Case Analysis of Daily Design Based on the Principle of Contradictory Identity

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Abstract: People often evaluate and analyze daily design works from their own point of view. For example, the elderly feel that the phone screen is too small, the font size is too small, the buttons are too small, but the young feel that the voice of the elderly mobile phone is too big. The analysis of design works under different users is contradictory, but there is identity between designers and users. According to the principle of contradictory identity, different users can transform each other. For example, the chair design of fast food restaurant should not only ensure the comfort of users during dining, but also “drive away” customers through the “discomfort” after dining. Through the principle of contradiction identity to analyze two classic daily design works, it has guiding significance to improve the pertinence of design works.

1. Introduction

Contradictions are opposites as well as unifying. The theoretical system of dialectical materialism includes the principle of contradiction identity. All things in the world have the basic attribute of contradictory identity. The two sides of contradiction are interdependent and infiltrating each other. Although they have the attribute of mutual exclusion, they can transform each other. In daily design, the principle of contradiction identity is often used to design from the perspective of different user groups to meet the needs of specific user groups. From the perspective of opposite user groups, it has the identity of contradiction and dialectics. The perspective of different user groups seems to be opposite, but the essence is specific identity. Users' perspectives can be interchangeable under different environments or requirements. Opposing user groups are interdependent and can be interchangeable under certain conditions.

2. User Habits and Behaviors

2.1 Overview of Users' Habitual Behaviors

On the basis of the principle of identity of contradiction, the design works are analyzed. First of all, consider the user-oriented needs analysis, and convert the user needs into design goals. At this point, the user's habits have a guiding effect on the final formation of the work. The user's demand is often not single, it has diversity and multilayered. Generally there are functional needs,
psychological needs, emotional needs and so on. And under different needs to produce different habits of behavior. The purpose of the project design, to solve the user needs for the goal. Therefore, from the user's habitual behavior as the key node, the user's habitual behavior is analyzed and the results are used in the design to meet the user's needs. The design analysis is based on the opposite behavior, because the two angles of contradictory behavior reflect the needs of different user groups. Understanding these behaviors can better provide designers with a clearer design direction. Combined with user needs from different perspectives, it is not difficult to understand the differences between different users of the industry habits.

2.2 Influence of User Habits and Behaviors on Design

It is one of the basic principles in modern art design to pay attention to the habits and behaviors of users and take “user as the center” as the design concept. User habits and behaviors are often users' natural reactions and are difficult to change. So many designers adapt to user habits and behavior. But different people have different behavior habits, so it has a lot of influence on the design. However, designers should also influence users with reasonable design works. For example, some elderly people have a fast-paced life due to their long-term fast-paced life and work. When they retire, many habits still remain unchanged. At this time, the daily products specifically aimed at the elderly are to guide users to change their habits and behaviors and adapt to a slow life.

3. Daily Design Case Analysis

3.1 Case 1: Chair Design of Fast Food Restaurant

Catering industry belongs to service sex industry, table eat chair is its most common furniture. From a design, psychological and ergonomic point of view, the design of a chair must be based on the user's comfort experience. Must achieve to bear the weight of the human body, to alleviate the effect of people feeling tired. In general, a good chair design can be used to allow users to sit for a long time without fatigue, and the comfort level is extremely high.

However, chair design is unreasonable, can let the user produce overworked feeling, even leg and foot ache, muscle deformation, the user that uses for a long time can even seriously affect health. Accordingly, the design of the chair besides want to consider common outside watch, economy is durable beyond, more important is to satisfy the demand of the user.

The contradiction of chair design in fast food restaurants: if the chair design is uncomfortable, it will be criticized by customers; By making them too comfortable, customers sit for too long or even occupy them too long, leaving diners behind with no seats available.

As we all know, fast food restaurants are the most popular places for busy office workers. Whether you can have a meal in a comfortable environment is one of the important indicators of whether customers give high praise. Accordingly, the chair of fast food restaurant should be designed to have comfortable experience inside reasonable repast time, and the characteristic that does not suit to use for a long time. The following to the famous Western McDonald's fast food restaurant chair as an example for related analysis:

3.1.1 Comfort Analysis

(1)Chair height: the appropriate chair height should reach the height where the user's feet are flat on the ground. Therefore, comfortable chair should not be too high, too high will make the feet suspended, easy to numb the feet. Of course, it should not be too short, otherwise the user will lean back, the same uncomfortable. The chair was measured to be 46cm high. This height meets the
comfort requirements of the average height in China and is in harmony with the height of the table. Therefore, from the height, to meet the needs of comfort within the dining time.

