

Research of the Royal Garden Space Environment in Song Dynasty--A Case Study of Jin Mingchi

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Abstract: As a famous imperial garden in the northern song dynasty, Jin Mingchi became a symbol of the prosperity of the empire. Its magnificent image led many poets to write many poems and present the pomp of Jin Mingchi to people's eyes. Although its peak period is extremely short, it is still an indelible classic. The construction and layout of jin Ming chi in song dynasty occupies an important position in Chinese garden history. The changes in the history, function and landscape structure of the Jin Mingchi and the comparison between the restored site and the historical records are described.

Keywords: Jin Mingchi; Recovery; Environmental analysis.

1. INTRODUCTION

The development of Chinese classical garden runs a long history, in the meanwhile, China's classical landscape architecture has its own unique style, because of its unique economic and cultural and political background. At the same time, the Chinese classical landscape architecture style also has a far-reaching influence to the development of surrounding countries landscape architecture, and it occupies an important position in the world's architectural history. Unlike development of western landscape architecture, the ancient Chinese painting and classical garden architecture influence each other, which makes Chinese garden more artistic connotation [1] that is the most unique existence in the history of world gardens.

Song dynasty, no matter from the point of view of economy and culture, its history in China is a very important turning period. Deng ganging, a famous Chinese historian, used to comment that the cultural development of the Song dynasty was the peak of the feudal society in ancient China. Deng's views were approved by Chen yanked, a former Tsinghua university professor who is known as one of the four great masters of Chinese studies, and he often referred to the Song dynasty as "the dynasty of Tianshui", Chen believed that the song dynasty was the peak of Chinese national culture after thousands of years of development and evolution. In the eyes of the master of Chinese studies, such a high evaluation is sufficient to show that the culture and the economy in the Song dynasty were beyond the reach of other dynasties.

2. BASIC OVERVIEW OF GARDEN IN THE SONG DYNASTY

The Song dynasty was a period of economic development, cultural prosperity and stable social environment. In this context, the development of Chinese garden is very remarkable. The garden art of the Song dynasty inherited from the Sui and tang dynasties, and also inspired the later gardens of the Ming and Qing dynasties. Kaifeng is the capital city of the northern song dynasty. The construction level of landscape architecture in Kaifeng is so high that it can hardly be matched in cities of the same period. Most notably the royal gardens of this period, agglutination in gardening art of northern Song dynasty and its various periods before the essence of gardening art and skill, therefore this period of imperial garden in areas such as history, culture and art research has high research value.

In the development history of Chinese classical gardens, the development period of gardens in the Song dynasty was in the period when garden art gradually matured to its peak. The general characteristic of garden art in this period is that it imitates nature and is superior to nature. Combining emotion with scenery, the scene blends together and is full of poetic and pictorial meanings, forming the freehand landscape garden that people often say since then [3]. Especially in places like Kaifeng, Hangzhou and Suzhou where there are abundant natural landscape resources, we make full use of the existing local landscape resources to build gardens according to local conditions. A large number of classic gardens that make full use of local natural resources have been formed, and these gardens have also created a number of famous landscape garden cities. At the same time, the shape and content of gardens in this period also tend to be stereotyped, and the techniques of garden building have also entered a relatively stable stage. If the gardens in the Song dynasty were divided into four categories by use and applicable objects, they could be divided into four categories: royal gardens for royal leisure use; private gardens owned by high-ranking officials and dignitaries; temple gardens for religious purposes; and mausoleum gardens built in large mausoleums.

