The Relation Between Architectural Style of Different Dynasties and the Sociocultural Context in Ancient China:

A Comparative Study of Architectural Style in Tang and Ming Dynasty Runlin Li

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Abstract: The Tang empire marked the peak of imperial China as it was one of the greatest superpowers in the world of its time. The Daming Palace that represented the empire's authority and strength was also of glory. It was an unprecedentedly magnificent compound built to demonstrate the supremacy of the vast empire to all its people and visitors. Despite the empire's mightiness, rising warlords and corrupt bureaucrats destroyed it from within as well as the Daming Palace. After the downfall of Tang, China experienced a long period of chaos and another Han-ruled empire was only to be seen five contraries later. The Ming empire reorganized regimes in China and the Forbidden City in Beijing, which still exists today, demonstrates in silence the changes of Chinese society.

From the changes in symbolism significance and more deliberate distinction of the royalty's privilege, as the one chosen by god, from others in the empire, we can connect the social changes with the surfacing changes of buildings. For example, the Ming government had more control at local levels so that they could collect more taxes and nip any potential threat to the central government in the bud. The government also conducted an embargo in coastal areas to protect them from foreign invaders. To eliminate all threats to the throne, the empire set up a secret police force that supervised the society from nobilities to peasants. All these policies lead to a stricter social stratification that was visible through the changes in architecture.

The changes in politics and economic aspects such as taxation lead us to one conclusion, which is the strengthening of the centralization of power and an extension of governance to lower levels. And this study is planned to unveil the connections between the changes in architectural and social developments.

Keywords: architectural craftsmanship, political structures of Tang and Ming dynasties, social stratification, the architectural layout of Tang and Ming dynasties

1. Introduction

Any architectural design is never insular, it significantly interrelates with the protean cultural and environmental factors behind it. Therefore the alteration in sociocultural contexts will be projected into the modification of architecture. For instance, when the Roman Empire was occupied and replaced by the barbaric Germanic kingdoms, its magnificent architecture perished alone with the imperial regime and was replaced by the medieval style of architecture. Despite the latter inheriting

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some elements of Roman architecture, the genuine rebirth of it didn't occur until when architecture was revolutionized by the great social change of the renaissance in the fifteen hundreds.

The identical situation of architecture is influenced by social backgrounds has happened in most other parts of the world including ancient China.

Interestingly, many people neglect the intangible causation behind the changes in architecture and imprudently elucidate them by superficial theories. I noticed that many scholars or experts in anthropological and historical fields have done comprehensive research regarding the historical social and cultural conditions of ancient China, including the Tang and Ming dynasties. Except for the aforementioned researches, there are scholarly studies carried out under the concern regarding the design style of the ancient buildings in the Tang and Ming dynasties. Reading through literature covering the socio-historical contexts and the architectural history of the two concerned dynasties, I have come up with the research interest to uncover the correlation between socio-historical context and architectural design. I have chosen to mainly focus on the royal palaces of the two dynasties as the main objective for my research into historical archives and scholarly articles. With an in-depth literature search.

For the uncovering of historical and societal backgrounds of the two dynasties were the Ming Dynasty Bureaucracy: Aspects Of Background Forces [1], China's Imperial Bureaucracy: Its Direction and Control [2]. The information concerning the architectural style and the characteristics of the two palaces are obtained from the Daming palace in A Study of the Daming Palace: Documentary Sources and Recent Excavations [3]. The Chinese historical literature composed ZhenGuanZhengYao is also taken reference in my study as first-hand documents about the Tang Dynasty.

This study encompasses four major sections which respectively are "The sociocultural context of Tang Dynasty" "The sociocultural context of Ming Dynasty" "In what parts are the buildings of the two dynasties different or analogous" and "What are the influences of the different socio-cultural context on architecture". To be more detailed, multiple subtopics will be analyzed under the four major sections, including the economic foundation of the two dynasties, the relation and interaction between the dominant race and minor races, the structure and formation of the imperial government, major religions, and their influence in the society, as well as questions such as the craftsmanship and architectural ornamental elements.

