Abstract: Calligraphy has the characteristics of complexity, and the essence of complexity lies in embodying emergence. The essence of emergence is the creation realized in the multi-dimensional interactive synthesis. The calligraphy of Zhao Zhiqian, as a representative of the official script innovation in the Qing Dynasty, not only selectively inherited the style characteristics of the ancients, but also created a new construction in combination with the calligraphic style of the times, thus realizing emergent creation. By studying Zhao Zhiqian’s official script calligraphy, we can reveal the complex characteristics of its brushwork, structure, and composition, which has a multi-faceted meaning and value for the development of contemporary Chinese calligraphy.

Keywords: complexity; official script; innovation; Zhao Zhiqian

1. Introduction

The continuous discovery of ancient epigraphy literature made the literati and scholars gradually turn their attention to epigraphy academically, and this shift in academic research objectively promoted the prosperity of epigraphy calligraphy in the Qing Dynasty. As far as the calligraphic characteristics of the unearthed cultural relics are concerned, most epigraphy that appeared in this period included Han tablet inscriptions and epitaphs inscribed on tablets during the Wei, Jin, Southern and Northern Dynasties. Among them, the inscriptions in the Han Dynasty were mostly in official script, whereas the inscriptions in the Wei, Jin, Southern and Northern Dynasties were mostly in regular script, but they still had strong characteristics of seal script, which greatly inspired calligraphers in the Qing Dynasty. Therefore, the models used by calligraphers and scholars are mostly Lishu and Wei tablet inscriptions. In addition, scholars such as Gu Yanwu and Wanjing also collected many Han tablet inscriptions, which theoretically provided insights for the development of calligraphy, thus creating certain conditions for the development of official scripts in the Qing Dynasty. Among them, Zhao Zhiqian was a representative figure who followed the Han Dynasty official script and achieved breakthroughs in the calligraphy circle at this time.

Zhao Zhiqian (1829–1884), formerly known as Tiesan, was later changed to Yifu, and only after his middle age was named Zhiqian, also known as Huishu. He is a knowledgeable seal carver and calligrapher. Zhao Zhiqian is very good at regular script, cursive script, official script, and seal script, and he especially likes Wei tablet inscriptions. His Wei tablet inscriptions are smooth and gorgeous when writing, which is delicate and attractive. Therefore, his other calligraphy styles are more or less affected, and the official script is no exception. Zhao Zhiqian’s official script had imitated Deng Shiru, but he was ingenious. His calligraphy widely imitates other classics, such as “Liu Xiong Tablet”, “Wu Rong Tablet”, “Yuanping Tablet”, etc., and further incorporates the inscription techniques of the Southern and Northern Dynasties [1]. Eventually, a book style with his own unique style
was formed—the official script with the “wei tablet inscriptions style”, which became a model of the calligraphy of the times.

Ancient Chinese philosophy emphasizes the generation and process of natural things, emphasizes the change, contingency and indecision of things, and emphasizes the inseparable interconnection between parts, between parts and the whole, and between the whole and the environment. At the same time, it also emphasizes the overall structure, relevance, coordination, etc., and emphasizes the mutual penetration, reflection, implication, and unity among different things. Ancient Chinese documents, such as the four books and five classics, elucidate the existence and nihility, gossip, yin and yang, the five elements, the number of things, inaction, and the correspondence between heaven and man, and other concepts all embody rich and profound thoughts of information, systems, and complexity [2].

As a form of human cultural creation, calligraphy is a cultural information phenomenon created by the main body existing in the way of social information. During the Ming and Qing Dynasties when Zhao Zhiqian lived, his academic background was deeply influenced by Chinese classical philosophical thoughts. In addition, his calligraphic works not only integrate the strengths of many people, but also have unique innovations. Therefore, his calligraphy works naturally have the characteristics of information complexity. In Santa Fe’s research philosophy, the emergence concept and the complexity concept are often equally important concepts. “The essence of emergence is to generate complexity, and the essence of complexity is to embody emergence”. The essence of emergence is to create new things through the synthesis of multiple factors.