3. JIN MINGCHI

Jin Mingchi, also known as "West pool" and "The training pool", is the most important imperial garden in the northern Song dynasty. It is beyond the Shunting gate on the west of Kaifeng city which is the capital city of the northern Song dynasty, and is a famous royal garden in the northern Song dynasty. In addition, the landscape structure layout of Jin Mingchi itself has a strong representativeness and particularity in Chinese classical landscape architecture in terms of garden building skills. It is worth noting that Jin Mingchi was built in plain area. There are few natural landscapes such as mountains and water to rely on. However, Song artisans was carried out on such a flat land of wonders scarce natural landscape gardening activities, and put a lot of manpower to dig pool, in order to build such a water garden entirely by hand. By historical documents research can find that Jin Mingchi already have the basic conditions of urban public landscape, study on its restoration to offer reference for China's public garden development history.

3.1 Jin Mingchi historical examination

There are two main theories about the construction time of the Jin Mingchi in various historical records. The first one is that the excavation of the Jin Mingchi was ordered by Chai Rung, the emperor of the Zhou dynasty, between 907 and 979 AD. Another theory is that the emperor of the Song dynasty, Zhao Guanyin, ordered the construction of the Jin Mingchi. Both of the above statements have a large number of corresponding literature records.

3.1.1 The main basis for building in the late Zhou Dynasty

(1) In Qing dynasty collected in "The Si Ku Quant Shu", there is a record of the beginning and purpose of the excavation of the Jin Mingchi. It is said that the excavation of the Jin Mingchi was carried out in 957 AD. However, this text was not written by the people at that time, so the reference value is small.

(2) Ma dunlin, a famous historian in the Yuan dynasty, once described how Zhao Kuangyin, the first emperor of the song dynasty, was enjoying the naval sea warfare training in Jin Mingchi. However, this description is not mentioned in the "History of the Song Dynasty".

3.1.2 The main basis for building in the Song Dynasty

In the "Yu Hai", written by Wang jingling, a scholar of the song dynasty, there is a record that Zhao Guangyi ordered 35, 000 workers to dig the Jin Mingchi in 976 AD,: "In 976 AD, Emperor Zhao Guanyin ordered 35, 000 people to dig the Jin Mingchi. Take the water from the Jinshui River into the Jin Mingchi. In the center of the pool there are five palaces, and to the south of these palaces there is an arch bridge several hundred meters long. The whole Jin Mingchi belongs to the Qionglin garden. [4]"

With similar records about Jin Mingchi digging also appeared in "Continued History as a Mirror vol.19 ", written by Li Dao in the southern Song dynasty, and It also mentioned that the water source of the early Jin Mingchi was Jinzhou river and Zhao Guangyi reward to the workers. However, such descriptions are relatively few in the "History of the Song Dynasty", but the excavation time is relatively accurate. In the "History of the Song Dynasty, biographic sketches of Emperor Zhao Guangyi", there is a paragraph about the emperor's daily government affairs on March 3, 978 AD, which he mentioned that he had ordered the excavation of the Jin Mingchi. In addition, in the "History of the Song Dynasty, records", in the author also mentioned that a large number of turtles were excavated during the excavation of the Jin Mingchi.

According to the above historical records, we can find that there are relevant records about the excavation of the Jin Mingchi, the later Zhou Dynasty and the Song Dynasty. However, most of the records about the construction of the Jin Mingchi in the later Zhou Dynasty are not official records, which cannot guarantee the accuracy of these records. Therefore, I think it is more likely that the Jin Mingchi was excavated between 976 and 984 AD, but I do not rule out the possibility of large-scale expansion on the basis of the original pool in the later Zhou Dynasty.

3.2 Function evolution process of Jin Mingchi

Although there are still disputes about the excavation time of the Jin Mingchi, there is a relatively unified research view on the construction purpose of the Jin Mingchi that is, training

the navy. In the early days of the construction of the Jin Mingchi, the song dynasty emperor did come to the site many times to watch the naval training, and the records in this regard also appeared in the "history of the song dynasty" many times. For example, in March of 983 AD and April of 984 AD, there were records of the emperor's journey to the Jin Mingchi such as "The emperor came to the Jin Mingchi to watch the naval training. [5]"

