Research on the Artistic Characteristics and Innovative Decorative Patterns of Ming Dynasty Site

Qing Xiao, Yihong Zheng, Ye Wang

College of Architecture, Anhui Science and Technology University, Bengbu Anhui 233100, China

Abstract:

Through the investigation of the architectural components, carvings and statues of the Ming Dynasty, the art characteristics of the site of the Ming Dynasty and the needs of people for a better life, the new path to promote the innovative development of traditional cultural symbols in today's society.

Keywords: Ming Dynasty site, Decorative pattern, Artistic characteristics, Innovate.

I. INTRODUCTION

China's leader pointed out in his book: The Governance of China that "The extensive and profound fine traditional Chinese culture is the foundation for us to stand firm in the world cultural confrontation. Chinese culture has a long history, embodies the deepest spiritual aspirations of the Chinese nation, represents the unique spiritual identity of the Chinese nation, and provides abundant nourishment for the Chinese nation's endless growth."[1] Ancient Chinese traditional decorative patterns send people's wishes for a better life. They are the crystallization of the wisdom of the Chinese nation and the concentrated embodiment of the excellent traditional Chinese culture.

Fengyang is one of the first historical and cultural cities in Anhui Province. It is the hometown of Zhu Yuanzhang, emperor Taizu of Ming Dynasty. The ruins of Emperor's ancient city, Imperial Mausoleum, Drum Tower and Longxing Temple of Ming Dynasty are listed as national or provincial key cultural relics protection units. The decorative patterns retained on the buildings and sculptures in the site represent the level of decorative art and aesthetic characteristics in the early Ming Dynasty. Among them, the stone carvings of the Ming and Zhongdu Imperial Palace and the Imperial Mausoleum were announced in 1982, which are listed as the second batch of national key cultural relics protection units [2]. The architectural components, carvings, statues and other decorative patterns in the site have inherited the procedures of the Song and Yuan dynasties and created a new style of the Ming and Qing dynasties, with high artistic value. Through field investigation and mapping, analysis of the artistic characteristics of the decorative patterns, the characteristics of the decorative art style and artistic aesthetics in the early Ming Dynasty are clarified, and the aesthetic value and significance of the Ming site decorative patterns in today's society are confirmed. According to the characteristics of the new era and people's requirements for a better life, we should create the expression forms of extracted decorative patterns, put forward innovative development

plans, give them appropriate expression forms and new connotation of the era, activate their vitality and promote innovative development[3], which is conducive to the inheritance and innovation of traditional culture.

II. ARTISTIC CHARACTERISTICS OF DECORATIVE PATTERNS IN MING DYNASTY SITES

The development of Chinese traditional patterns is clear, and the history of each period is concentrated in a pattern with profound cultural significance, which reflects the characteristics of an era from the side. Decorative patterns in Ming dynasty sites can be roughly divided into plant patterns, animal patterns, geometric patterns, auspicious patterns [4], etc. Most of these patterns are based on life, and are embodied in bold and exaggerated forms, reflecting the customs and values of the people at that time. They not only show the material life of the society at that time, but also express the yearning for the spiritual needs of the people.

2.1 Plant Patterns

In the ruins of the imperial capital of the Ming Dynasty, the white jade Xumei pedestal on both sides of meridian Gate and around the concave font base, the reliefs of brick xumizuo on both sides of caves of East, West and Xuanwu Gates, as well as the 32 pairs of east-west huabei and stone carving on the sacred way of the imperial tomb are all characterized by plant patterns such as peony, lotus, passion flower, peace flower and so on.

2.1.1 Separate Pattern

Separate patterns refer to patterns that are relatively independent and can be used independently for decoration [5]. The separate patterns of plants in the Ming dynasty site mainly appeared in the form of suitable patterns, that is, the patterns of natural patterns were arranged in accordance with certain external contour shapes.

In the sacred way of the imperial tomb, the bell ribbon on the neck of the lion, the helmet of the military attache and the dress are all decorated with four-petal patterns (Fig. 1). One or more patterns appear successively or alternately along the decorative edge, among which the four-petal flowers appear more frequently, the flowers are four-petal, and the center is decorated with a circle. The bell band on the neck of the lion is Yin carved, and the helmet and dress of the military attache are Yang carved, which makes the three-dimensional effect of petals more prominent. According to historical records, The Taiping flower belonging to the genus Of Plum blossom in the Family Tigergrass, is a 4-petal flower plant with oval petals. During the Reign of Emperor Renzong of Song dynasty, this plant was introduced into the courtyard of the imperial palace, and emperor Renzong of Song gave it the name "Taiping Ruisheng Flower". In the Yuan and Ming dynasties, it was widely planted in the imperial garden of the imperial city. In the Qing Dynasty, the name of the flower was changed to "Tianping Flower", which is still used today.