I have analyzed the contents of the literature retrieved from multiple sources and here are some of the most iconic articles. In the research named China's Imperial Bureaucracy: Its Direction and Control [2], the author provided us with a thorough and rigorous study of ancient Chinese governments' civil service structure, analyzing the use and influence it in education, economy, and society, from multiple perspectives. This study served well in providing a reliable reference of "the techniques used by a now-vanished Chinese government to ensure a measure of control and direction over its bureaucratic apparatus" This article provides precise information regarding the political and bureaucratic system of ancient China

Similar to the aforementioned article, the study by Parson (1963), Ming Dynasty Bureaucracy: Aspects of Background Forces, dissected the complication of the Ming government [1], by concentrating on the relationship between central and local administration officials and providing enough evidence to show each of their functions in the sophisticated imperial reign. The study meanwhile exhibited the bureaucracy in a comprehensible approach to people. For these reasons, I consider it a reliable source of information for my questions about the formation of the ancient Chinese government.

A Study of the Daming Palace: Documentary Sources and Recent Excavations [3] and The Tang Architectural Icon and the Politics of Chinese Architectural History [4] provided detailed information about the Daming Palace proven by solid evidence and the historical excavations. It is mentioned that as a matter of fact, the Daming Palace lay virtually outside the northeastern section of the capital unprotected by city walls on three sides. The causation of this idiosyncratic location is that the palace was built after the plan of the historic capital was completed. The study introduced not only the location of the palace's site but also the layout, influence, and significance in the history. The latter research also introduced the political factors behind the architecture and the politicization of Chinese architecture.

Symbolism in the Forbidden City dissected the forbidden city in Beijing from the perspective of history, design, and numbers and colors [5]. It first introduced the historical alteration and significance of the forbidden, then analyzed its magnificent design, especially the investment of the lucky numbers In ancient China, such as nine, and the meanings of the colors' ornamental use in the palace and the message they embodies.

Currently, not many scholars have done research focusing on the relationship between the social backgrounds and the architecture style of ancient China. Especially concerning the Tang and Ming dynasties, few scholars have done a comparative study of the two most iconic but poles apart periods of China.

Nevertheless, many have done individual research in both fields (social background and architecture style) respectively. This study conducted by me will be applying first-hand data in historical documents and relics, processed information including authoritative literature of experts. A clear framework will be formed to allow the author to horizontally contrast the different aspects of the society and buildings of the two dynasties, thereby determining their interrelationships.

2. Tang Architecture

2.1. Rooftops of Tang Architecture

The rooftops in ancient China are commonly sloped roofs constructed with tiles. With the development of techniques of tile making, tiles turned colorful instead of being mostly gray.

The oldest known tiles were unearthed in the Qijia culture site in Qiao village, Gansu province, in 2001, and archaeologists determined those semicylindrical shaped clay-brown tiles are from the Xia dynasty. Tiles from the Shang dynasty found in 2000 suggest that tiles of that time were used for the roof and around the foundation to protect the buildings from moisture. The tiles development in the western Zhou dynasty can be sorted into early, middle, and later stages. With the temperature of firing from lower in early time to higher in the later stage, the color changes from brown to gray at that time. The making technique invented in the western Zhou dynasty has been inherited by the later dynasties. Tiles were broadly used with color fixed in Qing-gray (here Qing has a slightly bluish) and Brown-gray in the Qin and Han dynasty later on. And this particular type of tile was broadly used by civilians even after the invention of colored glaze tiles due to strict restrictions and social hierarchy.

Despite the first tiles were invented in the Xia dynasty 3900 years ago, it was only until the Han dynasty did the people of China had gray tiles known as Qing tile, it was only until the Eastern Han dynasty that colored glaze tile(Tiles made from clay first and decorated with lead oxide, ferric oxide, copper oxide, powder blue, and manganese oxide, etc.)was invented.

As mentioned above, the usage of tiles in color was strictly regulated by hierarchy and the theory of five colors and five essences. [6] Until the North Wei dynasty (386 A.D.–534 A.D.), only the royalty had the right to use colored glaze tiles which were mainly as ornaments on roof's eaves and ridges with yellow and green.

