

The Thinking Logic of Space Design based on Semiotics Theory

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Abstract: Modern Chinese society is the era of the pursuit of beauty and spirit, people's pursuit of beauty and taste in life also increase with it, space design is gradually paid attention to, space design is based on the design thinking and image of visual elements selection, conversion, combination and reconstruction of the mailing code process, so that it becomes a specific and understandable space design symbol system. Space design is a typical symbol system, in which people can understand, communicate and reach consensus with each other, resulting in intentional or unintentional social impact. Space design symbol has both aesthetic emotion and artistic expression, graphic construction symbol, symbol transmits information, information breeds life.

Keywords: Semiotics; Space design; value

1. INTRODUCTION

Human society seems to be a world full of symbols, which can be said to be a comprehensive display of the interaction of all kinds of symbols. Since the beginning of human beings, symbols have gradually been widely used in all aspects of life. As a research methodology of aesthetics and text analysis, there are a lot of in-depth studies on symbols and language, politics, literature and communication media, and other related fields. There are many related issues of symbols and design, but there are still few in-depth studies on symbols and space design. Based on semiotic analysis method, this paper interprets the text content of space design from a semiotic perspective, in order to understand the operation of space design codes and the ideology presented by them, hoping to get a new method of thinking and design.

2. BACKGROUND AND SIGNIFICANCE OF THE RESEARCH

When people engage in communication activities, they cannot directly contact the thoughts of others, so they must express meaning through many different symbols to achieve the purpose of communication. For example, before early human writing, pictorial language was known as a tool of communication, and everyday life used symbols such as knots to convey information to each other. Symbols are constructed by the

collective consensus (convention and custom) after many hardships in the process of human development. Symbols include sound, light, form, color, object, image... (any information that human beings may receive) to simulate and represent this group of people's understanding of nature, to simulate and represent this group of people's understanding of thinking and human behavior, and then symbols can be used as a tool to describe the communication between this group of people inside or outside. Since people live in groups (social), are rational and can communicate through symbols, things belonging to people must have a cultural dimension. Therefore, the results of design research from any Angle must be returned to people. Symbols play an important role in conveying, conveying and communicating information.

Semiotics, as the research methodology of aesthetics and text analysis, is generally used in the field of communication studies. Most Chinese scholars discuss the connection and application of symbols. In the analysis of symbols such as discourse, image, text, sound and image, most research directions discuss the arbitrary connection between Signifier and Signified, which has its special cultural significance. The deep cultural implications of the operation of symbols can be interpreted by the ideological theory or the analysis of the implicative effect of myth in the two-layer symbol system. It is worth noting that scholars seldom return to the discussion of the symbol system itself, only focusing on the analysis of the meaning of symbols, but ignoring the discussion of the structure of the symbol system and the relationship between society and culture. The structure of semiotics and the relationship between society and culture can be properly applied to the study of space design so as to enhance the cultural reflection and foundation of space design.

In the pursuit of spiritual life in this century, people for the life of various aesthetic pursuit and taste of the enhancement of the requirements are increasing. The famous architect Hombaude made a perfect interpretation of virtue in his book *Hombaude on Beauty*. Beauty is not a complicated moral problem, but a simple sensual pleasure. To understand beauty starts from understanding the senses. It all depends on the role that this sense plays in life. Space design is closely related to People's Daily life, mainly in order to meet or improve the quality and comfort of people's activities, then space design gradually attaches importance to beauty and taste. In her article *Architecture and User interaction*, Rachael Luck (Luck & McDonnell, 2006) mentioned the four representative elements of architectural design in Medway (2000) as: 1. Functional or structural naming of spatial variables: features of objects that are elements of a

