



Enhancing the Image of Urban Space, Promoting Urban History and Culture: A Case Study of the Urban Design of Wangjiang Avenue

Yang Li

School of Environment and Architecture, University of Shanghai for Science and Technology, Shanghai, P.R. China

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ABSTRACTS

As regarded as people's main activity space in the city, urban roads are the most important part of cities' public space environment and they are also the main ways to observe and understand the city. So the urban design of cities' roads is no doubt the most straightforward and effective method to display and enhance the cities' image. Along with the improvement of people's living standard, people's requirements of the charm and quality of cities' public space environment are becoming higher and higher. This paper takes the urban design of Wangjiang Avenue as an example to do some useful explorations on enhancing cities' space image.

INTRODUCTION

China's urbanization process has been accelerated since the reform and opening-up, and the number of cities have increased from 200 before the reform and opening-up to 700 at present. However, the urban design fails to grasp the main points, and it makes the urban space and buildings to be universal products under the industrialization model. What confuses me is that almost all cities in China during that period were moving toward to be modern and international cities but ignoring their own unique features. The vulgar and similar images and the disappearance of traditional culture have become common problems in that era (Lin 2008). To solve these problems, we not only have to create humanized urban space but also have to highlight cities' characteristics. China has a development history of cities which is as long as 5000 years. Each city has its own story for the reason of the difference of history, geography, climate and other factors. Exploring and promoting urban culture is an essential part of an excellent urban design work. And only by this way, a livable city with soul can be created. This paper takes the urban design of Wangjiang Avenue as an example to do some useful explorations on enhancing cities' space image.

Urban roads are the most important part of cities' public space environment and they are also the main ways to observe and understand the city. So the urban design of roads is no doubt the most straightforward and effective method to display and enhance the cities' image. Along with the improvement of people's living standard, people's requirements of the charm and quality of cities' public space environment is becoming higher and higher (Li et al. 2008).

An Overall Analysis of the Geographical Environment and Current Situation

Wangjiang County is located on the north bank of the middle and lower reaches of Changjiang River, which is near the southwest edge of Anhui Province. Its east longitude is from 115°34' to 116°55' and its northern latitude is from 30°03' to 30°26'. The County area is 1360 km². The location plan of the Wangjiang County is shown in Fig. 1. The southeast part of Wangjiang faces the Dongzhi County and Pengze County, Jiangxi Province across the Changjiang River, the west part is near Susong County, the northwest part abuts against Xiangming Mountain and it is bounded by Taihu County, and the northeast is near the Wanshui River and it is bounded by Huaining County. The maximum length from east to west is 54 km, and the maximum width from south to north is 43 km. Wangjiang is a place where the east links the west and the south connects the north. And it is the economic interchange area of Yangtze River delta and Pearl River delta. Furthermore, it is also the place that the industrial transfer from the east China coastal region to the inland region must pass through.

Wangjiang Avenue is located at the center of the Wangjiang city. It intersects Leichi Avenue at the west and Huilongdong Road at the east. The total length of it is 2950 m. The whole planning area is about 88.4 ha, which includes the 150 m area of the both sides of Wangjiang Avenue. The range of planning is seen from Fig. 2. It is the main road to connect the old town to Huayang Town. The red line width of it is 60 m. It intersects the Liangquan Road, Taiyangshan

Road, Wuchanghu Road, Taici Road, Paifang Road and Qinglian Road from the west to the east. And the transportation structure is complete. There are office areas of Organizations (Fig. 3), cotton markets (Fig. 4) and Wangcheng Jingyuan (one residence community) along the avenue which have already been completed. The rest are a small amount of houses which need to be pulled down and unexploited areas. The whole planning area has better conditions for development and construction.

We also analyse the urban features of built-up areas and find out that the fit between landscape state and urban environment is lower which means the regional features are not obvious. The urban features of built-up areas do not display the Wangjiang's traditional culture. In summary, the urban features of built-up areas are not integrated into local factors. Wangjiang Avenue is the cities' arteries of communication that undertake the task to display Wangjiang's culture.

The General Concept of Urban Design: This urban design starts with two aspects that the first one is to create humanized city space, and the second one is to mix the traditional culture into urban streets.

The image of urban space refers to people's feeling of urban space in their daily life. There are many factors affecting the image of urban space, such as action evaluating indicators which include physiological adaptation, naturalness, workability, accessibility and public service, and identity cognition evaluating indicators which include night illumination, visual intrusion, the outlook of facilities, cultural connotation and so on. The landscape factors of urban roads are made of natural landscape and man-created landscape (Yang Li 2010a).

