

An approach of costume language in furniture: from the perspective of emotional design

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Abstract. From the perspective of emotional design, this paper explores the expressive power and other related topics of costume language in furniture. Firstly, costume was taken as the starting point, design examples in furniture design were analyzed; with the three-level theory of emotional design as analysis tool, and the application of costume language in the emotional design of furniture was also analyzed. Finally, the emotional elements of the costume language in the furniture were discussed, the design elements through the analysis of their expressive power were refined, and furniture design practice was carried out, which meets people's material and spiritual needs better.

1. Introduction

Under the pattern of rapid development of urban economy, the most basic physiological and safety needs of human beings are mostly satisfied, and they gradually pursue self-realization. The requirements for furniture are gradually improved from the material level to the spiritual level, and the aesthetic concepts are becoming more and more unique and personalized. Under the background of today's industrial production, the homogenization of furniture in the market is more serious, and it is difficult to achieve a breakthrough in the basic form of materials. Therefore, emotional factors need to be integrated into the design of furniture to meet the users' dual needs of material and spirit. Costume is the best way of self-display and has certain cultural symbolic significance. Extracting elements from clothing for furniture design is an effective way to achieve emotional furniture.

2. The expression of costume language in furniture

Costume is an element of human life and a symbol of human civilization. It not only meets the needs of people's material life, but also represents the culture of a certain period. The styles, fabrics and colors of the garments all record the productivity of a particular period, reflecting people's living habits and thoughts, and imprinting the impressions of a particular era.

Furniture is the product of the needs of the times and is closely linked to people's production and lifestyle. Both furniture and clothing have the dual attributes of material and spiritual integration [1]. In the same period, the clothing and furniture have certain links in the aspects of modeling, decoration and structural design, and the two have changed with the change of the times [2]. Since ancient times, clothing has provided a lot of inspiration for furniture design.

3. Furniture emotional design

Emotional design emphasizes the user's feelings as the center, and pays attention to the physiological, psychological and emotional needs of people. It is a human-oriented design. In the era of the rapid development of urban economy, people's definition of a good product is not only limited to the ease of use, but also the pursuit of more emotional factors. An excellent furniture product should be full of "humanized color", which can make users feel happy and satisfy people's emotional needs. American cognitive psychologist Donald Norman divides human perception into

three levels in the Emotional Design, namely, the instinct, behavioral, and reflective layers [3]. These three levels correspond to the aesthetics, usability, and usability of the products. The three are not independent but intermingled in the design process (Figure 1).

