

# **A Rustic Opinion on the Current State of Spatial Sequence and Landscape Composition of Classical Gardens in Modern Cities--Taking Beining Park in Tianjin as a case**

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**ABSTRACT.** *Objective: In order to explore the solutions to the problems caused by cracking modern urban development to the classical environment in city, this paper takes Beining park, Tianjin as the research object. Method: Combined Chinese classical landscape design and modern urban planning concept, the main existing problems of Beining Park was analyzed. Result: The urban development has become a fact under the current situation, therefore, to solve the existing problems must be in hand from the transformation of the park. Conclusion: In accordance with the problems obtained through the analysis, the assumption of reconstructing the sight to layout and improve the landscape composition of the park was proposed.*

**Keywords:** *Spatial sequence, Landscape composition, Vision pollution, Aesthetic pollution, Urban planning, Heritage protection*

## **1. Introduction**

Beining Park (Fig. 1, hereinafter referred to as Ning Garden) was firstly built in 1906, which is the botanic garden built by Zhou Xuexi appointed by Yuan Shikai. It was firstly named after 'Jianshui Pavilion' and when it was built in 1932, it was purchased by Gao Jiye, director of Beining Railway Administration, and it was renamed and renovated. After that, for the continuous war, Tianjin gradually became deserted and the whole garden is in ruins until the victory of the War of Resistance

Against Japan. Since people's republic of China in 1949, Ning Garden has experienced five large-scale renovations respectively in 1949, 1958, 1970, 1984 and 2010. Until today, the landscape of the whole garden basically reflects the landscape design techniques of Chinese classical gardens.

Ning Garden was built in the late Qing Dynasty and the early Republic of China. From the perspective of the history, it is not considered as a long-standing classical garden, and it has not been included in the list of famous historical sites or cultural relics. Apart from this, with the destruction of modern warfare, the Ning Garden has not appeared on the list of Chinese northern classical landscape. Therefore, in view of the fact that the history of Ning Garden is not far away and the original buildings and scenes are not well preserved, the value of historical relics and the value of academic research on Ning Garden are not high in the long history of Chinese classical gardens. However, in terms of that there has not been more typical Chinese garden in its geographical location (Tianjin) and the vicissitudes experience of Ning Garden in modern history, it is still an outstanding representative of Chinese classical gardens in Tianjin, having its special research value, and it is worth digging into its historical sense and practical significance.

## **2. Aesthetic Principles Embodied in Classical Gardens**

No matter in the gardening practice of pursuing geometric beauty in Western classical gardens or that of pursuing natural beauty in Chinese classical gardens, the gardener constantly summarizes and perfects the gardening principles which is subject to the local cultural cognition and aesthetic tendency in the gardening activities he has experienced (which may be subconscious habits rather than active summaries). These gardening principles embody the influence of the aesthetic ideas on gardening and other artistic practices under their respective cultural traditions. And when these influences are reflected in the aesthetic form, they correspond to the western "Geometric rule-based symmetrical aesthetic view" and the Chinese "Natural asymmetrical and harmonious aesthetic view". And whether the pursuit of "Rationalism" of geometric beauty in the West or the promotion of "Poetic and picturesque" realm of natural beauty in China, all need to conform to the aesthetic principles of their respective cultural systems (which can also be understood as the successful experience of gardeners when gardening). These aesthetic principles are

the bridge to communicate the gardener and the viewer. By abiding by these aesthetic principles, the gardener carries out the site selection, construction, landscape composition and spatial sequence arrangement to make the landscape pictures presented in front of people full of rhythm and aesthetic feeling. The viewer is usually subjectively unaware of the specific contents of these aesthetic principles and how they are applied to the garden elements (generally including architecture, landscape, trees, painting and calligraphy), however, upon entering into the garden spaces which are carefully arranged and designed, he or she may naturally figure out the beauty of gardens. It is right the success of the gardens, otherwise it needs to be further discussed on the gardening activities.

