Analysis of the Main Problems of Furniture Design Rely on Computer

Yanyun Chen1,*

1Nanchang Institute of Technology, Nanchang, Jiangxi, 330038, China

*Corresponding author e-mail: xje00f10@nut.edu.cn

Abstract. With the development of the times and the improvement of people’s living standards, the era of furniture design has quietly come, but traditional furniture design methods can no longer meet the needs of people nowadays. Therefore, many problems have appeared in the process of furniture design. This article mainly elaborates on the problems in furniture design and new furniture design methods.

Keywords: Furniture Design, Problem Analysis, 3D Modeling Technology

1. Introduction
With the progress of the times, the development of our country's furniture industry has taken shape, and many furniture design companies have gradually formed their own design concepts and design styles. With the evolution of the times, I believe that our country will find new styles suitable for Chinese furniture.

2. Development status of furniture design
Some furniture manufacturers that started early in China have now become the main force in Chinese furniture design and have launched their own brands. These well-known furniture brands have gradually adopted independently designed furniture. At the same time, Chinese college education has also begun. Pay attention to and cultivate a group of excellent furniture designers, and companies also pay attention to training and grow a group of furniture designers. This machine has begun to grow. At present, although there are no internationally renowned furniture design masters in China, there is a team of professional furniture designers, design companies and enterprises. Design and R&D centers, experts and professors engaged in design education in colleges and universities have also begun to organize their own design studios, and foreign design companies have also begun to enter the furniture design on the Chinese market, looking for development opportunities in China [1,2]. In participating in international competition, there are both opportunities and challenges, which are crucial in the process of promoting the international development of China's furniture industry. All this indicates that a new furniture design mechanism is about to take shape in the Chinese furniture industry.

2.1. Problems in furniture design
While China's furniture industry has achieved large-scale achievements, we should always reflect and see our shortcomings. Regarding the current situation of Chinese furniture design, Li Qian once
published "Thinking and Analysis on the Current Situation of my country's Furniture Design" in the "Furniture and Interior Decoration" magazine, and detailed survey data reveals the current situation of Chinese furniture design. The master's thesis of Nanjing University of the Arts "Research on the Development and Evolution of Chinese Furniture Design from the 1950s to the Present" systematically introduced the development and evolution of Chinese furniture design from the founding of the People's Republic of China to the present, and conducted in-depth and systematic research. Yang Chunhong's paper "Theoretical Research on Modern Chinese Furniture" puts forward that as a designer, how to improve the Chinese furniture brand and get out of the "bottleneck" is a question worth pondering [3].

2.2. Fuzzy furniture design concept
The Chinese contemporary furniture design system has initially taken shape, and there is currently a reality in the Chinese furniture design industry: design thinking has derailed from the international world, and a distinctive style has not yet been formed, the design concept is relatively backward, the design concept is not clear, and the Western imitation masters are too much idolized, and there is no oneself. Concept. Chinese furniture design is not innovative enough, too much imitating, copying other people's designs to make furniture has developed to this day. Some factories do not pay attention to the development of new products, and even directly go abroad to buy samples and return to "cloning" imitations. Some furniture factories are a generation of processing factories in foreign countries and do not need to design by themselves. They directly produce products according to the drawings of foreign designers and manufacturers, and label them as "JiaYiC h ang" for others. Designers’ innovative thinking and abilities are quite different. Their own abilities, good quality and neatness that a good designer should have, the designer pays relatively low wages, the opportunity for designers to learn again is slim, and the designer's design It is not approved. The status of the company is relatively low and it is not taken seriously [4]. Some companies think that the existence of a designer is dispensable and usually serves as a draftsman. School education in the form of modern design has been repaired under the old education system. The education model has not yet formed a set of feasible furniture. The quality of teachers needs to be improved. The teaching model is eager to get out of the classroom. A model of Chinese furniture, people can't help but think of the brilliance of Ming and Qing furniture. However, this is once a glorious one, beyond our reach. This can be said to be more worrying than joy. What is happy is the excellence of traditional Chinese furniture in our country, and what is worrying is that the development of modern Chinese furniture design has stagnated and developed slowly. Our products are passively accepted by our people, but we still have no design work that can be called a domestic classic, and there is no domestically recognized design master.

2.3. The status quo of design management of Chinese furniture companies
The current situation of Chinese furniture is still a low-price vicious competition, not a low-cost competition focusing on improving its core competitiveness. The development history of the modern furniture industry in China is only a short course of more than 30 years, and it has only been less than 10 years for Chinese furniture companies to accept and recognize it, and the development time is relatively short. The level of furniture design, furniture design management and furniture design strategy are still at a low level. How to carry out the design and development of new products, effective management, establish an effective design mechanism, medium and long-term design strategies, in the product design development and management mode, freelance designers, designers, designer studios in factories and design offices [5]. The organization and management of design intellectual property rights, royalties, designers, professional qualifications, designers and design promotion work is only in its infancy.

