

Original Research Article

Reference and Innovation of Chinese Contemporary Furniture on the Basis of Chinese Ming Dynasty Furniture

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Abstract: With the rapid development of China's contemporary furniture industry, creating "Chinese characteristics" is particularly important in the field of contemporary furniture design. Chinese furniture design accompanies Chinese history and is another interpretation of Chinese culture. How to deal with the reference and innovation of Chinese contemporary furniture design to Chinese traditional furniture is a problem that must be studied and solved in Chinese contemporary furniture design, which has important theoretical significance and practical value for the development of Chinese design. This article will discuss from three aspects: firstly, it briefly introduces the status and characteristics of Chinese Ming Dynasty furniture; secondly, it analyzes the design of contemporary Chinese furniture based on Chinese Ming Dynasty furniture from the aspects of functionality and formal charm; finally, it analyzes China from the contemporary furniture design borrowing from Chinese Ming Dynasty furniture. **Keywords:** Ming Dynasty furniture; Contemporary furniture; Reference; Innovation

1. The classic of Chinese furniture history - Chinese Ming Dynasty furniture

Ming Dynasty furniture inherited the outstanding achievements of Song Dynasty and Yuan Dynasty. Top chair, circle chair and official hat chair are the three classics. The shape emphasizes beautiful and strict proportional relationship, and most of them are simple, round and smooth. There are various decorative techniques and a wide range of decorative materials. However, we should never be greedy and only make appropriate partial decoration; the function and practicality are also just right, and strive to achieve the perfect combination of function and form; the materials are mostly wood, mostly huanghuali, red sandalwood, etc., making full use of the texture advantages of wood, fully Using the color and texture of the wood itself, the natural beauty of the wood material itself is used to form; the mortise and tenon structure is mainly used, which is very scientific and is a combination of science and art. The furniture of Ming Dynasty is the material carrier of Chinese culture. The shape, decoration, function and material of furniture all contain the concepts of traditional Chinese culture, such as the concept of hierarchy, ethics, Confucianism, Taoism, Buddhism, etc. It is Chinese furniture. The most iconic furniture in history.^[1].

2. The reference and innovation of Chinese contemporary furniture on the basis of Chinese Ming Dynasty furniture 2.1 Human-led functional reference

"People-oriented" is the mainstream thought of traditional Chinese culture and continues to this day. Traditional culture attaches great importance to people's own value and regards people's needs as the main purpose of production activities. These ideas are reflected in traditional furniture design: starting from reality, designing products that can meet people's basic functional needs, and using traditional craftsmanship to reflect the maximum national art^[2]. This spirit is inherited into modern furniture design: humanized design, focusing on people's use of functional feelings, in line with ergonomic characteristics. With advanced technology, the human body structure, human behavior and human habits are fully considered in the design, so that the designed furniture can meet people's physiological needs and aesthetic needs, and can also reflect the concept and pursuit of the times. Taking the design of chairs as an example, modern design master Mies once said: "Chairs are very difficult to design, relatively speaking, skyscrapers are better to design^[3]." In terms of the area of contact with the human body and the length of use, the chair is the best of all furniture.

The official hat chair in the Ming Dynasty mainly consists of the seat surface, armrests, the head and the back board. When we sit on the official hat chair, the weight is transferred from the legs and feet to the buttocks and thighs, and the weight is also distributed to the arms. and head. Viewed from the front side, the headrest and backboard of the official hat chair form an "S" shape, which is basically the same as the human spine curve. The occipital bone of the head corresponds. When the human body sits down and the human pelvis and spine lose their upright state, the gravity of the head can be dispersed to the brain through the cervical vertebrae and occiput, and the thoracic and lumbar vertebrae can also be relaxed by relying on the curved surface of the backboard^[4]. This wonderful design of the official hat chair reflects the morphological characteristics and basic needs of human limbs. The various components and

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doi: 10.18282/l-e.v10i8.3144

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the compositional relationship between them not only fully reflect the behavioral needs of human sitting, but also reflect the comfort and health of sitting.

