

Research on Seal Character Design of Animal Patterns Under Semiotics Perspective

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ABSTRACT

Under the perspective of semiotics, the semiotic thinking of animal decorative seal scripts in the Thirty-two Seal Scripts of the Vajra Sutra is deduced, exploring the graphic symbols decorative rules and aesthetic interests of animal decorative seal scripts, and stimulating the rethinking of the character design and the construction of the design innovation. Taking semiotics as the theoretical basis, the semantic, semantic and pragmatic dimensions of the animal seal script are sorted out to establish an interpretation framework and design process, and to analyze the integration and innovation of the animal seal script and modern character design. The cultural and aesthetic values inherent in the animal seal script should not be ignored. Under the thinking of innovation and traceability, the construction of contemporary character design of animal decorative seal script has theoretical methodological value and practical value, which not only provides creative inspiration for modern character design, but also promotes and develops traditional culture.

Keywords: *Semiotics, Animal decoration seal script, Thirty-two seal script, Character design.*

1. INTRODUCTION

Seal script is a historical carrier with thousands of years of culture, and its inherent cultural and aesthetic values cannot be ignored. The seal script of the Thirty-two Seal Scripts of Vajra Sutra with animal motifs shows that ancient people recorded their life experience and expressed their aesthetic sense and spirit in the script, which is an important carrier for passing down the history and civilization. The animal decorative seal script is a typical graphic symbol, which is of great value and significance to the study of modern graphic design, calligraphy and seal carving. Exploring and practicing different ways of integrating them into modern design is an obligatory responsibility and requirement of the times, and also an important way to show the deep traditional cultural heritage of design works.

2. INTERPRETATION OF SEAL SCRIPTS OF ANIMAL DECORATIONS IN SEMIOLOGICAL PERSPECTIVE

The analysis of cultural symbols by semiotics can be deepened from the shape to the cultural level. Using the relevant theories of semiotics to analyse the seal scripts of animal decorations and applying the results of the analysis to modern visual design is a feasible way to explore the innovative development of the seal scripts of animal decorations.

2.1 Theoretical Basis for Semiotic Applications

A symbol is a representational object that serves as a specific medium to symbolize or stand in for a represented object. Symbols are regarded as perceptions received carrying meaning, and symbolic thinking and symbolic behavior are the most representative features of human life [3]. Morris integrated the semiotic theories of Saussure, Peirce and others and proposed that semiotics is composed of three parts: semantic structure,

semantics and pragmatics. As a form of textual expression to record life experience and express aesthetic consciousness at that time, animal decorative seal scripts are decorative, symbolic and allegorical, and have the role of symbolic function.

This time, the researchers will investigate the application of modern typography from the perspective of Morris Semiotics Theory on animal decorative seal script, specifically from the three dimensions of semantic structure dimension, semantic dimension and pragmatic dimension. From the three dimensions of semiotics, the study of animal decorative seal script, in the semantic dimension, is to study the symbols conveyed by the moral, cultural ideas. The semantic dimension is to study the relationship between the symbols and the rules of composition. The pragmatic dimension is the study of the relationship between symbols and users.

2.2 Research Ideas of Seal Script Symbolism of Animal Decorations

On the basis of researching the data related to animal decorative seal scripts, the researchers analyze the animal decorative seal scripts by applying the theoretical methods related to semiotics, and summarize and deduce the results of the analysis. Among the analyzed results, they extracted the cultural connotations and cultural symbols from the researched characteristics of the composition of animal seal scripts, the decorative interests of animal seal scripts, and the cultural symbols and imagery of animal seal scripts.

The study of seal scripts of animal decorations is carried out by means of image tracing and morphological analysis.

2.3 Interpretation of Seal Script Symbols for Animal Decorations

The main records of the 32 seal scripts are the 32 Seal Scripts of the Vajra Sutra, which was collected by Shi Daokeng in the Jingde reign of the Song dynasty, and the Imperial Shengjing Fugu, which was engraved and printed by Wuying in the 13th year of the Qianlong reign. In this paper, the researchers focus on the seal scripts of the Thirty-two Seal Scripts of the Vajra Sutra, which are decorated with animal motifs. The animal-emblazoned seal scripts are mainly based on the small seal script as the basic form, and are decorated with animal symbols such as dragons, tortoises, worms, tadpoles, and lings, so as to