Based on the thorough analysis of current situation, the urban design of Wangjiang Avenue specifically gets hold of the space quality, such as traffic organization, visual relationship of group buildings, landscape, and public facilities.

First of all, urban culture is the accumulation of urban history, and it has two models of existence-visible model or invisible model. In terms of the material, it is retained in the visible buildings. In terms of the spirit, it is integrated with people's invisible life. Therefore, urban culture is closely related to the urban morphology and public behaviour and it's the soul of a city. As regarded as a special spirit, urban culture has both timeliness which is persistent and extensity which is multi-spatial. Secondly, urban culture is the sum of dynamic and internal connections among humans, natural environment, built environment and corresponding social culture. Only the material reality of city and spatial pattern be cognized by people can urban culture has the traditionality. For this reason, people's image of a city was concluded to

be made up of five basic elements - paths, districts, edges, nodes and landmarks by Kevin Lynch. And by using these elements can urban design establishes perceive space.

Finally, based on the analysis of current situation, Wangjiang Avenue is defined as the cities' main axis, main landscape corridor, historical and cultural corridor. The general layout of Wangjiang Avenue is shown in Fig. 5.

The Specific Design Strategies of Enhancing Block's Quality

A reasonable traffic system: In terms of the traffic organization, first of all, it is necessary to arrange a reasonable section-three board section form, and two-way six-lane to ensure smooth flow of vehicles. In order to minimize the traffic interference to Wangjiang Avenue, we should reduce the number of openings of the residential areas on both sides. The analysis plan of road system is shown in Fig. 6. Based on the relatively uniform distribution of surface public car parking, the underground space of high-rise buildings is designed as parking garages and they are easily open to the public. At the same time, encouraging underground parking can avoid the phenomenon that vehicles occupy the space of humans. The cross-section of Wangjiang Avenue increases the setting back distance of street buildings which can avoid the tension of the street buildings. Parts of the Avenue are made to be small squares or green space. Meanwhile the sidewalks are defined as fast trails and recreational trails. We consider that it is necessary to set underground passages near the junction of main roads. Without affecting the streetscape, we can also use pedestrian bridges which have appropriate scale and beautiful form.

Enhancing the layout research of buildings, and creating coordinated visual environment: The overall construction should take full consideration of the scale of Wangjiang Avenue, base conditions, building's function and other factors. In order to meet with the basic requirements like lighting, ventilation, sunlight, we should strike to improve the cities' image. Furthermore, the small squares along the streets make the cities' space to be rich and different. Otherwise, the natural view of mountain far away is melt into the road landscape and becomes the contour line of the road landscape. Meanwhile, buildings along the street form a rich skyline. The interior buildings are organized in groups with centralized green space.

The body mass and height of buildings: Compared to the width of 60m of the boundary line of Wangjiang Avenue, we should increase the width of building setback restriction to 100m. And the street length of buildings along the street should not be too short; the main buildings should be high buildings; the important cross-road nodes can be used to



Fig. 1: The location plan of Wangjiang County.



Fig. 2: The range planning



Fig. 3: The office areas of organization (completed).



Fig. 4: The cotton markets (completed)

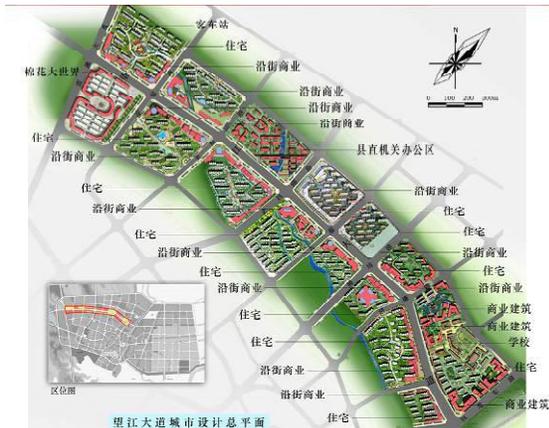


Fig. 5: The general layout of Wangjiang Avenue.

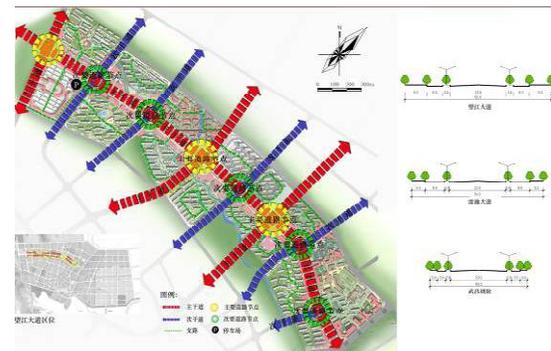


Fig. 6: The analysis plan of road system.

construct high-rise buildings over 100m.

