

Joint Development of Park and Green Space — A New Pattern and Key Points for Developing Parks and Greens Space in Shanghai

Gao, Xiang* · You, Deshao*

*Shanghai Landscape Architecture Design Institute, Shanghai200031

Abstract

Nowadays the parks in Shanghai tend to develop towards two directions. Small and medium parks are being gradually transformed from closed management to open management, while large ones emphasize their nature of theme and nature of functions. Simultaneously, the number of large and open public green spaces has been significantly increased. Although the public green space does not adopt the management pattern for parks, there is almost no difference between public green space and ordinary parks so far as the functions and scales are concerned. Due to the fact that there is no obvious boundary between a public park and a public green space, this paper raises a suggestion to coordinate continuously their management and functions so that the distribution of and the connection between the urban green spaces can be more rational and more definite and a sound green network can be formed. Starting from the viewpoint of emphasizing accessibility to green spaces and enhancing the angle of linking green spaces, we aim at transforming a park system to a multifunctional green system, extending the effects and service radius of large green spaces, and strengthening the internal connections with the surrounding areas so that a high-quality green space can be formed with the connection of the green space network.

Key Words : Park, Green Space, Joint Development, Shanghai

I. FOREWORD

The planning and construction of a city is a slow process. Once the infrastructure of a city fails to be in conformity with its functions and to adapt itself to the new demands of the development of the city, new creation of the city will occur. The urban construction of Shanghai is situated at this kind of new creation period. In recent years, with the great achievements made in the urban construction and economical

development of Shanghai as well the speeding up of the process urbanization, the original living environments of the city are deteriorating with each passing day and the green ecological environments of the city are being seriously destroyed. On the other hand, people's ideas for living is transforming from "making a living" to "enjoying a living". In order to "enjoy a living" people pay more attention to the ecological environments of the city and raise new demands for parks and green spaces¹⁾. Under such circumstances,

the functions of parks and green spaces are gradually changing. Therefore, under the new situation, the green spaces and parks in Shanghai must have corresponding planning and readjustment, new development is being sought to maintain the balance of natural ecology, to ensure people's physical health, to promote the strategic target of sustainable development of economy and environments, and to meet the demands of entertainment and relaxation of urban dwellers.

II. THE DEVELOPMENT OF PARKS AND GREEN SPACES OF SHANGHAI MUNICIPALITY AND THE ANALYSIS OF THE STATUS

The greenery distribution of Shanghai Municipality is uneven. Though a certain ring-shaped greenbelt is formed in the Outer Ring Line, a certain green network system has not yet been formed within the Ring Line with its greenery distributed in dots and patches. In those areas with higher density of population, the percentage of greenery coverage and the public green-space area per capita are obviously



Fig. 1. The Urban Greenery Chart of Shanghai Municipality

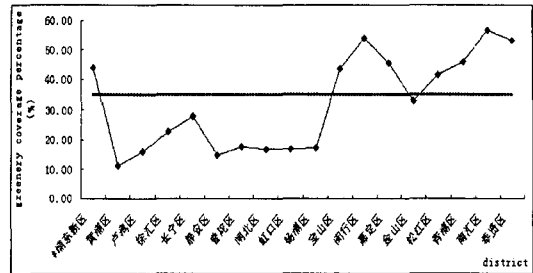


Fig. 2. Greenery Coverage Percentage of the Districts and Counties of Shanghai at the end of 2003

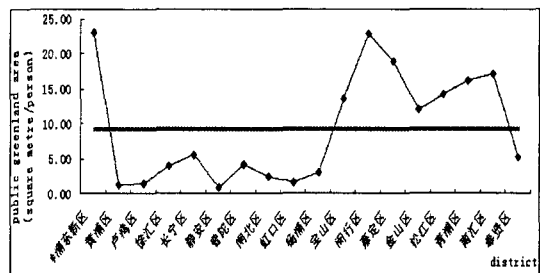


Fig. 3. Public Green-space Area per Capita of Shanghai at the End of 2003

lower than the average level of the whole city(Fig. 1, 2 and 3). Under such circumstances, the present guideline to form the urban green network is to look for a joint development of parks and green spaces.