In addition, the purpose of the Jin Mingchi should not only be to train the sailors to prepare for war. Because the newly built Jin Mingchi may already have the function of a royal banquet and water play. The construction of the Jin Mingchi was mentioned in the "Continued History as a Mirror vol.11 "as "The palace in the center of the Jin Mingchi has been built", and The song dynasty emperor had to go by boat. Probably because in the period of Zhao Guanyin, the center of gravity of the song dynasty military operations began to resist the northern minority regime cavalry, the demand of training navy also drops, Jin Mingchi military purposes and therefore weakened, gradually began to feast swim recreational use. Although during the reign of Emperor Zhao Guanyin, the water-war drills of the water-army were often observed, in fact, the Jin Mingchi began to turn into the royal imperial palace after its completion. Ye Mange of the Song dynasty said in his book "she Lin yang your" that the Jin Mingchi no longer trained Naval, and the soldiers instead trained on land. In the "history of the song dynasty", it has also been mentioned many times that "The emperor came to the Jin Mingchi to watch the water play". This shows that after a brief period of military use, the Jin Mingchi became a royal palace.

In addition, Tina Xi, a famous statesman of the Song Dynasty, mentioned in a report he submitted to the emperor that the Jin Mingchi was "The size of the Jin Mingchi has become enough for your majesty to hold a banquet to visit, and it is enough to reflect the power of the song dynasty. "This text also verifies from the side that Jin Mingchi had already had the function of watching water hippie and banquet in Zhao Guanyin's reign.

With the passage of time, the function of the Jin Mingchi has gradually begun to open regularly to the public on the basis of meeting the royal banquet tour. The fundamental purpose of this initiative is to reflect the image of the royal family and the people sharing happiness and loving the people. In Ye Mange's "shi Lin yang your", there was a paragraph describing the "opening of the pool" of Jin Mingchi in February each year, including the opening of the Jin Mingchi to ordinary people. However, during the reign of Zhao Jib, the eighth emperor of the northern song dynasty, the opening of the Jin Mingchi to the people changed. In the Men Yuanlao's "Memoir of A magnificent scene in the capital of the Song Dynasty "in the space of a whole volume of the Song Dynasty royal visit in March to April in Jin Mingchi and citizen, there are a large number of text describes the civilians in Jin Mingchi scene, this text gives a very detailed description of the busy scene at that time. In this volume, the Men Yuanlao describes the opening of the Jin Mingchi during the reign of Emperor Zhao Jib, in which he describes in detail the opening time of the Jin Mingchi, the scope of opening to tourists, the pomp of the garden and the opening time. From these descriptions can determine Jin Mingchi has changed from the original military purposes to the change of the open to civilians, it also embodies the

function of Jin Mingchi will be improved, but also embodies the royal gardens of the Song Dynasty is the public have reached a very high level. This change also shows that the song dynasty gradually entered into a period of peace and prosperity in which a large number of public gardens could be maintained.

3.3 The forming process of Jin Mingchi architectural landscape

The overall structure of the Jin Mingchi has not changed much all the time, so there are relatively few records of large-scale restoration of the Jin Mingchi in historical records. But from the perspective of garden maintenance, the daily repair of such a large scale landscape must be essential.

As can be seen from the records in the “Yu Hai” and the “Continued History As A Mirror”, the core layout of Jin Mingchi was determined at the beginning of the excavation: namely, The pool, the five palaces in the center of the pool, the arch bridge and the palace on the west side of the pool. In the subsequent expansion and addition, the layout of various facilities is also carried out around this core. It is worth noting that Kaifeng is located in the flat plain, the terrain is extremely beneficial to economic development and agricultural production, but from the perspective of the landscape concept of Chinese traditional garden, the flat without relying on the terrain, there is no advantage. Flat terrain may have no effect on the construction of elaborate private garden landscapes, but for large royal gardens, too flat terrain is difficult to show the beauty of lakes and mountains. Therefore, the gardeners built a cross-shaped island by stacking the earth and stone excavated during the excavation of the pond in the center of the pool. Then the gardeners built five palaces on the island, corresponding to the palace on the west side of the pond and connected by an arch bridge, so as to enrich the landscape level of the Jin Mingchi.

