

Research on the Basic Semantic of Shape Design of Bamboo Lamp

Qiong Lei, Jingshu Gao, Kai Huang, Mohan Guo, Zhongfeng Zhang

Abstract – This paper firstly expounds the concept of shape semantics, combined with the modern bamboo lighting design to analyze the morphologic semantics. The morphologic semantics includes the basic semantics, functional semantics, cultural semantics and the marketing semantics. The basic semantics is the basis of forming the shape design. Through describing the shape semantic, color semantic and material semantic of the morphological basic semantic, we can understand the morphological basic semantic more comprehensively. Thus, it can form the theoretical groundwork for the shape design of bamboo lamp through the shape semantics. This paper made the shape design of bamboo lamp not only limited to the design of appearance, and paid more attention to digging the spiritual and cultural connotation hidden in the shape.

Keywords – Bamboo Lamp, Morphological Basic Semantics, Morphology Design.

I. INTRODUCTION

The original meaning of semantic is the meaning of language, and the semantics is the subject which studies the meaning of language. The conception of language was applied to the form design by the design community, thus produced the term of shape semantics. Product semantics developed on the basis of semiotics, it draws on the concepts and methods in linguistics. Product design generally uses Saussure's semiotics as the basic starting point, and uses the signifier-signified as the theoretical basis. What the product semantics studied is the relationship between modeling and connotation of products[1]. Product semantics takes visual graphics and shape as the main research object, aims to reach a nonverbal communication between someone and something, and suggests the use function of the products through the visual language of the shape, material, color and structure and so on of products, which made people can quickly understand and master the use function of them, and more importantly, conveys the rich cultural connotation through the external morphology clearly. With the improvement of people's living standard and aesthetic vision, people put forward higher requirements for the spiritual function of products. Therefore, the product shape not only expresses the use function, but also need to convey the cultural connotation through semantic, which reflects the value and sense of the times[2]. Product semantics puts the human factor in the first place, and highlights the people-oriented, and increasingly takes people's spirit and psychological factors into account. Product semantics emphasizes the connotation of humanity more besides the practical functions and pays much attention to the effects that the products produced on the spirit and culture of users for the reason that these effects can make products possess the added value which

is beyond the practical functions. The aesthetic and symbolic of products precisely reflects the added value of its [3]. So the shape semantics of bamboo lamp can be designed through all aspects of bamboo lamp, such as morphological basic semantics, functional semantics, cultural semantics, and marketing semantics and so on, which will make the shape of products more diversified to meet the needs of different groups.

II. ANALYSIS ON MORPHOLOGICAL SEMANTICS OF BAMBOO LAMP

Bamboo lamps have been more and more popular on the market, as a main green product. With the development of the market of bamboo lamps, people have put forward higher and higher requirements on the form design of bamboo lamp. People are not only confined to the lighting function and different shapes of the fancy appearance any more, now they pay more attention to the spiritual value and foundation hidden behind the morphology when choosing bamboo lamps. So in the modern market, the design for bamboo lamps could not be simply limited to the diversity of shape, more attention should be paid to digging the deep spiritual connotation hidden behind the morphology. Therefore, in order to design the shape of bamboo lamps by using morphological semantics, we should not only use the shape design method to transform the shape of bamboo lamps, but also dig the deeper morphological semantics through metaphor, symbol, meaning and other rhetorical devices. Put these spiritual connotation into the appearance shape by coding, which will make the bamboo lamp possesses more meaning, and make the market of bamboo lamps get a expansion and grow more[4].

III. "SHAPE, COLOR AND MATERIAL"- THE BASIC SEMANTICS OF MORPHOLOGY

A. Shape Semantics

The external contour, volume and proportion formed the shape of the object. In the long-term practice, people have formed a certain fixed psychological feelings for different shapes. For example, symmetry and rectangle reflect the elegant, bright, solemn and quiet, atmosphere, circle and ellipse display the perfect, inclusive and lively atmosphere. Curve shows warm, cordial, dynamic and free atmosphere. Incomplete, incompleteness and mutation brings the sense of fashion and personality. The shape semantics of products plays a decisive role in morphology semantics. Different shapes will bring different emotional experience and meet the emotional needs of different people. (Fig.1) is a group of bamboo lamps which is

