

Research on the Changes of Beijing Central Axis and the Construction of Temples and Altars in the Ming Jiajing Period

Xing Liu*

Administration Office of Temple of Heaven, Beijing 100061, China

*Correspondence to: Xing Liu, Administration Office of Temple of Heaven, Beijing 100061, China; Email: fs921921@163.com

How to cite: Xing Liu. Research on the Changes of Beijing Central Axis and the Construction of Temples and Altars in the Ming Jiajing Period. *Engineering Technology Trends*, 2024; 2(1). DOI: [10.37155/2972-483X-0201-8](https://doi.org/10.37155/2972-483X-0201-8)

Abstract: Through a review of the historical changes in the Beijing Central Axis during the Yuan, Ming, and Qing dynasties, as well as the construction and renovation of temples and altars in Beijing during the Ming Jiajing period, this study analyzes the correlation between the two and the impact on the urban layout. The conclusion drawn is that the Beijing Central Axis, together with the surrounding temples and altars, constitutes an ancient reverence for heaven and ancestors, advocating a harmonious urban space between humans and nature. This essence reflects the core of traditional Chinese culture.

Keywords: Beijing Central Axis; Jiajing; Temples and Altars; The Temple of Heaven

Introduction

The Beijing Central Axis, a north-south axis that traverses the city, connecting the imperial palace and major buildings, not only showcases ancient Chinese architectural art and urban planning concepts but also reflects the historical development of Beijing as the capital. Running from south to north, penetrating the imperial palace, and flanked by temples and altars on both sides, it embodies the philosophical idea of “placing the centre as the highest” in ancient China. With the progress of urbanization, there have been numerous changes in the buildings and landscapes on both sides of the central axis. However, during

the Ming and Qing periods, most of the main temples and altars were preserved, and the core position of the central axis remained unchanged. This reflects the continuity of urban development, as the central axis is not only a transportation artery but also a cultural symbol and historical heritage of the city.

1. History and Evolution of the Beijing Central Axis

1.1 Construction of the Central Axis in the Yuan Dynasty

Emperor Shizu of the Yuan Dynasty, Kublai Khan, was a visionary ruler who, upon the foundation of the Jin capital, meticulously planned and constructed the



© The Author(s) 2024. **Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, sharing, adaptation, distribution and reproduction in any medium or format, for any purpose, even commercially, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made.

Yuan Dadu (Great Capital). This city, characterized by its grand scale and exquisite design, seamlessly integrated traditional Chinese capital construction concepts. During the construction process, Yuan Dadu strictly adhered to the principles outlined in the “Zhou Li: Kao Gong Ji,” stating, “Craftsmen establish the capital, with a square of nine miles, three gates on each side... Facing the rear market, the ancestral temple on the left and the Altar of Land and Grain on the right.” This layout placed the imperial city at the center of the capital, with the ancestral temple to the east and the altar of the Land and Grain to the west, thus forming the central axis of the capital city.

The mentioned planning of “左祖” is highly meticulous, referring to the construction of the ancestral temple – the Tai Miao – on the left side of the palace city. Following the traditional Chinese architectural principle of “坐北朝南” (facing south while sitting in the north), the left side of the palace city naturally corresponds to the east side. Such a layout not only aligns with the principles of Feng Shui but also highlights the Yuan emperors’ reverence and commemoration of their ancestors.

On the other hand, “右社” refers to the Altar of Land and Grain located on the west side of the palace city, opposite to the Tai Miao. This altar served as a place for worshiping the gods of land and grain. Similar to the Tai Miao, the Altar of Land and Grain was constructed following traditional Chinese architectural principles, exuding an atmosphere of solemnity and holiness.

Furthermore, the construction of city gates in Yuan Dadu is another noteworthy aspect. The city had a total of eleven gates, with the main gate being the Lizheng Gate. Detailed records about this can be found in the “Nan Cun Chuo Geng Lu” by Tao Zongyi, a historian from the end of the Yuan Dynasty and the beginning of the Ming Dynasty. He wrote: “The city is sixty li in circumference, with each li being two hundred and forty steps, divided into eleven gates. The main southern gate is called Lizheng. This record not only describes the geographical location of the Lizheng Gate but also reveals the meticulous scale and planning of Yuan Dadu’s urban layout.

What is particularly noteworthy is that the Lizheng Gate, the palace city, Wanning Bridge, and the central platform collectively form a north-south axis. Although

this axis does not traverse the entire city, its initial scale provides an important reference for later research on the urban planning of the Yuan Dynasty.