1. The Development of Parks of Shanghai Municipality and the Analysis of the Status

The development of the public parks of Shanghai Municipality has undergone a lengthy process. The parks of Shanghai started in 1868 with the completion of the Bund Park. By the end of 2003, there were 136 public parks in Shanghai. From the development process of the parks in Shanghai Municipality, it can be seen that the development of the parks in Shanghai is in a waving trend and different periods have different features of change. In 1949, a number of parks were built for meeting the needs of foreign emigrants and capitalists. In 1950s, with the con-

struction of the state, the number of parks in Shanghai was increased to 32. And later, these parks became basically the backbone parks of respective districts. They improved greatly the distribution and scale of the urban parks and worked out the basic framework of the parks in Shanghai Municipality. With the reforming and opening up in 1980s and the development of Pudong Shanghai as well as the construction of modern and international metropolis in 1990s, both the number and space of the parks in Shanghai were rapidly increasing. At present, a new pattern of simultaneous development of large-scale parks and "small, numerous, and well-distributed" parks has appeared for the construction of parks in Shanghai Municipality²⁾.

At each stage of high-speed development, the parks in Shanghai Municipality are based on a special historical background. Today in this society with people foremost everywhere, there is no doubt that at the same time to meet the needs of urban construction, the precondition for the development and construction of parks is to meet people's needs. Currently, there is a trend for the parks in Shanghai developing towards two extremes. Small and medium parks are gradually transforming from close management to open management. By the year of 2004, more than 90 parks in Shanghai are free for entrance and the number will increase. Large-scale parks are tending to emphasize their own natures of theme, functions and ecology.

2. The Development of Green Spaces' of Shanghai Municipality and the Analysis of the Status

The construction of green spaces of Shanghai Municipality is being perfected with each passing day and the positions and functions of the green spaces in the city have had corresponding changes. Compared

with the past, they have changed greatly. The appearance of public green spaces has enriched the significance of green spaces, showing that the construction and development of urban green spaces have entered a stage of enjoyment and ecology from a stage of mere relaxation and admiration. Nowadays, quite a few large-scale public green spaces have integrated the dual purposes of constructing and improving urban environments with meeting the landscaping effects. They are fully able to display the functions of parks. The functions of green lands are ever being strengthened and the geographical location makes the green spaces easily accessible so that the public participation has been greatly improved. The green spaces have been developed from emphasizing their own admiration to being participated by the modern people. The green spaces are displaying their special functions with their diversified forms under special situations.

3. Mutual Coordination and Integration between Parks and Green Spaces

The irrational layout of parks and green spaces in Shanghai is the result of the development history of Shanghai. As the integration of parks and green spaces is the inevitable choice for urban development, the parks and green spaces of Shanghai have entered a stage of integration. Our effective ways to integrate parks and green spaces are to readjust and optimize the green space system of the whole city by making use of various forms, to change the original management modes of parks and green spaces, and to expand the fundamental functions of parks and green spaces.

With the development of a city, the demarcation lines between parks and green spaces are gradually blurred. For instance, a few large-scale open green spaces have already had the features of public parks,

such as the green space on Yan'an Road and Hongqiao Garden in Shanghai. Though they have not adopted the management mode for parks, functionally they have almost no differences from parks in general. Therefore, we can no longer regard parks and green spaces as two independent component parts of the green area. The public space in the city is an important condition for the existence and sustainable development of a city. When planning and designing parks and green spaces, we should regard them as an important component part of the urban public space in a systematic view. Not only should we make changes for their development, we should also make overall coordination to optimize the existing space of city dwellers so that man and nature can coexist and a place for pastime and relaxation can be provided for the public. We should make parks and green spaces compensate and coordinate with each other, giving full play to their respective advantages. The functions and management of parks and green spaces should be continuously coordinated so as to make the distribution of green spaces more rational and the connection even clearer.

