Study on the Inheritance and Development of Gardening Elements in
Guangzhou Cantonese Opera Art Museum

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Abstract: Guangzhou Cantonese Opera Art Museum, as an excellent representative of inheritance and development of Lingnan traditional culture, has won many awards. The author studies the inheritance and development of the gardening elements and summarizes its characteristics of inheritance and development, which not only has important practical value for similar cultural construction projects, but also provides important practice and exploration for the protection, inheritance and design of Lingnan traditional culture.

In recent years, under the wave of reviving traditional national culture, Lingnan gardens containing Lingnan traditional culture have also witnessed rapid development. While traditional Lingnan gardens have received renewed attention, a number of works of "New Lingnan gardens" works with traditional Lingnan gardening style constructed by modern technology and technology have emerged. Under the current social atmosphere of "cultural self-confidence", it can be seen that there are more "New Lingnan Garden" works in the future.

Guangzhou Cantonese Opera Art Museum, as an excellent representative of "New Lingnan Garden" in recent years, its inheritance and development can largely reflect the development trend of "New Lingnan Garden". Guangzhou Cantonese Opera Art Museum is located in Liwan District, Guangzhou City, Guangdong Province, covering 22,000 square meters, with a total investment of 434 million RMB. It was officially opened to the public on June 8, 2016. The project has won a number of awards: (1) the First Prize of Garden Landscape in the Special Group of Guangdong Excellent Engineering Survey and Design Award in 2017; (2) the Highest Honorary Award of Engineering Quality in Construction Industry in China in 2016-2017 -- Luban Prize in Construction Engineering in China; (3) the First Prize of National Excellent Engineering Survey and Design Industry Award in 2017 and First Prize of Garden and Landscape Engineering Design.

Guangzhou Cantonese Opera Art Museum is divided into two parts on the north and south shores. The south shore is the main part of the museum building and the garden, and the north shore provides office services and facilities for the museum. The research scope of this paper is the main garden space on the south shore.

1. Analysis of the Gardening Elements

Gardening elements are the carrier of garden culture, and also the main elements that can be directly perceived in garden space. It can be said that it is an important determinant of the success of gardening places. On the basis of absorbing the traditional essence of Lingnan, the gardening elements of Guangzhou Cantonese Opera Art Museum are closely related to the pace of the times and inherit and develop Lingnan garden and Lingnan culture. According to the form of expression, they can be divided into inheritance tradition, coexistence of inheritance and development and innovation development.

1.1 Inheritance Tradition

It means that the external texture and internal structure of gardening elements are identical with those of traditional Lingnan gardening elements.

(1) Pavilion

"Pavilion, can be said to stop, and it is the place that people stop." In the traditional Lingnan
gardens, the function of the pavilion is mainly based on stop-and-go tours, and it is also a good object of appreciation.

Guangzhou Cantonese Opera Art Museum has a number of pavilions such as the Hexagon Pavilion, the Western Building, the Parallel Quadrilateral Pavilion, and the Yongbian Half Pavilion. The typical parallelogram stone pavilion combines with the surrounding stone corridors, relief walls and floor tiles to form a small environment like the stage setting, which extends the indoor space to the outside [3].

(2) Boat
In the traditional Lingnan gardens, the boat is modeled after the boat and built on the surface of the water for people to play, entertain and enjoy the scenery.

The "Red Boat" of Guangzhou Cantonese Opera Art Museum, which is carved from red granite, is situated on the bank of the central water surface. It is nearly 10 meters long and 4.5 meters high. The famous section of the hull carving opera echoes the theme of the Guangzhou Cantonese Opera Art Museum.

(3) Bridge
In the space structure of traditional gardens in Lingnan, bridges generally do not constitute the space boundary of gardens. It mainly plays the role of dividing water surface, connecting traffic and embellishing scenery [4].

There are many bridges in the Guangzhou Cantonese Opera Art Museum, such as Curved Bridge, Hanbaiyue Corridor Bridge, Hongyue Bridge, Overlap Moon Bridge and Baoyue Bridge. The representative one is the Hanbaiyu Corridor Bridge connecting the two buildings of "Putianle" and "Sounding in Pear Garden". The corridor bridge makes up the gap between the two courtyard buildings, which not only adds the pleasure of garden, but also looks forward to the highest building of the park, the Bahe Pavilion.

(4) The standing stone inside
In traditional Lingnan gardens, one or two natural peakstones are laid out, lined with flowers, trees and shrubs. There are not many ink, but they are interesting. They are called "standing stones" [4].

The standing stones in the Guangzhou Cantonese Opera Art Museum, such as Gallery Bridge, Red Boat, Pear Garden Sound and other courtyard stone, is selected from Guangdong stone scattered in all corners of the garden. The characteristics of stone with leakage, penetration, and wrinkle is shown incisively and vividly in the park.

(5) Plants
In the plant allocation of Lingnan gardens, because of the different environment, it is necessary to select the varieties matched with scenery, and make full use of the different forms of plants to make them coordinate with buildings, stone landscapes, and water bodies. In the center of Guangzhou Cantonese Opera Art Museum, there are a number of lutos; carambola from Lingnan is planted beside the red boat; two pieces of longan trees with hundred years’ old is planted right ahead “Sounding in Pear Garden”. The selection and matching of plants highlights the local characteristics and cultural connotation of Lingnan.

