

# Analyze the Life Cycle Design of New Chinese Style Furniture Products

Zou Weihua

**Abstract**—Life circle of new Chinese style furniture products mainly include life circle of commodity circulation and life circle of usage. Life cycle design of new Chinese style furniture products in commodity circulation should pay attention to the differences of products, make the design objectives more clearly, improve the soft power of products. Life cycle design of new Chinese style furniture products in usage should pay attention to the design of parts that can be replaced, improve the strength of parts that be often used, improve the function transformation of products.

**Index Terms**—New Chinese style furniture, life cycle design, entire product style, life cycle of commodity circulation, life cycle of usage.

## I. INTRODUCTION

New Chinese style furniture is not only the spread of Chinese traditional furniture culture significance in the background of current age, but also the design in the present age which is based on the complete comprehension of the situation in the current Chinese culture. Compared with the traditional Chinese furniture, new Chinese style furniture pays more attention to the combination of traditional culture and modern life, technology and conception. Therefore, new Chinese style furniture becomes one of the mainstream products in the market of Chinese furniture.

New Chinese style furniture products are not traditional craft, are modern industrial products whose general attributes include mechanization, standardization, batch, etc, and are a kind of modern commodity that have basic characteristics of commodity circulation. From design to product and from sale to usage, life of new Chinese style furniture is to create industrial value and realize commodity value. Life circle of new Chinese style furniture products not only reflect the process of which production enterprises to pure profit, but also reflect the process of which consumers to achieve demand.

Life circle of new Chinese style furniture products mainly include life circle of commodity circulation and life circle of usage. Life circle of commodity circulation is production enterprises according to market demand to create commodity value and obtain their own value process. Life circle of usage is the service life of product, and is the process of consumers to achieve demand.

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## II. LIFE CYCLE DESIGN OF NEW CHINESE STYLE FURNITURE PRODUCTS IN COMMODITY CIRCULATION

New Chinese style furniture products have its own life circle of commodity circulation that include create stage, introduction stage, development term, mature term, decline period. Life circle of commodity circulation of new Chinese style furniture products like other commodities are limited. Its life circle of commodity circulation mainly refers to the life course of entire product style in furniture market, life circle design of product of each production enterprises must adapt to this development status of entire product style. From macro point of view, some of production enterprises having foresight have created their own new Chinese style furniture products and introduced these products to market, the entire product style of new Chinese style furniture has got into the development term of life circle of commodity circulation. Face this status of entire product style, those production enterprises that new to involved in new Chinese style furniture should adjust their design strategy and make their product can adapt to market tend, can challenge other products. Life cycle design of new Chinese style furniture products in commodity circulation should pay attention to the differences of products, make the design objectives more clearly, improve the soft power of products, and so on.

### A. Pay Attention to the Differences of Products

Entire product style of new Chinese style furniture is in the development term of life circle of commodity circulation, some of new Chinese style furniture products have been introduced into market. Those production enterprises that new to involve in new Chinese style furniture could through create the differences of products to get market position of own products and to establish own brand image. The differences of products refer to those characteristics that are difference from other enterprises products. These characteristics mainly reflect in unique form, material, structure, decoration, etc. For example, some production enterprises have used ebony that with coarse grain as main material of their new Chinese style furniture products which different to other similar products in entire texture (refer with: Fig. 1).

### B. Make the Design Objectives More Clear

Some of new Chinese style furniture products whose entire product style at the development term of life circle of commodity circulation have been introduced into furniture market that reflect some demand of consumers. Those production enterprises that new to involve in new Chinese style furniture should make the more clear design objectives to consumers that be ignored by other enterprises that have introduced their products to market. Trough make the design

objectives more clear to excavate own consumer groups and to establish own market position. The design objectives are according to specific populations whose living condition, consumption capacity, aesthetic taste, and so on. For example, some production enterprises through use artificial board as main material of their new Chinese style furniture products to reduce cost of production and to meet demand of consumers of middle class (refer with: Fig. 2).

