

Research on Perceptual Cognition in Product Design

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Abstract: The product is a combination of sensibility and rationality, material and spirit. The sensibility in the product generally refers to the artistic, emotional, psychological and humanistic characteristics of the product, which is specifically reflected in the product's form, color and material. In terms of human nature, human perception is above human cognitive ability, just as people know that there are no ghosts and ferocious animals in the dark mountains, but they still cannot overcome the fear of darkness in their hearts. Strictly speaking: in product design, the sensibility is more directed towards the human subject, closer to the human mind, showing the concern for human beings, it is the original motivation of human beings. Regardless of whether it is a traditional society or a modern society, the perceptual needs are universal. The fundamental reason is that it returns to the perceptual life of man and meets the spiritual needs and development of man. Therefore, sensibility is a very important issue in product design.

1. Introduction

From the perspective of human nature, sensibility is more than rational. The more sensuous factors incorporated in the design, the more it can meet the psychological needs of consumers and generate emotional resonance. As we all know, the purpose of design is to satisfy people's own physical and psychological Need, need to be the driving force behind human design. The satisfaction of this need includes the two-layer elements of perceptual and rational. Due to the over-emphasis of rationality in the development of modern industrialization, the sensibility seems to be ignored by people, and the personality of designers is greatly restrained. Designers often care too much about the specific issues of the design ontology and ignore the deep research of the object of design. Perceptualness exists from beginning to end. It is the front line of human exposure to the world. Modern design is not limited to the product itself. In the use of various human expressions, the perceptual quality of design is increasingly important. Especially with the progress of society, people increasingly need a balance of high sensibility and high rationality to meet the emotional needs of people's hearts. The importance of perceptual research has become increasingly prominent.

2. The Main Reasons for the Emotional Needs

The over-respect of traditional economics for rational analysis, the development of modern industrialization and large-scale or even over-production, the sensibility seems to be ignored by people, and the personality of designers is considerably suppressed, which is not only inductive or mandatory It splits human nature and cruelly dismembers human sensitivity. And sensibility exists from beginning to end. It is the first line of human contact with the world, and it also exists in everyone, including feelings, attitudes, behaviors and emotions. The experience economy is to seek integration in the division, and to promote the position of perceptualism in the entire history of product design in the dictatorship of abstract rationality. The most prominent change in the experience economy is that computational rationality has moved to the background, and perceptual awareness has moved to the foreground. The emotional experience in the experience economy depends on the perception of the senses, and on the sublimation of human perception, and cannot be generated by logical calculations. Since the experience economy must reach the emotional experience in order to achieve economic exchange, the sensibility must be necessary in the experience economy. Replace rational status. "It can be said that the design of the 20th century is

centered on the fields of modeling, imaging, clothing, and life design. The 21st century will be an era based on perceptual science, and its design will be based on medical, psychological, and physical and mental disorders. Science, business science, information science, environmental science, and life science. “

Under such an economic background, people's consumer demand has changed from quantitative consumption to qualitative consumption to today's “perceptual consumption”. As Pingdao Lianjiu said, this is a shouting “the end of the material age, the coming of the perceptual age” Times. Consumers and users' feelings about products have surpassed the product functions that have been taken seriously, and the simple tendency of convenience has also changed to enjoyment. What they value is no longer the quantity and quality of the product, but the closeness to themselves; what they buy is not only an item, but a sense of self-satisfaction, and the pursuit of a specific product is consistent with the ideal self-concept. Facing the changes in consumer demand, whether it is urban planning, architectural design, or the development of daily necessities, all have entered an era in which the senses must be valued. The starting point of design creativity is no longer limited to the design object itself, but has also expanded to the touch of the body surface and the scope of any sensory function. Masaaki Sakai, director of the Canon Design Center in Japan, once said, “We are facing an era where we can make full use of the physical senses for creative design.”. Only by relying on the role of physiological senses and instincts can we find the creative sense of design. In the field of industrial design, people have become increasingly skeptical of the “rationalist” design ideas that have influenced design practice for a long time. The “reasonable meaning” produced by “functionalism” has gradually been used by industrial design after making far-reaching contributions. Replaced by new and deeper ideas. People are increasingly realizing that we not only live in a logically ordered society, but also in a perceptual world. The design concept of establishing perceptual relationships between people and products is gradually being recognized. This is an inevitable trend of product design development in the experience economy.

