

# Research on the Art Characteristics of the Chinese Ancient Architecture Rooftops

## A Calligraphy View on the Eaves Tiles of the Han Dynasty

Mingjie Dai

School of Art and Design  
Jilin University Zhuhai College  
Zhuhai, China

Xianguang Qian

Department of Fine Arts  
Taishan University  
Tai'an, China

**Abstract**—This paper studies the art of eaves tiles in the Han Dynasty from a perspective of Chinese calligraphy, by means of researching the principles of aesthetics applied into the typeface, the composition layout, and the original ideas, while listing the basic visual art features of the eaves tiles including the format, material, shape and idea.

**Keywords**—eaves tiles; formats; styles; calligraphy

### I. INTRODUCTION

#### A. Eaves Tiles

The eaves tiles, also known as roof tiles (Wa Dang in Chinese), refers to the drooping part of the top of the ceramic tube tile. It began in the Zhou Dynasty (1046 B.C. to 256 B.C.), developed in the Qin Dynasty (221 B.C. to 206 B.C.) and then became popular in the Han Dynasty (206 B.C. to 220 A.D.). So far, the earliest ones discovered in about 4000 years ago in the Baojiqiao Town heritage site, which can be dated back to Long-shan cultural period, during the third census of cultural relics in the major discoveries nationwide, leading a thousand years of ahead with regard to the application of the eaves tiles, due to the diggings of barrel tiles, plate tiles and grooves found.[1] However, as one of the important architectural components in the ancient China, they have been not just used for the practical purposes such as waterproofing but also decorative application for a wide range of patterns influenced over the centuries until today.

#### B. Brief Review of Han Dynasty

In fact, the Han Dynasty was the first golden period for its diverse social achievements during its social development process in history. It contained the Western Han (202 B.C. — 9 A.D.) and the East Han (25 A.D. — 220 A.D.) of the two historical periods, which historians commonly name it the two Han period. Importantly, not only did it play a vital role in the civilization, but also recognized as a cultural mainstream for its predominant position in the ancient history of China. Nevertheless, even though dynasties had been transformed from one to another, the status symbol of the Han Dynasty as a major ethnic group of China has not changed yet.

### II. THE ORIGIN OF THE RESEARCH

#### A. The Source of Character Eaves Tiles

According to the research, it unveiled the eaves tiles inscribed by characters came to light by around the Emperor Jing (157 B.C. to 141 B.C.), which popularized around the Emperor Wu (156 B.C. to 87 B.C.). One example is that a variety of Character eaves tiles underground near the Mao ling mausoleum of the Emperor Wu reflects this point.[2] Owing to the artistic concepts and creative methods inherited from the one in the Qin Dynasty and developed the craft standard of that, eaves tiles uncovered the unique social values and humanistic pursuit while the overall national strength was unprecedentedly powerful, with a mass of border expansion and numerous techniques advent across the nation, eventually not only leading a fairly considerable height and level of artistic masterpieces, but also contributing to a number of practical use.

#### B. Further Research in Xi'an of China

Further research by historians argue that Qin Zhuan Han Wa Museum (Museum of Qin Bricks and Han Tiles) located at the foot of Du Ling mausoleum in Xi'an China is by far the largest, the world's only collection and category of Qin bricks and Han Tiles thematic museum, where collections contain a range of eaves tiles inscribed by one, two, or multi-characters. Most significantly, it peaked in the West Han Dynasty (202 B.C. — 9 A.D.). According to a book "Historical Records: Xiaowu Benji", the Emperor Wu followed necromancer Sun-ji's suggestions to build the Yan Shou Palace, believing a fairy mansion contributing to a long life, where eaves tiles of Yi-yan-shou, meaning "benefitting for a long life", were then applied into the building, as well as "Golden Wu God Bird" and "Yu Yu Rabbit", which are the good examples of the great treasures of the Han Dynasty's eaves tiles inscribed by Chinese characters. In a word, it can be said that Chinese characters had constituted the Han Dynasty's extensive and profound art culture when unearthed diggings found, while calligraphy is the threshold to this spiritual pursuit profoundly expressed in the culture of the Han Dynasty.