1.2 Construction of the Central Axis in the Ming Dynasty

In the early Ming Dynasty, Emperor Yongle, Zhu Di, undertook extensive renovations and expansion of Yuan Dadu to establish Beijing as the new capital. He not only meticulously constructed the magnificent palace complex, the Forbidden City, but also relocated the solemn Tai Miao and the Altar of Land and Grain to the southern end of the imperial city, arranged side by side from east to west. In addition, he extended the southern wall of the capital nearly one kilometer to the south, with the main southern gate still known as the “Lizheng Gate.” To the east of the southern suburbs, he built the Temple of Heaven to worship the gods of heaven and earth. To the west of the southern suburbs, he erected the Altar of Land and Rivers, forming a complex of temples that included the gods of agriculture, land and rivers, and the Grand Duke of Jupiter. These constructions and layouts laid the foundation for the initial urban pattern of Beijing in the Ming and Qing dynasties.

Building upon the north-south axis of Yuan Dadu, Emperor Yongle further established the city’s central axis with the Forbidden City at its center. It is worth noting that the Bell and Drum Towers, which were not on the axis during the Yuan Dynasty, were repositioned by Emperor Yongle to align with the central axis during the Ming period. This created a unique landscape where the Bell Tower and Drum Tower stood north and south, respectively, extending the central axis of the Ming Dynasty to the north, reaching the Bell Tower. The central axis, stretching from the Lizheng Gate to the Forbidden City, Wanning Bridge, Drum Tower, and finally the Bell Tower, covered a total length of approximately 4.8 kilometers during the Yongle period. With this development, the central axis of Beijing in the Ming and Qing dynasties had essentially taken shape from the middle to the northern section.

The construction of the central axis during the mid-Ming period played a crucial role in the final shaping of the Beijing Central Axis. In the early years of the Zhengtong era, the imperial court decided to add a Wengcheng (barbican) and an arrow tower to

the Lizheng Gate and renamed it Zhengyangmen. This transformation not only enhanced the defensive capabilities of Beijing but also laid the foundation for the ultimate formation of the Beijing Central Axis.

In the 32nd year of the Jiajing reign in the Ming Dynasty (1553), to better defend Beijing, ministers proposed to Emperor Jiajing to construct an outer city. According to the initial plan, the outer city would have a circumference of over 70 li, with dimensions of 17 li from east to west and 18 li from north to south. The foundation of the outer city wall was to be two zhang thick and its height two zhang and three chi. The design included eleven city gates, one hundred and seventy-six enemy watchtowers, and multiple water gates and sluices. However, due to insufficient funds, the construction of the outer city stalled after starting from the southern suburbs. Additionally, constant invasions by the Mongols further hindered progress. As a result, the outer city was not completed as initially envisioned, with only the southern section being built. The eastern and western sections connected to the inner city walls, forming a "convex" pattern. The establishment of the outer city, on one hand, expanded the urban area, allowing the city to grow. On the other hand, it included the protection of the Southern Suburbs, where the Altar of Heaven (Tiantan) and the Altar of the Ancestral Spirits (Shenqi Tan) were situated, and the residents in the Southern Suburbs were afforded the protection of the city wall.

The naming of the southern gate of the outer city, Yongdingmen, carried the symbolic meaning of "eternal stability," reflecting the people's aspirations for lasting national stability and social harmony. Since then, during the Ming Dynasty, the central axis extended southward to Yongdingmen, creating the axis from Yongdingmen to Zhengyangmen, the Forbidden City, Wanning Bridge, Drum Tower, and Bell Tower, with a total length of approximately 7.8 kilometers. The formation of this central axis not only demonstrates the wisdom and artistry of ancient Chinese urban planning but also serves as a significant symbol of Beijing's urban development.

1.3 Construction of the Central Axis in the Qing Dynasty

In the early Qing Dynasty during the Shunzhi period, the construction of the central axis primarily focused on the renovation of palaces and architectural complexes

within the imperial gardens. During this period, major buildings along the central axis, such as the the Hall of Supreme Harmony, the Hall of Central Harmony, and the Qianqing Palace, underwent restoration. Additionally, the Ming-era Wan Sui Shan (Longevity Hill), located to the north of the Forbidden City, was renamed and became known as Jing Shan (Prospect Hill).

In the mid-Qing Dynasty, Emperors Yongzheng and Qianlong undertook extensive construction along the central axis. During the Qianlong period, the Shou Huang Dian (Longevity Hall) on Jing Shan was relocated to the central axis, and the Bell Tower was reconstructed. This marked the basic formation of the central axis pattern. The architectural style and layout from this period were inherited by future generations, becoming an integral part of Beijing's urban planning.