achieve the symbolic meaning and graphic interest of the characters. From the perspective of semiotics, it is valuable to analyze the functional meaning of the basic elements of the animal symbols in the seal script and the symbolic meaning of the connotations and cultural information presented. Semantics is the study of the relationship between symbols and the objects they refer to. All symbols are the unity of "energy" and "reference", i.e. the unity of external representation and invisible imagery of cultural symbols. From the semantic dimension, the researchers analyze the pictorial symbols that are shaped by meanings, and are rich and colorful in both form and meaning. Analyze the decorative structure, stroke structure and overall layout of the animal seal script from the semantic dimension. Analyze the past function of animal seal script and its value to contemporary character design from the perspective of pragmatics.

3. SEAL SCRIPT SYMBOLS OF ANIMAL DECORATIONS ORGANIZED AND EXTRACTED

In the Thirty-two Seal Scriptures of the Diamond Sutra, the seal scripts of animal decoration are divided into Dragon Claw Seal Script, Bird Tracks Seal Script, Carved Insects Seal Script, Kodou Seal Script / Tadpole Seal Script, Bird Seal Script, Bird Seal Script, Bird's Head Seal Script, Lin Shu Seal Script, Luanfeng Seal Script, Turtle Seal Script, and Long Shu Seal Script.

3.1 External and Internal Connotation from the Semantic Dimension of the Seal Script Symbols of Animal Decorations

The semantic dimension is mainly analyzed from the semantics and connotation of the animal seal script. The semantics reflects the basic functional meaning of the animal seal script from the shape of the characters, while the connotation is subjective and abstract, which expresses the cultural connotations and social values of the time hidden under the semantics of the animal seal script, where the ancient people symbolically refined the animal images and integrated them into the structure of the seal script. The ancient people refined their animal images symbolically and integrated them into the structure of the seal script, the fusion of graphic symbols is just right for decoration. It is a challenge to generalize the structure of the characters by using such

hieroglyphic symbols in the condensed lines and strict structure of the seal script while maintaining full legibility, and at the same time being rich in decorative and aesthetic interests. In addition to demonstrating the magnificent and subtle creativity of Chinese hieroglyphics, it also has a solemn and auspicious symbolic meaning. At the same time, the selection of animal symbols has a lot of auspicious symbolism, which can be seen in the ancient people's reverence and love for the natural environment. ("Figure 1")

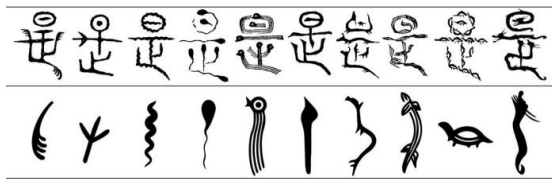


Figure 1 Summary of the decomposition of the seal symbols of the animal decoration category.

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3.2 Seal-symbol Composition of Animal Decorations from the Dimension of Language Structure

The basic design of Chinese characters is based on the principles of "pictograms", "references", "huiyi", "transcription", "pseudo-reference" and "shangsheng", i.e. the Six Books, which were formulated by the Han Dynasty people based on the analysis of the shape of the Little Seal Script. "The basic design of the characters is based on the principles of the Six Books, which were formulated by the Han Dynasty based on the analysis of the shape of the Small Seal Script. From this point of view, the seal script plays an important role in the study of writing, which not only maintains the image of hieroglyphics, but also adds the abstract symbolic features. The analysis of animal-printed seal scripts from the dimension of semantic structure mainly starts from the compositional relationship between its glyph structure and each symbolic element.

In terms of the overall character structure, the animal-decorated seal script in the Thirty-two Seal Scripts of the Diamond Sutra studied here is a kind of strange character based on the basic composition of the Small Seal Script, to which animal symbols have been added for decoration. Since its basic composition is derived from the seal script, the animal-embellished seal script still retains the characteristics of the seal script even with the added symbols, which are mainly characterized by the

symmetry of the characters, the stability and dignity of the characters, and the roundness and delicacy of the characters. From the point of view of the decorative structure of the strokes, the Animal Seal Scripts mainly reflect their distinctive characteristics of the Qi Zi Seal Scripts through the diversified symbolic decorations of the strokes. Through the disassembling and analyzing of the strokes, the Animal Seal Script is mainly divided into two categories: the whole symbols of the strokes and the part of the symbols of the strokes.