The highest point of street skyline is the high-rise commercial center over 100m which is located at the

intersection of Wangjiang Avenue and Wuchang Hu Road. The skyline gradually decreases from the south to north and represents as anti-parabolic with beautiful shape and strong sense of rhythm and tempo.

The architectural style: Regarded as the major road of the central city plan of Wangjiang, Wangjiang Avenue is also the image road connected to Hua Yang Town. So its architectural style should be modern and represent Wangjiang's local culture. Based on these points, we do not recommend



Fig. 7: The overall aerial view of Wangjiang Avenue.

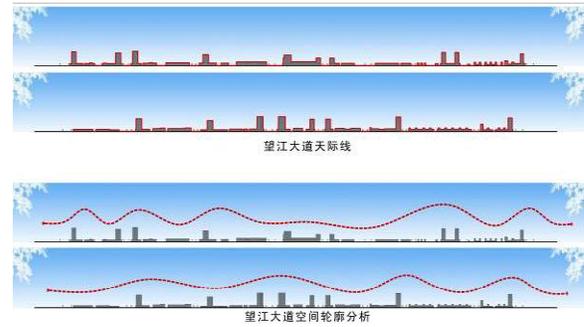


Fig. 8: The skyline of Wangjiang Avenue.



Fig. 9: The general view of street furniture for Wangjiang Avenue.

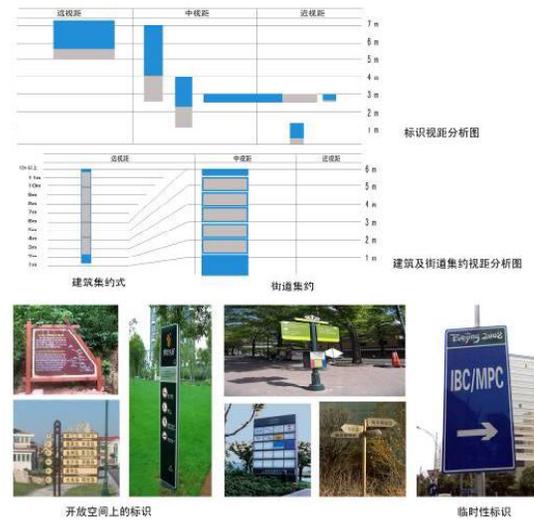


Fig. 10: The road marking system of Wangjiang Avenue

classical or European architectural style. Meanwhile, the architectural design has a higher expressive force, and the architectural style should be varied. The overall aerial view of Wangjiang Avenue is shown in Fig. 7. The external wall material should use new advanced materials which are integrated with concepts of ecology, energy conservation, and sustainable development. The skirt buildings are advised to use natural stone materials and glasses which are equipped with good texture and ability of anti-pollution. The main buildings are advised to use senior elastic coating, plates and glasses, which are safe and environment-friendly.

The architectural colour: Wangjiang is the central city of south Anhui Province which means that the architectural colour should reflect the characteristics of south Anhui Province. In south Anhui, the Anhui confluence of buildings with white walls and black tiles are most representative. So the buildings along Wangjiang Avenue should adopt white as the exterior colour to show the local culture character. The skyline of Wangjiang Avenue is shown in Fig. 8.

The architectural detail: We advocate using space, physical volume, texture, colour and other means to reflect the performance of modern architecture. The podium facade should have rich details and strong artistic expression. In the bottom of buildings, we encourage to establish arcades to improve buildings' vigour. On the top of buildings, we advocate to do special processing to reduce the weight of feeling, a sense of increased upright. And we recommend that the night lighting design of buildings should highlight the buildings' night charm to interact with people's subjective feelings.

To make the street humanized by improving public facilities: Public facilities of cities' streets have a direct impact on people's work and life. According to the service radii of public facilities, Wangjiang Avenue is well equipped with necessary public facilities. By integrating their layout reasonably, the location and number are appropriate to offer a convenient life environment. Specifically, it is equipped with sport parks, street office and community service cen-

tres, community committees, kindergartens, health stations, switching stations, public toilets, refuse collection points, refuse collections, public parking lots and so on.

Enhancing the design of street furniture and creating good detail scene of the street: Road needs to be equipped with different kinds of furniture to meet people's need of walking, rest, leisure, advertising, lighting and so on. The general view of street furniture for Wangjiang Avenue is shown in Fig. 9. By aiming at the key elements that affect the quality of urban street space, such as floor covering, street furniture and advertising, this program proposes the following design concepts: Street furniture, floor covering and advertising should be designed unitedly and embody a certain style, colour and features to meet people's requirement of quality and quantity. Sculptures should be in harmony with plaza and building nearby. Floor covering should be designed carefully with unique colour, texture and style. We also consciously integrate traditional culture and life into the landscape image. The road marking system of Wangjiang Avenue is shown in Fig. 10.