Gardening activity is a process creating and enjoying beauty. The establishment of landscape composition, the layout of the spatial sequence and other aspects should conform to the corresponding aesthetic principles, which is unquestionable. In the design of the landscape composition of Chinese classical gardens, it focuses on the complete landscape that forms a progressive relationship at the three spatial levels of the near, middle and far in the picture presented to the viewer, which can not only be conducive to strengthening the deep space sense of the composition picture to realize the "World in the pot", but also conducive to the flexible use of the different viewers' sights to achieve the landscape design of "Varying sceneries with changing view-points". In addition, the Chinese classical gardens mainly follow the landscape design techniques such as the clip scenery, frame scenery, borrow scenery, barrier scenery, suppression scenery, through scenery, leakage scenery, opposite scenery to realize the integrity, coherence, order, inheritance and opening of landscape composition as far as possible; In the layout of the spatial sequence, the following principles are generally followed: Virtual reality, far and near, high and low, before and after, depth and shallow, heavy and light, turning, relaxation, open and covered, etc., to strengthen the viewers' spatial feeling or emphasize the rhythm change of the garden space. Therefore, only the gardeners follow a certain reasonable way to design landscape composition and arrange spatial sequence in the practice of creating beautiful landscape, the viewers can feel an intangible appreciation of a particular beauty in the process of appreciating beauty. And no matter the beauty is the western geometric rules or the oriental nature of asymmetrical harmony, the viewers will feel pleasant.

### **3. The Existing Problems of Ning Garden in the Landscape Composition and Spatial Sequence**

#### ***3.1 Urban managers' inadequate protection on the historical environment of the blocks around the classical gardens***

Only the beauty of geometric rules and the beauty of nature's asymmetrical balance exist in the environment which conforms to the cultural cognition and aesthetic orientation, they can be recognized, praised by people. And when they exist in the environment that is not suitable for them, people may be confused and puzzled in the aesthetic orientation and cultural cognition. At present, the street environment of the blocks around Ning Garden makes people confused. For that the architecture and layout style of Ning Garden embodies the classical Chinese garden style, and in terms of the aesthetic orientation and cultural cognition, it embodies the beauty of harmony in the asymmetrical balance of oriental nature, pursuing the poetic aesthetic conception. However, the current situation is that the neighborhood environment and the high-rise buildings around the garden present the western geometric regular aesthetic prospect represented by the modern buildings. These two things, which represent different aesthetic orientations and cultural cognitions, are in conflict with each other at this moment in this scene, and there will cause many problems. They are both beautiful in their own way, and they are both in accordance with the common perception. We have no idea to compare that which one is right or wrong, and better or worse, but in the space like Ning Garden that reflects the Chinese classical garden environment, the coexistence of the two in such a close distance must make people have doubts in deep cultural cognition and aesthetic orientation, and even the potential risks that the cultural cognition and aesthetic orientation are misled.

In the process of the field research, the author found that the residential areas around Ning Garden are old-fashioned, modern styles, and the red brick or gray brick houses that are barely connected with the classical style have disappeared without a trace (Figure 2). These modern residential buildings are difficult to integrate with the classical garden environment in historical scene, which is related to the limitations of the protection or construction of classical gardens for many years, ignoring the neighborhood environment and human environment that can be

integrated with the protected classical garden wall. These modern neighborhood environments are not only a great destruction to the classical atmosphere of Ning Garden, but also a great challenge to the coherence of the landscape composition and the arrangement of the spatial sequence;