Integral symbolic decoration of the strokes. This method of expression mainly replaces the specific decorative symbols for the strokes to have the Regular symmetrical arrangement or arranged according to the structural features of the chosen seal form. This type of seal script retains the basic morphological features of the seal form, and changes the writing order and the number of strokes of the original glyphs according to the corresponding situation, presenting a more significant symbolic and decorative effect on the whole.

Among the seal scripts for animal decoration, there are the Eagle and Worm Seal Script, the Luan and Phoenix Seal Script, and the Turtle and Book Seal Script. Although these three seal scripts belong to the same category, there are still some differences in the expression of decorative symbols and the overall effect, which is mainly due to the differences in the animal carriers chosen and the basic decorative symbols extracted from them. The Sculpted Insects Seal Script follows the structure of the original Seal Script characters and the arrangement of the strokes, but the overall decorative effect of the strokes is mainly reflected in the technique of trembling the strokes, which gives the strokes a dynamic and decorative feeling of the silkworms' bending and crawling. The luan and phoenix symbols are slenderer in form and more adaptable to the composition of the stroke lines, so they are embodied in the decorations based on the symbols' intention and characteristics by the use of continuous strokes and overall decorations.

Part of the symbols of the strokes are added and decorated. This type of decoration is mainly found at the front or end of the stroke line, that is, at the end of the stroke or the end of the writing stroke, where the symbols of the animal form are added. This kind of Qi character seal script generally does not need to change the number of strokes or the structure of the strokes, but needs to be reasonably decorated according to the characteristics of the

basic decorative symbols. Most of the animal decorative seal scripts belong to this category, there are eight kinds of seal scripts: Dragon Claw Seal Script, Bird Tracks Seal Script, Kodou Seal Script/Tadpole Seal Script, Bird Seal Script, Bird Seal Script, Bird's Head Seal Script, Lin Shu Seal Script and Dragon Seal Script. Among these eight seal scripts, although they use the same category of decorative methods, they differ in the degree of decoration and the position of the decoration, which is mainly due to the influence of three factors: their basic symbol elements, the definition of the symbol names, and the structure of the characters. Among the calligraphic techniques of Chinese characters, there is the technique of strokes and endings, and the Dragon's Claw Seal Script embodies these two techniques significantly. The Dragon's Claw Seal Script mainly decorates the Dragon's Claw symbols at the ends of the strokes or at the end of the strokes, the number of decorations depends on the balance of the overall structure of the character, with balanced strokes at the ends of the strokes, and the Dragon's Claw decorations at the end of the strokes and at the end of the strokes are often accompanied by the corresponding staccato strokes, making the overall stroke more harmonious and richer in flavor. This makes the overall strokes more harmonious and dynamic. There is no obvious pattern in the decoration of the bird's handwriting seal script, but it is mainly based on the structure and aesthetics of the character, which makes the overall font show a lively and dynamic interest in stretching.

Tadpole Seal Script, Bird Seal Script and Swan's Head Seal Script basically do not change the basic structure of the original seal scripts in terms of decoration, but mainly decorate from the falling strokes of the brush lines. In Tadpole Seal Script, the tadpole symbols are added to the falling strokes, and the effect of trembling strokes is added when the strokes are carried out, so that the overall font looks like pairs of tadpoles swimming on the surface of the water.

From the point of view of the changes in the writing of the strokes, the main difference between the animal decorative seal scripts is in the changes in the rhythm of the lines when the strokes are falling and ending and when the strokes are being carried out. Animal seal scripts are characterized by five types of brushstrokes: pointed, rounded, rounded, rounded, and square. The Dragon Claw Seal Script, Carved Insect Seal Script, Luanfeng Seal Script, and Turtle Script are categorized into the category of the falling tip of the brush strokes and the closing tip. The Swan's Head Seal, which is

categorized as a brushstroke line with a falling tip and a rounded end, is the Swan's Head Seal. Tadpole Seal Script and Lin Shu Seal Script. Bird Mark Seal Script (Bird Tracks Seal Script) Bird Seal Script and Dragon Seal Script are categorized as square and rounded brushstrokes.

