

Consumption and Aesthetics: an Graphics Study of Modern Ceramic Art Design

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Abstract: Although the development time of modern ceramic art is relatively short, due to its own particularity and irreplaceable characteristics, more and more artists are devoted to the design and creation of ceramic art. Modern ceramic art has developed rapidly in recent years. For cultural relics and artworks, besides modeling, the pattern on the body surface is also an important component. As one of the important contents in people's modern life, the design concept and process of ceramic art basically satisfy people's pursuit of ceramic art in modern social context. This paper studies the collection of ceramic art design patterns and image mosaic technology, analyzes the characteristics of diversified aesthetics and image characteristics, and points out the influence of diversified aesthetics on ceramic art design in modern life. In the process of image analysis of ceramic design, the original image must be effectively and accurately denoised and corrected to ensure that the calibration accuracy between images is accurate to pixel level.

1. Introduction

Ceramic art is one of the most important traditional culture and art in China. It is an important cultural communication carrier that transcends the nation and language by communicating the common aesthetic taste and life ideal of people of different nationalities and times in China [1]. With the development of digital information technology, the digitization of artworks and cultural relics is no longer a problem. However, in the process of copying these three-dimensional cultural relics or works of art, the current 3D printing technology still pays more attention to the modeling of objects, and the colors and patterns are finally drawn by hand [2]. Ceramic art has a long history. Contemporary ceramic art design should adapt to the professional characteristics of modern scientific development and meet the spiritual and material needs of the era of consumer culture [3]. In daily life, ceramic works not only need to have certain functionality, but also need to have artistry, in order to bring people the pleasure of art aesthetics. In practical production, the application of ceramic art aesthetics can not be separated from the application of image. In ceramic art creation activities, whether it is a two-dimensional plane space art or a three-dimensional three-dimensional work, what they seek is visual and perceptual pleasure [4]. Works of beauty can bring people reverie and realize the beauty of its form and connotation. All the artistic conception of beauty comes from the source image of the soul. Without the mapping of soul, there is no beauty. The creation of artistic conception is the symbol of objective scenery as my subjective emotion [5].

In the current process of ceramic art creation, people are more and more inclined to obtain visual and intuitive satisfaction, so that things with modern aesthetic style give people more space to imagine, so that the viewers can not only obtain visual pleasure, but also think about the deeper connotation of the works [6]. On the basis of practicality, ceramic art design constantly adds its aesthetic artistry and brings renewal and enjoyment to human life. Ceramic art design constantly enriches people's life. The image application of ceramic art design is always in the design, showing a unique infinite charm in life [7]. For the manufacturing industry, digital information brings both opportunities and challenges to enterprises. Enterprises need to face the increasingly fierce global competition. Therefore, in the face of such a fierce market competition, each enterprise needs to make a breakthrough change in the production process and design, so as to maximize the competitiveness

of the enterprise. Only by doing so can it occupy a place in the global market [8]. For cultural relics and works of art, in addition to modeling, the surface pattern of the body is also an important part of it. In the process of image analysis of ceramic design, the image must carry out effective and accurate image denoising, image correction and other work for the original image, so as to ensure the accurate pixel level calibration accuracy between the images [9]. This paper studies the collection and image mosaic technology of ceramic art design patterns, analyzes the characteristics of diversified aesthetic and image features, and points out the influence of diversified aesthetic on modern life ceramic art design.

2. The Application of Visual Aesthetic Feeling of Ceramic Image under the Background of Modern Consumption Culture

Informatization brings not only opportunities but also challenges, which has a great impact on the design and production process of enterprises. Therefore, it is necessary to maximize the quality of product design, and only in this way can enterprises remain invincible. Under the action of digital information age, ceramic product modeling can achieve high-quality design through digital interactive technology. Modern consumer culture has broken the gap between art and life, and the gap between elegant art and popular art is getting smaller and smaller. People's aesthetics is no longer divorced from life, but is becoming more and more life-oriented. Modern ceramic art creators' self-personality concept leads their works, permeates their own thoughts, and expresses the randomness of design freedom, which is reflected in the openness of form and the occasional frankness of content. In contemporary social life, culture becomes industry and art becomes consumer goods. Consumer culture is no longer limited to the category of material consumption culture, and consumption is no longer a simple business, but has potential connotation, which needs to be recognized in a certain social background and cultural trend of thought [10]. The aesthetic feeling of modern ceramic modeling language is mainly reflected in the beauty of material texture, the beauty of modeling techniques and forms, and the beauty of firing techniques.

