Research Paper

A Study on the Approach of Sustainable Development on Traditional Cultural Landscapes Surrounding Metropolitan Shanghai

Ding SHI, Department of Cultural Heritage and Museology, Fudan University; China
Dianhong ZHAO, Shanghai Tongji Urban Planning & Design Institute CO.,LTD; China

This work was supported by Youth program of
Shanghai Planning Office of Philosophy and Social Science (2016ECK002)

Abstract

At present, the area of urban built-up areas in Shanghai has been effectively controlled, and the once neglected rural landscape has attracted much attention. This study focuses on the methodology of effectively utilizing cultural landscape resources and promoting further harmonious development of urban-rural relations in Shanghai. As a category of cultural heritage, cultural landscape is an indispensable resource for urban development. During the process of urban and rural planning, local cultural landscapes need to be regarded as the driving source of urban development. For a long time, Shanghai, as an international metropolis, has laid particular emphasis on historical relics in the built-up areas of the city. However, since the cultural landscape resources surrounding the built-up areas have been neglected, the image of Shanghai lacks an echo with nature and the countryside. This study examines features of cultural landscapes in Shanghai and puts forward several issues in the conservation and sustainable development of cultural landscape resources, so as to provide the basis for heritage protection, urban and rural planning and tourism planning in Shanghai in the future.

Keywords

cultural landscape, metropolitan Shanghai, conservation, sustainable development, Methodology

1. Shanghai: The Paris of the East?

Shanghai used to be the largest metropolis in the East. It was regarded as the Paris of the East, the city of opportunities and the paradise for adventurers. On mentioning the urban image of Shanghai, what would you think of? The answers may vary. The 20th century Shanghai is usually marked with European-style historical buildings left during the Concession Era, shikumen-style residences or large areas of industrial heritage when the banks of the Huangpu River and the Suzhou River underwent a period of industrialization.

Meanwhile, the 21st century Shanghai may consist of groups of skyscrapers, an advanced underground system, complex highways, and a futuristic new urban area built after the 2010 Shanghai Expo. It can be concluded that Shanghai is an Asian metropolis with a large scale, a complex urban structure, cultural diversity, and an active economy. It is also a complex of urban heritage left during particular historical periods. Therefore, it is hard to summarize in one sentence the value system which Shanghai represents.

What impresses people most is in fact the large number of buildings and the historical neighbourhood, brought by the art of architecture and urban and rural planning as well as a tremendous amount of capital investment during the development of Shanghai. From a chronological perspective, the most impressive urban image of Shanghai is largely related to the urban history after Shanghai became a foreign treaty port in 1843. Therefore, the origin of Shanghai's urban culture has become a bewildering question. Has Western commercialism contributed to the prosperity of Shanghai in recent history? Is Shanghai the Paris of the East?

---

2. Where is “the rural Shanghai”?

The image of urban Shanghai is regarded as the representative of contemporary Shanghai because it is characteristic and highly-recognizable. However, Shanghai is not made solely from various building groups. Apart from highly concentrated built-up areas, Shanghai owns extensive rural areas. With traditional Chinese gardens scattering in the city, natural landscapes account for a large proportion of urban areas. Shanghai is not a city without history. Before it became a foreign treaty port, it was not a fishing village, but a county. Therefore, the history of Shanghai started before 1840.

The choice of the location of a city and its construction should take natural and geographical features into consideration. Shanghai is located on the west coast of the Pacific Ocean and on the east of the Asian continent. It is a part of the alluvial plain of the Yangtze River Delta. With an average elevation of 4 meters, the majority of Shanghai is situated on a flat terrain except for several hills and mountains in the south-western region (with the highest altitude of 103.4 meters). Approximately 6000 years ago, the present west part of Shanghai already became a land. The present eastern region has also become a land for 2000 years. According to statistics published at the end of 2017, Shanghai enjoys 6340.5 square kilometers of land area, accounting for 0.06% of the total land area of China (SMPG 2019).

