

# Analysis on the growth and evolution of the landscape space of Wanzhou city in Chongqing

## —Taking the space evolution of Gaosun Tang as an example

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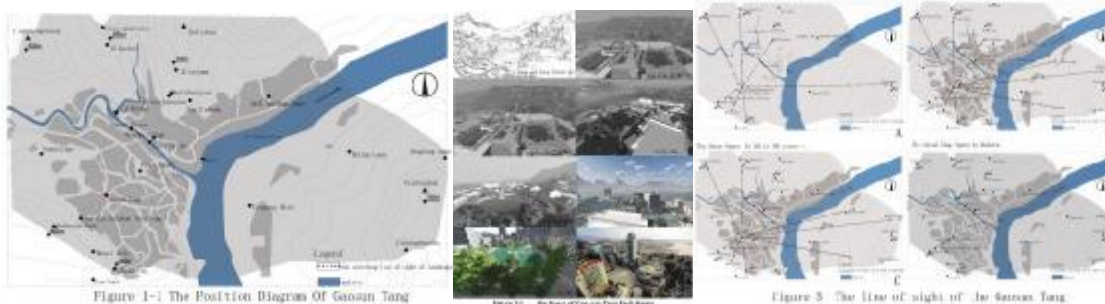
**Abstract.** Most of the historic environment is landscape dependent, the landscape space scale is pleasant, the sight is open, the form is beautiful, and full of vitality. The growth of the space depends on a combination of law of the landscape space<sup>[1]</sup>. The location of some ancient cities and towns is often within the fact that the external environment influence the internal environment, which guides the space to actively develop to keep the original and the natural harmony of the space form. The Gaosun Tang in Wanzhou district has been the main landscape node in the city center, and its spatial form has experienced a history of nearly a thousand years, and the early development of the space has basically complied with the continuous growth of the space. However, with the rapid development of modern cities, especially the construction of new period, the original unique space of Gaosun Tang has gone away, so that the continuity of space has been destroyed. The analysis of the evolution of the historical space form of the Gaosun Tang, exploring the relationship and the present situation of the growth and disappearance of the original ecological landscape space, is to put forward suggestions for the repair and maintenance of ancient environmental space form and its sustainable development in the modern city construction.

### Introduction

Wanzhou district Is located in the northeast of Chongqing, eastern margin of Sichuan basin, in the hinterland of the Three Gorges Project reservoir area. Traditionally, Wanzhou has been named for "Wanchuan Bi Hui"(in Chinese), and also famous for "merchants". Gaosun Tang is located in the northern foot of western hills in the old city of Wanzhou. In ancient times, Gaosun Tang called Lu Chi(a pond), With the liubeichi adjacent sites, collectively known as "Lu Chi Liu Bei". Lu Chi, one of the eight sceneries of ancient Wanzhou, was built in the Northern Song Dynasty, and Huang Tingjian has been amazed at its fascinating scenery. Now it has evolved into the Gaosun Tang Plaza, located in the downtown area of Wanzhou culture and business center (Figure 1-1). However, the construction of the modern city lacks consciousness of the protection of cultural monuments and environmental protection, which has destroyed the combination of beautiful landscape space with the natural environment. We intend to use the Contrary Space Sequence analysis method to analyze and study the historical space form and evolution of the Gaosun Tang, and try to make some constructive suggestions on how to extend and protect the historic environment landscape space in modern city construction.

Contrary Space Sequence, the definition and research methods are proposed by scholars in 2007<sup>[1]</sup>. Its basic principle is that many towns depend on the existence of external environment landscape space first, limited and influenced the composing of internal landscape space, then form the landscape space of inside and outside towns to continue harmonious space structure of combination and the sequence. It has a feature of the orderly combination of urban space in Chinese traditional landscape consciousness, emphasizing the harmony between heaven, earth, human and feeling, which is bound to be linked with Chinese city and village site culture of thousands of years. Not only that, it has gone beyond the general philosophy of landscape town site choice, changing the form of the internal space of the turning, block and crossing, and the scale between the house and street, street and

people is pleasant and has been integrated into the strong human feelings, forming a combination of very rich space environment. The combination of the Contrary Space Sequence reflects the order of the elements of the environment space and the continuity of the landscape view, the gallery and the domain. In the historical evolution of the ancient environment, it has been shown that the effective extension of landscape spatial structure is still preserved, or the historical landscape space structure has appeared Suffering from destruction and transformation<sup>[2]</sup>.