3.3 The Cultural Symbolic Value of Seal Scripts with Animal Motifs from a Linguistic Point of View

Seal scripts were written on bronze vessels such as bells and tripods, and were part of the ritual system, including the family crest, the user of the vessel, the maker of the vessel, important events, the achievements of ancestors, and the admonitions of the Zhou king. Other seal scripts, even though they were not engraved on these noble ceremonial vessels, were also used for ceremonial purposes [5]. Since these seal scripts were mainly used for ceremonial purposes, and similar to the decorative nature of ceremonial rituals, the animal seal scripts are highly decorative, and the animal seal scripts basically use auspicious symbols in the choice of carriers, mainly with the meaning of pleasing the gods and praying for blessings and good fortune. At the same time, because it is mainly used in ceremonial occasions, it is particularly concerned about the modification of the font and strokes. The animal seal script is more decorative and patterned, which makes it more difficult to write, and it also reflects the pious belief of the animal as a ceremonial character.

4. PRACTICES OF SEAL CHARACTER DESIGN OF ANIMAL DECORATIONS UNDER SEMIOTICS PERSPECTIVE

The design practice of animal decoration seal script is mainly based on the relevant theories of semiotics to construct the design framework, firstly, based on the previous three dimensions of semantics, semantics, and semantics of animal decoration seal script to extract and classify the elements of the symbols, and then vectorize and decompose them, to establish the corresponding decorative symbols of the elements of the library.

The unfolding of this design program will be carried out step by step through the design framework above. The program will use Eagle Insect Seal Script as the original symbolic material for experimental font design attempt. Firstly, the researchers will analyze the Eagle Insect Seal Script

in three dimensions: semantic, structural and pragmatic. By adding the trembling brush technique when writing, it makes the strokes of the font look like the bending and wriggling of silkworms, which symbolizes the ancient people's love for nature and is extremely dynamic and beautiful. At the same time, through the refinement of the symbolic features and vectorized processing and decomposition, it is found that the momentum of the strokes and the intensity of the ink color in the Eagle and Insect Seal Script, in addition to displaying the dynamic beauty, the strokes are also

like the sense of three-dimensional space. After analyzing and understanding that the cultural connotation of the Seal Sculpture matches the meaning and context of "Four Seasons in the Countryside", this proposal takes the poem "Four Seasons in the Countryside" as the design carrier, and applies modern design techniques to integrate the two visually, symbolically and contextually by using a three-dimensional and dynamic presentation, so as to let the viewers experience a unique visual and aesthetic sensation. ("Figure 2")

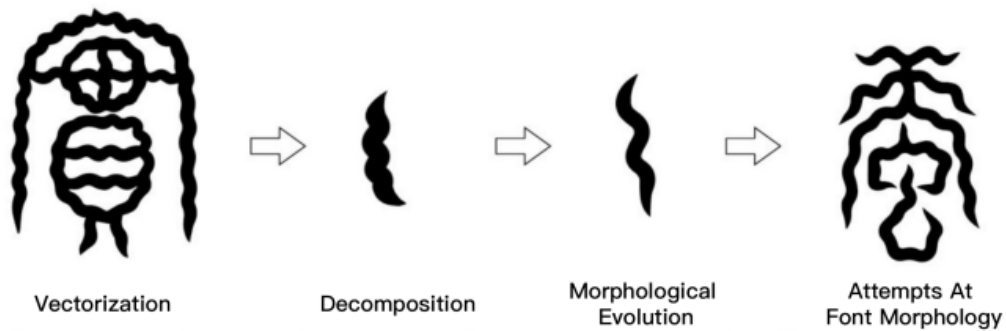


Figure 2 Schematic diagram of the evolution of the form of the seal scripts.

a Photo credit: author's own production.

4.1 Three-dimensional Evolution

On the basis of graphic character design, in order to better integrate the sense of spatial dynamics of the carved seal script with the contextual imagery of the verses, experiments on

the morphological evolution of the 3D modeling fonts were carried out based on the analysis of the three dimensions of supersymbolism. At the same time, the corresponding material rendering experiment is tried according to the contextual imagery.