It can be concluded that Taiping flowers imply peace and prosperity.



Fig 1: Taiping Ruisheng Flower patterns in Shinto stone carvings in imperial Tombs

2.1.2 Twine Pattern

The Twine patterns are mainly found on both sides of the meridian gate, around the base of the concave floor and on the military attaches' clothes, saddles and watches of the sacred way of the imperial mausoleum. Although the stone carvings on the Sacred way of the imperial mausoleum are severely weathered and eroded, the patterns, and carving techniques in the two sites are very similar, dating back to the same period (Fig. 2 and 3).



Fig 2: Plant patterns in Shinto stone carvings in imperial Tombs



Fig 3: Plant patterns in the ruins of the Emperor's ancient city in Ming Dynasty

Twine pattern is also known as "Longevity vine pattern", "Transplanting branch pattern", "connecting branch pattern"[6], which is a traditional auspicious pattern based on plants such as vine and coiled grass, which was popular after the Yuan Dynasty. The stone carvings of Ming Dynasty sites mainly mainly show the docorative patterns characterized by round twining, interspersed and twisted leafy vines, and different flower heads surrounded in the center, forming a flourishing posture of intertwining and not stumbling. The flower heads is relatively large, symmetrical in arrangement, and the visual center is relatively clear. Among the stone carvings, there are lotus flower head "Twisted Lotus", peony flower head "Twisted Peony", passion flower head "Twisted passionflower", as well as "Twisted trailing plants". Through comparative study, the tangled branches of stone carvings in Ming dynasty site often appear in the form of multiple flower heads on the same branch. The flowers are full in shape and the branches and leaves stretch out, showing the characteristics of plants in a very realistic way. The shapes of the same flower heads are also different, showing the craftsman's profound observation of nature and the maturity of the creation level at that time. The Twine patterns in the early Ming Dynasty inherited the decorative techniques of the Tang and Song dynasties [7]. They are both realistic in modeling and exaggerated in combination, presenting a state of natural dexterity, fullness and vividness, integrating a variety of auspicious flowers and plants, expressing the beautiful and auspicious meaning of endless life and continuity.

2.2 Animal Patterns

The animal patterns in the stone carvings of the emperor's ancient city and mausoleum in the Ming Dynasty mainly include dragon, phoenix, lion, tiger and other sacred, auspicious and powerful auspicious animal images (Fig. 4 and 5).



Fig 4: animal patterns in Shinto stone carvings in imperial Tombs



Fig 5: Animal patterns in the ruins of the Emperor's ancient city in Ming Dynasty

As an important part of traditional Chinese patterns, dragon and phoenix patterns are commonly used in royal architecture, symbolizing authority and dignity, and implying auspice, health and happiness. The dragon and phoenix patterns appear in the stone carvings in various shapes, surrounded by auspicious clouds, showing a soaring situation. Clouds and dragons in the Song Dynasty paintings show that since the Song Dynasty, dragons have been combined with clouds and water. The dragon in the stone carving usually has a posture of heading up, stepping on auspicious clouds, which was called "rising dragon" in the ancient time. The head of dragon is small and the tail is thin, the body is thick and strong, showing very strong sense of power. At this time, the dragon patterns still maintained the style of the song and Yuan dynasties, with vivid patterns and exquisite carving techniques, representing the artistic level of the early Ming Dynasty. Phoenix pattern flying style of Song and Yuan period. The feathers of the body and wings are vividly depicted. The tail of the feather is mainly composed of five tails, but also has three tails and multiple tails. The tail of the feather is dancing and the wings are extended, showing the vigorous and vivid characteristics, forming a rigid and soft beauty with the dragon pattern.

The animal patterns in the stone carvings of the imperial tombs mainly appear in the military attaches' shoulders, stone horse saddles and stone lion pendants, which play a decorative role. The head of the lion on the ribbon of the stone lion has a concentrated vision, with the mouth biting samll golden bells, presenting an arrogant posture. The military attache shoulder is in the shape of tiger head, tiger eyes are round and staring, the beard is raised, and the big mouth of the tiger shows the fierce fangs. The teeth and soft armor are connected as one, showing the military attache's mighty momentum.