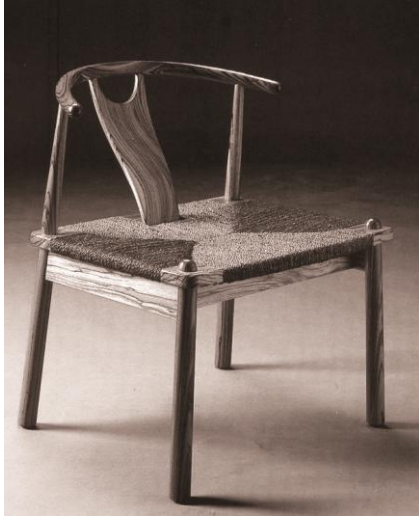


Fig. 1. The differences of products in entire texture of new Chinese style furniture.



Fig. 2. This design objectives of new Chinese style furniture is to consumers of middle class.

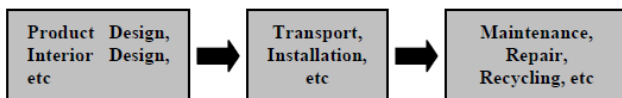


Fig. 3. The system after-sale service in new Chinese style furniture products.

### C. Improve the Soft Powers of Products

In the background which entire product style of new Chinese style furniture is in the development term of life circle of commodity circulation and some of new Chinese style furniture products have been introduced into market, those production enterprises that new to involve in new Chinese style furniture should through improve the soft power of products to enhance competitiveness of own products. The soft power of products is the competitiveness that difference from product's form, material, structure, decoration, etc. The soft power of products mainly reflects in after-sale service which includes design, transport,

maintenance, etc. For example, some production enterprises have used system after-sale service to improve their entire competitiveness of products (refer with: Fig. 3).

## III. LIFE CYCLE DESIGN OF NEW CHINESE STYLE FURNITURE PRODUCTS IN USAGE

Life cycle design of usage of products is according to demand of consumers to design life cycle of products in usage. Chinese consumers generally think Chinese traditional furniture are durable goods, therefore, they hope to buy new Chinese style furniture products of using permanent. The target life cycle design of new Chinese style furniture products in usage is how to realize using permanent. For realization of this target, life cycle design of new Chinese style furniture products in usage should pay attention to design the parts that can be replaced, improve the strength of parts that be often used, improve the function transformation of products.

### A. Pay Attention to Design the Parts that can be Replaced

Furniture product generally is makes up of multiple parts. If a parts of furniture product have damage, it would reduce using life of the furniture product. But if the damaged parts that can be replaced, it would avoid which the damage of a parts of furniture product reduce using life of the furniture product. Therefore, to design the parts that can be replaced can realize using permanent of new Chinese style furniture products. The method of design of the parts that can be replaced main include to design repeatable dismounting connecting piece, to design repeatable dismounting combination form of mortise (refer with: Fig. 4), to design standardized and modular parts.

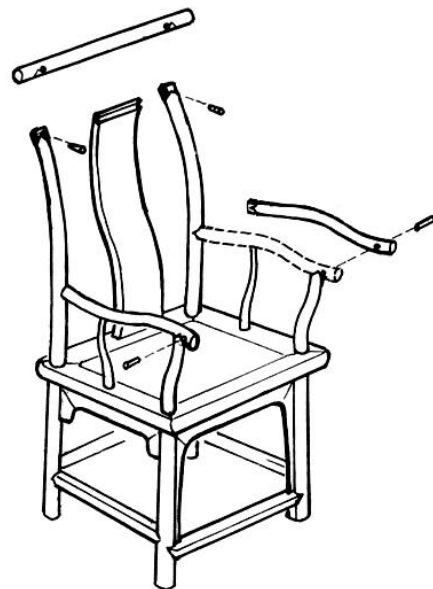


Fig. 4. The repeatable dismounting combination form of mortise.

Pure mortise and tenon connection form in Traditional Chinese Furniture realize that recycle used furniture and parts of furniture. And new Chinese style furniture through pure mortise and tenon to connect parts. Therefore, Parts of furniture can disassembly and assembly. Some aging and broken parts could be replaced to new parts by mortise and tenon connection form, and recycle used furniture and other parts of furniture.

### B. Improve the Strength of Parts That Be Often Used

The parts that be often used is more easily damaged than other parts. If the parts that be often used have damage, it would reduce using life of the furniture product. But if to improve the strength of the parts that be often used, it would avoid which the damage of the parts reduce using life of the furniture product. Therefore, to improve the strength of parts that often be used can realize expend using life of new Chinese style furniture products. The method of improve the strength of parts that be often used main include to enhance capacity of resist pressure, to enhance capacity of resist wear and tear (refer with: Fig. 5), to enhance capacity of resist aging.