In recent years, furniture manufacturers have experienced a serious backlog of inventories. The direct consequence is the decline in profits. Coupled with the continuous increase in costs, the withdrawal of new products will slow down, forming a vicious circle. And this vicious circle is really due to the immature performance of Chinese furniture design, mainly manifested in the disconnection between the designer and the consumer. There is a lack of information exchange between designers and consumers,
and in terms of realizing the complete value of design, the most important thing is to rely on information exchange between designers and consumers [6].

Therefore, we see the shortcomings of this kind of modern design production, which is the contradiction between large-scale industrial production and consumers, and the lack of personalized design. Modern design has encountered unprecedented difficulties. The essence of design is to serve people. Whenever we cannot forget the "people-oriented", as an individual, he is a "natural person", he has his own life and satisfies his own clothing, food, housing and transportation; at the same time, he is also a "social" "People" must take into account the comprehensive factors of social status, occupation, mentality, social relations, cultural level, and moral quality.

3. Misunderstandings in the design management of Chinese furniture companies

At present, most of the furniture companies in our country have big misunderstandings in design management. New product development and product design development management cannot be market-centric and consumer-oriented. There is no systematization, and many companies use design in a random way, lacking systematic consideration. When a company needs to develop and design a certain furniture product or product packaging, it temporarily hires a designer to do the design, temporarily holding on to the needs of the moment, without forming a systematic connection. The design is neither systematic, but also lacks continuity [7]. It is conceivable that the products designed and produced lack the necessary connection in terms of appearance and function. This situation will create obstacles for consumers to identify the company's products, which will inevitably affect product sales and expanded reproduction.

At present, the development of new products of Chinese furniture companies has also entered a "circle" in furniture design. The product development and design cycle is getting shorter and shorter, from three to six months. Especially in the Pearl River Delta furniture companies participate in the second phase of the furniture exhibition every year. The life cycle of new products in the furniture market is getting shorter and shorter. Because the design research and development time is too short, a large number of immature and blindly so-called new products enter the market, and the development of these new products must be eliminated by the market. The production and sales problems in the production process have caused a large backlog of products and unnecessary waste of resources. In product design, the degree of modular design and standardization is low, and the compatibility of different product series components is very poor [8].

4. The evolution of furniture design

With the development of science and technology, traditional design techniques have been gradually replaced by new technical means. At present, most home design uses three-dimensional modeling technology (as shown in Figure 1). The predecessor of three-dimensional modeling technology belongs to the art of three-dimensional painting. The form is extremely simple and the development is slow, but later with the rapid development of computer technology, 3D modeling technology has been continuously improved, especially the 3D modeling software 3D MAX launched by the Autodesk company in the United States, which makes the 3D modeling technology develop rapidly. And is widely used. At the same time, 3D modeling technology has become an indispensable and important part in the field of furniture design.
5. Application of 3D modeling technology in furniture design

After drawing the three views in Autodesk CAD software, we can perform modeling and editing in 3D MAX, as shown in Figure 2 [9,10].
Figure 2. Application process of furniture design in 3D MAX

6. Conclusion
Introducing computer technology makes the development of furniture design further, but it also brings many problems and challenges. I believe that with the continuous development and application of new technologies, these problems will be solved.

Acknowledgments
Project Name: Jiangxi University Humanities and Social Sciences Research
Project approval number: YS19238

References
[1] Yang Chun. Research on Design Method of Children Furniture Based on Safety Problem Analysis [J]. Packaging Engineering,2008:122-124.
[2] Zhou Dongyan. Analysis of Chinese Furniture Design Problems and Research of Innovative Design System [J]. Brand,2015:132-133.
[3] REN Jieming. CAD analysis based on furniture design [J]. Modern vocational education,2017
[4] ZHOU Yafei. Analysis of Children's Furniture Design in Home Design [J]. Forestry Science and Technology Information,2015:105-106.
[5] Zhu Juyu. The economic prospects of furniture design[J].Economic Vision,2015:454.
[6] Zhang Zheng. Principles and Material Analysis of Furniture Design [J]. Architecture and Decoration,2019:15-16.
[7] Deng Yijie. Research on the Color Design of Urban Furniture [J]. Popular Art,2015:74-75.
[8] Liu Ning,Zhang Rui. On the status quo of furniture design in my country[J].Beauty and Times (1st issue), 2017.
[9] LIU Yi. Application analysis of color emotion in furniture design [J]. Research of Communication Force,2019:208.
[10] Yuan Keyun. Humanized Thinking of Furniture Design[J].Art Education Research,2018:80.