is necessary. The existence of a master plan already could help developers to perceive economic benefits and lower risks. So the local government plays a significant role, who largely defines the overall urban structure of the area and the functional programs. However, when looking back at the entire study, I also recognized the bottom-up value of Dutch design. Only if every individual project is able to absorb the expected or unexpected changes, and they are all under a common framework, many ambitions can be realized gradually like this. At the same time, the long time period of Dutch design and project discussions ensure that as many aspects as possible are considered and as many voices as possible are heard. In the case of China, the design cycle of a large-scale project may be only one year or even less. But once completed, it will affect the periphery for a long time whether successful or not. Therefore, the bottom-up design method has shown more value to China. I look forward to a vision, which top-down and bottom-up, can meet at the midpoint. At least, I should work and think in this way.

2.2 Research limitation

The conclusion of the Dutch experience is from a personal perspective and very subjective. A lot of values might be different due to the change of cultural environment. Personal acceptance does not represent the social environment is ready. So learning from Dutch design methods is more help to shape my personal design approach.

In addition, due to the limitations of the data collection, only a few relevant design plans for Shanghai Railway Station have been found. So this research lacks horizontal comparison, and also didn't show in the report.

2.3 Other gains

In addition, some other skills have also been trained.
-How to tell a good Story? A logic framework could avoid your audients lost in the middle, but some sparkling elements could amuse them and keep them maintain high interest.
-The richness of diagrams and drawing techniques are not only for beauty, but also represent the diverse angles of analyzing, which can expand my own thinking and also contribute to putting my concept much clearer.

2.4 Next step

In the P5 phase, the report will be simplified into a few specific proposals, and is expected to be sent back to Chinese designers and officers. By their possible feedbacks, the feasibility and the possible inadequacies of my design could be further discussed.