In the process of color combination, it is necessary to pay attention to the relationship between color systems, and arrange them strictly in the order from deep to shallow and from shallow to deep. The selected color systems should not be too many, otherwise the visual effect will be dazzling and inconsistent with the image of ceramics. Figure 1 shows the packaging structure design commonly used in Jingdezhen ceramic market.



Fig.1 Common Packaging Structure Design of Jingdezhen Ceramic Market

Ceramic products need to have aesthetic feeling, consumers will consider buying, this kind of feeling of pursuing beauty is the general trend of the public. The image can give people a visual impact, which is usually the effect produced by the comparison of various colors. Therefore, the visual aesthetic feeling of ceramic image lies in the comprehensive use of various colors and maintaining harmonious relationship, so as to present the state of public beauty. Figure 2 shows the structure of image cognition.

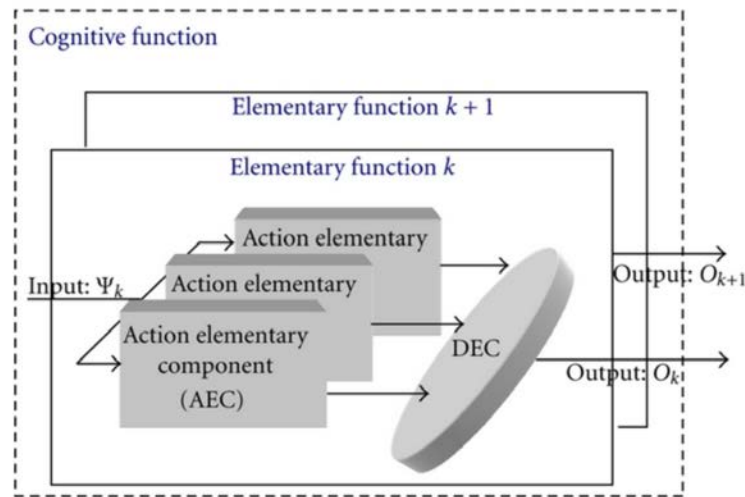


Fig.2 Image Recognition Structure System

Under the new consumption culture, people seek material and spiritual satisfaction to a greater extent, which is also the reason why ceramic art design needs continuous innovation and development. People's demand for diversified ceramic design styles and the continuous development of consumer culture all put forward new requirements for ceramic modeling, artistic style and decorative forms. Ceramic art design is becoming more and more consumer, which has become the main trend of ceramic design under the trend of consumer culture. The decorative pattern of modern ceramic art design must be integrated with the shape of green body to ensure its organic combination in shape, technology and decoration. Only by coordinating and unifying all links can we provide people with a more impactful visual aesthetic feeling.

3. The Combination of the Diversity of Ceramic Art Creation Forms and the Aesthetics of the Times

Modern ceramic art inherits the traditional ceramic art technology in its production method, but completely surpasses the former in design concept and creation form and content, which is closely combined with the aesthetic needs of contemporary society and culture and merged with the world art and design trend. Looking at the craft of pottery spread from ancient times to the present, most of the outstanding works give people a visual impact in glaze color. From the perspective of ceramic art itself, the image craft it uses reflects the cultural heritage and cultural thoughts of an era. In the long-term inheritance and development of ceramic art, ceramic art design often follows the development of social science and technology, so under the background of the improvement of people's material living standards, the connotation of ceramic art works has also undergone obvious changes [11]. In the diversified social environment, the ceramic art design of modern life has been greatly influenced, and the integration of diversified design concepts and ideas in various fields has become the mainstream trend of art design in modern society. Because different social development stages have different aesthetic standards, it also has a great impact on the change and development of ceramic art style. The creators of modern ceramic art often want to express their works or lead their ideas with the help of self-personality concept, so as to express their thoughts more fully or penetrate them with the help of ceramic art works, and express the expression of free space in the author's design process.

