

Concept Paper on Urban Green Spaces - UNNC

Urban Green Space and Planning Strategy: The Case of Linear Urban Waterfront in Changsha, Hunan (Central South China)

Ali Cheshmehzangi (with Final Year Arch Student at UNNC)

Based on Stephanie Meng's research on Changsha's Urban Green Space Analysis

The University of Nottingham Ningbo China

Literature: Urban Linear Waterfront Park

Urban waterfront is a multi-functional space with huge comparative advantages in many aspects. Not only functions as a general activity space, or urban ecological balance zone, it also works as an important node of city image for urban residents. In terms of the constitution of a city, it plays an essential role in the open public space which consists of natural and artificial landscape. On the ecology level, the linear riverbank area achieves the goal of human and nature staying in harmony. Local economy can benefit from it since it contains high qualities of recreation, tourism resources, and potential third industrial development. In the aspect of social influence, it improves the liveability in the dense urban pattern. The openness and dynamic atmosphere encourage various social activities take place around the water (Lu, 2010). The definition of waterfront varies from geographic, spatial, psychological and many other aspects. In this essay mainly focuses on the spatial relationship within the urban context. It refers to the land adjacent to river, lake and ocean or more specifically, the parts where close to the water in a city (Tang, 2010). According to the functions it can be divided into commercial, entertainment, culture, environment, history, living and bus station six categories. The general understanding of the urban waterfront is made up of three components: water, riverside and land. These three elements form a 'water yards', which includes 200 to 300m urban water spaces and the adjacent land, leading people to get inside in one to two kilometres that is equivalent to 15 to 30 min walking distance (Lu, 2010). Distinctive from the rest of the city, this linear park staying in the sense of individuality strengthens the image of the city in every people's mind. Since one might regard it as a path from one place to another, a different person would

perceive it as a node to meet with his friends. Those various interpretations are grouped into the public image of the space.

Case Study Introduction

The brief analysis is for the area from Nanhu Road to Xiangya Road, range from 100 to 200m wide and 5.2km long in the east side of Xiangjiang riverbank, together with the Juzizhou Island in the middle. This linear urban waterfront is located at a very strategic location to the compact area of the city centre of Changsha and new dense commercial and residential areas.

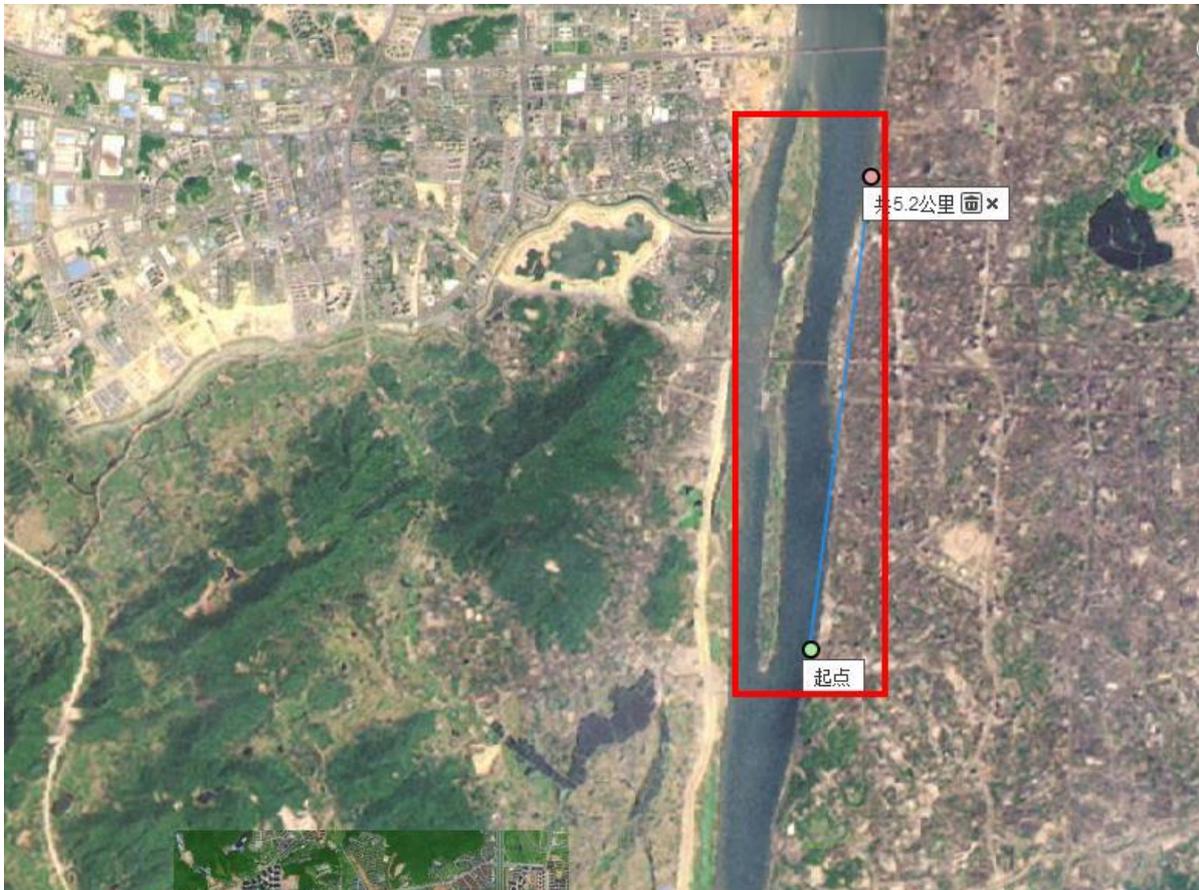


Figure 1, Map of Changsha city. The red rectangular indicates the area to be analysed. (Source from the 360 Map)

