Analysis of Symbolization Characteristics of Art Graphics and Its Computer Simulation Realization

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Abstract. In order to solve the problem of incomplete description of time constraint information in the process of art graphics symbolization, this paper proposes a study on the symbolic feature analysis and computer simulation implementation of art graphics. Under the influence of new knowledge and science, due to the development of science, new artistic theories, and the stimulation of artistic trends in the western painting art in the mid and late 19th century, a series of paintings with graphical elements and symbols as the main manifestation have emerged, making people refreshing. In the traditional sense, the unique artistic language of "graphical symbols" deviates from the original aesthetic concepts, "While making the art of painting develop forward, it has gained more possibilities. Symbolic forms of expression have gained great development under the application of artists who promote new concepts. This article first outlines the symbolic characteristics of art, then expounds the application of artistic graphics in modern art design, and finally analyzes and studies the symbolic characteristics of traditional artistic graphics and their simulation implementation.". Art is rooted in traditional and folk culture, with unique representativeness and characteristics. Refining it into symbolic language and applying it to contemporary art design will integrate a network that highlights the local consciousness of design, with the significance of inheriting culture.

Keywords: art · Graphical symbols · signature analysis

1 Introduction

With the rapid development of computer graphics technology, People have done a lot of research on the simulation methods of real painting "The core goal of computer graphics is to create an effective visual traffic system. Graphics can display scientific achievements to the public through visualization. Most of the art graphics are attached to the appliances of daily life, and they are composed of various representations, words, images, imprints and signs in life by means of stylization, experience and symbolization. These figures are drawn from life, and they are integrated into life culture with vivid modality, accumulating into a universal aesthetic style, and constantly internalizing into

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Table 1. Graphic structure of fine arts painting

	Surface visual effect	fiber structure
Raw paper	The surface is white, flat and smooth	Because cotton and bamboo are selected, they are arranged closely.
yuanshu writing paper (produced in Zhejiang Province)	The surface is light yellow and rough.	Fiber paper fiber itself is thicker, longer and loosely arranged.

visual symbols, forming a cultural image with pedigree or some common artistic modeling. According to the comprehensive classification used by China people, some scholars have divided the fine arts into nine categories, such as window grilles, shadow puppets, ceramics, wood and stone brick carvings, clay sculptures, blue calico, embroidery, bamboo wickerwork and toys. If we abandon specific folk behaviors and artistic types and extract the prototype of artistic graphics in art, we can also sort out synchronic symbolic graphics, which can be summarized as follows: (1) dragon patterns; (2 phoenix patterns; (3) auspicious graphics; (4) Chinese character patterns; (5) the pattern of ladies; (6) lace pattern; (7) flower patterns; (8) Zodiac patterns; (9) auspicious animal graphics; (10) ink painting. Art graphics and people's life are mutually external and internal, and become the artistic image of people's daily life, which implicitly reflects the artistic thinking of culture and presents the characteristics of referential, rational and symbolic [1, 2]. From the perspective of semiotics, the corresponding relationship between the signifier and the signified of art graphics is constructed in the cultural context, and its visual graphics are not just a simple form of icons, but point to the inherent cultural implication and certain life significance. As shown in Table 1:

2 Symbolic Characteristics of Art

The symbolic characteristics of fine arts include three aspects: referential, symbolic and rational. refers to physical properties [3, 4], symbolic, Rationality. As shown in Fig. 1:

3 The Application of Art Graphics in Modern Art Design

There is no doubt that art graphics have excellent components, but people's aesthetic concepts are different because of different times. Therefore, the application of art graphics in contemporary art design cannot be mechanically copied, but needs to be properly transformed. In this regard, we can start from three aspects [5, 6].

First, borrowing in the form of "meaningful". Clive Bell said in Art: "Art is a meaningful form". Because meaningful forms can often produce aesthetic feeling and arouse people's emotions. Art graphics are mostly conventional art forms with independent aesthetic "meaning". Second, there is a transformation of "meaning". There is a relatively fixed relationship between signifier and signified of art graphics [7]. Thirdly, the application of creative thinking in modern art design.

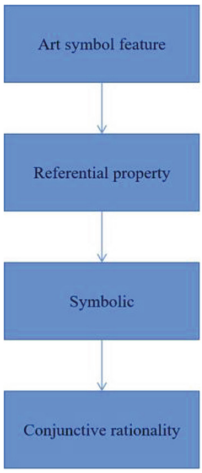

Fig. 1. Symbolic characteristics of art

4 Symbol Characteristics of Traditional Art Graphics and its Simulation Realization

The modeling of traditional art graphics is extremely happy, mainly because the working people refer to natural objects and social life, and through unique observation and thinking mode, on the basis of processing and deduction, make it become a fixed, abstract and patterned graphic symbol. This reflects a kind of accumulation of ancient culture in China, and reflects the collective aesthetic consciousness of rural areas in China. Its social and cultural structure is specific, and it is the embodiment of the aesthetic needs of the general public and the bearing of cultural concepts. On the whole, traditional graphics are mainly expressed by implication and symbol.

The artistic characteristics of traditional art graphics: both practical and aesthetic; From the point of view of shape and color, it is not only concise and bright, but also has strong identifiability; Usually, the whole "image" figure is combined by means of compound and isomorphic configuration. It contains many ideas of China people [8].

Now we have entered the era of globalization, and many visual languages in China's modern visual design are deeply influenced by the West. The uniqueness of traditional art forms in expression, artistic characteristics and design thinking will inevitably contribute to the possibility of innovation for modern visual design [9, 10]. As shown in Table 2:

Table 2. Artistic characteristics of graphics

Artistic characteristics of graphics		
Both practical and aesthetic.	Concise and lively	identifiability
stability	universality	Inheritance

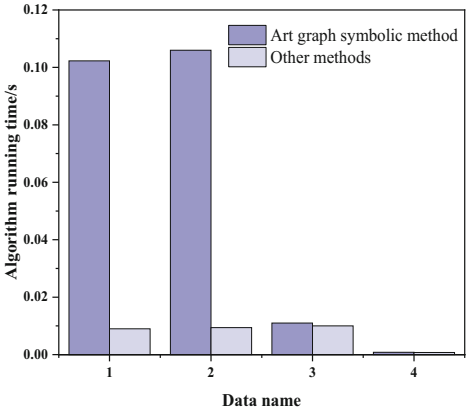

Fig. 2. Comparison of the application of art graphic symbolization method with other methods

In this paper, the algorithm in this paper is effectively verified by experiments. For the comparison of the running time cost of the art graphics symbolization method and other methods, the average result in Fig. 2 is obtained after 20 experiments. The results show that the calculation cost of the art graphics symbolization algorithm is higher, which is about 3 times of that of other methods.

Through the experiment in this paper, it can be concluded that the overall performance of the art graphic symbolization method in this paper is better than that of other methods. Whether it is in the process of similar query or anomaly detection, the results obtained are better.

5 Conclusion

In a word, art is a reflection of local cultural spiritual resources and artistic traditions, and it will inject fresh vitality into modern visual design. When studying and applying traditional art graphics, we should not only stay on the surface of graphic symbols, but also dig deep into its original characteristics of modeling structure and spiritual level. We should examine traditional art from the perspective of global culture based on the current visual art design.

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