

Discussion on Improving Strategies of Green Space in Changqing Campus of Wuhan Polytechnic University

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Abstract: Campus green space is not only an important part of school material construction, but also an important part of spiritual civilization. Its construction, success or not, is not only related to the overall image of the school, but also directly related to the teachers and students' daily use of green space. So how to plan and construct in order to make it a successful and popular green space? Taking the green space construction in Changqing Campus of Wuhan Polytechnic University as an example, the paper tries to find out the strategies to solve these specific problems from the user's point of view and from the overall height of the campus. These strategies include three aspects: planning green space scientifically according to users' behavior characteristics, integrating green space with other functional areas, introducing public participation in maintenance, and establishing investigation and analysis mechanism.

1. Introduction

Green space in campus is not only an important part of school material construction, but also an important part of spiritual civilization.[1] Its construction, success or not, is not only related to the overall image of the school, but also directly related to the teachers and students' daily use, and even affects the inheritance of school cultural spirit.

As for Peking University, we immediately think of the Boya Pagoda and Weiming Lake. When we talk about Tsinghua University, we will think of Tsinghua Garden, Shuimu Tsinghua, Jinchun Garden, and the spirit and culture of Tsinghua left behind by generations of scholars. A popular green space will naturally become a "holy place" in the hearts of teachers and students, and even a school card. So how to plan and construct in order to make it a successful and popular green space? Taking the green space construction of Changqing Campus of Wuhan Polytechnic University as an example, this paper briefly analyses the existing problems and tries to find out the improvement strategies from the user's point of view.

2. General Situation of Green Space in Changqing Campus of Wuhan Polytechnic University

Changqing Campus of Wuhan Polytechnic University was founded in 1996. After more than 20 years of development and construction, the campus has experienced the rise and fall of the number

of teachers and students. Up to now, there are about 7,000 students, covering about 53.2 acres (Figure 1).

The campus is mainly composed of two parts, the western part and the eastern part separated by the football school of Hubei Province. As can be seen from Figure 1, the eastern part is smaller, and this is the former site of Wuhan Traffic and Health School, which was incorporated into Wuhan Polytechnic University in 2000. This paper mainly analyses the green space in the western part, because this part is the main campus, the construction time is relatively short, and the maintenance are relatively thoughtful.



Figure 1: General plan of Changqing Campus of Wuhan Polytechnic University.

The western part is mainly divided into three parts: teaching area, living area and leisure and sports area (Figure 2). The larger green spaces are mainly concentrated green space and square green space, as shown in Figure 3. They are the green space in Huxinting area and near the South gate, Sunshine, Rain and Dew Square and the small square at the front corner of Green Leaf apartment. Generally speaking, the total amount of green space is abundant, but some unsatisfactory aspects are gradually exposed in the use.

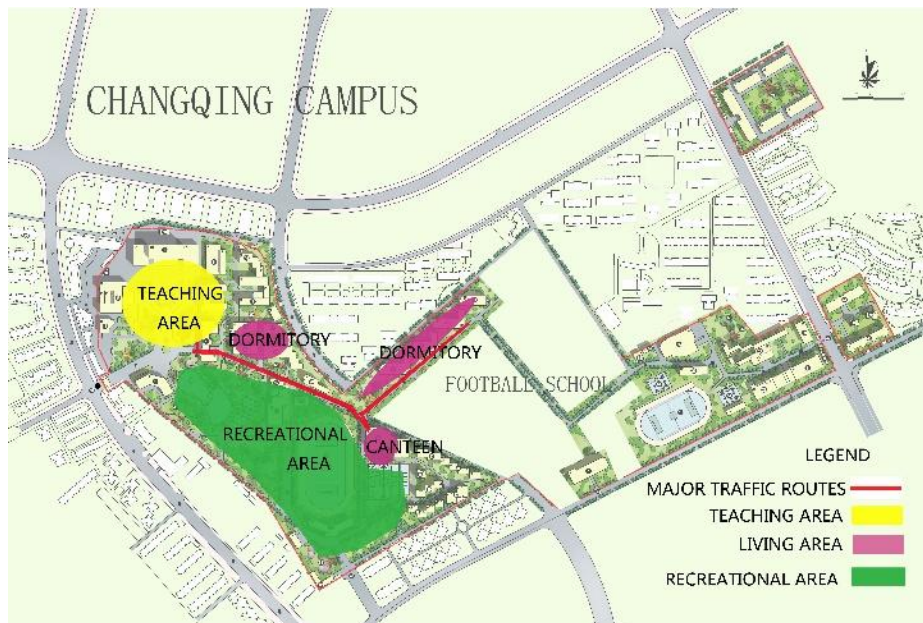


Figure 2: Functional zoning of the campus.



Notes: 1. Sunshine, Rain and Dew square; 2. The small square at the front corner of Green Leaf apartment; 3. The green space in Huxinling area; 4. The green space near the South gate.

Figure 3: Distribution of concentrated green space and plaza.

3. Problems and Reasons of Green Space

3.1 Boring Design and Single Landscape

Although the whole campus adopts the multi-layer greening method combining tree, shrub and grass, it is appropriate to have different design methods when specific to a certain part. However, the design does not well meet the needs of users, resulting in a single and tedious local landscape.

[2]

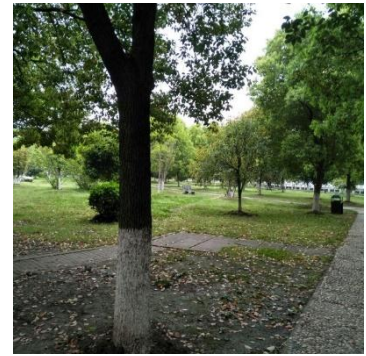


Figure 4: Sunshine, rain and dew square.