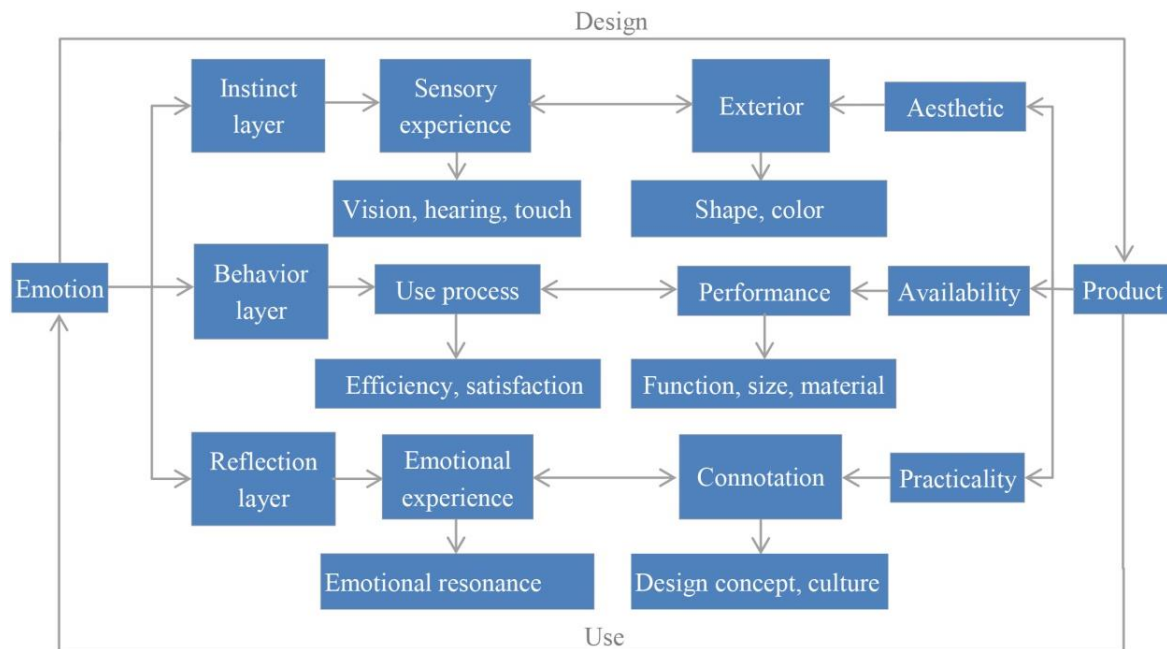


Figure 1. The three levels of emotion and the three characteristics of the product

4. Costume language and furniture emotional design

4.1. The expression of costume language in furniture in instinct layer

The instinct layer refers to the most direct response of people to things. This sensory experience mainly includes vision, hearing, smell, taste, touch, etc. This level of emotion corresponds to the aesthetics of the product, that is, the appearance. In the experience of furniture, vision is one of the first factors that affect people. Models, patterns, colors, etc. are all elements of visual effects. Clothing is a rich visual "database". Starting from the appearance of the clothing, it can extract the elements of furniture design, so that the furniture meets the emotional needs of people's instinct.

4.1.1. Modeling. Modeling is the most direct expression of costume language in furniture. Refined clothing forms are used in furniture styling to make it more flavorful. The "official hat chair", a classic furniture of the Ming dynasty, is a typical example of integrating costume modeling into furniture design (Figure 2, Figure 3). Viewed from the side, the armrest of the chair resembles the front of the hat, which abstractly applies the hat shape to the design of the seat [4]. Through the flexible use of clothing styling elements, furniture can stand out and meet the intuitive needs of users.

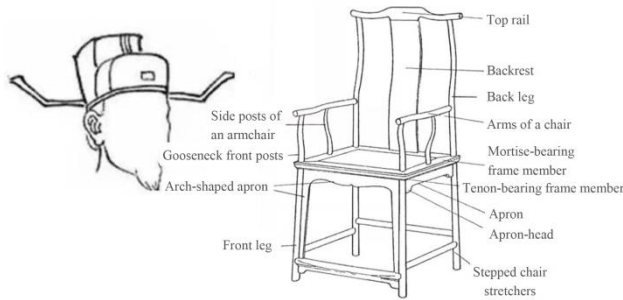


Figure 2. Armchair with four protruding ends

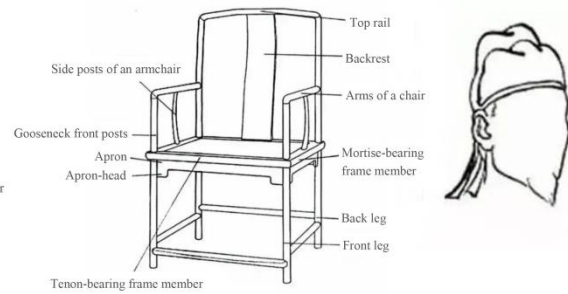


Figure 3. South official hat chair

4.1.2. Color. Color plays an important role in the transmission of visual information. In the design of furniture, color has strong expressive power and visual appeal [5]. Applying the color of clothing to furniture design will help break the single tone of furniture and make it more colorful. During the Qin and Han Dynasties, the emperor's costumes used black and red to show honor. At that time, the furniture also adopted black and red painted decoration techniques, and the colors were gorgeous.