building or spatial asset (floors, brickwork, towers, etc.); 2. Perceptual awakening of space property: perceivable variables (vision, lighting, hearing, etc.) in buildings or Spaces; 3. Phenomenological description of spatial experience: correlation between spatial experience and emotion (density, firmness); 4. Symbolism of spatial application: conjures up ideas of non-structural forms (mystical memory, etc.), of which the part of spatial symbolism is rarely studied. In the display space color expression technique, it will produce the characteristics of the unique space field style, and lead to the difference of various psychological feelings of users, and the semantic difference method can be used to do related research and investigation. In An Su's (An, 1999) *Analysis of Exhibition Space Design*, she mentioned that the art of exhibition space design is the creation of a commercial environment to meet people's physiological and psychological needs on the other hand. It should be a two-way space function that requires publicity and participation of people. The display of the environment entity should be unified with the surrounding environment and atmosphere, showing the personality and unique conception to deepen the impression of the audience; Therefore, an excellent display type should use the suggestion and symbolism of the form to highlight the specific atmosphere of the exhibition. In exhibition design, the human visual effect is the key to the success of design, which is closely related to the recognition of the visual horizon and the visual distance of the display. Although the research on the integration of semiotics and space design is still in its infancy, symbols have become the life source of space design (Li, 2003).

Semiotics, as a methodology, interprets symbols, human and social and cultural contexts in a deeply focused manner, and explores the rules of meaning communication. Human beings use symbols almost every day to think and communicate emotions. As a space designer, we should understand and study various theoretical bases and levels of semiotics, so as to more accurately express the relationship between the expression and the representation, understanding and the understanding between symbols and things. With the help of the changeable thinking of symbols and the simultaneous and diachronic analysis method, the value of space design can be truly realized, and then realize its economic value and commercial value.

3. THE SPACE DESIGN CONFORMS TO THE BASIC CONCEPT OF LABELING

The essence of human civilization evolution is actually a kind of

symbolic behavior. Our spiritual culture and social life are all based on the production, use and exchange of symbols. A sign is something that represents something outside itself. People's understanding of symbol is from the known experience, tangible form of symbol, deduce its unknown hidden invisible meaning. In other words, the problem of meaning is the core proposition of semiotics.

3.1 History of Semiotics

The word Semiotics comes from the Greek root, Seme equals the meaning of Semiotikos, which is the translator of symbols. Semiotics is used to train symbol analysis or study the function of symbol system. The thought and related theory of semiotics appeared in ancient Greece. The term Semiotics was coined by the Western medical scientist Hippocrates (BC.460 -- BC.377), when it was a branch of the study of symptomology. Symptom is actually an indication of a change in the body and a sign of a reaction of a disease. After Hippocrates, Galen, a famous ancient Roman physician and philosopher, wrote a book called Semiotics, or what is known today as semiotics. Plato called qi the phenomenon of one thing being represented by another thing, and this kind of thinking and meaning is universally recognized. Aristotle made a deep study of Semiotics and divided the meaning of the word into three parts. First, the physical part of the symbol itself (the signifier). Second, the referent to which it draws attention. Third, it evokes meaning (meaning). So far, the basic theory of semiotics in the West has been formed. Augustine put forward the general interpretation of semiotics, sign is to add people's phenomena and feelings together to form an intangible thing, and gradually turn it into tangible and touchable things. In other words, symbol is not only the concrete object of material, but also the effect of mental image (Chen, 1988).

3.2 History of Semiotics Applied to Design

In recent years, more and more scholars have devoted themselves to the study of semiotics, which is developed from linguistics and gradually applied to various fields. The study of semiotics regards all forms of expression as a symbol system, in which the form and meaning of symbols are discussed. From the point of view of semiotics, all the cultural phenomena in the world can be regarded as a symbolic system. Observing things is no longer the objective world from the perspective of positivism, but all forms of expression are regarded as symbols. No matter language, writing, or even culture is a combination of symbols, and the meaning of

these symbols depends on the conventions and relationships of the cultural background.

Compared with other research methods, semiotics pays more attention to the analysis of texts. Swiss semiographer Ferdinand de Saussure (1857-1913) distinguishes symbols as signifier and signified. Signifier refers to the phonetic image of a symbol. The signified is the meaning concept of the sign, the two can not be separated, namely the so-called “two sides of one body”. The process of symbol evolution requires the interaction between the genealogical axis and the adjacent axis of symbol transformation to produce meaning. Multimedia producers who understand cognitive psychology can avoid sloppy image design with superficial visual processing. Roland Barthes continued Saussure’s research and applied the semiotic model concept to the analysis of communication arts such as clothing system, photography and music, providing a theoretical analysis method for artistic interpretation.