**The construction process of Gaosun Tang.** Before Gaosun Tang was built in the North Song Dynasty, the area was a low-lying swamp. Song Dynasty and the first year (1054 AD) Lu Youkai of Nanpu (now Wanzhou) satrap presided over the cut water, and cut out a one hundred - acre pond. To commemorate the work of his chisel, people named it "Lu chi". Afterwards, he expanded the Lu Chi again and built some landscape such as Land Temple and Liubeichi around it. Liubeichi was close to Lu Chi, called "Lu Chi Liu Bei". And since then, it has become a fascinating cultural attraction in ancient Wanzhou. The Northern Song Dynasty Huang Tingjian wrote the inscription of "Xishan." around Liubeichi to say the Xishan Scenic Spots<sup>[3]</sup>. During the Qing Dynasty, for Gaosun Tang was filled with the pool, it was known as "Jiao (the Homophone of gao that time )sun Tang". Nineteen years of the Qing Dynasty (1839 AD), A three layers of antique Pavilion called Xishan Pavilion was built beside the Gaosun Tang and Liubeichi in order to protect the stone sculptures - Xishan monument. In 1927, Yang Sen garrisoned troops in Wanxian Gaosun Tang, expanded the city, constructed road around the pool and named it Huan Tang Road. Since that time, the government of Wanxian area has been on the west highland of the pond before Chongqing became a municipality. At the end of the 80's, the government carried out a large-scale transformation to Gaosun Tang to form a small garden including constructing curved bridge corridors, sculpture pavilion and waterside garden, so the leisure and entertainment function of Gaosun Tang gradually emerged. By the end of 2003, Gaosun Tang and its surrounding areas were completely transformed, with a total area of about 28000 square meters. In this transformation, the pond was filled, and Gaosun Tang was built to be pedestrian plaza, with the surrounding high-rise buildings into a scene. Now Gaosun Tang is the center of the old city area, setting business, transportation, leisure, civil air defense four functions in one<sup>[4]</sup>.

**Analysis of historical spatial form and evolvement of Gaosun Tang.** In the history of our country, the ancient environment space of the city has always been particular about harmonious coexistence with the natural landscape. The construction of the building and its environment is fully integrated into people's life and aesthetics, Considering the connection between inner space and outer space to make the landscape has a good extension trend and the space sequence is rich, finally forming beautiful natural environment and the corresponding internal space pattern, which is in line with the traditional concept of the organic combination of earth. Good spatial development should be orderly and continuous and has always maintained a beautiful combination with natural environment and vivid pleasant internal space pattern<sup>[5]</sup>.

The space form of Gaosun Tang in Wanzhou District has experienced a history of nearly a thousand years. In our research, the landscape view and visual corridor of Gaosun Tang with the surrounding environment have experienced a process of evolution and development by victory to failure. From the formation of Gaosun Tang, at first, its internal spatial structure gradually grew and developed from single, And then a beautiful landscape space form with a good landscape

sequence and untroubled space view was formed. The continuous extension of space basically continued the sustainable development of contrary space configuration growth. However, because there was no good research and analysis of the sequence combination of contrary space of the different times of urban construction, the overall environment space of Gaosun Tang appeared the space block. In particular, since the construction of the new period, the negative space has accumulated, which made the continuity of the landscape continued to be destroyed, leading to the disappearance of the contrary space form (Figure 2-1).

**The space before the Ming and Qing Dynasties.** Before the Ming and Qing Dynasties, the space pattern of Gaosun Tang kept the original natural style. Taibaiyan was surrounded by mountains and rivers and its form was handsome with Verdant trees on it, and across the River (Yang Zijiang) was the Cuipingshan. At that time, surrounded by tower pavilions, the Gaosun Tang was integrated with the natural landscape, forming exchange of internal and external space environment with the surrounding mountain and water and margin environment of the Beishan's circumvallation, finally promoting the preliminary formation of the contrary space combination. The surrounding environment was closely linked with the Gaosun Tang, so the landscape effect was very good. But its simple space form has not reached the multi level requirements of the contrary space.