2.3 Geometric Patterns

The geometric patterns in the stone carvings of the imperial capital and the imperial tombs of The Ming Dynasty mainly include FangSheng pattern, scale pattern, mountain pattern(Tang armour pattern), cloud pattern, etc. (Fig. 6 and 7).



Fig 6: Geometric patterns in Shinto stone carvings in imperial tombs

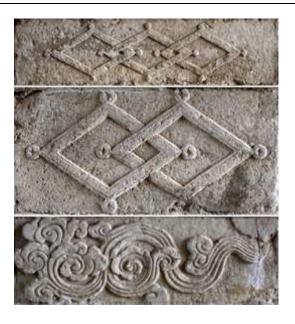


Fig 7: Geometric patterns in the ruins of the Emperor's ancient city in Ming Dynasty

Fangsheng patterns appear on both sides of meridian gate, around the base of concave floor, as well as Xihua gate, Donghua Gate and Xuanwu Gate on both sides of the base brick xumituo gate cave, indicating the important position of Fangsheng patterns in the early Ming Dynasty. In the fangsheng pattern, two or three diamond shapes cross each other and run through the combination to form a continuous complete figure, and the four corners of the diamond shape are decorated with copper coins, implying wealth. However, the Fangsheng pattern appeared at this time was not unified, where the staggered diamond was in the same horizontal direction but different vertical positions. This also represents the style and characteristics of architectural decoration in the early Ming Dynasty. In the late Ming Dynasty, the patterns of FangSheng tended to be unified and fixed.

The scales in the stone carvings of the imperial tombs mainly appear on the first two pairs of unicorns of Shinto, which are decorated by orderly arrangement of scales. The scale pattern is arranged continuously and superimposed according to the body structure of the stone statues. The head is mainly composed of continuous techniques, and the body parts are mainly composed of superimposed techniques. The carving techniques are delicate and well-proportioned, which further sets off the momentum of the stone statues. Scale pattern prevailed in the middle and late Western Zhou Dynasty, which was mostly used for decoration of bronze ware surface, and also for decoration of animal stone carvings in tomb stone.

Mountain pattern, also known as Tangjia pattern, is mainly used for the decoration of Warrior's armor. It is recorded in the Sixth Canon of Tang Dynasty: "There are thirteen types of armor: Bright armor, light armor, thin armor, mountain armor, black hammer armor, white cloth armor, soap silk armor, cloth back armor, foot armor, leather armor, wood armor, chain armor, and waistcoat armor. In the seventh month of the ninth year of Yuan He, Jia Xu ordered huai, Zhejiang, West Jingnan, jia Jin."[8] In the seventh month of the ninth year of Yuan He, Zhejiang, Jiangxi, Jingnan provinces were ordered to build armor and

attack." Mountain patterns are often found in murals, statues, stone carvings and other works of art. They are interlaced by Mitsubishi patterns and have a clear hierarchy and a three-dimensional sense.

Cloud pattern is one of the auspicious patterns in ancient China, which shows ancient people's expectation and awe of the natural weather. The cloud patterns in the stone carvings of the imperial city and mausoleum of the Ming Dynasty are diverse, including cirrus cloud pattern, floating cloud pattern, Ruyi cloud pattern, cloud dragon pattern, cloud phoenix patter, etc. Ruyi cloud pattern appears in a separate pattern, and its shape combines cirrus cloud pattern and Ruyi cloud pattern, in which the cloud head is stacked thick, and the cloud tail is winding and flowing smoothly, implying good wishes. Cloud dragon pattern are in dragon, phoenix and other animal shapes surrounded by the clouds, which creates the situation of flying in the sky. The cloud patterns are diverse, mainly highlighting the shapes of dragons and phoenixes. The shapes are different, showing the craftsman's exquisite skills.

III. THE VALUE OF DECORATION PATTERNS IN MING DYNASTY RUINS

3.1 Aesthetic Form

Since ancient times, people use decorative patterns to decorate and beautify life. Using point, line, plane combination, and through artistic processing such as uniting and changing, making symmetric and balancing, proportion adjusting and segmenting, decorative patterns are used to reflect the natural, realistic or abstract forms as well as the unique formal beauty features of things in life, bring people the enjoyment of visual beauty.