Then in Zhao Xu (the sixth emperor in Northern Song Dynasty) and Zhao Ji ruling period, both have records of large-scale construction of the Jin Mingchi, such as the addition of a shipyard during Zhao Xu's reign to store and repair large dragon boats. In 1079 AD, the emperor ordered the repair of the Louche River and beanie river, greatly improving the water quality of the Jin Mingchi. It can be seen from this move that the then rulers attached great importance to the water quality of urban water sources and landscape water bodies. In fact, from the point of view to the requirement of water quality, the Song dynasty landscape is already very close to the modern landscape gardening standard, and between 1111AD and 1118AD, Jin Mingchi underwent another massive renovation. A large number of building facilities have been added to the renovation.

After the northern Song dynasty emperors, constant repairs, Jin Mingchi reached its peak in the Song dynasty. Unfortunately, this magnificent royal garden was destroyed by the war in 1127, and the records about the Jin Mingchi after the disaster are often only a few words, such as "destroyed by the Jin Dynasty" and "stationed in the Jin Mingchi". It's not as brilliant as it used to be.

Table 1. Historical records of changes in landscape architecture of Jin Mingchi
(Self-made by the author)

Time	Rulers	Effect	Literature
976 A.D.	Zhao Guangyi	Build the Jin Mingchi	“History of Song Dynasty”; “Yu Hai”; “Continued History As A Mirror”
From 1068 to 1077 A.D.	Zhao Xu	Build a dock	“Dream Pool Essays’ supplementary”
1079 A.D.	Zhao Xu	Clean water	“History of Song Dynasty”
From 1111 to 1118 A.D.	Zhao Ji	Increase the construction	“Memoir of A magnificent scene in the capital of the Song Dynasty”

4. THE RESTORATION OF JIN MINGCHI IS COMPARED WITH THE HISTORICAL TEXTUAL RESEARCH

4.1 The restoration of Jin Mingchi

Archaeological research and restoration work on the Jin Mingchi have never stopped. In 1982, kaifeng protection of cultural relics departments for textual research in the Shuntian Gate of the Northern Song Dynasty capital city in has carried on the preliminary to Jin Mingchi assignment, and the location and overall dimensions of the Jin Mingchi were determined by geological drilling in 1993. The previous research results and the site of the complex preliminarily confirmed that the size of the Jin Mingchi is roughly consistent with the historical records. In the following years, the location of other facilities in the Jin Mingchi was further determined, laying a foundation for the subsequent restoration.

At the beginning of this century, after many archaeological studies, the relevant authorities of kaifeng city decided to rebuild the Jin Mingchi on the original site. Based on a famous painting from the song dynasty, the restoration restored the original landscape and architecture of the Jin Mingchi, trying to show the prosperity of the Jin Mingchi and the northern song dynasty.