Tang (618 A.D.–907 A.D.) is a golden era for colored glaze technique development. We see one kind of tri-colored glaze tile with three colors of yellow, green, and blue merged into one piece excavated from the relics of Daming Palace in the Tang dynasty. Other colored glazed tiles of green, yellow and blue were also found in the same relics. And in the later part of the Tang dynasty, Qing

(probably blue) tiles prevailed followed by Gan (probably purplish of dark Qing mixed with light red) colored glaze tiles. Colored glaze tiles were used in palace and temple roofs. In most cases colored glaze tiles were decorated at the margin of the roof with common tiles in the middle which were called Jianbian [6]. Presumably, the rooftop of Daming Palace is also made of a combination of Qing tiles and colored glaze tiles, with the main part of the roof made of Qing tiles in blue and yellow colored glaze tiles at the margin. This is a characteristic feature of Tang architecture.

2.2. Layout of Tang Architecture

The Daming Palace was initially constructed by Taizong on the foundations of a Sui palace as the residence of the retired emperor, who also is the father of Taizong, Gaozu, however, Gaozu died before the accomplishment of the palace. It was not until the reign of Emperor Gaozong, the successor to Taizong, that this functional residence was transformed into a monumental palatial complex symbolic of the power of the Tang emperor. And the health problems of Gaozong are almost certain to be a major factor in the rebuilding of the Daming Palace [3]. As the grandest architectural achievement of the Tang dynasty, Daming Palace has not only beautiful colored glaze tiles, its location and layout also were carefully designed as well.

Located on the auspiciously named Dragon Head (Longshou) plain, the trapezoidal compound is 3.11 square kilometers [3].

According to the results of recent excavations, one unprecedented feature of the Daming Palace is its location. The palace was located outside of the capital and was undefended by the city walls on three sides. This unusual location was the result of the Daming Palace having been added to what was already a completed city plan [3]. When the palace was constructed in the year 634, the former Sui imperial capital, Daxing, was already rebuilt by early Tang rulers and renamed Changan.

Earlier plans suggested that the palace has a rectangular shape and followed a strongly vertical north-south orientation. In addition, documentary sources, Changan Zhi and Tangliangjing claim that the palace was on an immense scale which was over 1500 metered in width and over 2600 meters in breadth. The description of the rectangular formation has been disproven by recent excavations while the immense scale was confirmed. The 2256 meters long west wall was perpendicular to the 1674 meters south wall. But the longest east wall, which was altogether 2564 meters long, had an irregular shape; it ran perpendicular to the south wall for about 1000 meters, before turning west at a right angle for 304 meters and finally continuing northward, inclining slightly toward the west, for 1260 meters.' Hence the north wall, at 1135 meters, was shorter than the south wall. The palace walls thus indicate that the layout of the Daming palace emphasized the vertical, depth axis. And this irregular shape is believed to be caused by the size of the palace. Recent excavations have confirmed the existence of outer walls at the Daming Palace which were parallel to the north, west, and east palace walls in the northern section of the palace, the outer walls were much narrower than the inner palace walls [3].

The location of halls in the Daming Palace has also been clarified by the results of recent excavations. Han yuan Hall, a throne hall, was also the hall of the greatest importance since it was used for imperial audiences and most royal major ceremonies like the emperor's birthday or the New Year's Day were held in it, therefore, it was also the most grandiose hall. It was situated 10 meters above the level ground of Longshou mountain and the major section of it was a rectangular chamber that has a width of 69.33 meters and 29.2 meters in depth. With two pavilions connected by galleries to the southeast and southwest side of the hall, the Hanyuan Hall must have created an impression of symmetry, balance, and monumentality, enhancing the image of the Tang ruler [3].

Xuanzheng Hall and Zichen Hall, one was an audience hall and the other was a reception hall, were also important at the time. Both of them were located north of the Hanyuan Hall with Xuanzheng Hall close to the south of Zicheng Hall. Excavations certified the existence of numerous smaller

structures to the three major state halls, among which there's a building named Linde Hall. Located at the northwest area of the palace and 90 meters to the west wall. Like the state halls, Linde Hall also was situated on the high ground.