Looking at the historical evolution of the Beijing Central Axis, the Jiajing era of the Ming Dynasty stands out as a crucial period for its formation. During this time, the urban planning and construction of Beijing experienced comprehensive development and refinement. This era not only laid the foundation for the basic layout of the city but also provided important insights and references for future urban planning and development.

2. Construction of Temples and Altars in the Ming Jiajing Period

2.1 Social and Political Environment in the Ming Jiajing Period

In the sixteenth year of the Zhengde reign (1521), Ming Emperor Wuzong, Zhu Houzhao, passed away without leaving any heirs or specifying a clear successor. In this chaotic period, Zhu Houcong, as a royal relative, ascended to the throne and began his reign. In the early years, Zhu Houcong implemented a series of reformative measures, attempting to eliminate various malpractices inherited from the rule of Zhu Houzhao. This, to some extent, eased social tensions and laid the foundation for the stability and development of the country.

However, this favorable situation did not last for long. Over time, the root causes of malpractices were not completely eradicated, and social tensions persisted. After a brief period of success, Emperor Jiajing initiated ambitious construction projects,

including the building of palaces and temples. These projects incurred enormous expenses, imposing a heavy burden on the common people. Zhu Houcong became enamored with Daoist practices and appointed the corrupt official Yan Song, allowing him to control the court for more than twenty years. During this period, external threats continuously plagued the country, with even the Mongol army reaching the outskirts of Beijing and plundering the surrounding areas. These events made the lives of the people more difficult, leading to social unrest and the looming crisis of the nation.

2.2 Construction of Temples and Altars in the Ming Jiajing Period

In the early Ming Jiajing period, the layout of temples and altars in the capital continued the pattern from the Yongle period. The Tai Miao (Ancestral Temple) and the Altar of Land and Grain, as well as the Temple of Heaven and the Altar of Land and Rivers, were all aligned along the central axis, constructed from east to west. This urban layout of “Tai Miao on the Left and the Altar of Land and Grain on the right” and “sacrificing to heaven in the southern suburbs” had been completed, collectively forming the national sacrificial space within the capital during the Ming Dynasty.

After ascending to the throne, Emperor Jiajing had numerous conflicts with courtiers over ceremonial systems and the planning and construction of temples and altars. In the ninth year of Jiajing’s reign, the emperor initiated extensive renovations to the temples and altars in Beijing. He decisively abandoned the Hall of Great Sacrifice of the Temple of Heaven, which was built during the early Ming Yongle period, and restored the architectural style of the temples and altars from the early Ming Hongwu period. To the south of the Hall of Great Sacrifice, Emperor Jiajing erected the Circular Mound Altar (圜丘坛), and in the northern suburbs, he constructed the Square Mound Altar (方泽坛). According to the “The Book of Rites” (礼记), “Sacrifice to the sun in the east, and to the moon in the west, to distinguish the outer and inner, to maintain their positions. The sun rises in the east, and the moon is born in the west. Yin and yang alternate in length, circulating ceaselessly, to bring about harmony throughout the world.” The Temple of the Moon was built in the western suburbs, and the Temple of the Sun

was constructed in the eastern suburbs. It formed the layout of the Forbidden City at the center, surrounded by altars in all four directions, resembling stars encircling the moon, highlighting the royal dignity and solemnity of the sacrificial ceremonies.

In the ninth year of Jiajing’s reign (1530), the pattern of having one altar for multiple gods at the Mountain and River Altar was discontinued. In the southern part of the inner altar wall, the Tai Sui Hall, Celestial Beings Altar, and Earth Deity Altar were established, and the Mountain and River Altar was renamed as the Gods Altar. During the Wanli period of the Ming Dynasty, additional buildings such as the Flag Temple and the Divine Storehouse were gradually added to the altar and renamed as the Altar of Agriculture. In the tenth year of Jiajing's reign (1531), the Qisheng Shrine was built behind the Confucian Temple, Emperors Temple were constructed outside the Fucheng Gate, and the Xian Can Altar and the Altar of Emperor's Land and Grain were built in the West Park. In the eleventh year of Jiajing's reign (1532), the Chong Yu Altar was added outside the Taiyuan Gate of the Circular Mound Altar, and in the twenty-fourth year of Jiajing’s reign (1545), the Da Xiang Hall was constructed on the site of the former of the Hall of Great Sacrifice.

2.3 The Purpose of Temple Construction

The construction of temples and altars during the Jiajing period was not a spontaneous occurrence but rather the result of the combined influence of various factors. Emperor Jiajing, who ascended the throne as a prince, faced conflicts with ceremonial officials over palace rituals upon his entry to the imperial court. Moreover, he encountered numerous disputes with the Ministry of Rites and courtiers regarding the posthumous titles for his parents. In order to effectively strengthen control over the court, Emperor Jiajing sought various means, and the construction of temples and altars was one significant measure in this effort.