3. Perceptual Expression in Product Design

The sensitivity of the sensory layer is instinctively inspired by the experience of sight, hearing, touch, taste, and smell when people interact with things. At this level, people accept external stimuli and respond directly through reflection, such as the so-called Wangmei quenches thirst, Appetite is also waiting. It is a response produced by humans based on biological instincts. Although the sensibility stimulated at this level mostly belongs to human's original feelings, it is the most direct and most irresistible. Among the five senses of human touch, vision, smell, taste, and hearing, vision and touch are the closest to design, but today, the importance of vision is strongly strengthened under the powerful international influence. Century of print, film and film, and the Internet, images have been continuously developed, and vision has become the most important feeling for people. However, the innate feeling of man is the most primitive touch and taste of animals. It is believed that in the 21st century, the undeveloped feelings that were once forgotten in the 20th century become important again. From an era in which global appeal is pursued to a century in which individuality is emphasized, the importance of physical senses has been strengthened. Vision is a very important sense. It can be said that more than 80% of the information in our lives is obtained through vision. From the perspective of psychology, there are two types of human artistic creation-visual and tactile. Visual is an objective type. He puts himself in the position of a bystander. The main medium is the empirical judgment of the eyes. First, What you see is the whole of things, and analyze them as details or partial impressions through the overall impression analysis, and then synthesize them into a new whole. In the study of visual sensibility, we must grasp one purpose: to understand the changing aesthetics of modern people is helpful to grasp the perceptual factors in products. Therefore, we can draw on the research results of aesthetics. The laws of beauty such as proportion and scale, contrast and balance, rhythm and rhythm are all people's aesthetic factors in life through the harmony with the visual image of products. Most of the facts show that aesthetically pleasing items can make people work better, products and systems that make people feel better are easier to use, and cause more harmonious results; they have a

relationship with people's emotions and emotions. Good communication items make it easier for people to have longer emotional dependence. In the era of abundant materials, the quantity and price of products are no longer the key factors for consumption. The products are often beautiful and attractive to occupy it regardless of everything. At this time, the aesthetic experience is not a superfluous decoration, but the powerful emotional power of the audience. Relative to a product, the visual information it conveys includes the form, color, and material of the product, and the product image mainly uses these elements to combine and coordinate the interrelationships. In short, most of the perceptual information transmitted by the product is achieved through the human sensory channels. Although capturing the physical and sensory fields of the human perceptual field is a difficult system to quantify, the perceptual design of the product has many uncertain factors, but at least some exploratory research on perceptual design can be done from the perspective of human senses. Not only should we consider the problem from the visual perception of the product, but also pay attention to the elements of touch, hearing, smell and taste.

To study emotional expression from the spiritual level of products, artistic conception is an excellent way. Because the creation of artistic conception can easily involve the sensory, emotional, and emotional factors of the audience, in short, the user is added to it, the user, the artificial object and the nature are harmoniously integrated, and the comprehensive experience of multiple senses is valued to create Poetic situation, it is often a kind of understanding that is difficult to express in specific language. The artistic conception in product design often does not borrow any "intermediaries" such as plots and scenes to explain a certain function, but purely relies on the fusion of human culture and the technology of the times, and consists of elements such as shape, color, quality, light, graphics and text. The visualization of the entity, which is formed by the use of material materials and production processes, directly implies some unique charms such as ideas, spirit, and atmosphere. Of course, from the conventional point of view, those natural materials and man-made materials are ordinary, non-spiritual substances. Once transformed into artistic forms, the nature will be different, making the materials that are out of the ordinary become a human emotion. And sensual anchorage.

I think many of our homes have artifacts left by grandpa and grandma. These artifacts not only have practical functions, but also reminisce about personal and family history. They are rituals and sacrifices, or they are used to express intimate belonging. For example; we may treasure a vase that originally belonged to the grandmother-not entirely because of the decoration and use of the vase, because to us it seems to be part of the grandmother. But which product we use today will be treasured by our children and grandchildren? To answer this question, we need to understand what exactly makes people want to own the product, even if the product is no longer useful, such as classic cars, 1930s wooden radios, with older antiques and the like, show their added value from the cultural atmosphere and good memories they evoke. The process of recall is also a process involving the sensory, emotional, emotional and other emotional factors of the audience. It can be seen that products that can cause good memories are one of the ways of expressing emotion.

Recall, what kind of people, things, things, and scenery are impressive and unforgettable? In what form does he appear in your memory, memories, and dreams? Sound, touch, breath, taste, image, which form the most profound and clear? Recalling, with the shape of the storyline, good emotional interactive use, friendly human-machine interface, changes in aesthetic form factors, etc. can cause people to positive emotional experience and psychological feelings, Obtain meaningful psychological activities such as kindness, comfort, ease, joy, dignity, calm, security, freedom, energy, and so on. For example: an item of a certain material will remind us of several previous events and become an extension of our impression; some items will cause us to have strong emotions because of the past memory; and some products try to awaken through specific cultural symbols and combinations. We have long-standing cultural memories and ideological identities. These are all ways to express the sensuality of the product through memories.

4. Conclusion

Perceptual research in product design is a complex system, but there is no doubt that the more

perceptual components of a product, the greater the added value of the product, and the more it can meet the psychological needs of consumers. Design is a systematic process. We start from one origin, and there are multiple directions. This process is a behavior activity that is continued by mutual excitation. We create a better way by feeling about life and feelings about everything. a feeling of. This perceptual perception may be superficial, deep, beautiful, or distant. I believe that every adult will remember his childhood, the dreams left to him by childhood, and the original feelings of human beings. We live in a time of passion, and emotion should be as important as rationality, even more important.

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