### III. THE FEATURES OF THE CHARACTER EAVES TILES

Among the numerous diggings in the Han Dynasty, the character eaves tiles had been to an outstanding position for its significance of the time. It was due to the fact that there were much more eaves tiles in the Han Dynasty than those in the Qin Dynasty, and yet with the calligraphy content referring not just from the series of names with the palace, but also with the site, the official-residence, the superstitious belief, etc. [3]

#### A. Art and Temperament Almane Performance

Overall, they were famous for the elegant patterns and smooth-stroke typefaces, while trusting the old philosophy of Huang (purposive Taoism) as well as upholding the long-lived belief, which the original visual forms and styles presented were then just as much as bloom flowers. Furthermore, they are well-known not just for the beauty of large-sized typefaces but for a variety of visual formats, which the precious remains of the West Han calligraphy represented by the arrangement of harmonious and even calligraphy typefaces as well as the well-fit of the layout, thus showing the simplicity and richness of the art style of the Han Dynasty. Actually, there were a number of meanings in words of prayer whilst the appreciation of their art can be comparable to that of the fine seal. In addition, the strokes in calligraphy were dependent on a number of alternations styled with soft, straight, square, dense, leaning and many other altered strokes, which amazingly had reached a high level of harmony either with square cliffs or flow ingenuity.

#### B. Material and Applications to the Outlines

On the other hand, having mentioned that they were also applied by the art and crafts process from the Qin Dynasty, material being used is mainly grey pottery-based, which is the most commonly material applied depicting the importance of the material application paralleled with the Tang Dynasty (618 A.D. — 907 A.D.) glass tile, the Song Dynasty (960 A.D. — 1279 A.D.) metal tile in the history of eaves tiles. In contrast, those in the Qin Dynasty mostly used to be semicircular shape, patterned with animals, plants, geometric patterns, etc. However, it turned into round shape in the Han Dynasty. The diameter is between 15 and 18.5 cm on average. The small diameter is 13 cm while the largest can be up to 22 cm. The least text is only by just 1 character; however, the most text is inscribed by about 12 characters. In addition, some are even particularly designed for those well-known palace buildings whilst produced by high-skilled masters using special pottery kilns.

#### C. Creation and Inspiration to the Ideas

It was the first time for masters' inspirations to relate the characters with the subject matter, which they considered animals, plants and other artistic elements associated with the theme. As a result, it witnessed a wide range of formats with the architectures applied into palace room, official residence, mausoleum, granary, garden and other architectures as many as commonly used. Research found that diggings in Ding-hu yan-shou Palace, Du-si-kong Palace, Shang lin-nong Palace, and Zhao-ling Mausoleum had proved the characteristics of the eaves tiles during the Han

Dynasty, which laid a solid foundation for the tiles research onwards. Therefore, in a sense, the Character eaves tiles somehow integrate the typefaces with architectures, highlighting the humanistic spirit and the humanistic landscape of the building, especially the expression of calligraphy-oriented line art. To put another way, it can be said that the creation of infinity between square inches may be the greatest creative value of the Han wisdom.



Fig. 1. Hua-cang (Left), Guan (Middle), Lee (Right).

### IV. THE ARTISTIC FEATURES OF CALLIGRAPHY

According to statistics, although there are so far just more than 300 typefaces when counting the number of Characters-featured eaves tiles, it sometimes contains a large number of changes regarding each piece, involving the Chinese calligraphy typefaces such as da-zhuan, qin-zhuan, han-zhuan, li-shu, etc., however though, once in a while when the structure of da-zhuan applied as well. It was intended to be the remains of the Warring States Period (1046 B.C. to 221 B.C.) belonging to the Qin Dynasty typefaces. As for li-shu, except for individual words such as "Hua-cang" tile in the "warehouse" word, etc., whereas it had more obvious features of the body by li-shu, more reflected in the form of some of the strokes and the representation of the writing meaning of it (see the left part of "Fig.1"). In contrast, the most significance of calligraphy undoubtedly was the transformation of zhuan-shu in the Qin Dynasty from the shape of han-shu in Han Dynasty, which was also the main part of the typefaces of the eaves tiles in Han Dynasty. [4] In comparison with qin-zhuan, the typefaces in Han Dynasty inherited and developed a remarkable feature of the Qin Dynasty in the content and forms of calligraphy, reflecting in the change of typeface structures and strokes.

#### A. Features of Typefaces

Though having made these points on the art and handcraft regime inherited from the Qin Dynasty, the feature of typefaces on the tiles also mainly sourced from zhuan-su typeface in the Qin Dynasty, while there were small amount of li-shu typeface for the rest part. "Huacang", a word used to describe national grain space at that time, characterized by a large area, wide space and so on (see the left part of "Fig.1"). The word of the tiles of the building showed the characteristics of the beauty and elegance while the vertically-centralized arrangement reflected the majesty, solemnity and sense of power of the rulers at that time. Another example is the word "guan" when the word "guan" then had the meaning of border clearance (see the middle part of "Fig.1"). Tang Dynasty poet Wang Chang-ling once noted: "The Moon and the wall has not changed from one dynasty to another, but nobody has returned from the crusade as long as the General defends so that invaders will never

occupy our territory." the ever-lasting good poetic sentence. Its traditional "guan" word to the obstacles formed in the door as a table, reflecting the "one husband when the door, hundreds and thousands of men would not open" momentum. The tiles given by the surname "Lee" is a simple, graphic line that highlights the spiritual belief of trees as totems, and the word "sub" under the text reflects the worship of trees and the significance of trees to people (see the right part of "Fig.1").