Temples and altars were vital components of feudal society, representing humanity’s reverence and admiration for heaven, earth, ancestors, and deities. They served as not only the venues for religious ceremonies but also symbols for emperors to showcase authority and exercise power. Emperor Jiajing was well aware of their significance. Therefore, by changing the practice of combining the worship of heaven and earth

into separate ceremonies, he broke with the tradition of joint worship established in the early Ming period, demonstrating his determination for reform.

Simultaneously, Emperor Jiajing also leveraged the power of religious beliefs to strengthen his rule. He invested significant human and material resources in the construction of temples and altars, reinforcing people's beliefs and reverence for heaven, ancestors, and deities through various ceremonies and sacrificial activities. The power of these beliefs fostered greater loyalty to the emperor and the court, serving the purpose of maintaining social order and stability.

In summary, the construction of temples and altars during the Jiajing period was a concentrated manifestation of the emperor's will. It served not only as a crucial means for Emperor Jiajing to strengthen control over the court but also as an effective avenue for him to consolidate his political power through the utilization of the power of religious beliefs.

3. Influence of the Construction of Temples and Altars during the Ming Jiajing Period on the Evolution of the Central Axis Layout

3.1 Promotion of the Southward Extension of the Central Axis

The ritual of suburban sacrifices, known as "Jiao Si" in Chinese, has a long history in China. The *Book of Rites* states: "The sacrifice in the suburbs welcomes the longest day and repays the sun and the gods. It is conducted in the southern suburbs, aligning with the position of the sun... The purpose to sacrifice in the suburbs is to demonstrate the natural law." Emperors throughout history attached great importance to suburban sacrifices, either conducting joint worship of heaven and earth in the southern suburbs or sacrificing to heaven in the southern suburbs and to the earth in the northern suburbs. However, they consistently adhered to the tradition of sacrificing to heaven in the southern suburbs. During the Yongle period, when constructing Beijing city, the Lizheng Gate was moved southward, lengthening the central axis but without incorporating the Temple of Heaven and the Mountain and River Altar into the city's boundaries.

During the Jiajing period, the ritual protocols were further established, altering the original layout of temples and altars, with the Circular Mound Altar for sacrificing to heaven located in the southern suburbs.

However, due to invasions by Mongol forces causing suffering to the people outside the city, the imperial sacrificial altars, Tian Tan (Temple of Heaven), and Shen Qi Tan (Altar of Earth and Grain) were also affected. The court deliberated on constructing an outer city wall to defend against external enemies. After the completion of the outer city wall, the southern central axis extended from Zhengyang Gate to Yongding Gate, finalizing the layout of the central axis of Beijing. The expansion of the city allowed the southern suburban altars, both east and west, to be protected within the city walls, ensuring the smooth conduct of sacrificial activities and rationalizing the city layout. The construction of temples and altars turned the central axis into a crucial pathway connecting heaven and earth and showcasing imperial authority.

3.2 Improvement of the Sacrificial Space along the Central Axis

Temples and altars were not only crucial sites for the emperor's rituals to heaven and earth but also significant symbols showcasing imperial and national authority. In the early Yongle period of the Ming Dynasty, the construction of temples and altars in Beijing was primarily modeled after Nanjing. The "History of Ming: Volume on Ceremonies and Ritual Music" records: "In the eighteenth year [Yongle 1420], when Beijing was constructed, all the palaces and gates followed the regulations of Nanjing, surpassing it in grandeur." The major sacrificial temples and altars along the central axis at this time included the Imperial Ancestral Temple, the Altar of Land and Grain, the Imperial College, and the Confucian Temple. Additionally, the Temple of Heaven and Earth and the Altar of Mountains and Rivers were located in the southern suburbs but were not yet incorporated into the central axis within the city. During this period, the layout of sacrificial temples and altars was relatively simple, with clear functional zoning.

During the Jiajing period of the Ming Dynasty, there were significant breakthroughs in urban construction. The extension of the outer city walls allowed the central axis to stretch southward to Yongding Gate. Sacrificial sites such as the Temple of Heaven and the Gods Altar were incorporated into the city, leading to changes in the layout of temples and altars.