4.2. The expression of costume language in furniture in the behavior layer

The behavior layer emphasizes the emotions generated by users in the process of using the product, which corresponds to the usability of the product, that is, the advantages and disadvantages of performance. The difficulty level of operation, efficiency, and product function will affect the user's experience at the behavior level. Whether the user can have a sense of pleasure during use is the key to judging the design of this stage. As a daily necessities, furniture should consider the scale of people, use ergonomics to carry out reasonable size design, and select appropriate materials to meet the user's pursuit of comfort.

4.2.1. Function. Furniture and clothing are developing along with people's lifestyles, and the two are inextricably linked in function. In the period of sitting on the ground, the Shenyi was the common clothing form in the Central Plains of China, which can cover all parts of the body and is more in line with ethics. After the introduction of Hu dress into the Central Plains, the furniture gradually developed into a high-profile, and people's lifestyles turned to sit down. The design of the furniture should be placed in a specific scene, and the costume is also a part of this scene. The functional relationship between the furniture and the clothing cannot be separated, otherwise it will cause a contradictory emotional experience for the user.

4.2.2. Materials. In the design of furniture, the choice of materials should not only consider the texture and decoration, but also the function and comfort. Although traditional Chinese furniture uses wood as the main material, with the development of science and technology, the comprehensive use of diversified materials is an inevitable trend [6]. The fabric of the clothing is used for the sitting and backrest of the furniture, which not only can beautify the appearance of the furniture, but also bring comfort and softness. Reasonable selection of materials can bring good vision and experience to users.

4.3. The expression of costume language in furniture in reflective layer

The reflective layer corresponds to the practicality of the product, that is, whether the user's use needs can be effectively solved. Traditional furniture design is based primarily on the instinct and behavioral layers, designed to satisfy aesthetics and usability. The reflective layer design is no

longer limited to the furniture itself. It emphasizes the cultural concept and emotional identity caused by the furniture, which conforms to the level of modern self-pursuit needs.

4.3.1. Pattern. The pattern of the costumes has a profound cultural connotation. They use methods such as symbolism, meaning, and comparison to express the meaning of thought. Influenced by Taoist culture during the Qin and Han dynasties in China, the cloud pattern was widely used in clothing and furniture decoration. This undulating line enriches the details of the product and makes it more refined [7]. The use of the pattern of the costumes for the furniture not only enhances the aesthetics, but also gives the furniture a good auspicious meaning and gives the user a sense of pleasure.

4.3.2. Cultural Connotation. Connotation is the essence of reflective design, and the cultural style of clothing can be reflected in furniture. Due to the openness of the folk customs in China's Tang Dynasty, the design of costumes tends to show freedom and fullness, and most of the furniture has a grand momentum [8]. Nowadays, there are some designs that combine furniture with traditional costume elements. The design is reflected in the style of communion and can arouse the emotional resonance of the Chinese nation. By exploring the cultural significance of clothing and applying its spiritual connotation to furniture design, the design of the reflective layer can be sublimated.

5. Furniture emotional design practice based on clothing elements

5.1. Analysis of Elements of High-waist Color Skirt

The high-waist color skirt is popular in the Sui and Tang Dynasties. It is not only the daily dress of the common people, but also the uniform of the aristocratic women, reflecting the aesthetics of the public at that time [9]. Narrow-sleeved, high-waisted skirts feature a mid-color skirt, narrow sleeves, and a high waist to chest (Figure 4).



Figure 4. High waist color skirt in the mural

From the analysis of the instinct layer, the color skirt is generally composed of at least two colors, which are richer in color than the monochrome skirt, and are mostly matched with the half sleeves and the cloak, and the shape is hierarchical. The skirt is tied to the chest, which makes the body look more slender, and the vertical stripes of the color also play the visual effect of stretching, and the one-piece pleated skirt is easy to wear, meeting the needs of the behavior layer. The Sui and Tang Dynasties are an era of frequent multi-ethnic exchanges. The high-waist color skirt is a product of multi-cultural integration. It reflects the situation of the integration of "Hu" and the cultural identity at that time, and has the meaning of reflection. As shown in Table 1.

