Problems of Guiyang Quanhu Park and Suggestions for Modification

DOI: 10.23977/jceup.2023.050403 ISSN 2616-3969 Vol. 5 Num. 4

Ying Liu^{1,2,a}, Shirong Zhang^{1,2,b}, Hu Chen^{1,2,c,*}

¹State Engineering Technology Institute for Karst Desertification Control, School of Karst Science, Guizhou Normal University Guiyang, Guizhou, 550001, China ²Guizhou Normal University, Guiyang, Guizhou, 550001, China ^am15329194981@163.com, ^bzhangsr6124@163.com, ^c21020171655@gznu.edu.cn *Corresponding author

Keywords: Guiyang Quanhu Park; Park Planning; Comprehensive Park

Abstract: With the rapid development of the city, the city park is a quiet "escape" in the midst of the chaos, a place of leisure and recreation for the residents living around here, and a place to increase their feelings. As the opening work of "poetic Baiyun, seven volumes in the clouds" in Baiyun District, Guiyang City, Quanhu Park assumes the function of a city park. From the perspective of design and planning, there are amazing aspects and inadequate aspects of the landscape nodes in the park, and the problems in the park are proposed and modified. This thesis makes a series of discussions on the later maintenance of the landscape, the full utilization of the park's publicity resources, the safety protection facilities for different age groups and different environments, and makes certain suggestions for the planning and design of urban parks in Guiyang.

1. Introduction

Current status of Quanhu Park

Quanhu Park, also known as South Lake Park, is located in Quanhu Park opposite to the New South Home City in Baiyun District, Guiyang. The total area is about 72hm², of which the water area is 13.67hm² and the greening area is 50hm². design concept: in accordance with the return of the lake to the people, the return of ecology to the people, the return of culture to the people, the composite development of the central park, and the seamless integration of the region. With the pattern of "three mountains, one lake, one town and one center" formed by the empty mountain, the solitary mountain, the nameless mountain, the spring lake, the town of Fanhuali and the Buddhist cultural center of Xiputuo Temple. It will become an urban complex with the cultural image of the city, ecological leisure, cultural experience and commercial development, as well as the public welfare function, creating a city park carrying the functions of leisure and entertainment, sports and fitness, green ecology and cultural tourism [1].

In a sense, Quanhu Park is a typical ecological landscape representative of the "City of a Thousand Gardens" built by Guiyang City under the ecological development strategy, to which the government attaches great importance and spends a lot of money. In many aspects of landscape construction, it is worth learning and referring to, such as the planting design, the grouping and

matching effect is very good (Figure 1), the seasonal changes are obvious, and the native plants are properly utilized, which becomes one of the scenery for tourists to take photos.

Secondly, it is also worthwhile to learn from the example of science education. In addition to the design of non-specialized parks, comprehensive parks are lacking in this piece of science education, or it is just a formality, and the science of plants is only a simple introduction of their names, or even their identities are misunderstood by laymen. However, in Quanhu Park, plants are introduced in more detail and in more than one language to meet the needs of different people (Figure 2).



Figure 1: Plant matching grouping (left).



Figure 2: Plant science education (right).

Third, into the garden not only amazed by the rich plant landscape, but also will be attracted by the exquisite vignettes, and the plants into one of the signs or vignettes, simple and beautiful, and can become the focus of the landscape, delicate butterfly specimens inlaid, so that the third, its more characteristic (such as Figure 3). Fourth, the picturesque names of attractions also make people breathtaking, Putuo sunset, cloud building Zen shadow, a hundred plays cloud steps, Zen Valley Secret, empty mountain stopping water, Wenlan to snow, water dance days chapter, cloud mountain stone rhyme, etc., long and deep mood as if people are in it (such as Figure 4). Landscape naming is a common problem in today's landscape, vulgar and shallow, lack of cultural connotation. Fifth, the most important design concept of Quanhu Park is to build an ecological landscape, and spend money to create a transparent ecological circulation system under the original ecological environment, so that the water body can be purified and the water quality can be significantly changed, so that Quanhu Lake can be revitalized. Planting multi-species of aquatic plants such as plantain, releaf, iris and water lily along the shore not only enriches the landscape, but also enhances the biodiversity. The selection of grass species for Yang Guan lawn and the design of the

overall microtopography are both means of ecological landscape construction [2].



