REFLECTION

**Societal relevance**

This barrier line is 84km, existing inside Shenzhen City, breaking many flows. The city loses some fundamental infrastructure and severely hinders urban development. My research on the urban gap area can provide a nature-based framework for future development. It provides the society with a more sustainable environment containing three dimensions of sustainability: environmental, social and economic.

More valuable things in my research are:

(1) Start from the regional landscape level, forming a robust framework, also leave room for the recreation, agriculture and urbanization

(2) Provide landscape solution strategy and principles for the chaotic environment in the urban gap area.

(3) The value of the border is no longer the neglected area, but a new flow to create new benefits for society.

The significance of this research has both general and specific character. The particularity is that because of policy reasons, such site around the world are not very common, but it provides crucial suggestions and directions for the further development in Shenzhen. At the same time, the reflections of this area can give the reference for the area like Shenzhen-Hong Kong border, USA - Mexico border. The general thing is that boundary region development is a relatively common problem. Around the world, some design guidelines for improving capacity for regional development can be applied to other general boundaries.
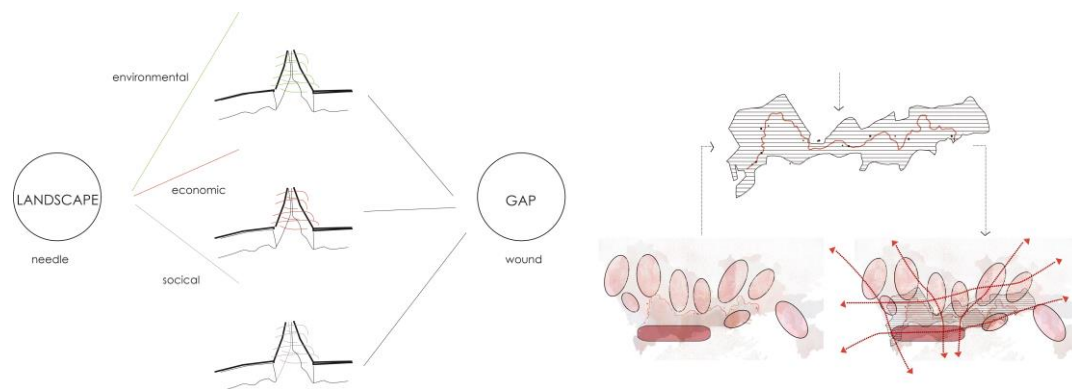
Reflection about Research Methodology

(1) The choice of research scale

At the beginning of the research, in fact, it spent me quite long time to consider research scale. After all, Shenzhen is a super-large-scale city, and the barrier line is 84km. Also, this line will go through many different environments. Which scale is the most suitable for research become the

toughest phase in my research

I understood very early that the question is not just a barrier line but a regional problem. It was an essential cause resulting in a fragmented system and structure between urban and natural area.

Regarding choosing the selected scale, I attempted many times. In the beginning, I tried to discuss the whole 84km. However, after comparison, I found that on such a large scale, the environment facing such complexity will require a lot of The data support. Also, not every area of this barrier line go through have similar priority to be changed, so I found this scale is better to be the context of the research study. It makes sense for indicating the direction for understanding the line.

Then I changed the research method. In my second attempt, I tried to take the checkpoint who repeatedly appear on this line as a breakthrough for research scale. I hope to classify it by checkpoints' location, like in the rural area, urban fringe and downtown area. However, this scale also has limitations, because it overemphasizes the importance of transportation infrastructure. However, transportation is just a superficial problem brought by barrier line. It still lacks deeper considerations for the entire city and natural systems.
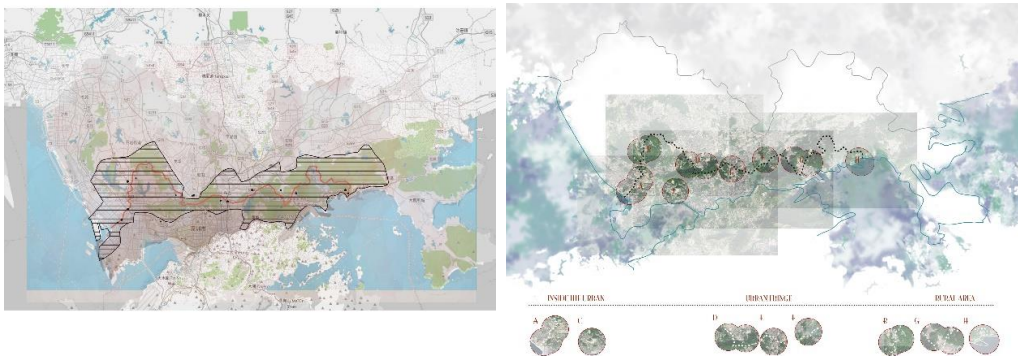

So in the end, I decomposed and overlapped maps, drawing the conclusion that the line pass through ecologically sensitive areas and urban areas. At the same time, through the supplement of background knowledge and field research, I found that along barrier lines, the most severe challenges and the most complicated issue I face is in the urban gap area. However, these urban gap areas have similarities regardless of their formation causes or the problem issue they bring.