Table 1. Emotional elements of high waist color skirt

Emotional Level	Content	External Performance	Effect
Instinct Layer	Modeling	Sleeve Length, High waist skirt	Give a brisk feeling
	Color	Two colors alternate	Strong Contrast
Behavior Layer	Function	Vertical Stripes, High waist skirt	Beautify The Proportion Of Human Body
Reflective Layer	Culture	Product Of National Integration	Strong Cultural Identity

5.2. Emotional design of furniture based on high-waist color skirt elements

Based on the three-layer theory of emotional design, a set of Chinese cabinets was designed with high waist color skirt as the element (Figure 5, Figure 6).

5.2.1. Design at the instinctive level. Taking the traditional Chinese cabinet as the basic type, the model of the high-waist color skirt is extracted, and the cabinet is divided into two parts: the upper part and the lower part. The dress neckline is simplified to a "V" shape for the upper part of the cabinet. The lower part of the cabinet uses the color skirt elements to form the cabinet door with inter-colored lines. In detail, the skirt is abstracted into geometric lines, wrapped around the edge of the cabinet door to enhance the decorative. The whole cabinet is dominated by Chinese red, supplemented by yellow, which aims to attract users' attention.

5.2.2. Design at the behavioral design. The high waist color skirt creates a good visual proportion. This ratio is used for the functional division of the cabinet, so that its functional area is divided into two. The upper part of the cabinet can be used to store debris, while the lower part can be used to magnify objects. The hollowed out design of the door makes it easy to find the items you need. The cabinet is made of mahogany, which gives a warm touch. The use of metal as a supplementary material in the handle and other parts adds a sense of fashion.

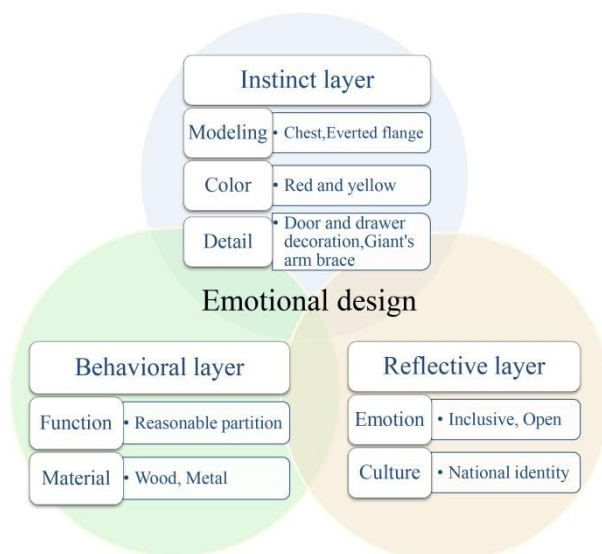


Figure 5. Emotional design application



Figure 6. Intercolor cabinet

5.2.3. *Design at the reflective layer.* The Tang Dynasty was one of the most prosperous dynasties in Chinese history, giving people a strong and eclectic impression. As a representative costume of the Tang Dynasty, the high-waist color skirt combines various cultural factors, embodies the cultural exchange collision, and enables people to feel the positive emotion of tolerance and openness. In today's emphasis on nationality, the use of traditional Chinese costume elements in furniture design can make it a symbol of Chinese culture, enhance the national characteristics of furniture, and allow users to feel the profound heritage of Chinese traditional culture in furniture.

6. Conclusion

Clothing and furniture have evolved with people's lives in a long and long history. The two have explicit and implicit connections. From the perspective of humanization, through the analysis of the shape beauty, pattern beauty and cultural heritage of the costumes, grasping the emotional elements contained in the costume language, it can be converted into design elements for the emotional design of furniture, so that the appearance of the furniture is more Rich, the cultural connotation and value of sublimation furniture meet the pursuit of modern people's self-realization.

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