3. Ming Architecture

3.1. Rooftops of Ming Architecture

In the Ming dynasty, strict regulations on the usage of tiles coincided with the development of tilemaking technology. The colors of tiles available in the Ming dynasty were more variable than that of the previous ages, however, all colored tiles were under strict control of the authority as they consider a lack of discipline caused the chaos in Yuan dynasty and eventually led to its elimination. For example, the color yellow was the representation of royal power, therefore it was exclusively used for high-level royal members such as the emperor or his father, proclaiming the absolute authority and unparalleled status of the crown. The color Qing, a mixture of blue and green, symbolizes growth and life like a firstborn plant, it was mostly used for rooms of royal infants and princes. Another common color that the ancient Chinese preferred was Chi, a type of dark red, usually used on the walls of imperial buildings, it was rarely used on rooftops due to reasons of the five essence. Housed that does not have royal members usually adopts black rooftops since black has the lowest status in the glaze tiles family.

The well-maintained forbidden city in Beijing today could verify the statements as most of the servants' houses and irrelevant structures such as the cooking house and the storehouses used black tiles. Only major halls closely related to royal personnel were covered in golden glaze tiles and have various sculpture ornaments on them. The five essences(metal, wood, water, fire, and earth), as mentioned, dominated the design of ancient Chinese architecture. And each essence was represented by a special color. Ancient Chinese people viewed yellow as the color of earth and the emperor as the son of heaven(Tianzi). Therefore yellow was by law, exclusive to imperial buildings, furthermore, ancient rulers use this color to demonstrate the connection between the emperor and the earth hence legalizing his rulership [5]. Thus it is clear that the usage of yellow glazed tiles by Ming designers in the major constructions in the Forbidden City was meant to illustrate the supremacy of the emperor's power and his special connection with the earth. Not only the color of tiles but also the structure of the roofs represented the status of the person that the building serves in the Ming empire. The buildings with hip roofs of pyramid shape, like the Hall of Middle Harmony(Zhong He Dian), have a spire representing a pinnacle of power, therefore they were used by the emperor for purposes including residence or businesses. The buildings that have a hipped gable roof(a roof that had two downward slopes and two smaller slopes of less gradient on the sides) served a purpose of less importance. Other rooftop forms encompass quadrangle pavilion, overhanging gable, and flush gable [5].

3.2. The layout of Ming Architecture

The Forbidden City in Beijing might be the best representation of the ancient Chinese monarchy. When Ming rulers conquered the Mongolian regime of Yuan, they renamed the capital city of Dadu Beiping, now known as Beijing. However, the Ming emperor did not capitalize Beiping, instead, he chose Nanjing as the capital of the new empire. It was only until 1402 that an emperor named Zhu Di, characterized by his reforms in economics, education, and radical purge of foreign cultural influence.

The Forbidden city followed the traditional patterns of Chinese imperial buildings. But its scale was never before seen or replicated. The ideology that prevailed in ancient China was the Confucian which held the opinion that a palace compound should be perfect in demonstrating a harmonious

coexistence of men and earth, this harmony will then provide the ruler with a peaceful society and prosperity of economics. The Forbidden City conformed to concepts included in the second-century BCE work The Rites of Zhou (Zhou Li). This classic text outlines many longstanding tenets of Confucian thought that were aimed at building and maintaining an orderly society [3]. What is most iconic about the Forbidden city is its rectangular compound. The compound is in the center of the Beijing city, capital of the mighty Ming empire, and was 7,500 meters long north-south along a vertical axis. The compound consists of three parts vertically. The southernmost section is the modern-day Tiananmen Square, north to that is the Forbidden City where the emperor lives and organizes the massive empire. The northernmost area is Jingshan Hill, currently opened to the public as Jingshan Park. The Forbidden City is located in the heart of Beijing due to the traditional belief that power can only be seated in the middle to show its authority. In the compound of the Forbidden City, the front section is occupied by the three major halls named as the Hall of Supreme Harmony (太和殿), the Hall of Middle Harmony (中和殿) and the Hall of Preserving Harmony. The three great halls would only be used under special circumstances such as major ceremonies or high-level royal banquets, they represent the absolute power possessed by the emperor and they express that by being located in the center of the compound, where the diagonals meet, which is also the central area of Beijing. The three great halls were also elevated above the ground, based on a platform that made them overlook all other structures of the Forbidden City and there are different stairs designed for different people. For example, only the emperor could use the central gates and stairs, any administrator regardless of position mustn't share the same path with the emperor, one may get into serious trouble if trespassed.