In daily life, people can transform visual information into psychological emotion by processing it, which is the functionality of image visual aesthetic feeling. In the design of practical ceramic products for home use, designers should not only ensure their overall design style, but also effectively apply decorative images. Under the action of images, the designed theme is effectively highlighted, so that consumers can feel the value created by artistic aesthetics to the maximum extent. Images have a strong impact on people's vision, which can reflect a kind of emotional consciousness, and

affect the design and overall aesthetic feeling in people's vision. Diversified aesthetics is gradually perfected and matured on the basis of diversified design, and diversified design is born to meet people's diversified design pursuit. Tracing back to the source, the formation and development of diversified aesthetics is the direct manifestation of the progress and development of modern social form. In the process of applying various materials, ceramic design is mainly based on the design idea, which is more diverse in form and more widely used in materials. Content often determines the form of design, and the form also restricts the materials, so the development of these works is complementary. In order to convey the design idea and emotion effectively and accurately, it is necessary to make the artistic works decorative. Therefore, in the process of ceramic design, relevant designers should reasonably use various colors according to the actual design goals or inspirations, and make the color configuration achieve a harmonious effect, thus creating visual emotional enjoyment.

4. Extraction and Image Analysis of Body Pattern of Ceramic Artworks

Ceramic design works because of the diversity of modeling, change form is also more diverse, in order to express the decorative style or artistic conception in a work, in the process of choosing decoration language, we should ensure the unity of simplicity and directness. For the visual beauty of ceramic images, the popular trend of ceramic images is related to the cultural development background. In the design process of ceramic works, ceramic artists should not only grasp the manufacturing process, but also select and configure images from various aspects, so as to present the connotation of ceramic art as much as possible [13]. Figure 3 shows the structure of digital image analysis system.

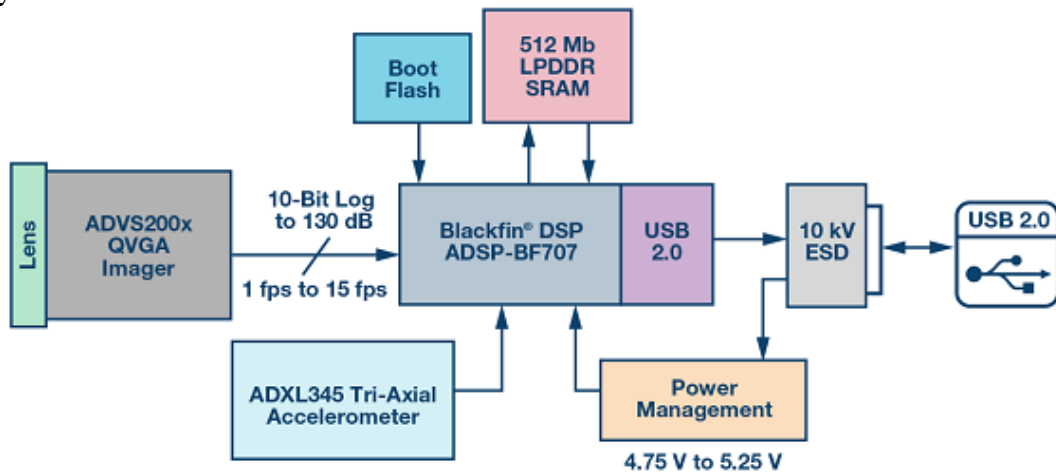


Fig.3 Digital Image Processing and Analysis System Structure

Image is an indispensable element in contemporary art design. Art designers should create visual impact from thousands of images, and use images to express emotions and culture contained in artworks, so as to achieve the visual aesthetic feeling of viewers and resonate with their artistic works [12]. Ceramic art design generally stresses the unity of heaven and man, pays attention to the harmony and unity between man and nature, and emphasizes the taste and image of nature. Taking ceramic image features as the basis of 3D reconstruction of product modeling, the modeling design of ceramic products is carried out by using Poisson reconstruction algorithm and subdivision surface reconstruction algorithm. The research on rheological properties of ceramic materials is mainly based on the macroscopic dynamic viscoelasticity measurement of materials and the use of low-filling blending system. Figure 4 shows the principle of plasma treatment of ceramic materials.