Figure 3: Signage that blends in with plants (left).



Figure 4: Picturesque names of attractions (right).

Of course, Quanhu Park, as a comprehensive park in Guiyang City, is worthy of praise for both the design approach and the overall construction effect, not only the above-mentioned aspects are worthy of reference study, but also other aspects are worthy of deeper investigation. However, as the ancient saying goes, "No gold is perfect, no one is perfect", Quanhu Park still has problems in some aspects.

2. Problems

2.1. Emphasis on construction, not on maintenance

When Quanhu Park was established, the initial capital investment was large, and it was indeed a great attraction at the beginning of the establishment and opening, but in the later maintenance and management, the common problems in the landscape construction could not be avoided. Under the planning concept of "returning the lake to the people", the water quality of Quanhu Park has significantly improved. Still, it did not achieve the actual expected effect due to management issues in the later stage. For example, at the spring eye of Spring Lake, in the non-flood season, the water flow is small, the overall circulation of the water body is poor, a large number of plants are planted around the spring eye, and the dead leaves and flakes of plants fall into the water body, which is not handled by the park management department in time, resulting in the pollution of the spring eye and the water body near the spring eye, and some water plants grow wildly. Thus the purification effect does not reach the best effect (Figure 5). Secondly, the wooden walkway from "Yelang Stream" to "Hollow Mountain Stopping Water" was not pruned in time, which made the branches dense and dangerous, so the wooden walkway was not opened during a certain period, which affected the accessibility of the site. There is also a large number of aquatic plants planted on the barge next to the "Water Dance", but there is a lack of professional maintenance and management, resulting in the landscape effect is not as good as a year, and even grows weeds, so that the overall effect is greatly reduced (Figure 6).



Figure 5: Falling leaves not cleaned in time (left).



Figure 6: Lack of management of aquatic plants (right).

2.2. Low utilization of part of the landscape, resulting in a waste of resources

The purpose of park construction includes aesthetics, practicality and economy, but when the park invests a lot of human and material resources in construction and management, the effect is not significant, which not only affects the user's feeling of use and leaves a bad impression, but also is a waste of resources. In this park, the low usage rate of some attractions is reflected in the "Water Dance" and "Hundred Play Cloud Steps" as typical representatives. "Water Dance "is a water dance performance that utilizes lake resources, sound and optical technology, storytelling, and image display to create the largest water screen film in the southwest region that emphasizes sound and visual technology. However, only a few people have truly watched it, and even weekends are not open according to promotional times, which may disappoint those looking forward to witnessing the largest water screen film. The "Hundred Play Cloud Stage" consists of the Flower Theatre, the Water Stage and the Sunshine Lawn. The theater among flowers, water stage is created by the gentle slope of the garden road, stacked water, but its utilization rate is great, as a folk theater stage, but few really use the venue for performances, resulting in the water body is not cleaned, the bottom of the water silt accumulation, affecting the landscape effect (Figure 7,8).



Figure 7: Water dance sky chapter (left).

Figure 8: Hundred Play Cloud Steps (right).

2.3. One-sided emphasis on landscape aesthetics, ignoring human behavior activities



Figures 9: Stone steps forbidden to people.

The text must be aligned to the left with the linespace set to single and in 12-point type.

The most basic principle of urban park landscape construction is "people-oriented", give full consideration to people's psychological needs, so that the public to participate in it, and in some landscape planning ignore the public demand for activities, the simple pursuit of formal beauty, emphasizing the visual effect. For example, at the entrance of the East Gate, the design of a stone step landscape, is very grand, people are hydrophilic, coupled with the characteristic stone steps,

there is a great temptation to people want to step through, feel the fun, however, when the companion stepped on the stone steps was stopped by the staff, and did not explain the reason. I cannot help but be surprised, the water is not deep, the distance between the stone steps is not large, for adults, there is no safety problem, but prohibit people to step on. Another example is the establishment of a glass and wooden trestle on the lake next to the "Water Dance", which makes the monotonous lake landscape rich and adds to the enjoyment of the landscape, but for some reason, the entrance of the trestle is labeled as forbidden to pass (Figure 9).