designed in terms of the design requirements by using the bending property of bamboo filament, according to the desired morphology, and adopting the way of artificial bending or heating for processing. This group of bamboo lamps are respectively composed of three bamboo lamps which have different shapes but the same color. The figure shows that the shape of bamboo lamps are different from left to right. The bamboo lamps on the left are in the shape of bottle as a whole which is narrow at the top and wide at the bottom. They form the chic shape of bottle by using the excellent bending property of bamboo filament, closely rounding the bamboo filament into a smaller diameter ring at the top, and using the tension of the bamboo itself to increase the diameter and then using a separate coarse bamboo for reinforcement to limit its shape. The lamp shade has a flow curve, which brings people a comfortable, gentle and free emotional experience. Compared with the first bamboo lamp, the overall shape of the middle bamboo lamps is composed of slashes, which used the nature of regular long-strip shape of the bamboo filament. Place the bamboo filament diagonally, and reinforce the top and bottom with the coarser bamboo. The external of lampshade is composed of oblique bamboo from upper right to lower left, which formed a strong momentum. But the internal of lampshade is made up of slashes from upper left to lower right, which is contrary to the lines of the external of lampshade. It formed a certain contrast which made the overall morphology look more lively. The whole shape makes people feel clear and concise, and it has a strong momentum. The last lamp used the same processing method with the first two, and synthesized the shape of straight and curve of the first two lamp. Its external contour is not as mild and gentle as the first lamp, also not as strong and blunt as the middle lamp. Instead, it adopted a way of neutralization, which made the lamp form a blend of bend and straight and gave people a special emotional experience.



Fig.1. A group of bamboo lamps with different shapes

B. Color Semantics.

Color is the basic element of all modeling which can not be lacked. To a certain extent, the importance of the color is even more than that of the shape and texture. The crafty combination and arrangement for color can form different visual effect. People are always attracted by the color first when observing an object. Color is always the first thing to be perceived by people, and it has a stronger visual impact. Therefore, using the color effectively and

rationally is a crucial factor in completing the morphology form of works. Color morphology refers to the special color composition and related color effect. In addition to aesthetic and decorative, color also has the symbolic meaning and symbolic significance. People can interpret a variety of semantics through the different color morphology, which can bring different emotional experience[5].(Fig.2) is a group of bamboo lamps, the basic shape of them has not changed while the color of them was the only thing changed, which brought different visual experience and aroused different feelings of people. Black bamboo lamp looks deep, low-key and gorgeous. White bamboo lamp seems fresh, pure, light, and rich in a sense of modernity. Yellow bamboo lamp seems warm, simple and nostalgia.



Fig.2. A group of bamboo lamps with different colors

(Fig.3) is a series of bamboo lamps with different colors but the same forms. Through the picture we can see that bamboo lamps with different colors can bring people different visual feelings and emotional experience. For example, white bamboo lamp will bring fresh, cool and quiet psychological feeling due to the color property of white. On the contrary, red bamboo lamp will bring a warm, restlessness and excited emotion experience. Black bamboo lamp seems calm, steady. However, these emotion experience is not absolute. people living in the colorful world, they may produce different association for different colors according to their different life experience. As a result of the socialization, popularization of association and the formation of habits, there exist emotional personality psychology for different colors. All peoples and nations have a unique traditional hobby of their own for color.



Fig.3. Bamboo lamp series with different colors

C. Material Semantics

Material semantics transfer the texture, quality and properties of materials. It brings us the visual and tactile

feeling through the surface characteristics of materials, and make us produce the psychological feeling and association. So it conveys a certain symbolic meaning. For material semantics, in addition to grasping the functional performance of materials, we should pay more attention to the psychological feelings that materials gave to people. Different materials will bring different feelings. Metal looks indifferent and has a sense of science and technology; wood and bamboo property can give people a warm, simple and human feeling due to its property of natural materials, glass gives the feeling of transparent and light, plastic often create a brisk, lively and dynamic feeling. The collocation of different materials can express more abundant content and multi-level aesthetic feeling. For example, smooth touch, rough touch and soft touch all need different materials to express. And the alternating and fusing of different materials can bring different feelings of weight, tone, soft and hard, cold and warm. (Fig.4) is a perfect example of combining bamboo with metal material. The bamboo chips was design to be the same curve. Then put light-emitting diode into bamboo chips, it can meet different needs of users to change the angle of the light through the sliding bamboo, such as reading or pure decoration. The fusion of the two materials can bring strong visual and tactile impact, and it is modern and fashion on the whole. The cultural implication that bamboo contains and the contemporary of metal fused together perfectly. The fresh and elegant bamboo and the hard and bright steel combined together cleverly, hardness with softness, which brings people a new and fresh feeling.



Fig.4. Combination of bamboo and metal—Qu Zhu Lamp

V. CONCLUSION

Lamp is an indispensable daily product. Bamboo lamp is more and more admired and loved by people due to its fresh and elegant appearance and ecological environmental protection. Morphology is the material carrier of product function. Morphological basic semantics is the basis of morphological semantics. The way can paved for the morphological semantics design of bamboo lamp through the research on the morphological basic semantics. I hope this paper can infuse new blood into the shape design of bamboo lamps, and provide the broader idea and theoretical support for the shape design of bamboo lamps.

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