Fig. 2. Tai yi zi sun (Left), Shi shi cao shen gong (Middle), Yu hua xiang yi (Right).

### B. Features of Composition

Different societies, regions and eras had derived unique visual language. [5] Compared with the semicircular tiles (half-tiles) of the Qin Dynasty, "circle" as the main form of Han Dynasty had not only shaped the Chinese character eaves tiles into the artistic shape, but also positively influenced the typeface forms and the transformations that applied, which portrayed a variety of art expressions centralised to the elegant formats and superior art skills. For instance, tiles of "Tai yi zi sun" (Good will to all the descendants) and "Shi shi cao shen gong" (Stone room to the shrine) started with the centre point, while characters curved along the fan-shaped space formulated a unique layout design around the point-centralised and round area, which had been represented the original idea and concept in order to mirror the royal identity and psychological cues of the privilege, the self-centeredness, and the respect (see the left and middle part of "Fig. 2"). One example is "Yu hua xiang yi" (In harmony with Mountain Hua), a couple of lines crossing over composing of the character "jing" (A well) evenly resulted in four parts of the fan-shaped areas, where the four characters had been precisely and wisely put within the sub-areas to display the concept to harmony and co-existence (see the right part of "Fig. 2").

### C. Features of Creations

A considerably amount of ornamental and artistic decorations also had been put into the consideration in terms of a mixture design of the Chinese characters and patterns. One example in this regard is the tiles "Ma" (Horse) and "Nian-gong" (Year Palace), which the around space is evenly divided into the four sub-areas. In fact, the design expressed a sense of unification in harmony with balance while the clearance and the simplicity are nicely inscribed with zhuan-su characters and cloudy patterns, with reference from the book "Tai ping yu lan" in an old belief "Clouds, the essence of the Sky and the Land." Thus, we predictably assume the worships of the nature and the climate from our ancestors, which reflects the people's feng shui diligent pursuit. In contrast, "Chang yi zi sun" (Good will to all the descendants), again, is composed of the center with cloud tails and

typefaces, which shows the design concept of "books and clouds", reflecting the Han Dynasty society's beautiful pursuit of the philosophy of "the unity of heaven and man".

### V. CONCLUSION

As Liang Sicheng (1901-1972), a famous Chinese architect studied in the US, put it in his book "The Art of Chinese Architecture": "The ancient Chinese never regarded architecture as an art whereas architecture had always been the mother of art in the west. It had been through architectural decoration, painting and sculpture to maturity and it was well-recognized as an independent art." [6] However, to come to an end, it is a point of view to summarize:

- First of all, it is not only confined to the square inch given by the line art, but more significantly, it opened a door to the art world of the Han Dynasty.
- Secondly, it presents the simplicity and richness of the aesthetic meaning in pursuit of the art concept of the stability, the conciseness, and the clearance.
- Thirdly, it is the epitome of the ancients, but also to the multi-integration, a vein of the Qin and Han culture combining crystallization and the wisdom transmission.

Last but not the least, Art is not an instrument that to provide people with a specific purpose, nor to present people with a truth about the world in the form of propositional statements, but to open up to people to present a complete world. [7]

### REFERENCES

- [1] Liu Qingzhu. An Introduction to Characters Eaves Tiles. Archaeological Study of Ancient Capitals and Emperor's Tombs. China Science Publishing House. 2000 (Reference)
- [2] Wang Zhijie. Important Cultural Relics Newly Discovered near Han Mao Ling and Its Burial Mounds. Cultural Relics, vol 7, 1976
- [3] Jiang Caifan. Qin Cultural Series (Series 10). Qin Yong Research Society of Shanxi Province. 2003
- [4] Zhao Xiong. Inclusion in openness-The Calligraphy Form and Application of the Eaves Tiles in the Han Dynasty. China Calligraphy, vol 01, 2014, pp.80-87
- [5] Kan Tai-Keung. From Traditional Chinese Graphics to Philosophical Thought — Multiplication Innovation in Design. Shui han San you-Traditional Chinese Graphics and Modern Visual Design. Jinan: Shandong Pictorial Press. 2005.
- [6] Liang Sicheng. Chinese Architectural Arts. Beijing: Beijing Press. 2016
- [7] Ye Lang. Aesthetic Principles. Beijing: Peking University Publishing Company. 2009.