Changsha is located in the south of Dongting Lake, north of Hengshan Mountain. It has a collection of mountains, water bodies, island and the city areas, which forms a unique natural landscape as its identity. The comparatively low topography in the middle of the

Changsha allows the Xiangjiang River flows through the city. However, the river floods are always creating problems for the local residents as well as the city officers. To eradicate this issue, Changsha governments put 10 years effort, with the cost of over 2 billion RMB, to renovate and construct new 7 km long levees on the East side of the river. From 1995 to 2005, the newly-built concrete flood control wall is completed with the standard of preventing the worst flooding in 200 years and the magnitude 7 earthquake. Instead of the flood control project, there is also an ecological landscape along both sides of the Xiangjiang River. After that, the project on the Juzizhou Island starts to put into the calendar. It preserves the historical heritages, tidy up the messy land and strengthens the status of the whole city (Luo, 2004).



Figure 2. Juzizhou Island before reconstruction (Source from: www.rednet.cn/)

Impact of the Xiangjiang Linear Water Space



Figure 3. Analysis of space, circulation, pedestrian and water body in Xiangjiang Waterfront and Juzizhou Island (Source from: Changsha Planning Bureau)

The quality of Xiangjiang Waterfront Park and Juzizhou Island demonstrate the image of Changsha. However, there are still some factors that can be improved. Considering the history of shipping, there used to be a cargo berth on the bank (Feng, 2008). With the process of industrial shifting and urban expansion, there is only the structure frame left. Not as the others, the designers modified the remaining part into an artificial cultural relic. This measure could not arise people's memory of the prolonged history. On the contrary, the literary duplication might cause misunderstanding. The oddity of such landscape sketches is not alone.

Served as a city park and waterfront leisure space, the chance to be involved with the water body is not fully considered. Since the edges of the bank are normally hard concrete, people can seldom come to the river and play with the water. It is true that safety issue need to be

put in the first place. However, Tang (2010) suggests that a slope or terraced embankment can create a more natural transition from the land to the river.

Conclusions

Before the revitalization, the continuity of the Xiangjiang waterfront is broken by the concrete embankment. Without considering the aesthetic value and human need, the design of the bank only satisfies the demand of flood prevention. At that time, the uncompleted pedestrians isolate the waterfront public space with the city. The roads for vehicles and the increasing car parking separate the pavement, which makes citizens unable to take the most of this public space. During 1995 to 2005, city government decided to build a new district, make it as the name card of Changsha city. In general, the overall plan of the Xiangjiang Linear Waterfront and Juzizhou Island is functional and useful. It helps to adjust the micro climate of the site, and provide an enjoyable space for all the people. The natural landscape as well as the manmade sketches, allows different outdoor activities happen. The hierarchy of spatial arrangement enables the diversity of multiple events. Citizens in all ages and genders can enjoy the space. What is more important, it helps to generalise the mental impression of the city, which strengthen the legibility of the cityscape. Although the problems of misinterpretation the culture and history still exist, the benefit of this site to a city is undeniable.

Reference:

1. Jin, X. Wang, Y. and Wang, F. (2010) Selection and Application of Cultural Landscape Elements in Reconstruction of the Historical Block [online]

Available from: www.cnki.net [31th Dec. 2014]

2. Jiao, S. (2000) The Renovation of Urban Waterfront: Taking the Linear Waterfront Park in Changsha as an Example(城市滨水区的复兴——以长沙沿江风光带为例) [online] in *South Architecture*, 2000(4) 72-74

Available from: www.cnki.net [2nd Jan. 2015]

3. Lu, F.(2010) Research on the Module Code of Changsha Xiangjiang Linear Waterfront Design (长沙湘江风光带景观设计模式研究) [online]

Available from: www.cnki.net [2nd Jan. 2015]

4. Lynch, K. (1960). *The image of the city*. Cambridge, Mass.: MIT Press.

5. Colm O'Brien (1997) Form, function and sign: Signifying the past in urban waterfront regeneration, *Journal of Urban Design*, 2:2, 163-178, DOI:10.1080/13574809708724402

6. Xu, G.F. and Zhang, C.Y.(2008) Analysis of Facilities and Space at night in Changsha Xiangjiang Waterfront Park(长沙湘江风光带夜间游憩活动设施空间分析) in *Hunan Forestry Science & Technology*, 2008(3) 43 - 44 [online] Available from: <<http://www.cnki.net>> [12th Jan. 2015]

7. Yang, W.T.(2007) Pursue Happiness City Waterfront District Design Research (追寻快乐感的城市滨水景区设计研究) [online] Available from: <<http://www.cnki.net>> [3rd Jan. 2015]

8. Tang, Y.Y.(2010)A Study on Elements Integration of Urban Waterfront Landscape(城市滨河景观要素整合研究) [online] Available from: <<http://www.cnki.net>> [8th Jan. 2015]

9. Luo, K.L.(2004) Conceptual Urban Planning of Changsha Xiangjiang Waterfront and Juzizhou Island(长沙湘江滨水区及橘子洲规划概念) in *Chinese and Overseas Architecture*, 2004(1), 112-120 [online] Available from: <<http://www.cnki.net>> [8th Jan. 2015]

10. Gehl, J. (2011). *Life between buildings using public space*. Washington, DC: Island Press.

11. Xiao, L.H.(2012) The New Research on Changsha Juzizhou Island Spot Exploitation (长沙市橘子洲景区开发新研究) in *Science & Technology Association Forum*, 2012(3), 53-55 [online] Available from: <<http://www.cnki.net>> [8th Jan. 2015]

12. Feng, J.J. (2008) Research on Era Evolution of the Public Space in Changsha (长沙城市公共空间时代变迁研究) [online] Available from: <<http://www.cnki.net>> [12th Jan. 2015]