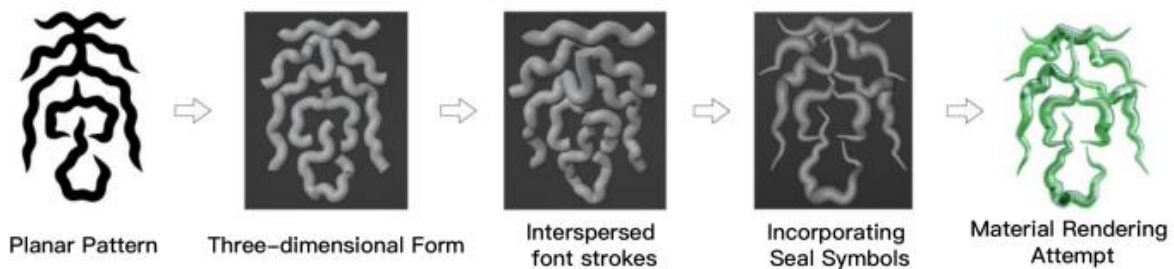


Figure 3 An attempt at three-dimensional evolution of typography.

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4.2 Programmatic Outputs

The final program is mainly composed of two parts: dynamic visual extension and graphic visual extension. The dynamic visual extension shows the dynamic sense of the Sculpture Seal Script and the spatial sense of overlapping strokes through the form of camera panning and stroke growth, and at

the same time, integrates with the meaning of the poem to show the sense of vitality of the spring like full of life. The graphic visual extension is mainly to layout the 3D fonts and related texts for visual publicity. ("Figure 4" and "Figure 5")



Figure 4 Typography display chart.

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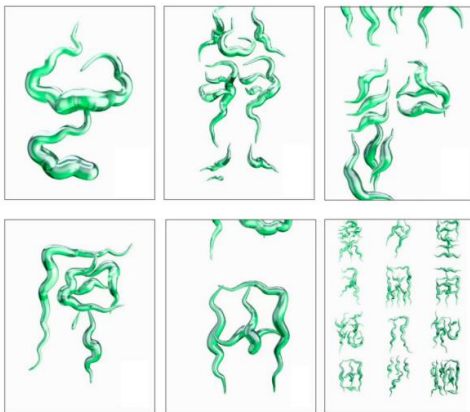


Figure 5 Motion video partial clip screen.

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5. CONCLUSION

Through the theories and methods related to semiotics, it provides a theoretical research method for the sorting out and dissemination of the seal script of animal decoration. After analyzing and summarizing the laws of graphic symbols and their aesthetic interests of animal decorative seal scripts, the researchers construct a dialogue between animal decorative seal scripts and modern design language, and explore its creative inspiration for modern character design. This will stimulate the rethinking and redesigning of character design, so that the animal-decorated seal script can be presented in a new artistic form. This will help to give new vitality to the Qi character seal script in today's world, strengthen the inheritance and protection of traditional culture, and promote cultural self-confidence and the spirit of the times.

REFERENCES

- [1] Pan Lusheng. Chinese traditional art: Chinese character decoration [M]. Beijing: China Light Industry Press, 2000.
- [2] (Later Qin) Hatamarash, Translation, (Song) Dao Ken, Collection. Thirty-two seal scriptures of the Diamond Sutra[M]. Hangzhou: Zhejiang Ancient Books Publishing House,2017.
- [3] Li Shuyuan,Yin Huaiyuan. Shengjing Fugue in Seal Script in Thirty-two Scripts of the Qianlong Emperor [M]. Changchun: Jilin People's Publishing House,2000.
- [4] Chen N. History of Chinese character design [M]. Wuhan: Hubei Fine Arts Publishing House, 2021.
- [5] Pan Wuzheng. Artistic Presentation of the Orthodox View--A Discussion on Qianlong Imperial Fugue of Shengjing in Thirty-two Seal Scripts[J]. Journal of Sun Yat-sen University (Social Science Edition), 2020, 60(04): 81-91. DOI:10.13471/j.cnki.jsysusse.2020.04.009.
- [6] He Fang. Research on experimental typography method [J]. Packaging Engineering, 2018, 39(24): 33-38. DOI:10.19554/j.cnki.1001-3563.2018.24.007.
- [7] Wu, Yue-Min. Symbol decoding and cross-cultural differences [J]. Journal of Zhejiang University (Humanities and Social Sciences Edition), 2007, (02): 166-173.
- [8] Qiong Wu, Peng Chu, Yu Zhang. A paradigm study of design pragmatics [J]. Packaging Engineering, 2016, 37(14): 77-80. DOI:10.19554/j.cnki.1001-3563.2016.14.018.