



Chapter 4 Hypothesis and the state of art

In the early 21st century, the study of cultural landscape in a regional dimension has achieved many new breakthroughs, such as revaluing the natural and cultural corridor in a river valley, many cases are from Europe and the United States. These examples are aimed at searching for approaches to protecting the environment also to improve the quality of life, as well as promote local development by resources of natural and cultural heritages. The cultural landscape is a geographical concept that could describe the process of transforming the physical environment by human effort. More often, the subject is the unknown people who are changing the natural land into a suitable human habitat. Cultural landscape could record the collective memory that people how to work on the land and what they have produced and transformed on the land. The Grand Canal is a significant collective memory that the people has changed natural river and construct tamed waterways, created important functions for their survive, also to enjoy the life on the colourful land.

In a contemporary theory of value, the cultural landscape has rich social and economic value, it is

a process of producing surplus value, which results to improve productivity. Due to the obvious trace of human physical and mental labour on the cultural landscape, the physical environment is moving and transforming with human labour to produce a true value of civilization, in artistic creations, scientific accomplishment, etc.

If the values of the cultural landscape could be discussed more simple and clear, we say that the Grand Canal is a great accomplishment which is made by human effort in the physical environment. So there are two principles could conclude here to understand the value of Grand Canal:

- one is the fact that the Grand Canal is the physical environment, its **value is the nature of water and land**. As the geographical condition, the value of Grand Canal could trace to its source, to discover what natural conditions were necessary to construct the waterways, and canals, which natural elements could give their values to built a large scale waterway of Grand Canal, such as rivers and streams, the delta and valley of river, lakes, wetland, spring, even the vegetation cover and soil conditions. Generally, these natural elements widely have coherent system to built the north to the south waterway in thousand kilometres. Therefore, if consider Yellow River as a dividing line, Grand Canal has been separated into two main sections, one

is the north section in Hai River basin (or Old Yellow River Delta), and the other is south section in the Huai River basin, they are two unique geographical conditions, have many thousands square kilometres most important fertile land to raise different customs of ancient Chinese people, also breed many particular Chinese cultures. When the study began to know easily why the waterway would be north-south going, the logical reason is that this waterway is a corridor for exchanging commodity and culture. The Grand Canal could not be such large scale in the eastern China, if there is not enough value of the land, no more great values in its physical environment.

- **the other value is that human physical and mental effort** add to the artificial river, this kind of value is of the human being, their intelligence and hard labour to create the canal. This value also is adding in different periods with advanced and developing technologies of irrigation work, hydrological knowledge, construction and its materials, shipping capacity of the boat, also the administrative ability by a governor. So that we could see one part old section of Grand Canal is used for water distribution project, begin from Yangzhou water conservancy project one thousand kilometres waterway to transfer the freshwater to those cities, where it support to solve the problem of water shortage in cities of Hai River Basin. In contrast, people must develop their ecological technology

to protect their living environment along the big hydraulic pipeline, as a result, the Blue Waterline Project is considered by Environment Protection Department. In addition to existence needs, people exploit the nature of water and waterway, they have created abundant beautiful waterscapes on the land. On one hand, they are in large scale, certain famous urban patterns with mountain and water scenery, like the West Lake in Hangzhou, a best case to understand how city developing with its natural environment, which it has been an urban pattern spread to 36 traditional cities in China⁴⁴. On the other hand, the water is an artistic element in Chinese garden making, the traditional royal or private gardens, it not only show us a lovely waterscape from imitation of nature, nature of water has been integrated into Chinese philosophy, especially used in Taoism to guide the human behaviour and ideology⁴⁵. These physical and mental labour from human has changed the natural elements, meanwhile gave them the new value.

Instead of more discussion on what are the value's contents, I just study how much spatial units could be formed by these values, the **hypothesis is given as below:**

⁴⁴ Lu Yi Tian (1801-1865), he recorded a poem in *Leng Lu Za Shi*, that there were thirty six so called West Lakes in cities, which the best was from Hangzhou.

⁴⁵ Laozi (571 BC - 531 BC), *Tao Te Ching*, Vol 8.

- China Grand Canal should be a large-scale human engineering, a transportation project in thousands kilometres distance. Now it's still to be considered as a living system of multi-model water corridors to play an important role in the state, despite it has dried up in the northern part and its capacity of transportation is replaced by modern land traffic.

- China Grand Canal could achieve a new value which helps create growth point in regional development because the original waterway has continuously integrate with regional infrastructure, such as agriculture, manufacture, transportation, public administration and heritage protection, etc. Grand Canal also could be one part of a regional infrastructure.

- Grand Canal has its water network to weave urban and rural area, it has provided a direct intervention scale for local urban structure. Social activities have positively intervened in the water network, to develop public space on waterscape, such as the urban river, artificial lakes, springs and fountains, gardens. Many cities of canal have typical historical urban area combined with the water network.

The state of art, I expected to give a clear frame to measure the different scales of the cultural

landscape in China Grand Canal, then discuss their values. The cultural landscape is a criterion used to revalue waterway in Grand Canal. Cultural landscape maybe provides us three parallel-developing frames to study artificial land work, the efforts are from national power in a state, collective will in a region, and local cooperation. Such as the canal, dyke system, water distribute line, they all have own social value.

Furthermore, the scales of Grand Canal is a processing truly recorded by its cultural landscape in different periods, when people has transformed the land, both profitable or harmful work, however, people have to learn more from nature and discovering sustainable development for habitat environment.