**The space during the Late Qing Dynasty and the early years of the Republic of China.** In the late Qing Dynasty, the Gaosun Tang evolved into a natural pond. The pond full of lotus root, was surrounded by artificial afforestation, and there were a layer of houses made of brick and tile around the pond. This period, the development of the society promoted the change of the space form of the Gaosun Tang, making Gaosun Tang an important landscape node of Wanxian. The space enclosed by low-rise buildings around the pond constituted Obstruct and Stay Space of the city for people's recreation and communication. Being in Beishan Guan located on the higher Kitayama, Huilan tower and Wengfeng tower in the Cuipingshan and Taibai Temple located in the Taibaiyan mountainside all can overlook the Gaosun Tang. Line of sight exchange was formed between Gaosun Tang and the characteristic landscape point in city such as Taibai temple in Taibaiyan, Beishan Guan, Huilan tower and Wengfeng tower, so forming the excellent swap space. The visual corridor was formed between point and point and good landscape effect was achieved (figure 3). Mutual borrowing and penetration among each other has achieved good landscape effect, forming the continuity of landscape space and the orderly combination of urban space in the consciousness of the Chinese traditional landscape, which is the representative of the harmonious space form of inner and outer landscape space. However, although the landscape of inner and outer environment of Gaosun Tang is good, its interior space is single and not rich. In 1927, because of the reconstruction, the Gaosun Tang was surrounded by willow, with lotus inside the pool and new-built road around the pool. In the Gaosun Tang at this time, due to the View-blocking of plant landscape, the internal landscape space, lively and vivid, is full of change. But despite the transform, the sight corridor between Gaosun Tang at that time and the surrounding landscape was also continuous as a result of the limitation of building height and orientation of roads, forming good visual effect of landscape, so the contrary space continued to grow and landscape features can be effectively continued.

**The space in 1950s.** With the development of the city, the buildings around the pond has gradually been rebuilt. With continued construction of 2-storey buildings and the increase of business near the pond, Gaosun Tang gradually became a bustling commercial center, enhancing its guiding function as Obstruct and Stay Space. Because the area was large, the line of sight was still broad, and it also can form the line of sight with Kitayama, Taibaiyan, Tiansheng Cheng, Cuipingshan, etc.

**The space after 1990s.** In the late 80s, the government conducted a large-scale reform of the Gaosun Tang, The original road in the west side of Gaosun Tang diverted to the front area in the administrative office in which the green space was expanded to a small garden forming an organic whole with Gaosun Tang. Gaosun Tang's inner space was full of change along the road and the curved bridge. The new view with each different step made landscape style changeable, constituting the rich landscape elements of the inter space such as Stay Space, Turn Space and Lead Space, but limited to the narrow space inside the pond. High-rise buildings has blocked the outer landscape and

some original excellent landscape visual corridor and landscape space gradually disappeared, which is a big regret. From 2003 to 2006, the Gaosun Tang and its surrounding areas were completely transformed, with a total area of about 28000 square meters. Now, the Gaosun Tang is the center of the old city, setting business, transportation, leisure, air defense four functions in one. In the last transformation, the pond was filled, and Gaosun Tang became a pedestrian plaza inside the surrounding crowded skyscrapers, causing the lack of the landscape. It was the adverse transformation that laid the foundation of the present narrow space of Gaosun Tang

**Modern space analysis.** Up to now, the spatial development of Gaosun Tang faces a great challenge. The excellent landscape view can only be seen within its internal space due to the vanish of Gaosun Tang's space exchange function with excellent landscape spatial pattern of external environment. With the rapid development of urban construction, the tall buildings have blocked the Gaosun Tang square, and leaving a little of space for Baiyan College Road and Taibaiyan. The protection of the traditional landscape and architectural features has been totally ignored during the development of the city, so the Urban construction seems to be quick buck. Standing in the Gaosun Tang, people's sight is completely blocked by tall buildings, and the visual environment quality is greatly damaged since the landscape view cannot be seen. With the modernization of the city, the ancient beautiful contrary space landscape form of the Gaosun Tang which used to be beautiful and harmony with natural environment is no longer exist anymore, and what has been left is only a functional space with humdrum functions.

## Conclusions

Green mountains surrounded by clear water, the scenery is beautiful and pleasant since Gaosuntang's formation in Wanzhou district. Towers and pavilions around this area bring the spirit of Chinese classical landscape architecture, painting a charm landscape picture. In addition, Liubei Chi has had a reputation for winding streams all the time. With vast streams of Lu Chi, plentiful bamboos and cypresses as well as surrounding pavilions, Liubei Chi is also praised for its beautiful natural sights. However, nowadays Gaosun Tang is not what used to be. Its landscape is not as charming as before for lacking of protection measures to natural environment space and the notion of sustainable development. Thereby, we aim at promoting the idea of the protection of traditional landscape style and features and providing reference for the construction of the modern city by studying the composition and the evolution of history space in Gaosun Tang. Furthermore, the analysis of the characteristics of contrary spatial landscape pattern and the evolution rule provide references for the construction of the new space and the sustainable development of the old space.

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