

FROM SEGREGATION TO INTEGRATION

Planning and Designing for the Enhancement of Socio-spatial and Ecological Integration in Haizhu District, China

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June 18, 2020

REFLECTION

The graduation thesis tries to give insights for the understanding of socio-spatial segregation and decreasing green and blue spaces due to the rapid urbanization process in Haizhu district. And a comprehensive social ecological network as the solution is proposed in order to improve the socio-spatial integration and reconnect the fragmented ecological spaces. This thesis is divided into chapters to show what is the existing conditions of these mentioned problems and based on which, the principles and strategies related to the issues are put forwarded. The outcomings of the thesis are including the main principles – using corridor as connector and node as interactive space and related strategies on different scales. The reflection will be organized in 5 parts: reflection of the process, reflection of the objective, reflection of the thesis in different context, reflection of further potential results, and ethical issues and dilemmas.

REFLECTION OF THE PROCESS

The relationship between research and design

The project focuses on the socio-spatial segregation and ecological fragmentation in Haizhu district in China. Because of the complexity of the city systems, it is important to understand the existing context of what aspects or elements contribute to these problems. In the understanding chapter, the framework of the research is made up of three layers, settlement, transport and landscape, where the three characters of the network are created for building up a new comprehensive socio-ecological structure. Besides, elements featured in the principles are defined and explored by the research in the layers, which make the whole research and design process more coherent. What's more, the theory of socio-spatial integration and the concept of creative destruction of neighborhoods are contributing to the further design strategies and interventions. For example, the overall development with the balance public facilities is concerned on regional scale, while the interconnection between communities by corridors and nodes is created on local scale. The spatial transformation through small-scale intervention is implemented in the detailed neighborhood design based on the theory of creative destruction of neighborhoods. The role of design offers a solution to address the issues from a spatial perspective, giving possibilities on dealing with this socio-ecological problem.

Therefore, the relationship between research and design is quite interrelated in the whole process. And it is strongly being aware that research should become a tool and provide basic information to support and realize the design.

Research method and approach

By answering the sub questions proposed, the research method and approaches can be reflected.

SBQ1&2: What are the existing conditions of socio-spatial segregation and what are the factors contributing to segregation? What are the existing conditions of ecological fragmentation at different scales?

In the settlement layer, comparative analysis and mapping help identify the characteristics of different residential typology. Field trip including interview and observation combining with mapping contribute to understand the spatial uses in different communities and provide information for the further spatial strategies and general intervention on local scale. Lessons can be learned that different spatial patterns lead to various spatial uses in communities which becomes a factor leading to segregation. In the landscape layer, historical analysis and mapping discover the decreasing ecological value in Haizhu, which forms the problem field of the project. Results have shown that urbanization and human activities have negative influences on ecological development resulting in the uneven distribution of ecological space.

SBQ3: How to create the socio-ecological network based on the current conditions and resources?

The three characters compositing the socio-ecological network are based on the layer approach from the understanding part, which are interconnected with each other. In addition, three main strategies related to the characters offer possible solutions to create a comprehensive and sustainable socio-ecological network.

SBQ4&5: What principles and strategies can be put forwarded to improve the socio-spatial integration and reconnect the fragmented green and blue spaces on different scales? How can these principles be implemented in a specific complex area with social and ecological problems?

The question is answered by the application of two main principles – corridor as connector and node as interactive space. The results include improving the characteristic of elements identifying from the understanding part as corridors and nodes and defining new hubs as node such as activity hub. The implementation of the principles in a specific site is elaborated to explain how the interventions can be beneficial to improve the socio-ecological integration. Lessons can be learned that corridors and nodes have different representation on different scales.

The limitation of the project

Since the location of the project is a very dense urban area, it is very necessary to analyze for understanding and design in different scales which is a big struggle part of the whole process. It is very difficult to access to the information and data in the local scale than regional scale because of the complicated construction situation of urban village. What's more, the accessibility to certain area in urban village is also quite limited.

From another aspect, as "boundary" is a key element contributing to socio-spatial segregation, besides of physical boundaries (e.g. wall, road), spatial isolation between communities is also existed with different characteristics at both local and neighborhood scale. Besides, there is a hidden barrier inside everybody's mind based on their identity, income, education which is difficult to be discovered. Therefore, the design proposal encourages interaction between social groups but still has certain limitation for breaking this invisible barrier.