III. THE TREND OF DEVELOPMENT FOR PARKS AND GREEN SPACES AND THE COUNTERMEASURES

1. The Trend of Development For Parks and the Countermeasures

It is obviously infeasible to open up a complete piece of land in the central area of the city for planning a park. Therefore, the establishment and production of new parks are both in the suburban areas far away from the city area. The issues facing us are how to display the functions of these parks

they should display and how to improve the accessibility of these parks. Facing these issues, we must strengthen the themes of these parks in our designing, making them different from ordinary parks. Meanwhile considerations should be given to the accessibility when the locations are chosen, providing corresponding traffic facilities and tapping the potentialities for visitors to go there for relaxation. Take the Oriental Oasis and the Minhang Sports Park for instances. They were both effectively planned and built in the recent two years on the basis of rationally making use of their own advantages to reflect their respective features. This is the main orientation for the future development of parks in Shanghai.

If the small-sized parks inside the urban area are managed in the past close mode, the parks will be in an isolated state. In a people-oriented society of today it is infeasible. An open space will be more favorable to displace the landscape functions of gardens, to beautify and improve the environments, to be convenient to link up with various kinds of green spaces and to provide services to more people. It is a humane demand as well as an embodiment of people-orientated principle to open the space³⁾. Viewing from the present development trend of urban green spaces, we can see the green space in each region is developing at a quite rapid pace. As these green spaces are built in accordance with their respective conditions, they have stronger functions and have displayed more functions compared with the past ordinary parks. Under such circumstances, it is necessary to reconstruct and renovate these small-sized close parks by making use of their original advantages in ecological environments, reforming appropriately the management mode, demolishing walls to reveal the green and linking up with the surrounding green spaces so that even larger green spaces can be created, residential environments can be optimized and a city pleasant to live can be built.

The management mode of a park changes with the development of society. When parks and green areas alike become open green spaces, the original operation mode is sure to be impacted. Therefore, at the time of establishing and renovating parks, the future operation and management, and economical effect of the parks should be put on an important position for comprehensive considerations so as to ensure the funds invested can get deserved return. By doing so, not only can the operation of the park really step onto the track of virtuous development, the initiatives of garden workers can also be fully mobilized and the aim of self-sustentation and self-development can be reached.

2. The Trend of Development for Green Space and the Countermeasures

The green space in the city is playing a more and more important role in the urban construction. As green space has the features of plasticity and flexibility, it displays an active role to perfect the existing gardens in the respects of layout, integrated organization and patch-shaped green space. Simultaneously, it is also a supplement to the high-density urban area. The green spaces in Shanghai have developed from its original small area, simple structure and unitary function to the present parks of comprehensive ecological green areas with large area, good planning and perfect functions. Meanwhile, people's subjective consciousness also strongly guides the development of green spaces. The participation, accessibility and recreational functions of green spaces are being continuously emphasized, which urges green spaces to practically develop towards the directions of meeting the demands of the daily life, relaxation and recreation of the city dwellers and has become an important component part of the city space.

What the green space has created for the people is

a living space even closer to nature and also a place for people to idle away the time, to go for a walk, to drive away their cares after meals and to relax when tired. Parks are the major landscape areas within the sphere of a city, places for people to take a rest, to entertain themselves, and to take part in some activities. Though some of the functions of parks and green spaces have been readjusted and the original purposes for the construction are no longer obvious, the relationship of supplementing and complementing each other remains with the parks and green spaces. It is still necessary for them to display their respective advantages, to coordinate and integrate with each, and to have a joint development for the purpose of constructing humane green spaces, enhancing the living quality of the citizens and meeting the demands of the public. Of course, the management mode of green spaces is an issue worth our exploration. The management of green spaces differs from that of parks. But one thing is sure that the management of the green spaces that are completely open and serve the broad masses of people has to rely on the conscientious maintenance of the public in the society. It is a long-term development direction for the public green spaces to establish effective self-existence mechanism. It is completely feasible to carry out appropriately the rational behavior of commercial operation under the system of market economy.