3.2 The control disorder of urban planning on the building height and skyline around the classical garden environment

It is well known that the success of the classical garden landscape composition and the spatial sequence arrangement depends to a certain extent on the borrowing conditions of the surrounding environment of the garden site. In the "Yuan Ye", Ji Cheng in the Ming dynasty puts forward that "Get rid of the bad and accept the good" reflects the importance and application of borrow scenery, barrier scenery, and other techniques in the landscape design of Chinese classical gardens. At present, the modern buildings around Ning Garden are very tall. When the viewers stand in the garden to appreciate the classical beauty, the modern and totally Western-style high-rise buildings will suddenly appear in the background or even in the mid-view (Figure 3). This is a disturbance to the beautiful and elegant environment of classical gardens and a pollution to the visual aesthetics. I call it visual pollution. More seriously, we can regard this disharmonious coexistence as a cultural pollution caused by improper management. Thirdly, it may be limited by the actual conditions at that time, the current situation of the plane layout of Ning Garden reflects that the large-scale restoration, reconstruction and renovation of Ning Garden did not start from the overall spatial layout of the whole park, nor take into account the special needs of the opening and closing changes and rhythm control of the landscape environment, resulting in the disorder of Ning Garden's spatial layout and the imbalance of spatial rhythm and scale changes (Figure. 4).

#### **4. Several Assumptions for Solving Current Problems**

##### ***4.1 In terms of the environmental protection of the historic blocks***

There are two aspects to start with. One is that if the construction activities are carried out around Ning Garden, its architectural and decorative styles should be in line with the environment atmosphere of the classical gardens, and can be integrated

with the environment of classical gardens in the overall block environment; Secondly, when renovating the old residential areas around Ning Garden, the decorative style should be oriented to the appearance that conforms to the classical style, so that the surrounding environment of Ning Garden can be transformed into a block environment that can integrate with the atmosphere of classical gardens in a limited range of attempts. Domestic experience can be drawn from Beijing's environmental protection of the Summer Palace and its surrounding historic districts, which can be based on the "Law of the People's Republic of China on the Protection of Cultural Relics" and the "General Urban Planning of Beijing". Although the laws and regulations on environmental protection of historic blocks around cultural relics protection and protection units are still not perfect, the environmental protection of the Summer Palace and its surrounding historic blocks still provides successful experience for cities with similar classical architecture or garden environment in China, especially in the architectural decoration style and building height that restrict the environment of the surrounding blocks of the Summer Palace. The mature legal system and successful experience abroad can also be used for reference. For example, Japan's "Law on Special Measures for the Preservation of Historical Styles in Ancient Capital" (hereinafter referred to as the "Law on the Protection of Ancient Capital") protects the "Meaningful buildings (structures) and sites in the history of the country, and the environment around them, which reflects the tradition and culture of the ancient." This law introduces in detail how to divide protected areas and how to define protected areas and how to protect them. Taking how to define the environment of protected historic neighborhoods as an example, it stipulates detailed conditions and principles. Firstly, there are important historical relics and historic sites in the region or historic significance in the history of the country and the city and the historic block environment with which they can be integrated, which successfully extends the protection scope from the protected units of cultural relics and historic sites themselves to the historic block environment in which the surrounding and energy coexist and merge; Moreover, in terms of protecting the background environment of historical sites, it does not only refer to the visual background environment, but also extensively includes the natural environment background and the historical and human environment background in the region. In this way, there will be no buildings that do not conform to the architectural style and historical background of the ancient capital and the folk

culture background in the ancient capital and its surrounding background environment. From the experience at home and abroad, it is a long way to protect the environment of Ning Garden and its surrounding historical blocks. If people have paid attention to this problem in recent years, there will be no problem of super-high-rise buildings with modern style or even typical Western aesthetic products when people look around Ning Garden. There will still be some integrity and coherence of the classical garden landscape around Ning Garden.

#### ***4.2 In terms of resolving the control disorder of the height of the buildings and the skyline around the classical garden environment***

The planning departments and city managers should learn from the successful experience gained in the protection of the Acropolis in Athens, Greece. Most areas of Athens under the current situation can almost achieve a view of the Acropolis heritage without tall buildings hindering the line of sight, which is a great planning achievement.