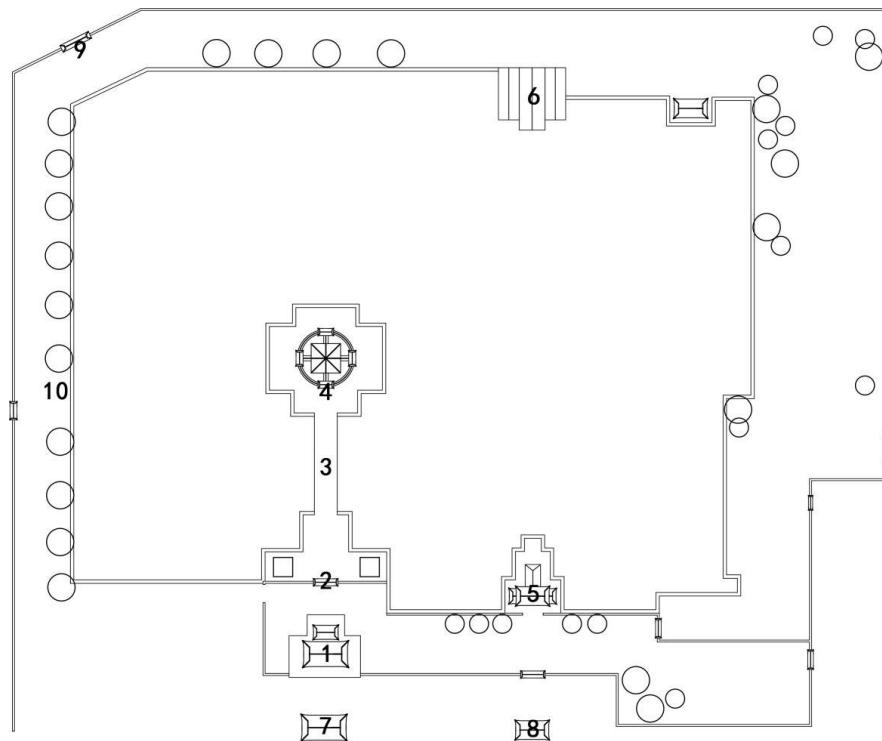
4.2 The restoration and textual research comparison of Jin Mingchi

In the restored Jin Mingchi site park, its architecture basically maintained the style of architecture of the song dynasty. However, from the perspective of landscape environment restoration, Jin Mingchi Site Park is not perfect. First of all, the project itself is not completely according to the archaeological restoration projects, among them with too much commercial factors, therefore its shape and size is fundamental to modern business demand and service. Therefore, the restored Jin Mingchi site park is different from the historical records in terms of landscape structure and layout. The existing Jin Mingchi site park concentrates all public facilities on the southeast side of the site, while the west and north side become private residential and resort hotels. (See figure 2)

Table 2. Comparison between ancient and modern USES of Jin Mingchi buildings (self-made by the author)

Serial Number	Original Location	Purpose	Actual Location	Purpose
1	Baojin Tower	Watch acrobatics	Baojin Tower	Kaifeng new area planning exhibition hall
2	Lingxing Gate	—	Nothing	—
3	Arched Bridge	—	Arched Bridge	—
4	Shuixin Palace	Enjoy the water	Shuixin Palace	—
5	Linshui Palace	Watch the race	The east wing	tea house
6	Dock	Repair/park the dragon boat	A Resort Hotel	Hotel
7	Banquet House	Hold a banquet	Nothing	—
8	Archery House	Archery games	Nothing	—
9	West Sluice Gate	—	Nothing	—
10	Embankment	Sightseeing/fishing	uptown	uptown

As can be seen from the plan of Jin Mingchi Site Park after the reconstruction, the overall reconstruction scope is concentrated on several palaces and Bridges on the south bank of Jin Mingchi. These buildings are the core buildings of the jinn Ming chin in the Song dynasty. But other aspects of the park's restoration are different. For example, the water area of the original Jin Mingchi is close to a square, with a circumference of about 4,900 meters, which is basically consistent with the perimeter data recorded in the historical literature. However, after the reconstruction of Jin Mingchi Site Park, the water area and the shape of the park differ greatly from the description of ancient books. In addition, In the Men Yuanlao's "Memoir of A magnificent scene in the capital of the Song Dynasty" was documented in the northern shore of Jin Mingchi for park there is a dragon boat dock, after the reconstruction of the field is changed to a five-star resort hotel, its size is larger than the site of the dock into the water. Another major difference, on the west side of Jin Mingchi after reconstruction is a modern commercial residential district, and in literature, here was originally a "there is no house but the trees [6]" the dam, its original function mainly for visitors to fishing and pleasure, even some restaurant near here, can offer the service of food processing.