The following part is contributed to a brief history of Shanghai. In the Spring and Autumn Period and the Warring States Period, Shanghai was named as “shen” (申) as it belonged to Huang Xie, Lord Chunshen (春申君) of the Kingdom of Chu. In the Jin Dynasty (4th -5th century), the inhabitants who lived on fishing made a bamboo fishing tool named “hu” (扈). Since the estuary was called “du” (渚), the lower reaches of the Song River was first named as “hu du” (扈渚). Later, the character “hu” (扈) was replaced by “hu” (沪), the present abbreviation of Shanghai. In the tenth year of the Tianbao Years of the Tang Dynasty (751 AD), Shanghai belonged to Huating County (the present Songjiang District). In the second year of the Chunhua Years of the Northern Song Dynasty (991 AD), as the upper reaches of the Song River gradually became shallower, the coastline moved eastward, which caused inconvenience for large ships entering and leaving the harbour. As a result, non-local ships could only dock at Shanghaipu (the present Huangpu River from the Bund to Shiliupu), a

branch of the Song River. In the third year of Xianchun Years of the Southern Song Dynasty (1267 AD), a town was established on the west coast of Shanghai, named “Shanghai Town”. In the 29th year of the Zhiyuan Years of the Yuan Dynasty (1292 AD), the central government ruled out Shanghai Town from Huating County and established Shanghai County, which marked the beginning of Shanghai as a city. In the middle of Ming Dynasty (the 16th century), Shanghai became the national center of cotton, textile and handicraft industry. In the 24th year of the Kangxi Years of the Qing Dynasty (1685 AD), the Qing government established the customs in Shanghai. In the middle of the 19th century, Shanghai became a prosperous business port. After the founding of the People’s Republic of China in 1949, Shanghai underwent tremendous economic and social transformation. In particular, it has deepened reform and opening up since 1987. Since the beginning of the 21st century, Shanghai has striven to create an international center of economy, finance, trade, shipping, and technological innovation (SMPG 2019, ESEC 2010).

Due to the massive migration into the city and a rapid increase in floating population from other regions, the total population of Shanghai has been gradually accumulating. The population was under 100 thousand when Shanghai became a foreign treaty port. By the end of 1949, the household registration population was 5.2 million. By the end of 2017, the permanent residential population was 24.1833 million, with 9.7268 million permanent living migrants from other cities and 14.4565 million permanent household registration residents. By the end of 2017, Shanghai had 16 districts, 107 towns, 2 villages, 4253 resident’s committees and 1590 villager’s committees (SMPG 2019).

The above statistics demonstrate that Shanghai enjoys distinctive natural environments and a long history of human interaction with nature. Shanghai is in fact surrounded by large areas of villages, towns and rural areas, which witnessed human activities before the city became a foreign treaty port. If Shanghai is compared to a painting, these rural areas are its color base. Therefore, a study of the more extensive natural environment and a longer history of Shanghai needs to take into consideration of these “color bases”, which can be termed as “the rural Shanghai”.

How to display the key elements of the rural Shanghai? From the perspective of landscape heritage conservation and urban and rural planning, the idea of cultural landscape needs to be introduced.

---

3. How to understand the cultural landscape of Shanghai?

“Cultural landscape” is a concept from cultural geography and a type of world heritage. It can also be viewed as a holistic methodology for heritage conservation (Han 2010). For urban and rural planners, whether they can comprehensively understand the idea of cultural landscape is significant to the future realization of the sustainable development of natural resources and culture.

3.1. The concept of cultural landscape

The founder of cultural geography, Carl Ortwin Sauer (1889-1975), proposes the concept of “cultural landscape” in his 1925 paper “The Morphology of Landscape”, which has exerted a profound influence on later studies of landscape. According to Sauer’s definition, cultural landscape is “fashioned from a natural landscape by a culture group”, among which “culture is the agent, the natural area is the medium, the cultural landscape the result” (Sauer 1925).

In 1992, cultural landscape was listed as a category of world heritage. According to *The Operational Guidelines for the Implementation of the World Heritage Convention*, cultural landscape belongs to the category of cultural heritage and it represents “combined works of nature and of man”. In addition, cultural landscape is further classified into three sub-categories: landscape designed and created intentionally by man, organically evolved landscape (relict or fossil landscape, continuing landscape), and associative cultural landscape (UNESCO 2017).

The purpose of creating these sub-categories is to promote deeper understanding of various ways of human interaction with nature and to look for cultural landscape heritage sites with “outstanding universal value” worldwide. In China, classic examples of cultural landscape include the following world heritage sites: Hani Terrance of Yunnan province, the West Lake of Hangzhou, a city of Zhejiang province, and Huashan rock painting of Guangxi province (UNESCO 2019).

Some cultural landscapes gather attention worldwide because they are selected as world heritage sites. However, this does not mean that only cultural landscapes with special value need conservation. Since the selection of world heritage is choosing the best from the good, some ordinary cultural landscapes are destined to remain off the list, which should not diminish their value. On the contrary, these ordinary cultural landscapes are closely connected with people’s daily life. In urban Shanghai, what are the characteristics of cultural landscapes?

