Research on the Application of Animation Derivative Products in Children's Furniture Design

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Abstract: Childhood is the best time for character formation and intellectual development. People's interests, personality, habits of life, values, degree of mental health, degree of marriage adaptation, and interpersonal relationships are closely related to the development of childhood. Animation cartoon is a favorite thing for children, which is often associated with happiness and fun. Through the design and research of interesting children's furniture, such as animation and cartoon, it can provide a happy, comfortable and healthy environment for teenagers to grow up. Based on the author's learning and practical experience, this paper first analyzed the combination of animation theme and children's furniture, and then put forward the design method of animation derivative products of children's furniture.

1. Introduction

Animation derivative products refer to the product derived from the original cartoon or animation, which is an extension of the original cartoon or animation culture. It also includes a practical commodity that borrows a cartoon image to produce. animation derivative products of children's furniture belongs to the category of animation derivatives, mainly refers to the children's furniture products derived from the main image or elements of the original cartoon or animation, which can transmit the cultural connotation of the original animation works. By studying and discussing the related problems in the design and development of children's furniture, it can provide some theoretical basis for the development of domestic children's animation furniture industry.

2. The Combination Way of Animation Theme and Children's Furniture

2.1 Abstract animation elements.

We extract animation image, and then select and analyze the representative image to give function and decoration finally. From the point of visual elements, dot, line, surface, body and other morphological elements can be changed and unified. As shown in figure 1, the sofa is extracted from Minnie's animation image as the most minimalist lines. It is applied to the design of sofa back structure and decorated with a bow representing women. The seat face also adopts the pattern of white spots on the foundation with the overall pink color matching on it. It vividly expresses the girl's pink, gentle, clever image of Minnie.

Figure 1 Minnie and Minnie Sofa

2.2 Portrait of animation characters, themes and character.

Animation content is rich and diverse, and character of animation theme image is also very different. Thus, we can extract characteristics from these animation image. The design technique can be reflected by appearance, expression and color. For the little girls who need fashion, Disney used to add tenderness, loveliness, romance and other elements to the traditional Minnie style in the pat years, which made up the "Minnie Rose Color" sought after by many girls. Therefore, children's furniture design should fully study children's fashion trends so that to to meet the needs of children's fashion.

2.3 Animation story situation.

The application of animation story situation makes use of the specific scene of animation story. For example, the layout of the palaces and boudoir in which the princesses live is the favorite of many young girls who have the dream of the princess, as well as the wooden cabin and the forest in which there are many fairy tales, such as the quiet and peaceful forest in the story of *Winnie the Little Bear*. It uses scale, balance, harmony, contrast, rhythm, emphasis, illusion and other aesthetic modeling principles. For the same theme–the theme of Disney Mickey Mouse, we can use the abstract Mickey head image as the hollowed-out figure of the bookcase door, or the full-color Mickey image can be printed on the bookcase door board to bring different feelings to consumers.

3. Design Method of Animation Derivative Products in Children's Furniture Design

3.1 Systemic design approach.

According to the definition of "system" put forward by Mr. Jian Zhaoquan, the system is a kind of ordered collection with specific functions, which is composed of mutually related and interacting things. Animation derivative children's furniture design system mainly reflected in the integrity, comprehensiveness, optimization and so on. The ideal furniture design and choice is the favorable guarantee to realize the best space function effect, the optimized solution, and the basic condition to meet the people's material and spiritual needs. Therefore, when developing Animation derivative furniture , it is necessary to carry out systematic research and development from the overall situation and the interrelation and function of many elements in the children's space. The furniture should be considered as an element in the indoor environment system, and the coordination, order, complementarity and comprehensiveness with the space environment and its supporting articles should be fully considered. Therefore, furniture cannot be discussed in isolation. At the same time, designers also need to understand and grasp the original animation works as a whole. Only the source works in-depth and systematic grasp of the design can fully show the spirit of animation works of children's furniture. Disney's derivative products can be found over every corner of life. It has realized the omni-directional comprehensive system development. Moreover, each system also contains several subsystems, which is worth drawing lessons by the domestic furniture company.