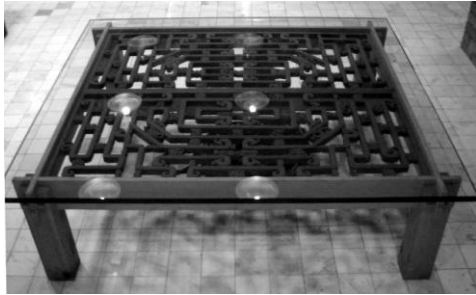


Fig. 5. Enhance the capacity of resist wear and tear of parts that often be used.



Fig. 6. Enhance capacity of function transformation of using parts.

Make full use of materials is another important principle. Traditional Chinese Furniture main uses natural materials, and these materials have some natural defects during forming process, such as tree scar, crack, stain, etc. But Chinese ancestor make full use of each parts of materials. In new Chinese style furniture products, the defective less wood is used for the plate heart that has strong visual influence, and the defective wood is used for others that have weak visual influence. The vast majority of material scrap is often neglected in materials. Some of material scrap is used in new Chinese style furniture products by particular form.

### C. Improve the Function Transformation of Products

Function transformation of furniture products generally is function of furniture can change according to demand of consumer. If function of furniture product can't meet the changing needs of life, it would end using life of the furniture product. But if the function of furniture that can transform according to needs of life of consumer, it would expend the using life of the furniture product. Therefore, to improve the function transformation of products can realize using permanent of new Chinese furniture products. The method of

improve the function transformation of products main refer to enhance capacity of function transformation of using parts (refer with: Fig. 6).

New Chinese style furniture products is often multiple use of product. The most of furniture is living supplies while is ritual supplies. And large number of furniture can along with scene changes function beside conventional function. The vast majority of new Chinese style furniture is living supplies while is ritual supplies. For example, Official Hat Chair not only have conventional function of chair but also symbol the outlook on life of pursuit official career in Confucian thought, Round-backed Armchair symbol sky round earth beside conventional function of chair.

Large number of New Chinese style furniture products can along with scene changes function beside conventional function. For example, Chinese bench often as restaurant furniture and is located in front of square table, but when auxiliary braided straw sandals it is a kind of tool of production.

### D. Economy in Manufacture

New Chinese style furniture products advocates the principle of manufacture locally and moderate decoration, and realizes economy in manufacture.

The vast majority of new Chinese style furniture advocates the principle of manufacture locally. Their manufacturer usually sit where are close to their user, and where probably are in residential district of user. Because usage of natural materials and artificial manufacture, so their production will not affect the living environment of resident. Local manufacture can reduce the consumption in transportation between product and user. Although this kind of manufacture is economy, manufacturer scale is restricted by their business model.

The moderate decoration is another principle of economy in manufacture of new Chinese style furniture products. This kind of form that useless and pure decoration is seldom found in new Chinese style furniture. Only a small amount of decoration is set up visual center of furniture. In new Chinese style furniture products, the vast majority of parts are no frills but simple linear. And this kind of sharp or delicate liner is hardly seen in new Chinese style furniture products but large number of form that is harmony relation between square and circle (refer with: Fig. 7) .



Fig. 7. The simple linear in new Chinese style furniture products.

## IV. CONCLUSION

Know the life cycle design of new Chinese style furniture products is helpful for those production enterprises that new to involve in new Chinese style furniture to design appropriate life cycle according to market trend and using

condition. By the above method, we struggle to get the best life cycle of new Chinese style furniture products.

Future research on the life cycle design of new Chinese style furniture products will be focused on the following four aspects. First is how to use to expend the life cycle of entire product style of new Chinese style furniture products in furniture market. Second is how to use advanced material, technology, structure to expend the using life of new Chinese style furniture products. Third is how to use the 3d scanning technique and 3d modeling technology of virtual libraries to design the life cycle of new Chinese style furniture products and saving the cost of design. Fourth is how to use computer technology to edit models of the life cycle design, which could be adapted to all kinds of new Chinese style furniture products.

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