3.2. Cultural landscape as a platform for interaction between human and nature

To examine cultural landscapes of Shanghai as a platform for interaction between human and nature, the focus should switch from architecture heritage to a more extensive area with a consideration of diverse natural features.

Types and features

To examine cultural landscapes in urban Shanghai as “combined works of nature and of man”, there are several types of classic cultural landscapes: gardens and green spaces (including traditional-style gardens and modern public gardens, which are highly-integrated works of nature and humanity), riverside landscapes (especially referring to the combination of waterways, ships, trees on both sides of the bank, bridges, architecture heritage closely related to shipping, and industrial heritage), rural areas (including villages, large areas of fields, and crisscrossed canals), and water towns (business and handicraft industry towns emerged around the intersection of water and land for convenient transportation during ancient times).

In terms of spatial features, the above types of cultural landscapes are closely related to the water system. Most of them can be interconnected through the spiderweb of the water system, which forms an interconnected web when viewed from a flat space. Meanwhile, as waterways extend linearly, landscapes along the bank form a particular sequence. For instance, the Suzhou River, one of the main water systems of Shanghai, originates from the Taihu water system to the west of Shanghai. It travels across villages in Suzhou and rural areas in Shanghai and enters the central area of Shanghai through water towns. It connects several urban public gardens, industrial heritage sites and architecture heritage areas when

it flows under numerous bridges with various shapes and designs. Finally, it joins the Huangpu River around the north of the Bund. From west to east, the wider Huangpu River connects a number of traditional and modern areas, including villages, rural-urban fringes, industrial heritage groups, harbors and ports, historical building clusters in the Bund, business circle in Lujiazui and urban parks, before it finally joins the Yangtze River northward. Therefore, the main waterways in Shanghai have broken their barriers and have respectively connected landscapes emerged from different eras together, which helps to form a way of understanding the geographical features, history and value of Shanghai (XI 2019).

Value

The value of cultural landscapes is rather obvious for Shanghai. To begin with, cultural landscapes contain ecological value. From an ecological perspective, in central Shanghai, public gardens and green spaces along both sides of river banks have made tremendous contribution to biological diversity in the urban area. From the perspective of cultural ecology, those areas provide citizens with spaces for communication, leisure and entertainment, which are important to the mental health of urban residents.

Secondly, cultural landscapes can bring economic value. Since the ancient times, rural areas around urban Shanghai have provided the city with agricultural goods, handicraft goods, industrial raw materials, labour forces and intellectual resources. Rural areas have also been the market for industrial products from urban Shanghai. The urban and rural areas have basically maintained a healthy relationship, complementary to and interacting with each other.

The next is historical and cultural value. Like the large number of architecture heritage sites and industrial heritage sites, cultural landscapes also witness the history of Shanghai. A number of Ming-style and Qing-style gardens locate in urban areas of Shanghai and its surrounding water towns. Shanghai also has the first public urban garden in China. Water towns surrounding the urban area has enjoyed numerous famous figures and literature talents.

It is those clearly-ordered, spiderweb-like waterways and water systems that bring ecological, economic, historical and cultural value together. Most of the water systems are not naturally formed, but are dependent on the canal system of natural main river channels, such as the Suzhou River (old name: Wusong River) and the Huangpu River. They reflect how residents of Shanghai have effectively utilized water resources through their interaction with natural environments during hundreds and thousands of years. Their wisdom can be found in various kinds of water-related activities, such as flood discharging, shipping, irrigation, farming, and planting. This giant water web not only creates a connection between the agricultural, industrial and commercial society during the same era, but also forms a tie between the past and the present (Hartog 2019).

3.3. Challenges and opportunities

However, it is a pity that Shanghai did not fully utilize and promote the value of cultural landscapes during the process of urbanization and industrialization in the past. As an international metropolis, Shanghai has been attracting domestic and foreign capital. Consequently, the land prices of Shanghai have remained high, which has popularized investment in commercial real estate properties. Although capital-led urban development can boost modernization of basic infrastructure, it does not reserve large areas of ecological,

cultural and historical spaces, which, from a profit-oriented perspective, is not worthwhile. Therefore, lack of large areas of high-quality waterfront green spaces and outdoor spaces for sports and leisure becomes an obstacle in promoting the living environment of urban Shanghai. On the other hand, from the perspective of urban and rural relationship, the development of urban Shanghai is based on incorporating its surrounding rural areas. Rapid urbanization and industrialization forces the surrounding rural fields to transform into living areas and industrial areas. Therefore, lands in the countryside also become targets for capital investment. Thus, the ecological and cultural value of the countryside are devalued or neglected.