1.2 Coexistence of Inheritance and Development

(1) Dias
Dias is a kind of architecture in traditional Lingnan gardens. It is often used for panoramic view and borrowing scenery.

The elevated terrace of the main pavilion of Guangzhou Cantonese Opera Art Museum can not only overlook the whole garden space, but also shield the unfavorable landscape elements around it, forming the optimum momentum pattern and view line of "high northwest and low southeast". Modern glass curtain wall is used at the base of the inner terrace of the park, and is accompanied by high terrace flowing waterfall.

(2) Cabinet
The role of cabinet in traditional Lingnan gardens is mainly for visiting and recreational
activities, and for forming the contour of ups and downs. The landscape not only solves practical needs, but also increases the landscape of the courtyard \(^4\).

The Guangzhou Cantonese Opera Art Museum has two attics of "Bahe Pavilion" and "Ruanyu Pavilion". The characteristics of "Bahe Pavilion" which stands on the main pavilion's elevation are obvious. It uses modern engineering methods and adopts the form of cross roof to command the elevation nearly 32 meters, which plays an important role in forming the momentum of the whole park and leading the overall situation.

(3) Gallery
In the Lingnan gardens, the corridors are consciously combined with the terrain along the parade route of the courtyard, “bending according to the trend”, and different scenes are organized in the garden.

The first and second floors of Guangzhou Cantonese Opera Art Museum are connected by corridors, which are connected up and down. The space between the building and the courtyard is undulating and full of changes.

(4) Rockery
The rockery in Lingnan garden is a simulation of the natural mountain, and the natural mountain situation changes in thousands of ways, so the shape of rockery is also strange and interesting.

The Guangzhou Cantonese Opera Art Museum has two main blocks, Yingshi Rockery and Yongbian Huangshi Rockery. The main scenery of the rockery is divided into two parts, that is, the main peak and the second peak. With the construction of modern large-scale engineering equipment, the stone is nearly 2,600 tons, and the highest point of the main peak reaches nearly 10 meters. All of them use the local stone, the overall stone type is awkward and changeable, the main peak is towering and dangerous, and the deputy peak mountain path is staggered, just like the real mountain reappears.

(5) Waterscape
The waterscape is an effective and economical set-up method in the traditional setting of Lingnan garden. It can be combined with production and fish farming, adding extraordinary scenery and increasing economic income.

The waters of Guangzhou Cantonese Opera Art Museum flow through the small waters of each group and the large water surface of the center. The space organization of the entire Museum is connected in series, forming a continuous, active and tailed living water in the park, running through the whole garden.

The water surface of the courtyard center "Late Sand Lake" opens and closes greatly. The main building is closely surrounded by the central water surface layout. There are many ornamental fish in the water, water lilies and other aquatic plants are planted on the water surface. The water forms include waterfall, rockfall, stream, pool and fountain.

1.3 Innovation and Development
That is to say, "go to the surface and carry on its meaning", and new materials and techniques is used to inherit the artistic context of traditional Lingnan gardening elements.

The stone placement at South Gate of Museum is one of the "nine Obsidian stones" existing in Yaozhou (Royal Garden) ruins of the Southern Han Dynasty in Guangzhou during the Five Dynasties. The prototype of Obsidian Stone is reconstructed by 3D scanning technology and forged with iron. The shape and color of the stone are similar to the original stone, so as to inherit the historical context.

2. Research Results
(1) Drawing lessons from the high-quality cases of traditional Lingnan famous gardens, and the cultural connotation should be in line with the traditional gardening elements.

The gardening elements of Guangzhou Cantonese Opera Art Museum should fully draw lessons from the existing high-quality cases of famous Lingnan gardens, and the cultural connotation should be in line with the traditional gardening elements. All the representative gardening elements
can find similar cases or prototypes in the traditional famous Lingnan gardens.

(2) When the volume is small, the external texture and internal structure of the smaller body are consistent with the tradition.

The gardening elements such as pavilions, bridges, bilges, plants and courtyard erecting stones in the Museum are small in size. The materials and manufacturing techniques used in the pavilions, bricks and tiles can meet the requirements of modern use, ornamentation, safety and fire prevention. The external texture and internal structure are identical with those of traditional gardening elements.

(3) When the volume is large, the external texture is consistent with the tradition, and the internal structure is innovative and developed.

On the premise of inheriting the appearance texture of traditional materials, modern technology and materials are used in the internal structure to meet the modern use and technical requirements.

(4) When the appearance and texture cannot be consistent with the traditional, the external performance should be innovated and developed.

The prototype is unique and difficult to replicate using traditional materials (stone). The method of “going to its surface and bearing its intentions” is used to replicate the prototype with modern new materials to inherit the history.

3. Conclusion

Guangzhou Cantonese Opera Art Museum has been a rare and outstanding new Lingnan garden construction project in recent years. It is extremely representative. The research results of its inheritance and development characteristics of the gardening not only have important practical value for the same type of cultural construction project, but also provide important practical thinking and exploration significance for the restoration of traditional Lingnan gardens, the inheritance and design of Lingnan traditional culture.

References