#### ***4.3 In terms of the problems caused by the rehabilitation, reconstruction and repair***

The management of Ning Garden should adjust the overall planning idea and consider the macro-spatial layout and landscape composition and sequence arrangement of the whole park and its surrounding environment, rather than partition and partial reconstruction, and repair for the sake of restoration. According to the author's investigation, from 2018 to February 2019, Ning Garden managers carried out the renovation and landscape upgrading work in the whole park. In some places, lake pavilions and porches were newly arranged, but these work seems not very reasonable after the author's research. There are two reasons: One is that Ning Garden itself contains a large proportion of pavilions and galleries. What we need to do now is how to make better use of the existing pavilions and galleries, and according to the existing layout of pavilions and galleries, we can transform and improve the landscape rather than build new pavilions. Secondly, the new location needs to be further discussed. According to the author's investigation, the newly built lakeside Pavilion is located on the lake embankment road between the Daya Tower

and the Waiting Moon Tower, facing the west. The prospect space in the landscape composition picture here includes the old residential area opposite Yuhong Road outside the garden and the newly built super high-rise buildings in the distance (Figure. 5, Beining Bay). The construction effect is not ideal. Therefore, in accordance with the reality of the large-scale modern high-rise buildings around Ning Garden, the efforts to improve the landscape composition and spatial sequence layout of the park may be achieved through adjusting the changes of the best scenic spots in the park itself, and these changes should be carefully demonstrated and studied. For example, according to the concepts of horizon, perspective, field of view and cone of sight put forward by Mr. Sun Xiaoxiang in his early years in "Landscape Art and Landscape Design", we can change the situation of the typical landscape position in the garden. This change may be an attempt to lower or raise the relative height of the viewing site, or an attempt to narrow the viewing position to the distance from the middle and distant views, or an attempt to block or limit the viewing field through sketches or planting. Take an example to elaborate, under normal circumstances, when being stillness, people's range of the horizon in the vertical direction angle is  $130^{\circ}$ , and the horizontal direction angle is  $160^{\circ}$ , this is the total field of view of the human when static observation. And according to the structure of the eye and retina, when the field of view is  $7^{\circ} - 9^{\circ}$ , the observation effect is the most clear. When it is  $60^{\circ}$ , the scenery is on the verge of the image and identification rate is reduced. In the arrangement of the landscape garden scenery, it is best to catch the viewers' vertical field of view of  $30^{\circ}$  and horizontal view of  $45^{\circ}$ . In addition, according to the actual situation of the site, try to arrange the resident viewing position at 1.2 to 2 times the overall spatial scale of the distance from the scene. In this way, the improved viewing effect is much better than the current situation. Under the current situation, when visitors walk from the southeast gate of Ning Garden to the park, they will pass a lake embankment of nearly 300 meters. At this time, if the viewer looks to the southeast, the close-up view in the landscape composition is the weeping willows on the lake embankment and the stones on the edge of the lakeside revetment. The middle view is the broad lake and the island in the middle of the lake, while the distant view is the elevated railway bridge of the Beijing-Tianjin high-speed railway (Figure 6). The picture is very inharmonious. If the relative height of the road in the park is reduced, and the width of the road is narrowed. The planting density of the lake and the other side is increased, and the



railway bridge in the distance can be covered by the middle scene in the old picture. In the close-up part of the picture, some plants of flowers and leaves are added to attract the viewers to lower the line of sight. In addition, the scenery on the north side of the road along the causeway is added to attract the viewers' eyes, so as not to lead the viewers' line of sight to the south as far as possible. All of these will improve the disharmony of landscape composition in the past.

### **Conclusion**

Chinese classical gardens are the mother of gardens which are universally recognized. No matter the royal gardens or the private gardens, they all embody the broad and profound Chinese classical culture. The involved contents of Chinese classical gardens not only include the material contents such as the essential elements of gardening, but also the spiritual contents which are worth studying and cherishing. The spiritual treasures can be generally summarized as the highly concise of the Chinese landscape painting, calligraphy and poetry, which can make people calm down and coexist in harmony; It can also cultivate the sentiment and enhance aesthetic appreciation; Moreover, it can strengthen our cultural self-confidence and make us free from blindly following the footsteps of Western architecture and garden styles. Just for this, nowadays, with such rapid economic and social development, we should more cherish the rare spiritual home in modern cities---Chinese classical gardens.

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