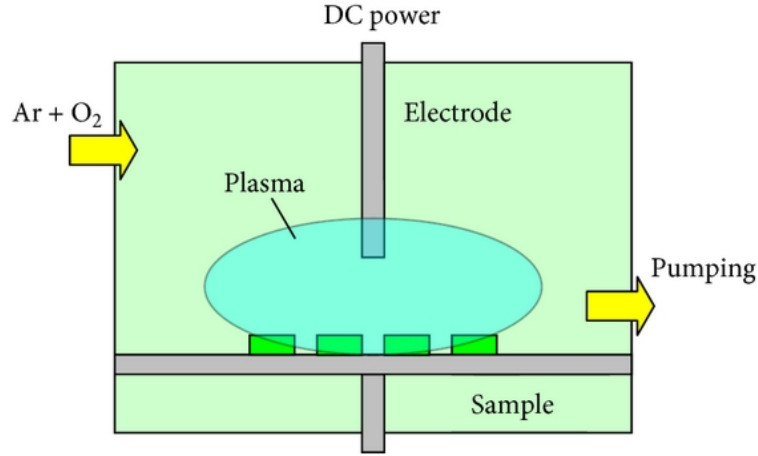


Fig.4 Principle of Plasma Treatment of Ceramic Materials

The database of commodity consumption system stores the transaction data of each customer. Each transaction data records the products purchased by customers, and each product has category attributes. Therefore, the user preference of each product category can be calculated according to the data and the user's evaluation information:

$$PC_{u,j} = \frac{\sum_{i \in I_u} PI_{u,i} \times \mu_j(x_i)}{\sum_{i \in I_u} \mu_j(x_i)} \quad j = 1, 2, 3 \dots (1)$$

In the formula: $PC_{u,j}$ represents user u 's preference value for category, $PI_{u,i}$ represents user u 's rating value for product i , I_u represents the product set evaluated by user u , and $\mu_j(x_i)$ represents product i 's membership degree to category j .

Image edge has two characteristics: direction and amplitude. Generally, the gray level changes gently along the edge direction, while the pixel gray level changes sharply perpendicular to the edge direction. This change on the edge can be detected by differential operator, and the first or second derivative is usually used to detect the edge. For example, many people begin to use computer drawing technology to design ceramic samples, which is beneficial to perceive the three-dimensional effect of ceramic drawings and find some problems in design, so as to make timely corrective measures and improve the quality of ceramic works [14].

The popular trend led by images not only needs to consider the market demand, but also needs to sort out the culture from various aspects of ceramic art design, so as to maximize the visual aesthetic feeling of images possessed by ceramic art, and let more people realize the value of this art form. Contemporary ceramic art design, which is deeply influenced by consumer culture, should also innovate with the development of the times on the basis of inheriting traditional national culture. Designers should update their design concepts and methods at any time, master the latest fashion trends of the times and be able to use the most advanced design methods and techniques [15].

5. Conclusions

As the creator of life style, "design" embodies people's double requirements for material and spirit, and bears the role of the continuation of human civilization. Contemporary ceramic art design should not only explore the spirit of freedom in the external art form and internal function utility, but also reflect the humanistic social values. Images have a strong impact on people's vision, which can reflect a kind of emotional consciousness, and affect the design and overall aesthetic feeling in people's vision. In the process of image acquisition, it is necessary to adopt the shooting method that the ceramics rotate evenly according to the angle and the camera is fixed, so as to reduce the color change factors and improve the efficiency of post-image processing. In order to convey the design idea and emotion effectively and accurately, it is necessary to make the artistic works decorative. Therefore, in

the process of ceramic design, relevant designers should reasonably use various colors according to the actual design goals or inspiration, and make the color configuration achieve a harmonious effect, thus creating visual emotional enjoyment. In the process of designing ceramic works, ceramic artists should not only grasp the manufacturing process, but also select and configure images from various aspects, so as to present the connotation of ceramic art as much as possible. It is necessary to carry out effective and accurate image denoising and image correction on the original image, so as to ensure that the calibration accuracy between images is accurate to pixel level.

6. Acknowledgment

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