IV. TO ESTABLISH A GREEN NETWORK AND TO FORM HIGH-QUALITY GREEN SPACES

1. To Establish a Green Network with the Forms of "Ring, Wedge, Corridor and Garden"

In accordance with the status of "more people with

less land" and uneven distribution of green spaces in Shanghai, a plan was raised as early as in 2001 to establish a green network with the combination of "ring, wedge, corridor and garden" for the purpose of achieving the aim of enhancing the overall level of urban greening.

Ring: To establish two greenbelts with the length of 97 meters and width of 500 meters in the peripheral areas of the central areas of Shanghai

Wedge: To open up a few green channels between the suburbs and the urban areas to connect the suburbs and the urban areas

Corridor: To establish greenbelts with the length of 10 meters, 20 meters, 50 meters or even 100 meters and with the width of 100 meters respectively according to the practical situations along the main truck way, the main river course and under the high-voltage corridors to form straight greening corridors

Garden: To build large-scale public green areas in the central areas of the city⁴⁾

Currently, the greenery of Shanghai has entered a new stage for an all-round development of "rings, wedges, corridors and parks". The newly defined "10th Five-year Plan for Developing the Greenery of Shanghai Municipality" requires the landscaping department to push forward the "rings, wedges, corridors and parks" in an all-round way with the support of a number of major plant engineering. The "rings" refer to construction task of the round-city greenbelt of the Outer Ring Line (Baoshan section) and the round-city greenbelt of the Outer Ring Line (Pudong section), totaling 265 hectares; the "wedges" refer to the construction of two wedge-shaped green spaces, Zhangjiabang and Taopu; the plant engineering of "corridors" refer to the seventeen projects

along the Shanghai-Qingpu-Pinghu Highway and the Suzhou Creek, totaling over 1,300 hectares of greenery coverage; and the "parks" refer to the construction of twenty-three large green spaces like Da'ning Green Space, totaling over 215 hectares of greenery coverage to form 3,000 M² of public green space within the Inner Ring Line with its service radius of 500 meters. In addition, the tasks of plant construction in the suburbs are the 300 hectares of man-made forest along the seacoast of Nanhai County and the 600 hectares of forest park in the bay of Fengxian County, with the total greenery space of 1,300 hectares⁷⁾.

2. To Optimize the Green Space System With the "Service Radius" As Basis

The layout of urban green land should be readjusted with the theory of "service radius" as the basis so as to make the distribution rational and even. In line with the idea of "people foremost" and in accordance with the theory of the "service radius of the urban green", the layout of urban green spaces should be readjusted so that city dwellers can enjoy the green space to the maximum and the "ring, wedge, corridor and garden" can be completed. By breaking walls to reveal greenery, linking up the lines into nets and expanding points to pieces, "rings, wedges, corridors and parks" are expected to be completed. Two circular, three vertical, four horizontal and ten radiating greenery sceneries are expected to form a network of greenery landscape. Eight major greenery areas are to be constructed in Xujiahui District, Jing'ansi District, the People's Square, the Pentagon Square, the Ever-bright City, the Hongqiao Park and the Century Park. Various kinds of greenery will be used to perfect the layout. The layout should be perfected with all kinds of green spaces to form an even and rational city with ecological environments

harmoniously unified⁵⁾.

3. To Pay Attention To Human Activities and To Strengthen Humanization of Green Spaces

The accessibility, intimacy and naturalism of green area space should be emphasized. The establishment of green spaces and parks at all levels is at long last for the service of the public. It will affect the vitality of a park or a green space whether it can meet people's demands in every respect, whether the designing is full of human feelings and whether people can have a feeling of security and comfort inside it. For instance, insisting in the people-oriented principle, Quyang Park has taken sophisticated measures to offer services of convenience and benefits to the people. In consideration of people's needs of sunshade and enjoying the cool in hot summer, the park has set up sunshading boards by the benches in the square with hooks in the boards for people to hang their handbags and miscellaneous things, winning good comments of visitors.