From the perspective of contemporary complexity theory, this article reveals the complexity characteristics of his calligraphy works through the analysis of the innovative value of Zhao Zhiqian’s official script calligraphy. In this way, contemporary creators are guided to rationally consider the complex and unified relationship between inheritance and development, tradition and innovation, time and style, work and spirit. As a complex system, calligraphy must be composed of a large number of agents, and these agents are all different in form and performance. At the same time, the three elements of calligraphy, brushwork, structure, and composition have naturally become the most representative agents in this system. Therefore, this research starts from the brushwork, structure, composition and other techniques to conduct a comprehensive analysis.

2. The Complexity of the Brushwork

In calligraphy, horizontal stroke, vertical stroke, left-falling stroke, right-falling stroke, as the basic strokes of writing, are the most representative active agents in the complex system of calligraphy strokes. Therefore, the complexity of brushwork is analyzed from horizontal stroke, vertical stroke, left-falling stroke, and right-falling stroke.

Comparing Zhao Zhiqian’s official script with the round head and tail of the classic official script of the Han Dynasty, it can be seen that his official script is circle in the square, combining square and circle. For example, his regular script and seal script are calm and sophisticated, simple and rich. Let’s take “The Four Calligraphy of Zhang Heng Lingxian” as an example. Among them, “Tian”, “Ke”, “Yuan” and other characters, the horizontal stroke is mostly cut sideways to form a square stroke, and then spread the brush to start from the middle, which is broad and natural, giving people a capable and simple feeling. At the end of the stroke, the horizontal stroke is usually lightly turned at the end of the stroke to form an oblique section, and then slightly emerge along the most prominent section of the oblique section, such as “Tian”, “Yi”, “Bu” and other horizontal stroke endings. The vertical stroke is similar to the end of the horizontal stroke, and it is also a vertical stroke with words such as “You”, “Wai”, and “Hua” after forming a chamfered surface. The left-falling stroke often pauses at the end of the stroke and then exerts force, and strikes to the upper left, which is full of rhythm. For example, the left-falling strokes of the characters “Bu”, “Yong”, and “Tian” all stop at the end and move toward the upper left. The right-falling stroke ending pen is the most distinctive. At the end of the right-falling stroke, I did not
hesitate to pause at the end of the right-falling stroke, and continued straight forward. The right-falling stroke of words such as “Zhi”, “Tian”, and “Jiu” is full of “sharpness”.

Agents’ behavior is proactive; thus, they can feel environmental information, and accumulate self-learning through experience, choose, adjust and change their own behavioral rules in order to actively adapt to the environment. On the basis of repeated copying and practice, Zhao Zhiqian selected the extraordinary points in the Han inscriptions to form a distinct personal style. At the same time, after accepting the idea of steleology and Bao Shichen’s idea of “writing with force” and other concepts, he incorporated the vigor and uprightness of the stele from the Southern and Northern Dynasties into the official script [3]. From posts to monuments, writing pens have undergone major changes. The formation of the new style of calligraphy is not about the calligrapher’s blind inheritance of a certain calligraphy work, but the collection of the strengths of calligraphy masters. If it is only a simple inheritance, it will not be able to jump out of the original style of the work.

3. Structural Complexity

The complexity of the structure of Zhao Zhiqian’s official script is mainly reflected in the identification of the structure. Identification is a signal, a program, and a banner provided for gathering and boundary generation. Identification can promote selective interaction, allowing the agent to choose among some difficult to distinguish between the agent and the target.

3.1. Main Part

Most of Zhao Zhiqian’s early official script works have the style of Deng Shihu [4], that is, the composition of the characters is relatively flat, and the main part of the characters is stable in the middle. For example, the characters “Bu”, “Wu”, and “Er” in “Eight-character Couplets of Lishu for Hequan” have square fonts with small changes and the main part is in the middle. And Zhao Zhiqian’s official script in his later years has mature calligraphy style. Compared with Zhao Zhiqian’s early official scripts and the Han Dynasty official scripts, the horizontal paintings of his late official scripts are more stretched, and the fonts are flat and thin, and the center of gravity is slightly higher than that of the early official scripts and the Han Dynasty official scripts, such as with the words “Bu”, “Wu” and “Er” in “The Four Calligraphy of Zhang Heng Ling xian”.