Building upon the foundation laid in the early Yongle

period, the Jiajing reign witnessed an increase in the number of national sacrificial temples and altars. The establishment of altars such as the Temple of Earth, the Temple of the Sun, the Temple of the Moon, the Temple of the rain and others enriched the new sacrificial spaces, maintaining the traditional layout of "Tai Miao on the Left and the Altar of Land and Grain on the right", "sacrifices in four suburbs", "sacrificing the gods of agriculture and the grain in the southern suburbs". The distribution of the Imperial Ancestral Temple, Altar of Land and Grain, Altar of the Sun and Altar of the Moon, Temple of Heaven and the Gods Altar on the east and west sides of the central axis formed a symmetrical architectural pattern. The Temple of Heaven and the Altar of Earth were positioned at the north and south ends of the central axis, reflecting the ancient tradition of "dual suburban sacrifices. In ancient beliefs, the Temple of Heaven represented the heavens, and the Altar of Earth represented the earth, symbolizing the harmonious coexistence of humanity and nature. This layout underscored the nation's reverence for the divine forces of heaven and earth.

4. Conclusion

As integral components of ancient Chinese architecture, the layout of temples and altars along the central axis in Beijing holds significant historical and cultural importance, exerting a profound influence on the planning and layout of the city. Many of these temples and altars have been remarkably preserved and continue to play a role in elucidating historical and cultural narratives in contemporary urban development. The continuity in urban construction underscores the profound heritage and unique charm of ancient Chinese urban planning. The construction of temples and altars not only reflects the authority and governance will of emperors but also, to a certain extent, mirrors the religious beliefs and cultural traditions of the society at that time. Through this lens, we can perceive the intricate connections between ancient Chinese urban planning and various factors such as politics, culture, and religion, collectively shaping a harmonious and symbiotic urban space.

The extensive construction and renovation of Beijing's temple architecture during the Ming Jiajing period dramatically altered the appearance of the city's central axis, also transforming the functions

and structure of the urban landscape. These temple structures, along with the central axis of Beijing, collectively serve as witnesses to the city's urban planning and developmental history, showcasing the principles and characteristics of ancient Chinese urban construction and planning. The central axis of Beijing, in conjunction with the surrounding temples, constitutes an ancient reverence for heaven and ancestors, advocating for a harmonious urban space between humans and nature. This, in essence, reflects the core and essence of traditional Chinese culture.

References

- [1] Wu Liangyong. Research on the Protection of Old Beijing City (Part 1) [J]. Beijing Planning Review, 2005(1):18-28. DOI:10.3969/j.issn.1003-627X.2005.01.004.
- [2] Wang Guixiang. A Study of the Question of the Scope of Foundations for Palace Complexes in Ancient China [J]. Palace Museum Journal, 2005, (05): 46-85+367-368. DOI: 10.16319/j.cnki.0452-7402.2005.05.005
- [3] Cao Peng. Research on Altars and Temples in Capitals of Ming Dynasty [D]. Tianjin University, 2011.
- [4] Chu Andong. Research on the Evolving System of Altars and Temples in Capitals of Qing Dynasty [D]. Tianjin University, 2014.
- [5] Liu Zhonghua. Renovation and shaping of the main buildings along the central axis in the Qing Dynasty [C]//Beijing Historiography Series (2015). QunYan Press, 2016:111-126.
- [6] Man Bingbing. Research on Construction and Evolution of The Xiancantan and Dishejitan in Xiyuan [D]. Tianjin University, 2016.
- [7] Wang Gang. The Historical and Cultural Connotation of Beijing City's Axis and Its Contemporary Political Significance [J]. Journal of Beijing Union University (Humanities and Social Sciences), 2015, 13(02): 6-10+30. DOI: 10.16255/j.cnki.11-5117c.2015.02.002
- [8] Yu Sanle. Yan Song and the Construction of the Outer City of Beijing [J]. Social Sciences of Beijing, 1996, (02): 86-92.
- [9] Wang Lili. Research of Tao Zongyi and Nancun Chuogenglu [D]. Shanxi: Shanxi Normal University, 2012. DOI: 10.7666/d.y208070

- [10] Hou Hui. Zhang Tingyu et al. A preliminary exploration into the value of "History of the Ming Dynasty•Yu Fu Zhi" [J]. Journal of Petroleum Educational Institute of Xinjiang, 2005, (01): 146-148.
- [11] Lu Tongqun. On the idea of "repaying the original and turning against the beginning" in Zhou Rites [J]. Journal of Nanjing Normal University (Social Science Edition), 1985, (04): 46-51.
- [12] Hu Dan. Looking at the concept and social role of sacrificial rituals from "Book of Rites: Sacrifice"[J]. Journal of Science and Education, 2008(3):162-162. DOI:10.3969/j.issn. 1672-7894.2008.03.139.