The connection between man and nature should be strengthened so that man and green spaces can interact with each other to experience the process of "humanization of nature" and "naturalization of human". We must build up our own humanized green space in a city under highly "humanized" environments.

4. To Establish A High-Quality Green Network

We will establish a perfect green space, using rationally the existing parks and green space resources and forming ecological sceneries with people's demands as guide. Any practice that deals with parks and green spaces differently will only lead to regular

incompleteness while similar treatment of parks and green spaces will only lead to unitary monotony. In the respect of functions, parks and green spaces should perfect each other and complement each other, seeking for the direction of respective development for jointly establishing a green network of the city. Parks should be taken as basis, laying stress on renovation while green spaces as veins, laying stress on construction. At the same time when parks are developing themselves, stress should be laid on the structural readjustment of small parks to coordinate with the system of green spaces. At the same time when green spaces are perfecting the green space of the city, expansion should be made to their own functions and to their service radius, compensating the insufficient parks in some areas and playing the role of parks.

The construction of the Yan'an Rd. (M.) Green Space is to display the effects of a green-space park to the maximum on the basis of making use of the existing greenery resources and rational layout. With the completion of its construction, it has linked up together the greenery of the People's Square, the People's Park and the Taipingqiao Green Space,

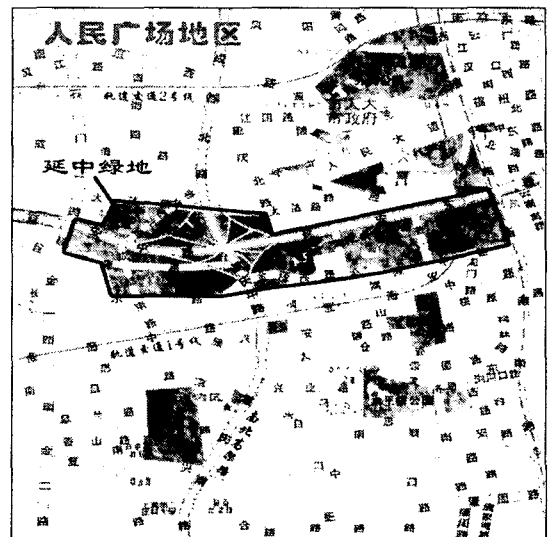


Fig. 4. Location Map of the Yan'an Rd. (M.)

forming a group of green spaces totaling 50 hectares in the "heart" area of Shanghai. The construction of the Yan'an Rd. (M.) Green Space has become a successful example of a joint development of parks and green spaces.

Since the founding of New China, the parks and green spaces in Shanghai have developed to a certain scale. Now it is time to sum up their construction in the past fifty years: it is the present trend of social development to form a green network with the mutual development of parks and green spaces; it is a key issue to master the overall development at the same time of self construction; and it is the direction of long-term development to carry out a humane construction. Only by doing so can the green-space

system of Shanghai be further optimized and step onto a new stage in the 21st century.

REFERENCES

1. Liu Yongde et al. *Architectural Designing of Exterior Environments*. Beijing: Architectural Industry Press of China, 1996: 13-14.
2. Zhang Qingfei, Xia Lei, et al. *An Analysis of Dynamic Status, Distribution Pattern and Scale Features of the Parks in Shanghai*. *Chinese Landscape Architecture*, 2001(1).
3. Xu Yannan, Wang Hao. *An Initial Exploration of the Planning and Development Trend of Urban Green-space System*. *Planning and Designing*, 2003(10).
4. Hu Yunhua. *The Ecological Greening of Central Area in Shanghai*. *College Journal of Shanghai Urban Administration College*, 2001.5.
5. Yang Wenyue, Chen Weilian. *A Rational Layout of Shanghai Green Spaces in Gardens and Parks in Line with the Theory of Service Radius*. *Chinese Landscape Architecture*, 1999(2).