The design of the Forbidden City was meant to produce a visual impression and solemnity to anyone within it. The architect succeeded in doing this by making the buildings perfectly symmetric and regular while creating a great sense of magnificence and supremacy. For example, no trees were planted in the compound apart from the royal garden, one must walk a very long and coverless, shadowless way being surrounded by royal facilities before entering the inner city and enter any building on the central axis or the side of the compound. Every detailed orchestration in the layout of the Forbidden City was meant to demonstrate the emperor's supreme authority and absolute rule to the people of the empire and remind them incessantly of the necessity of obedience to this unparalleled power.

4. Cross-dynasty analysis of architectural design of imperial architectures)

From a modern perspective, the compound of the Tang Daming Palace in Changan might be less magnificent than the unprecedented scale of the Ming Forbidden City in Beijing. Nevertheless, both of them were a symbol of centralized rulership of the time and were dedicated to being a building that could exhibit the strength of one of the greatest superpowers at the time.

One obvious difference between the Ming Forbidden city and the Tang Daming palace is the use of symbolism factors. As mentioned, the Ming design was more rigid in the use of symbolism. Different roofs and colors could exhibit the social status of the user of the house, only the supreme being could use the color gold, and ordinary people were only allowed to use darker colors. Such strict distinguishing between different classes could be seen as evidence of the strengthening of social hierarchy. As the centralization of power in China reached its peak at the time, the government believed that a strict law that confines people in their own class would help maintain stability in the country, thereby avoiding the rise of local power which would threaten the central government, like what happened as the end of Tang Dynasty. Apart from the use of symbolism, the Forbidden City also expanded in size compared to the Daming Palace. The axis of the Ming royal compound is almost three times the length of that of the Tang's, this is easy to understand. The population of China reached an unprecedented level and the future-reaching royal power had made it possible for the ambitious Ming rulers to build such a wondrous palace. During the Ming dynasty, the central ideology was to weaken regional powers within the empire's territory, thereby securing central rulership and reducing the chances of being overthrown by rising warlords. The Ming taxation system was able to collect revenue directly from a local level, this enriched the nation's treasury, allowed the ruler to have mass constructions and a powerful army. The extent of infiltration of central power in the Ming dynasty was greater than any time before. Both the expansion of central power to a local level and the ability to control aristocracy and peasants were evidence of the enhancement of the centralization of power.

5. Conclusion

In conclusion, this study discovered the tangible changes in architectural style and excavated the intangible changes behind them. The tangible factors lead to the unveiling of social factors that showed the transition to a stricter social stratification, the enhanced concentration of governance, and the outreach of central power. For example, the classification of buildings according to the status of their owners became much detailed and stricter in Ming compared with Tang, the scale of the palace compound also expanded. This can be attributed to the development of China's centralization of power as the government in the Ming dynasty had the capability of collecting taxes from a local level and setting up a secret police agency that monitors all bureaucrats so that the government could prevent any conspiracy against it. Both of these are unachievable without the enhancement of governing power and extension of authority. In such a social environment, people no longer had the aspiration to cross the barriers of social hierarchy due to the repressiveness of governance. Therefore, the society encountered less instability, and the Ming empire was not overthrown by rising local power like Tang.

This study concentrated on both the ancient architectural style and socio factors of ancient, especially the connection between symbolism representations such as the use of numbers and shapes, a belief in directions. All these were exhibited through the differences in architectural design. More complicated social changes are reflected by the surfacing changes as well, mainly the centralization of authority and expansion of governing power. In general, this study organized the changes in architecture and unveiled their connections to changes in society from Tang and Ming imperial China. The understanding of the political, economical, and sociocultural image of ancient China should be able to help me with my future studies as all social sciences share similar logic and require knowledge regarding certain social phenomenons. However, the study was not dedicated to discovering the causes of the social changes from a deeper perspective, it could be fulfilled in the future by analyzing the causation of social changes in imperial China, namely the ever-enhancing royal and central power.

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