The decorative patterns in the stone carvings of the emperor's old city and the emperor's mausoleum sites in the Ming Dynasty include separate patterns, continuous patterns and suitable patterns. The Taiping flower pattern as a separate pattern is a symmetrical organizational form with rigorous structure and serious rules; The Ruyi cloud pattern as a type of separate pattern is a balanced organization form, with non-restricted shape and free organization composition, giving people a visual stability and a unique rhythm beauty. Twine pattern, Fangsheng pattern, mountain pattern and scale pattern are the most typical continuous patterns. The Fangsheng pattern and twined pattern in the ruins are mainly composed of two continuous bands, with a certain sense of rhythm. Mountain pattern and scale pattern are mainly formed by square continuous plane pattern, which are characterized by uniform rhythm, unified rhythm and strong integrity. Most of the dragon and phoenix patterns in the ruins are organized in the form of suitable patterns, and the shapes of dragon, phoenix and cloud are designed, arranged and processed within certain limits to form exquisite patterns with complete compositions. The overall composition is free and lively, clever and interesting, with great affinity.

The decorative patterns of the Ming dynasty relics absorbed the artistic characteristics of the Song and Yuan dynasties, inherited the essence of traditional Chinese culture, and displayed the forms and characteristics of the decorative patterns of the early Ming Dynasty, with high aesthetic and decorative values.

3.2 Cultural Connotation

Chinese traditional patterns have a long history and rich contents, reflecting the characteristics of The Times and conveying people's spiritual pursuit. Chinese traditional decorative patterns are characterized by intentional and auspicious connotation" [9]. Through these decorative patterns, it is not difficult to see the ancient people's cognition and emotional sustenance of nature, universe, world and life.

The plant patterns in the stone carvings of the zhongdu emperor's old city and the tomb site of Ming Dynasty were artistically processed with plant prototypes such as Taiping flowers, lotus flowers and peonies to show good expectations. Taiping flower implies the world peace, life well-being; the lotus symbolizes holiness and incorruptibility, and is respected as a holy and clean flower by Buddhism; Peony symbolizes wealth and auspiciousness. Zhou Dunyi in the Song Dynasty said, "Peony is the richest flower." The combination of flowers and twigs gives the meaning of "riches and honour". Animal patterns are mostly based on dragon, phoenix, lion, deer and other animal prototypes, which are vivid and lifelike. The dragon is a kind of scaly insects, the phoenix is the king of birds. The dragon is the symbol of imperial power, and the phoenix is the representative of beauty and peace." The Book of Mountains and Seas•The Book of The South" records that"there is a bird, its shape is like a chicken, and it is called the Phoenix Emperor."[10] Dragon and phoenix were auspicious things in ancient people's imaginatio, and now they have become indispensable artistic images in the decoration of production and life. Lion, the king of beasts, representing nobility and majesty, is regarded as auspicious auspicious animal. The deer implies the meaning of happiness.

From totem worship in the primitive society to the influence of Confucianism and Buddhism, the unique spiritual civilization and folk culture of the Chinese nation was finally formed. The content of folk customs is mainly good weather, more children and more happiness, promotion and happiness of life, showing the ingenuity of craftsmen and folk customs in different periods, bringing spiritual support for people's lives and showing profound cultural connotation.

IV. INNOVATIVE PATH OF DECORATIVE PATTERNS IN FENGYANG MING DYNASTY RUINS

4.1 Extraction of Pattern Symbols and Construction of Digital Atlas

Ancient Chinese decorative patterns play a pivotal role in modern life [11], inheriting Chinese civilization and expressing nostalgia for the past. Although Fengyang Ming Dynasty site has been listed as national and provincial key cultural relic protection unit, natural erosion blurs decorative patterns in the site carving, which adversely affects the inheritance, protection and research in the later period. Therefore, symbolizing and digitizing the decorative patterns of Ming Dynasty relics is one of the important ways to

protect and inherit them.

At present, the design of decorative patterns in Ming dynasty ruins basically stays at the level of pattern duplication, patterns are mostly collected from the photographs roughly processed. Due to the limitation of technical level and professional level, the texture of patterns is confused and the definition is not high, which leads to the deviation in the inheritance process of decorative patterns of Ming Dynasty ruins. Aiming at the above problems, designers need to use AutoCAD or Adobe Illustrator and other software to extract pattern symbols, carry out digital design from a professional perspective, and index them according to their location in the site so that they can be compared with the actual site. In the process of grain refining, the designers need to make use of their professional knowledge and aesthetic appreciation to summarize and choose patterns, lines, compositions, not only retaining the basic form of pattern modeling, but also making them in line with modern aesthetics.

The use of digital means to extract the decorative pattern symbols in the Ming dynasty ruins and the construction of digital atlas are beneficial for the protection and research of Fengyang Ming dynasty ruins. Moreover, the construction of relevant digital database is conducive to the inheritance of excellent Traditional Chinese culture.