3.2. Font

In Zhao Zhiqian’s later years, the characters of the left and right structure in the official script were compared with the Han Li; the left is lower and the right is higher, and the scattered areas are obvious, such as with the words “wai”, “gang” and “yin” in “The Four Calligraphy of Zhang Heng Lingxian”. The glyphs are staggered and interspersed with avoidance, making the glyphs more dangerous, such as “yin”, the radical is lower than the right side, and the right side skewers and crosses are inserted into the radical, making the structure of the word more compact. The characters in the upper and lower structure are compared with Han Li, the upper part of the stroke is to the right, the lower part is to the left, and the upper and lower strokes are avoided. For example, “Se”, “Ding”, “Shi” and other characters, the left and right swings add a different kind of fun to the font.

4. The Complexity of Constitution

Through the interaction of Zhao Zhiqian’s brushwork and non-linear structure, the recycling of resources triggered by the gathering of all kinds of agents has produced the diversity of the constitutional level.

4.1. Blank Area Relationship

In the early years of Zhao Zhiqian’s official script, the constitution of the official script was similar to that of the official script of the Han Dynasty. For example, the “Liu Xiong Stele”, which he copied in his early years, has short left and right kerning and large upper
and lower kerning [5]. In his later years, Zhao Zhiqian incorporated the majestic style of many Wei inscriptions in the official script. Coupled with the continuous improvement of writing proficiency, he no longer succumbed to some inherent restrictions, making the whole work look more relaxed. For example, in “The Four Calligraphy of Zhang Heng Lingxian”, there is no obvious boundary between the rows and the characters are interspersed and avoided, which makes the whole work more flexible and natural.

4.2. Writing Rhythm

Zhao Zhiqian incorporated the pen on the inscriptions of the Northern, Southern and Northern Dynasties into the official script, reflecting the sense of movement of the strokes through his decisiveness and determination. The strokes are twisted, flexible and colorful, making it present the novel features of ever-changing, elegant and moving shapes. For example, the character “Xian” in “Zhang Heng Lingxian’s Four Calligraphy”, the last stroke is drawn with heavy pressure, and after a quick step, the heavy press is specially emphasized at the tail of the falcon, and then swept out by the side to make it look charming and smart [6].

5. Conclusions

Zhao Zhiqian’s official script is a complex system, and his rules are selected and generated in random interactions. The agents have diversity in the rules of environmental information, so there will be advantages and disadvantages in the response to a certain situation among the many existing rules. It is impossible for agents to prepare an established rule in advance to adapt it to every situation encountered. Rules can only be selected through trial and error in the process of interaction with the environment. If there is no corresponding adaptive rule in the existing rule base, then it is necessary for the agent to generate a new rule in order to adapt to the new situation.

Zhao Zhiqian imitated the calligraphy of the ancients, instead of accepting it entirely, but choosing according to his own style and needs. In addition to the evolution of Zhao Zhiqian’s calligraphy from the seal script to the official script, the most important thing is to incorporate the style of the inscriptions of the Southern and Northern Dynasties into the official script. When the ancients generally imitated the calligraphy works of their predecessors, they mostly traced back from the late calligraphy to the early calligraphy, such as “from seal script to regular script”. However, many calligraphers in the Qing Dynasty chose to incorporate late calligraphy into the early calligraphy. Zhao Zhiqian, who “incorporates the style of the inscriptions of the Southern and Northern Dynasties into the official script”, is one of them. Therefore, today’s calligraphers can be more diversified when choosing objects to imitate [7].

The writing style of an era is closely related to the background of this period. We are the creators of calligraphy works, but also people living in this society [8]. We breathe the breath of this era all the time, so the spirit of the times will be unconsciously expressed in our works. The environment and background of calligraphers are different, which means that in addition to studying the works of the ancients, if they do not add the characteristics of the calligraphy of their time, it will be difficult to create a masterpiece. Nowadays, when imitating Han inscriptions, many calligraphers stick to the font and brushwork of the official script of the Han Dynasty. They did not conduct in-depth research on the background of the times and aesthetic orientation behind Han inscriptions, so their works are stagnant and stable, lacking “potential” movement. Zhao Zhiqian’s innovation in the official script inspired us to learn and create realistically in accordance with the current background in our continuous learning and practice. Only in this way can we create calligraphy works that are more suitable for us.

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