The values of a city can determine its destiny. Shanghai has begun its introspection and transformation. In 2018, Shanghai Master Plan (2017-2035) was officially published. Till 2035, Shanghai aims to become an excellent global city, a desirable innovation city, a humanistic city, an eco-city, and a modern socialist international metropolis with world influence. Based on the requirement on “Negative Growth” of total land planned for construction, the total area shall be controlled within 3,200 square kilometers. Shanghai shall prioritize ecological requirements, making them the bottom line and the red line for urban development. It shall also strengthen the urban ecological basis and increase the area of ecological lands. Specifically, urban and rural planning shall guard four bottom lines, including ecological conservation red line, permanent prime cropland conservation red line, urban development boundary and cultural protection control line (Tu 2019, Meyer 2019). Therefore, the Plan is a great opportunity for the understanding and conservation of cultural landscapes in urban Shanghai as well as sustainable development.

---

4. Conservation and Sustainable Development: planning for balance

How should areas with highly-concentrated cultural landscapes be planned if large projects of demolition and construction are not available in Shanghai? In terms of natural elements, compared with built-up urban areas, rural areas around the city have a higher possibility to be re-planned. The following sections will illustrate several ways for cultural landscape conservation and sustainable development.

4.1. The water system: rebirth and revival

During the process of urbanization, Shanghai used to depend on the shipping function of water systems, but neglect their ecological functions. Since the establishment of modern road traffic system, the shipping function of waterways has been abandoned, except for main waterways. Consequently, a number of water systems were filled. It is necessary to rediscover the possible ecological functions of the remaining waterways and irrigation water systems that extend to villages, towns and rural fields. Waterways that have been filled can be unfilled. For existent water systems, apart from upgrading their shipping functions, exploring the possibility of creating ribbon-like landscapes is also necessary. During ancient times, creating landscapes and building irrigation facilities used to work together. For example, there have been blooming peach blossoms and fluttering willows on the Bai Causeway of the West Lake, which have formed a beautiful landscape with traditional Chinese style. Planting scenic trees along water systems can not only revive the beauty of

traditional Jiangnan style, but can also provide routes for birds and other animal migration, which, from a landscape ecology perspective, carries significant ecological value.

4.2. The countryside: a pastoral life at home

Due to convenient transportation, residents of Shanghai usually choose to spend their weekends to the beautiful countrysides in nearby Suzhou or Hangzhou. Although Shanghai enjoys large areas of countryside, most of them are used for productive and functional reasons and lack interaction with urban culture. Therefore, “urban Shanghai” and “rural Shanghai” seem to have been two independent worlds without cultural connections. How rural and pastoral landscape can comfort people of Shanghai is yet to be explored and the wisdom of traditional pastoral lifestyle has not been brought to modern society. As a result, representing the past pastoral life at home, apart from increasing productivity, the countryside needs to create high-quality rural landscapes with a traditional Jiangnan style and thrives to become the charming and attractive countryside at home. In terms of building rural industry, it can also actively explore the connection between pastoral life and pension industry. To conclude, urban and rural planners should view the countryside as a kind of cultural resource and should discover value from production and lifestyle in the countryside, which can later be put into practice and popularized.

4.3. The water town: a poetic habitation

Water towns are connected with water systems and the countryside. Water towns emerged because villagers gathered to exchange goods, which played a significant role in the ancient agricultural society. At the same time, in ancient times, water towns used to be cultural centers of Shanghai where a number of intellectuals had lived. Water towns in Shanghai are culturally and geographically connected with those in the south of Jiangsu province and the north of Zhejiang province (Nolf 2019). While water towns around Shanghai, such as Zhouzhuang, Tongli and Wuzhen, have had high-quality tourism industry, water towns in Shanghai generally lack development in tourism. It is not because Shanghai is short of good water town resources, but because it does not fully understand and promote lifestyles and aesthetics of water towns.

Water towns in Shanghai are the most complex and important cultural landscape areas as they possess both urban and rural features, thus connecting the urban area with the countryside. In recent years, with the development of infrastructures, people can not only enjoy a convenient modern lifestyle in water towns, but also the comfort of streets and alleys in water towns while developing an intimate relationship with nature. Therefore, more and more youngsters have been attracted to live in water towns and start their business there. From the perspective of non-local residents, water towns create a perfect combination of modern technology and traditional architectural spaces and possess huge potential in becoming “poetic habitations”, a project which is now under exploration and implementation in towns around Shanghai. Water towns in Shanghai prospered during ancient times, became wasted during the age of modernization and industrialization, and now have been revived under the new age to create new values for the city. As an example of traditional habitation culture, water towns are worthy of careful study in urban and rural planning, tourism planning and conservation planning.