2.4. Neglecting the behavioral activity needs of disabled and elderly groups

The composition of the users of the comprehensive park includes the elderly, children, women, disabled people and other special groups, but in Quanhu Park, there are few features to meet the behavior and activity needs of these special social groups, and there are fewer suitable activity places and related sports facilities for the elderly, and most of the elderly's activities are limited to the Yangguan lawn. The accessibility design is taken lightly, and there is a lack of necessary facilities to facilitate the disabled. For example, in the north side of Quanhu Park, the road traffic design is unreasonable, and the wooden trestle built along the lake side according to the terrain is relatively narrow, basically only allowing one person to walk, because the terrain height difference is designed with ladders, which brings inconvenience to the elderly and disabled people's passage and affects their overall sense of use (Figure 10).



Figure 10: Wooden trestle with high and low level on the north side.

2.5. Neglecting human-water interaction

"Water is the source of life and is an essential part of the landscape composition. Water can be seen everywhere in Quanhu Park, adding to the dynamism of the whole scenic area, but the design of water bodies ignores the interaction with people. People yearn for water, want to leisurely stroll along the river or lake, rest at the water's edge to enjoy its sound and scenery, or cross the river to reach the other shore, which is people's hydrophilic characteristic. It is a universal law that people are hydrophilic, and enhancing the interactive function between people and water makes people linger. In Quanhu Park, there is a lack of landscape facilities to interact with water bodies, or there are but not interactive, and the management prohibits approaching or touching for safety reasons, which makes people lose part of the fun of playing (Figure 11).



Figure 11: Embankment enclosed by guardrails

3. Suggested changes to the park

3.1. Emphasis on post-care management and training of professional management personnel

With the development of the times, the government gradually began to pay attention to the late maintenance management of the park, but due to the limited funds, a large amount of investment in the preliminary construction, so that the late park maintenance management funds lack, it is difficult to mobilize the enthusiasm of personnel. Quanhu Park is a public welfare undertaking and an important tourism undertaking created by the government, with strong ecological and social benefits. The government should play a leading role, make reasonable decisions on management, incorporate both the preliminary construction and the later maintenance management of Quanhu Park into the government's financial budget, earmark funds for special purposes, monitor and protect the earmarked funds, and pay attention to the later maintenance management. Or when the initial funds are not enough, the later stage of investment, to encourage enterprises from all walks of life to actively participate in it, to adopt social fund-raising or individual fund-raising to attract funds, to increase the investment in maintenance management, to mobilize the enthusiasm of maintenance management personnel, timely maintenance management of the problems that arise in the park [3].

3.2. Increase park publicity and conduct regular related activities

Quanhu Park now exists in the late publicity is small, the relevant park management service background has not been opened, and relevant activities cannot be known by the public in time. The continuous development of information technology has provided convenience to the construction of landscapes. With the development of big data in Guizhou, Quanhu Park should seize the sub-opportunity to use big data to analyze the park's usage status and propose reasonable development countermeasures to solve the existing problems. The government should actively encourage folk art organizations or other public welfare activities to make full use of the Flower Theatre to perform and improve its utilization rate, or specifically make it into a relevant cultural brand. Furthermore, the government should make use of the Internet to establish information about Quanhu, such as establishing or improving the park's official webpage, WeChat public number and official microblog, making tweets with basic information about Quanhu, regular events, and specific times of water screen movies to increase its publicity, improve the use of related attractions, and make full use of the park's landscape resources [4].

3.3. Emphasize the principle of putting people first and facing up to the needs of the public

Popular participation in landscape construction has been the trend of landscape construction, through the actual needs of the public to establish the public's favorite park is very important. Relevant attractions such as the existence of safety problems, to strengthen the maintenance management or the development of the relevant crowd use program, rather than making some attractions are only the form of existence, ignoring the public's landscape practical psychology.