(2) Chair Width: Due to the concentrated dining time of customers, there are usually a large number of diners at the same time. Accordingly, reasonable chair width is very important to spatial application. Width is too large, can easily build a fatter person. But too large width is not conducive to the use of space, and the user's elbow is difficult to support, will accelerate the user fatigue. For single-seater chairs, this is usually based on the width of a woman's hips. The measured width of a common fast food restaurant chair is about 45 centimeters. Thus it can be seen that its width is determined with customer comfort as the goal.

(3) Seat depth: the depth of the seat refers to the distance from the front edge of the chair to the back edge. If the distance is too large, you will feel unable to sit on the edge. And the distance is too small legs can not be reasonable support, will produce a sense of calf numbness of fatigue. The typical McDonald's chair is 45cm deep, which satisfies the needs of tall customers for comfort. As a more complex fast-food restaurant personnel, some of the height of the customer can be placed in the back of the personal items, is conducive to theft.

3.1.2 Discomfort Design

From the height, width and depth of the chair in the fast food restaurant, it is designed with customer comfort as the guide. If the chair is designed to be extremely comfortable and the customer is reluctant to leave after the meal, it will seriously affect the subsequent customers, whether they have a place to eat. Chairs at the fast food restaurant are designed to catch people by the Angle of the back and the texture of the surface.

(1) Backrest Angle: After actual observation, the backrest Angle of this fast food chair is relatively vertical, as shown in Figure 1. In the actual seat, the back of a chair will produce “hard” feeling, extremely uncomfortable. Why do customers rarely make negative comments about the dining environment? Because when customers eat fast food, the plate is placed on the table, the human body is in the state of leaning forward, at this time is often not need a backrest. When the customer finishes his meal, “fast” is the attribute of a fast food restaurant, which means it is time for the customer to leave. At this point, the longer the customer back, the more uncomfortable the feeling, so as to get up and leave.

![Fig.1 Fast Food Restaurant Chairs](image)

(2) Material: the surface of this chair adopts smooth treatment, giving customers a clean feeling. In fact, smooth material, customers sit for a long time will produce a “sliding” feeling, very
uncomfortable. This purpose is also to hope that customers eat as soon as possible to leave the location out. Fast food restaurants take full advantage of the paradoxical identity principle between comfort and discomfort by letting customers leave without forcing them to.

Case 2: Slate pavement design

Slate road is widely used in schools, parks and other places, or as a way of use, or as a recreational use. Therefore, the spacing of laying is not the same for different user groups. How to improve users' comfort, protect pedestrians and beautify the environment is an important factor in the consideration of paving spacing, as shown in Figure 2. Stone is the most common paving material, from nature, and the natural environment can play a complete integration effect, although the cost is higher, but with durable and beautiful features, widely used.

![Fig.2 Slate Road](image)

(1) Problems to be considered in laying spacing of slate road

First of all, different ages, different scenes of the slate spacing should be reasonably designed according to the needs of users. People often hear office workers say that the spacing between the flagstones in the park is too small, two steps in one step is too big, one step in one step is too small. Is the office worker going to the wrong place, or the stone spacing is not reasonable? According to the user group characteristics of different scenes such as park, university campus, primary and secondary school campus, using the principle of ergonomics, the spacing of slate road should have a standard.

(2) Slate spacing for children users: Slate spacing for children users is more common in kindergarten, primary school, children's park or in parent-child design. The spacing of such slates should also be smaller, as children are not yet mature enough to walk at a smaller pace. If we use adult standards to measure the design of slate spacing for children, there must be contradictions.

(3) Slate spacing for the elderly: the elderly are one of the largest users of leisure places such as urban parks. Older people don't have to rush to work as much as younger people, so the spacing between the older groups is somewhat similar to that of children. They need to slow down, slow down life, also can enjoy the grandchildren around the family happiness.

However, the main force of social work, young people because of busy work, fast pace of life, generally less for this group of users to carry out the paving of the stone road. According to the relevant information, for children's slate spacing should be 29 cm; For the elderly, the distance between the slabs should be 34 cm; For young and middle-aged users of the stone road should be 40 cm.

Therefore, the spacing of the flagstones is not designed to be comfortable for everyone. There is a contradiction here, satisfying the elderly and children users can not satisfy the young users. But children generation, young age, old age is everyone must experience, with understanding of the
mentality to look at the design of the stone road, more to take care of the elderly, children and even action is not convenient.

4. Conclusion

In daily design works, many people will stand in their own point of view to evaluate. Many seemingly failed design works are carefully designed by designers for specific user groups. From the perspective of different user groups, it is antagonistic and contradictory; with the transformation of user groups, we can find the originality of the design. There are many similar cases in daily life. Designers and users put themselves in different user groups to analyze, summarize and apply to design, so as to create more excellent daily design.

References