2.2 The reference of form and charm

Form and charm can be seen everywhere in traditional Chinese design, and it is even more extreme in furniture design. Most traditional furniture is symmetrical about the central axis. With the development of the times and the impact of Western culture, the formal charm in contemporary furniture design no longer pursues absolute symmetry, but reinterprets the symmetrical beauty possessed by traditional furniture to seek The changes in symmetry make modern furniture more in line with the living habits and life concepts of modern people, simplifying and not single, changing and unified. For example, the shape of the official hat chair comes from the shape of the top of the backrest similar to the hat of an ancient official, implying that the person sitting on the chair is as high as wearing an official hat, and the image of the official hat is applied to Ming Dynasty furniture. designing. The same is true for the chairs. The chairs in Ming Dynasty have a beautiful and smooth shape. The curve of the chair ring is soft. The goose head and goose beak are applied on both sides of the armrest to form a "goose head", which is elegant and atmospheric^[5]. The same is true for the half-table in the Ming Dynasty, which focuses on the shape of the legs. The horseshoe legs are turned inward, which is called varus horseshoe legs, and those with the feet outwards are called valgus horseshoes. The horseshoe leg is a delicate line extending from the leg to the toe. It is natural and smooth, and the light is strong. It not only meets the requirements of mechanical properties, but also looks vigorous and powerful. The horse's hoof is turned up and contains vitality. It is one of the typical styles reflecting the characteristics of classical furniture in Ming and Qing Dynasties^[6].

2.3 Analysis of innovative design of Chinese contemporary furniture based on Chinese Ming Dynasty furniture

Chinese contemporary furniture is based on the evolution of the traditional culture of the Chinese nation and continues to design and innovate. It is the designer's deep affection and expression of traditional culture in the context of contemporary China using furniture as a carrier. They enriched and perfected the Chinese contemporary furniture product system with their novel shapes, practical functions, traditional temperament and diverse categories, and catered to and led the market demand at that time. However, behind the innovation, there are also many problems such as "serious homogenization", "imitation or plagiarism", "the worship of furniture in Ming and Qing Dynasties" and so on. For example, in the process of "traditional elements stacking and collage" in the process of innovation, contemporary furniture innovation should be based on a deep understanding of the spirit of traditional culture, returning to the essence of beautiful shape, good workmanship, and fine materials, in the Ming Dynasty furniture In the process of Chinese contemporary furniture innovation, we should use the essence of traditional culture for reference, and then redesign according to the current era background. From the perspective of Chinese Ming Dynasty furniture^[7], Chinese contemporary furniture design will mainly innovate the design through the improvement of materials, forms and ergonomics in the context of the times.

3. Conclusion

From the intervention of the classic Ming Dynasty furniture, the design of Chinese contemporary furniture is divided into two parts based on the reference and innovation of Chinese Ming Dynasty furniture. The first part is to learn from, that is to absorb the design essence of Ming Dynasty furniture. The human-led functionality and formal charm of Chinese Ming Dynasty furniture are its essence. It conveys the thought and cultural quality of the ancients through form and meaning. It is necessary to dig deep into these essences and retain or modify them in the design of the design. The second part is innovation, which reshapes the design of Chinese contemporary furniture on the basis of drawing on the design essence of Ming Dynasty furniture and combining with the current existing aesthetic concepts, materials, and lifestyles.

References:

- [2] Postell, James. Furmiture Design[M]. New Jersey: John Wiley & Sons, Ine Hoboken, 2007, 107:78-79.
- [3] Li Wenbin. Building Interior and Furniture Design Ergonomic [M]. Beijing: China Forestry Press, 2001 (3): 146.
- [4] Pu Anguo. Chinese collection small encyclopedia Ming-style furniture [M]. Jinan: Shandong Science and Technology Press, 1998:37.
- [5] Shi Daguang. Chinese classical furniture value hui test: Chair paper [M]. Shenyang: Liaohai Publishing House, 2003.
- [6] Li Xiaohan. Experience the interaction of design and use from the evolution of Ming-style furniture [J]. Furniture, 2008 (1): 110-112.

Wang Shixiang. Ming-Style Furniture Research [M]. Beijing: Sanlian Bookstore, 2010:325-327.380.230.134-142.246.Hansen, Mark D. Engineering design for safety[J]. American Society of Safety Engineers, 1993, 38(10):36-39.