REFLECTION OF THE OBJECTIVE

Objective: Create an integrated and comprehensive socio-ecological network in terms of corridor and node at multiple scales that can improve the socio-spatial integration and reconnect the fragmented green and blue spaces for Haizhu district.

First, in the understanding chapter, the existing condition of the context from both social and ecological perspective is learned with regard to the different types of settlements and uneven ecological distribution and fragmentation between east and west part of Haizhu. Meanwhile, features from these three layers contribute to the formation of principles of corridor and node, such as greenway, ecological parks, commercial street and diverse spatial uses.

Secondly, in the applying chapter, the socio-ecological network is represented on regional scale in three layers related to the understanding chapter including new ecological structure, new transport system and new public facility structure with applying the principles of using corridor as connector and node as interactive space. Besides, the principles and strategies are also concerning about the social and ecological value related back to the problem field proposed before.

Last but not least, in the exploring chapter, the framework of the socio-ecological network is applied on local scale with specific elaboration based on the principles above. For example, greenway system, tram system, and water system as corridor have different representation on local scale. Also, by exploring different experience routes as corridors, three hubs defined in the site can be more integrated. Furthermore, demonstration on neighborhood and buildings scale helps to explain the interventions in corridors and nodes that facilitate the integration and reconnection under the network. For example, improving and activating the main road and negative spaces in the urban village and introducing more community and pocket parks support to build a more vital and livable neighborhood.

REFLECTION OF THE THESIS IN DIFFERENT CONTEXT

Due to the rapid urbanization in China, the problem of socio-spatial segregation and ecological fragmentation are two of the main planning issues affecting the future sustainable development in fast-developing cities. The knowledge from the understanding chapter of settlement classification and spatial distribution can be one of the applications for other regions, such as Shanghai, Xian where there is conflict between urban village and modern community. The framework of the research of using the layer approach could be an effective tool to have a better understanding of the complex context. Furthermore, principles from the project have the flexibility to be applied to other regions, because of the similarity of existing potential elements. However, there are still limitations and shortcomings in the application of methods. Although the thesis puts forward these principles and strategies that can be beneficial of creating a positive network to the district even to the city, the actual implementation by the government on the planning would have many difficulties concerning about the social acceptance, financing, etc.

REFLECTION OF FURTHER POTENTIAL RESULTS

The proposed socio-ecological network and principles try to improve the socio-spatial integration and reconnection of ecological spaces at different scales. The planning on regional scale and design exploring in local scale, in this case, are beneficial to realize this objective. However, because of the time limitation, there are some potential results where the project can research in the future. First, in the exploring chapter, the site with the conflict between urban village and modern community was chosen, but other areas with segregation problem between traditional community and modern community can be further explored. From this perspective, the principles and strategies should be alternative and flexible in different contexts offering a positive solution to increase the social as well as ecological value. The other one is the application of the

principles on a larger scale such as Guangzhou. The exploration of the development of corridor and node would be an opportunity to form a new structure of Guangzhou city.

RELATIONSHIP WITH LANDSCAPE AND STUDIO TOPIC

This graduation project is a part of the Adaptive Landscape Transformation Studio. We firstly discussed about the different landscape approaches to improve this complicated social-dominated issue, such as landscape as infrastructure, recreation of the green and blue network, combination of urban development with landscape. Based on the framework of three layers, principles and strategies related to the existing condition are applied to the content with various dynamics. Furthermore, in order to accomplish the goal of adaptivity, the project also considers the integration of green and blue network that can act as a backbone for the overall transformation of public space with facing the uncertain future with climate change or population growth.

ETHICAL ISSUES AND DILEMMAS

The main ethical dilemma of the project is its feasibility of the recreation of this new structure for the territory. As for the design intervention, due to the condition that more than 150,000 immigrants live in the urban village in the site, the certain demolition of the urban village would affect these residents. Due to the fact that most of the immigrants come to Guangzhou for physical professions and therefore they earn a just acceptable salary. It is hard for them to move to a much better residential area with correspondingly high rental. Moreover, it is the tradition that they would be frugal to save money for their family and hence it is hard to persuade them to move, not to mention some protests could be incurred. Thus, the creation of open community should accommodate all these immigrants providing them with inclusive spaces from a practical perspective. The other issue of realizing the project is the fast-changing government's regulation and policy. Nowadays, the government still intends to demolish the urban village and build modern community instead of preserving and improving it. In the future, I hope that by participating in this process, new methods and strategies could come up for a better development instead of demolition.