1. Baojin Tower 2. Lingxing Gate 3. Arched Bridge 4. Shuixin Palace 5. Linshui Palace
6. Dock 7. Banquet House 8. Archery House 9. West Sluice Gate 10. Embankment

Figure 1. Restoration plan of Jin Mingchi (author's own drawing)

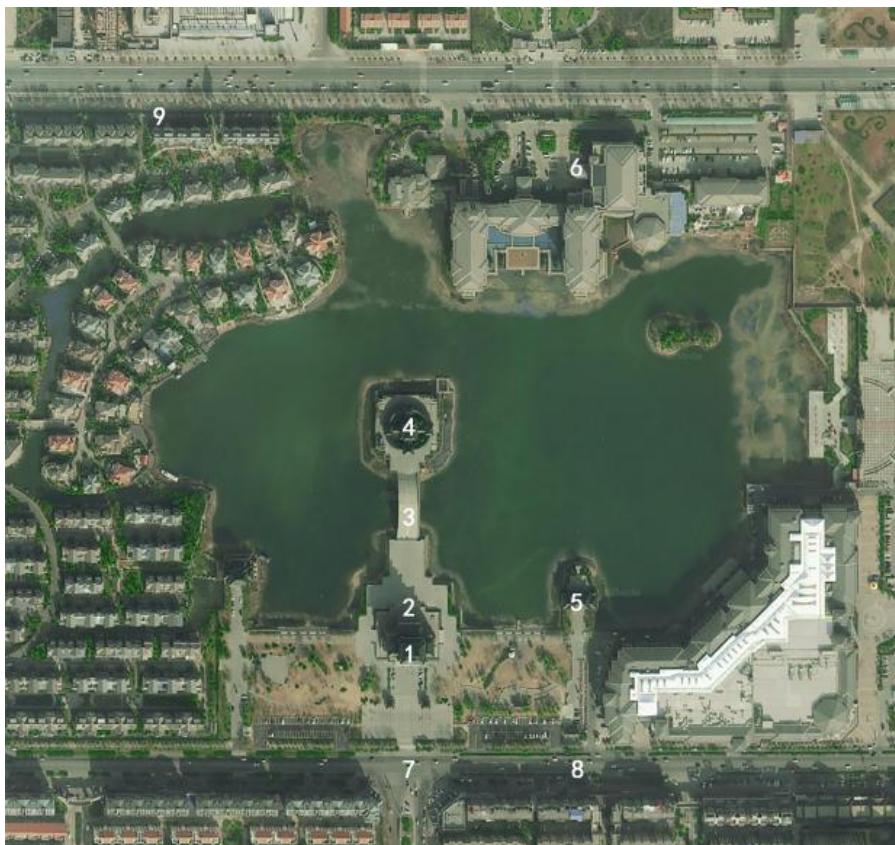


Figure 2. Plane of Jin Mingchi Site Park after reconstruction (Google picture)

In general, the existing restoration scenes are very close to historical records in architectural details, but there are some differences between the function and structure of the environmental landscape and historical records.

5. CONCLUSION

Although with the decline of the northern song dynasty, the historical Jin Mingchi already no longer, but as the representative of the northern song dynasty imperial gardens as well as an important part of the northern song dynasty capital, Jin Mingchi has extremely high status in the history of Chinese gardens, it represents the achievements of Chinese classical garden. Up to now, there are many records of Jin Mingchi in the popular poems, paintings and historical books. The research on the landscape architecture environment of Jin Mingchi is not only a simple landscape study, but also a comprehensive exploration of the garden development and the social, cultural and economic development in the northern Song dynasty. Through the in-depth exploration of the Jin Mingchi, we can accurately understand the construction techniques and artistic features of the Song dynasty gardens, laying a solid foundation for the reconstruction of the original landscape in the future.

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