3.2 Emotional design.

According to the American cognitive psychologist, Mr. Norman's "emotional Design", the emotion in the design of children's furniture products can be divided into three levels: instinct, behavior and reflection. The instinctive level of emotion is the most direct and basic emotion of human beings. No matter how different the degree of individual response, it is the simplest level of human emotion response, which is a relatively biological response. The instinct emotion of Animation derivative product of children's furniture product development mainly displays in the product form, the color, the texture and so on. Beautiful form, vivid beauty, comfortable texture, bright and saturated color are the bases of a cartoon derivative furniture to catch the eye of children. The emotional design of behavior level is related to the utility of children's furniture. It emphasizes the fun and efficiency of children's use of furniture, and specifically involves the factors of functionality, safety, usability, easiness of maintenance, etc. It directly affects the existence value of a piece of furniture. Function is the premise. Besides meeting the basic function of sitting, lying, running and walking of children, the functionality of children's furniture should be satisfied. It also produces functions for children's intelligence, mood, will, aesthetics and personality. Safety should shows in the specific performance of the furniture stability, sleek, environmental protection and other aspects. Usability mainly refers to the ease of use of products. Conservativeness is based on the position of adults. Designers should fully take into account the features of easily damaging and polluted by children and other situations. Thus, they want to design a convenient product in time and energy.

We should reflect on the level of emotional design, so as to provide children with an educational, enlightening, experiential, interesting, intellectual, cultural space system, rather than simply a certain kind of product. Because the anime furniture originates from the animation works, the anime furniture itself is a kind of storytelling furniture. It can integrate all kinds of elements that are conducive to the children's growth in the same space system. This is also the difficulty and focus of the development of animation furniture, and then through this space to promote the children in temperament, creativity, physical development, judgment, sentiment and other aspects of the benign development, and further experience the true, good, beauty of human nature. There are also some successful examples in reality, such as Cool Manju, which has extended the joy and fashion of the classic animation story to the home field, and developed furniture products with high level of reflective emotion, as shown in figure 2.

| Figure 2   Mickey Series Children's Furniture Market | Figure 3   Mickey Series Children's Furniture |

3.3 Role representation.

The first is the direct use of this method to directly display the image of animation characters in furniture products by means of printing or painting without any re-design and modification. It has low cost with simple process and clear expression effect, but it lacks innovation, and is easy to be imitated, and is difficult to stimulate consumer's desire to buy. The second is analogue reproduction. This method can be divided into whole simulation and local simulation from image usage

proportion, and also can be divided into direct imitation and innovation simulation from design depth. The whole simulation means that the whole furniture form adopts the anime character prototype, so this method is often used in the derivative toy, but it is seldom used in the furniture product commercial design. Local simulation is a common method in the design of children's furniture. It emphasizes the simulation of the typical local features of the original animation image, such as Mickey's head, lion king's paw, happy sheep's head, etc. These have been successfully derived into children's furniture parts or decoration. The simulation of excellent design works is generally not a single imitation, but to grasp the original character charm, using exaggeration, approximation, variation and other techniques of multi-dimensional innovation. Third, it is the abstract transformation. Abstract transformation is the abstract processing of the most representative and recognizable graphics in the concrete animation image, making it become the design material of the new furniture. This requires the designer to study and summarize all the original materials carefully before the design in order to grasp the most essential and common features. Through in-depth research, the designers of Cool Manju Company abstracted Mickey's most representative images and displayed them in furniture images by cutting, repeating, approximating, strengthening, reorganizing, and so on. These images are mainly made into drawers of metal handle, cabinet doors and chairs hollowed-out parts, bedside decorative patterns and other parts. They truly represent Mickey's playful and lovely features, as shown in figure 3.

4. Summary

With the improvement of people's living standards, as a new market segment of furniture, children's furniture market share is also increasing. As an important part of the animation children's furniture industry chain, product development and design is a difficult task of system engineering. It needs not only the support of the upstream "matrix" development and publicity, but also the design method and means of its own. The improvement of management and strategy also requires the cooperation of downstream production and sales, without which link can not succeed. Although the current research conclusions are mainly aimed at the field of product design and development in the intermediate link, it is hoped that the research can arouse the attention and concern of people in the industry to the whole chain of animation derivative furniture industry. Moreover, they need size the opportunity of new development in time, thus contribute to the development of China's animation furniture industry.

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