Figure 5&6: Green space in Huxinting area.

For example, Sunshine, Rain and Dew Square (Figure 4), which is the core of the open space in the teaching area, not only undertakes the heavy traffic task of evacuation, but also is the landscape visible at the entrance of the West Gate (the main gate of the campus). It adopts the design method of "sight-free" which is mainly lawn and interspersed with a small amount of shrubs. The wide lawn here cannot be stepped into, only be appreciated. In a word, there is no space and facilities for people to stay and rest. Can you imagine that the vast green space is surrounded by the buildings in the teaching area, which makes people feel a little "empty" besides being a little "big"?

3.2 Lack of Recreational Space and Serious Inadequacy of Supporting Facilities

The large concentrated green space often has many functions. Ecology is only its basic function. More importantly, it has the functions of culture, recreation and social communication. [3] However, if we pay too much attention to ecology and neglect other functions, the design will inevitably lack the space for social interaction and learning and thinking. It makes green space an awkward existence, that is, greening for greening, but few people use it.

For example, the green space in Huxinting area (Figure 3, Figure 5&6), as the largest public green space on the campus, is divided into several spaces with little difference in size due to the almost equidistant distribution of trees and shrubs on the big lawn. In such a space, there is no open space for many students to gather, and is also a lack of more private space for few people to sit, think or just watch other people's activities from afar. In addition, inadequate facilities, such as rest seats, eventually lead to students' little interest in such space and seldom use it.

3.3 Separated from Other Functional Areas, Improper Integration and Infiltration of Space

Green space is completely separated from other functional areas of the campus, or improperly dealt with the integration and infiltration of other spaces, which is also an important reason for its unattractiveness. For example, the green space in Huxinting (Figure 3) is close to the main road of the campus, which has the largest traffic, but most students seldom get involved for recreation as shown in Figure 7.



Figure 7: A comparative photograph of traffic on the main road and the green space in Huxinting.

4. Strategies for the Improvement of Green Space Planning and Construction

Who is the user of campus green space? What are their needs? This is the first problem we should make clear when we talk about solving strategies.

The users of campus green space can be simply divided into four parts. The first one is students, young people around 20 years old, which are also the main group of users; the second is teachers, the third is neighboring residents, and the fourth is visitors, including parents and friends of students, as well as staff with business contacts with schools. [4]

These people's use of green space is mainly reflected in leisure and entertainment, reading and learning, and social interaction. And this is the basis for us to propose the next solution strategy.

4.1 Planning Green Space Scientifically and Supporting Service Facilities

Starting from the needs of users, scientific planning of green space and supporting service facilities are the direct ways to improve green space.

In order to achieve this, we need to study the behavioral characteristics of different groups of campus green space users, and give different weights in planning and design. Especially for students, their behavioral characteristics are the most important influencing factors. For example, they need an open space where twenty or thirty people can gather, loud and lively, a semi-open space where several friends can communicate freely, a lounging space where friends can walk when they visit, and a semi-private space where they can think alone or read quietly.

In a word, in the environment of respecting nature and inheriting culture [5], we should make corresponding spatial planning, plant allocation and facilities supply for campus green space according to the needs of users, so as to make it have a suitable shape, play more functions and meet the diversified needs of users.

Of course, green space should be located reasonably according to its location and size, and its functions can be emphasized, but the construction should be grasped by human scale. Clearly, the large and empty design is not an intensive and efficient use of land, nor is it a respect for users.

4.2 Organic Integration with Other Functional Areas

In the campus, the teaching and living areas are the places where students use most frequently. So, it is necessary to deal with the location relationship between green space and these functional areas.

This is a way to improve the use of green space on campus as a whole.

One way is to balance the distribution of teaching buildings, dormitory buildings and other attracting buildings in the campus, so that green space and these spaces naturally blend together and become a part of students' daily life. For example, centralized leisure green space is located between the above two, which is a daily must for students, and it will certainly improve the utilization rate of green space. Therefore, when adjusting the use function of buildings, schools should pay attention to the impact on the distribution of campus crowds, so as to avoid completely separating these necessary and optional functional areas.

Another way is to arrange the green space into the public activity center of the campus with the leisure service facilities that attract students. Public service facilities can be distributed on the side of green space, and can also be placed in it. Together, they attract people to come and visit. Specifically, if Changqing Campus can transform the abandoned buildings into places for students' leisure activities, such as bubble tea shops, coffee shops and water bars, the green space in Huxinting area will certainly become a popular place.

4.3 Introducing Public Participation and Establishing Investigation and Analysis Mechanism

It is a long-term and effective process to improve the green space in terms of maintenance and management. Green space can be introduced into public participation after it is put into use. This is not only because the design may be unreasonable, but also because the needs of users will increase with the improvement of living standards, so managers need to listen to the voice of users, in order to put limited financial and material resources into the areas that users most expect to improve, that is, the so-called "good steel used in the blade". In a word, through establishing investigation and analysis mechanism, investigating users' satisfaction and improving opinions, we can continuously improve the green space.

The collection of these suggestions can be centralized once a year or dispersed in peacetime. Suggestions can be prioritized and arranged according to the investment of improvement funds. In doing so, it is not only conducive to making the campus green space better, but also conducive to enhancing the sense of ownership and social responsibility of students, so that students naturally take the school as their home and take pride in it.

5. Conclusions

It is self-evident that campus green space is of great importance to schools. For how to solve the problems in the use of green space in Changqing Campus of Wuhan Polytechnic University, this paper adopts the research idea of starting from the needs of users, standing at the overall height of the campus, to look at this specific problem and find solutions. These strategies include three aspects: planning green space scientifically according to users' behavior characteristics, integrating green space with other functional areas, introducing public participation in maintenance, and establishing investigation and analysis mechanism.

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