---

5. Conclusion and suggestions

Shanghai is not the Paris of the East. It is rooted in the rich soil of Jiangnan culture and enjoys characteristic geographical and cultural features. Therefore, it is meaningless to decorate Shanghai with European style. The spirit of Shanghai should be viewed with a larger scope which takes the city's history and geography into consideration. The cultural landscapes surrounding the built-up areas of Shanghai emerge from the city's natural and cultural basis, known as "the base color" of the city. The development of Shanghai cannot proceed without its background and base color. Otherwise, it would become water without a source, and a tree without roots.

The countryside and water towns are the largest cultural landscapes in Shanghai and are interconnected with a huge network of water systems. These landscapes bear wisdom of traditional production and lifestyle and are a key to understanding "the rural Shanghai". Although these cultural landscapes were once neglected and damaged during the process of rapid modernization, they are still the important foundation for ecological protection and cultural development in the future and can shed light on building future human habitations. Therefore, the wisdom and value of these cultural landscapes are worthy of deeper exploration and study.

Cultural landscapes are indispensable resources for a city. In order to "plan for balance" in Shanghai, several types of unbalance need to be tackled with, including unbalance of the city and the countryside, unbalance of conservation and development, unbalance of men and nature, and unbalance of history and modernity. Since conservation and sustainable development of cultural landscapes can greatly help in solving these issues, it is necessary to rediscover the value of cultural landscapes. This can help to incorporate historical, natural and cultural elements into people's daily life, to create a charming "rural Shanghai" and to revive the countryside. During this process, cultural landscapes can be viewed as a holistic methodology of heritage conservation and of sustainable development of urban ecology and culture.

---

6. References

- Han, Feng (2010) Cultural Landscape--Filling the Gaps between Nature and Culture. *Chinese Landscape Architecture*, Vol.26 No.9.
- Hartog, Harry Den (2019) Re-appreciation and New Uses of Urban Watersides in Shanghai. In: Zhang, Daogen; Xue, Anwei; et al. (ed.) *SASS STUDIES: Reform and Opening-up and Urbanization in China*. Shanghai: Shanghai Academy of Social Sciences Press.
- Meyer, Han (2019) Towards a New Narrative for the 21st Century Delta City. In: Zhang, Daogen; Xue, Anwei; et al. (ed.) *SASS STUDIES: Reform and Opening-up and Urbanization in China*. Shanghai: Shanghai Academy of Social Sciences Press.
- Nolf, Christian; Xie, Yuting; Vannoorbeeck Florence (2019) A Consolidated Archipelago: Retrospective of Water Engineering and Urbanization in the Yangtze River Delta. In: Zhang, Daogen; Xue, Anwei; et al. (ed.) *SASS STUDIES: Reform and Opening-up and Urbanization in China*. Shanghai: Shanghai Academy of Social Sciences Press.

-
- Shanghai Municipal People's Government (SMPG). Available:
<http://www.shanghai.gov.cn/nw2/nw2314/nw2318/index.html> [Accessed 07-10 2019].
- Sauer, Carl Ortwin (1925) *The Morphology of Landscape*. *University of California Publications in Geography*, Vol. 2.
- The Encyclopedia of Shanghai Editorial Committee (ESEC) (2010) *The Encyclopedia of Shanghai*. Shanghai: Shanghai Scientific & Technical Publishers.
- Tu, Qiyu. (2019) Shanghai 2035 Master Plan: Innovation and Expectation. In: Zhang, Daogen; Xue, Anwei; et al. (ed.) *SASS STUDIES: Reform and Opening-up and Urbanization in China*. Shanghai: Shanghai Academy of Social Sciences Press.
- UNESCO (2017) *Operational Guidelines for the Implementation of the World Heritage Convention*. Paris: UNESCO World Heritage Centre.
- UNESCO. *World Heritage List* [Online]. Available: <http://whc.unesco.org/en/statesparties/cn> [Accessed 07-10 2019].
- XI, Dongfan (2019) Shanghai: Striving for a World-class Waterfront Area. In: Zhang, Daogen; Xue, Anwei; et al. (ed.) *Towards a New Narrative for the 21st Century Delta City*. Shanghai: Shanghai Academy of Social Sciences Press.