4.2 Get Rid of the Old and Bring Forth the New to Create a New Industrial Chain

In 2018, the Palace Museum jointly produced a large-scale seasonal cultural program called "On the New Palace Museum" with Beijing TV station and Chinese Culture. It has broken people's stereotype of the Palace Museum [12] and created cultural and creative products bearing the stories of the Palace Museum, so that the culture of the Palace Museum can be innovated and inherited more widely. Therefore, the decorative patterns in Fengyang Ming dynasty ruins can also be boldly innovated and transformed, and the pattern symbols can be abstracted, deformed, decomposed, combined and decorated with color, so as to make them more in line with modern people's pursuit and become artistic products.

Through the innovation of physical forms, such as tourism memorial cultural and creative products, life cultural and creative products, decorative cultural and creative products, the development of national cultural and creative industry is effectively promoted.

Through innovative carrier forms, such as interactive design, the needs of interactive experience and personalized customized experience can be met. Users can make use of digital tools such as mobile phones, enter the APP, and then make their favorite products. The whole process not only satisfies the user participation experience, but also spreads the national culture and improves the public aesthetics.

V. CONCLUSION

The Zhongdu emperor's old city and Mausoleum site of Ming dynasty are the models of architectural art in the early Ming Dynasty, and their stone carving art has a profound influence on the development of

stone carving in the Ming and Qing dynasties. Due to age, the buildings have been seriously damaged, and the stone carvings left are an important part of the cultural heritage of the Ming Dynasty, representing the great achievements of ancient Chinese stone carvings. By refining and transforming the decorative patterns of stone carvings, constructing digital atlas, creating a new industrial chain in a variety of innovative forms, and constantly exploring the artistic charm and cultural influence of stone carvings of Ming dynasty sites, they can be revibrant in the new era.

ACKNOWLEDGEMENTS

This research was supported by Natural Science Research Project of Universities in Anhui Province in 2021: Research on the Construction and Innovative Technology of Local Cultural Symbols in Huaihe River Basin (KJ2021A0863)/The study of the Sixth Social Science Application Countermeasures of Chuzhou in 2021: Analysis and Innovative Research of Decorative Patterns in Fengyang Ming Dynasty Site (B2021027)/Key Teaching Research Project of Quality Engineering in Anhui Province in 2020:Research and Practice of Ideological and Political Promotion of Moral Education Model in Design Courses (2020jyxm0407).

REFERENCES

- [1] Xi Jinping. Xi Jin Ping on the Governance of China: Volume 2. Beijing: Beijing Foreign Languages Press, 2017.
- [2] Liu Lei. Comparison of wall reinforcement design of southwest corner tower of emperor's old city in Ming Dynasty. Anhui Architecture, 2017, 24(02):45-46+80.
- [3] Zhang Yu. Carry forward Chinese culture and modernize China's system and capacity for governance. Journal of Hunan Institute of Socialism, 2015, 16(03):82-84.
- [4] Zhang Dongming, Chen Heng. Research on the application of Chinese traditional pattern elements in modern game character design. Industrial Design, 2018(04):25-26.
- [5] Wei Xiaoyao. An attempt to introduce ethnic and folk handicraft elements into middle school art classroom. Journal of Guizhou Normal University, 2018.
- [6] Li Shuaifeng, Li Yanjun. Study on the application of Han Dynasty pattern in residential landscape design of Blue Spring City in Daxing district. Literature and Art for the Masses, 2013(23):72-73.
- [7] Xiao Qing, Wang Yinyin, Zheng Yihong. Study on the shape and artistic value of Zhongdu stone carvings of Ming Dynasty. Journal of Social Science of Jiamusi University, 2019, 37(06):148-150+172.
- [8] Xing Yue. Research on the shape characteristics of Chinese ancient Buddhist statues of heavenly Kings wearing armor. Journal of Xinjiang Normal University, 2014.
- [9] Li Yuan. Application of traditional auspicious pattern in paper packaging design. China Pulp & Paper, 2021, 40(09):14.
- [10] Min Wen. The Phoenix in the Book of Mountains and Seas. Folk Literature, 2019(08):64.
- [11] Li Jingyan. Analysis of the influence of geographical and climatic factors on Japanese traditional decorative patterns. West Leather, 2020, 42(11):129-130.
- [12] Wang Mengting. Study on competitiveness evaluation of cultural tourism Industry. Journal of Liaoning Normal University, 2019.