Establishing a multi-level green forest system, and creating a comfortable living environment: Afforestation is one of the most important elements of landscape. So the afforestation on both sides of Wangjiang Avenue should not only separate the space, removing the dust and clean the air but also create attractive three-dimensional green space by planting street trees, afforesting sub-drive buffer zone and traffic islands. Otherwise arbors, shrubs and ground cover plants should be integrated organically. For example, in the leisure space of sidewalk and entrance plazas of street buildings, the arbor is mainly made up of broadleaf evergreen to seek the visual comfort. In the heart of residential groups, we consciously organize large areas of central green land, and lift the bottom of buildings overhead to expand the vision of landscape and activity space. By these means, we can achieve the overall effect that the scene changes with the location. In terms of plant arrangement in central green areas, we use isolated planting or group planting. In terms of the varieties of trees, we choose evergreen, defoliate and colourful native tree species. Meanwhile, we also introduce a small amount of foreign tree species which are suitable for Wangjiang's climate. In order to set boundary of the hard ground, we plant a variety of shrubs and ground cover plants.

Exploring Urban Culture and Passing Down the Culture

Urban history generation can be divided into two steps. Step 1: We summarize Wangjiang's features by analysing Wangjiang's characteristics. Step 2: We choose appropriate ways to pass down the history generation and reflect the features.

The analysis of Wangjiang's history generation: Wangjiang has a long history which determines that Wangjiang's history is abundant and different.

To a city, cultural line itself has great value which means that urban culture line should have authenticity. In different cultures, and even in the same culture, the evaluating standard of cultural heritages' value and credibility of information source are different. Thus, fixed evaluating standard is not possible for cultural heritages' value and authenticity. On the contrary, it needs us to respect all different cultures.

Urban cultural line is changing and developing. During the process of developing, new cultural elements keep emerging, and old cultural elements keep disappearing. Such kind of dynamic changes is the cultural line's adaptation to the times. Urban renaissance theory pointed out that it restores the humanity of old cities by sustainable community culture and forward-looking urban planning, and it also recreates the community vitality of cities through integrating the necessary elements of modern life, meanwhile, it maintains and extends cities' history and culture to make cities to be architectural space with stories (Yang Li 2010b).

Urban cultural line is often the mixture of different cultures and tends to be multi-cultural. China has a long history and vast territory, the developing process of cities is constantly stroke by foreign culture. So we should eliminate the false and retain the true in urban design, and identify the most important cultural tendency as the main factor.

According to authenticity, sustainability, feasibility, localism and public participation, it forms the characteristics of Wangjiang's cultural line which stands for the Ancient Lei Chi Culture, Filial Piety Culture and Huangmeixi (one kind of local opera).

The design methods of cultural line: According to the characteristics of Wangjiang's culture line, we defined components of cultural line to be cultural objects and living culture.

Cultural objects: the objects in this phrase refer to the humanistic spirit in daily life. They are cultural objects displayed in material form which includes consumer-staples, tools and so on (Jun Ni 2010).

Living culture: The so-called "living culture" refers to the culture images which are existed in human mind and popular in today's real-life. For example, folk beliefs, oral literature, folk customs and so on are the so-called living culture.

The embodies of passing down cities' cultural line: The urban design of both sides of Wangjiang Avenue analyses the cultural line of Wangjiang and extracts the elements of urban cultural line. Aiming at different element, it forms a

unique urban style by taking different design methods.

The design methods of cultural objects: According to people's understanding of visible shape and action, we display the cultural objects in the city and make it easy for people to understand. For example, we planned the Filial Piety Park in public green space of Wangjiang Avenue. In order to promote the local opera, we set up opera stages in city squares. And we display the opera to people by light boxes and carving.

The design methods of living culture: Living culture represents as non-material form and it's invisible. However, it a specific place and audience. The keys to spread and inherit living culture are maintaining the spirit of place and extending the original space atmosphere. According to this characteristic, we create a place for "Huang Mei Opera Culture and Art Festival" and other cultural activities. Furthermore, we also planned Lei Chi Square and Historical and Cultural Corridor to offer activity places for people.

CONCLUSIONS

The basic views of this paper are enhancing the space image of urban roads, spreading and inheriting urban culture. Urban roads not only play an important role in transporting but also are valuable corridors of human landscape. Therefore,

they are the important interface and regions of displaying cities' image. And inheriting cities' culture line is the necessary mean of creating unique urban image. During the process of urban planning, we need to get hold of the maintaining cities' road image, spreading and inheriting cities' cultural line.

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