The landscape is viewed as a scale-continuum. (Steffen Nijhuis, 2013), so the regional structure has a powerful correlation with the small-scale design. They will influence each other, so although I choose

an urban gap area as my last research scale, I will analyses on different scales for helping me
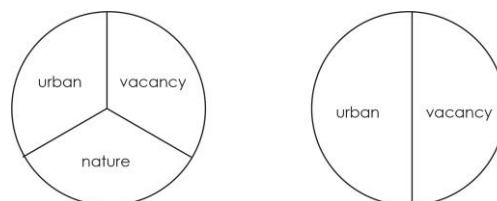
understand the site. Analysis with multi-scale will lead to the whole process of thinking not being linear but back and forth.
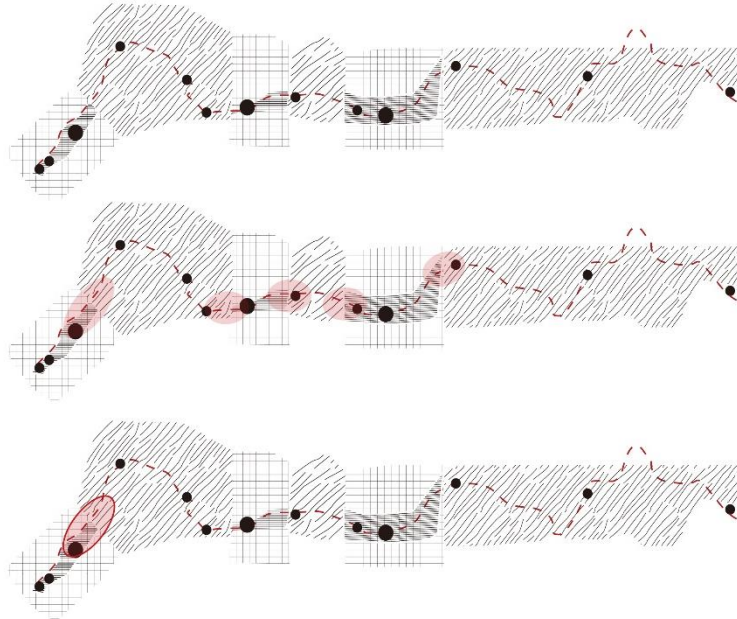
At the same time, in the design phase, the strategies proposed in the regional design also need to have the ability to guide small-scale design.

2) Apply framework model into Shenzhen

'casco-approach' (sijmons, 1992) is the evolution of the 'Dutch layer approach', essential to this approach is the frameworks and ecological structure as the backbone of the natural system. But this regional landscape framework has certain limitations, to some extent. It is ideally based on nature-based landscape as an infrastructure to improve the site. Also, the design method is also natural-oriented. However, this may be more suitable for the border areas （like intersection area between cities or countries), because these places are vital for ecological protection, and is relatively weak in economics, social demand.

For the second line in Shenzhen, it has its particularity. Part of the barrier line enters the urban area even downtown area. So the region needs to be transformed urgently to adapt to the sustainable development of the city. For the rare lands meets large population and facing rapid growth, in fact, the capital intervention will be more intense and powerful. Only the environmental protection or ecological maximization, in fact, is tough in operation. Although I regard nature-based as principles during the research and design, I also think about other principles related to social and economic, which, is also the reason why I always consider housing extension and spend time thinking about how can food combine with other industries, how to use landscape to brings

population, economic growth, and even the industry transformation.

So the landscape is not only the infrastructure to guide structure and framework,   but also can become the catalyst to active and influence the local culture and economic development.

3) Shortages of collecting data

a. In fact, there are tremendous obstacles for collecting data. I have to admit China is far less transparent in sharing information than in European countries. Sometimes, I have to depend on the photographs I took from the site to collect information I need. Especially historical maps, it is difficult to find geographical data before 1978, so this is the regret to help me understand the site. The design is based almost on the understanding of the status quo and lacks the reflection about the landscape as the cultural representation

b. Besides, there is not enough data for people's needs. Although in the site investigation, some local people were interviewed to share their complaints or expectations about the current situation, the number of interviews are not enough for persuasion. In the beginning, some methods, such as distributing a certain amount of questionnaires should be used to collect suggestions from local people, to enhance the interaction between designers and local people.   But on the other hand, my design can regard as a kind of designer's vision, inspire local people and government to think about the transformation of the site in the future and provide the nature-based design strategies and principles for this line and surrounding region.