3.4. Establish relative landscape facilities taking into account different groups of people

Establish activity areas for the elderly and the handicapped to meet the needs of people who do not need them. Park planning should consider places for collective activities for the elderly and facilities for the elderly and children. Park landscape planning should also consider the needs of people with disabilities. There is a lack of facilities in this area in China's urban park landscape planning, and barrier-free systems, special scenic areas and venues for people with disabilities should be set up.

3.5. Strengthen the relevant safety protection measures and add water-friendly landscape facilities

The primary consideration for the setting of water-friendly facilities is safety, safety measures are not in place, there are safety hazards, if there is a safety accident, the designer, the park, etc. need to be responsible, inevitably in the design will be fearful. Therefore, when it comes to the design of this aspect, we should strictly comply with the relevant design specifications, do a good job of safety measures, on this basis make full use of water resources, create a water style, set up water ferries, waterside music stations, water leisure tea house, lakeside theater and other activities, in order to increase the hydrophilic, can be combined with the lake shore to increase the interest, set up wooden stacks, small wooden bridges, waterfront buildings, etc., for people to look out over the waterscape, the The lake water body is divided into a small part of the shallow water area, and the embankment can be set up in the shallow water area to play, and the glass walkway at the water dance chapter is open to the public after safety maintenance and repair. Secondly, for the park where there is a body of water, such as the East Gate entrance of the Ting Steps, people can walk through, for children and the elderly and other special groups, posted on the relevant safety tips signs, and so on[5].

3.6. Use advanced technology and train professionals to build, manage and monitor the park

With the improvement of people's quality of life, especially the outbreak of this epidemic, which makes people pay more and more attention to their own health condition, Quanhu Park should actively use electronic technology to monitor the human health condition in the park, as well as the monitoring of environmental conditions, such as real-time updates of real time weather conditions. Intelligent systems can also be properly installed in the park for interaction with people, intelligent reading corners, etc., so that people can be in the sense of atmosphere brought by technology. Human health can be monitored, as can plants. Nowadays, the landscape industry has advanced technology to intelligently operate the maintenance and management of plants, specifically tracking the health status of each plant, smart watering and nutrition supplementation, etc. This can reduce unnecessary time and personnel for tedious maintenance and is real-time, efficient, and convenient. It is also very important to cultivate professionals. The construction and management of the park require technology, and the park needs professionals to operate in the preliminary construction and

later management in order to make the construction of the park more reasonable, how to coordinate the relationship between landscape and architecture, how to coordinate the relationship between the public and the park, how to efficiently and conveniently manage the park, and so on. The government or relevant enterprises need to formulate relevant policies to attract and train professional personnel.

4. Conclusions

This paper analyzes the specific landscape nodes of Quanhu Park for field survey, and puts forward deficiencies for the later maintenance of the landscape, i.e. suggestions for rectification. After the lack of publicity for the park, the later maintenance cannot keep up with the trend of plant growth, making the park lose the sense of original planning and design in the development. This paper also analyzes a series of discussions on safety and security facilities for different age groups and different environments, providing certain suggestions and opinions for later urban park design.

References

- [1] Zhan Damei, Lin Peibin, Yang Yang, et al. Engineering practice of ecological restoration and water quality improvement—Take Landscape Lake of Longtan Park in Shenzhen as an example [J]. Environmental Ecology, 2020, 2 (11): 57-62.
- [2] Liu Yang. The management of national forest parks and the legislative countermeasures [J]. Fujian Quality Management, 2020,000 (006): 182-183.
- [3] Wang Shaohan, Xu Dawei, Song Shuang, et al. Landscape quality evaluation of national Wetland Park based on ecosystem service function—Take the Greater Hinggan Mountains area of Heilongjiang province as an example [J]. Journal of Central South University of Forestry and Technology, 2022 (002): 042.
- [4] Zhu Hui. Park planning in aging communities—Take Macau Youhan Municipal Park as an example [J]. Beauty and the Times City, 2020 (4): 77-78.
- [5] Gao Feng. Exploration of urban Design Guide Strategy of Shenyang Shanghai Sha International Park City [J]. Urban Architecture, 2016 (24): 1.