American philosopher and logician Charles Sanders Peirce (1839-1914) focused on the logical structure of symbols. The symbol is the representative (symbol itself) and the object (object or referent) it represents, as well as the meaning and concept it elicits. The symbol itself must be a formal existence, and it must have a certain referential relation with the object it represents, and such referential relation must be interpreted by a certain interpretation of its concept. Each symbol is always in the trinity of media, object and interpretation. No matter the space symbol or the language symbol, the symbol hierarchy can be found. The symbolic system is subdivided into three components: 1. representament: The representation of symbols; 2. Entity/object: the object referred to by the symbol; 3. interpretant: the meanings that can be understood from symbols, and the symbol system refers to the interaction between the three.

Charles William Morris (1901-1979), a famous American philosopher and logician, divided symbols into the following sections according to the functional meaning of symbols in Basic Theory of Symbols: Syntactics, Semantics and Pragmatics. Morphology studies the mutual formal relations of symbols in the whole system of symbols. Semantics studies the relationship between symbols and their referents. Pragmatics studies the understanding and use of symbols by users of symbols.

Many researchers have different definitions of symbols, which increases the difficulty of Chinese and foreign characters and their translations. In particular, it is difficult to express the differences between Chinese and Western cultures, the meaning of words and meanings, and the ambiguity of the translator’s cognitive nature. Symbol system can be said to be a

complex social system. On the one hand, it is in the collective mass that uses it, and at the same time it is in the continuity of time and space. Because time and space retain the continuity of symbol use, symbols have their stability, identity and compulsion, so it is difficult to change. On the other hand, the haphazard connection between Signifier and Signified, such as the creation of new words for new things or new trends, is often seen in advertising text. Thus signs develop in immutability and variability, and systems of signs not only have stable continuity, but also change under the influence of everything that may loosen the relationship between their Signifier and Signified.

Symbols have special functions, such as classification, symbol, enhancement of cognition, enhancement of thinking and stimulation of mass emotions. They often have direct or indirect, tangible or intangible effects on specific ethnic groups, and even exert great power, which may be positive and beneficial to human society, or negative and harmful to human society. Space design can also be said to be a small society full of symbols. Space design can be said to be a typical symbol system, space design must have aesthetic feeling. The symbol selection and reference of space design content extend to all aspects of cultural experience. These seemingly ubiquitous materials and clues in daily life help us understand the authenticity of human mentality and life. Therefore, when we analyze the symbolic theory of space design, the particularity and characteristics of artistic symbols should also be mentioned. Space design has direct, indirect, visible or invisible surface and deep influence on people around or visitors, which may be beneficial or harmful to social groups, which depends on designers' design, interpretation and application.

4. PRACTICE PATH OF SPACE DESIGN SYMBOLIZATION

If the semiotic idea points are applied to the study of spatial design text, we can say that visual object is signifier, and narrative text of spatial design pattern is its intended visual signifier. In the field of design related research, semiotics theory is used to analyze and interpret the conversion of image or symbol meaning. The salient characteristics of the application of semiotics in space design are as follows. The first visual characteristics: Determine the finished image to achieve the predictive effect of visual characteristics, such as structure and location. Second drive image: Once the user finds the image he wants, then drive the image. The third driving image method description: in order to avoid the user confusion and

inconvenience, we must tell the user to drive the image method in the appropriate place. The evaluation of display design includes the overall display preference cognitive state, such as interest, attractiveness, overall shape design, lighting color, smooth lines, advertising billboards, etc., as well as the display design type, including text size, text and text easy to understand, smooth presentation sequence, interesting, visual effects, sophisticated design (Zheng), rich content.

The space application elements in exhibition planning include two themes. One is the configuration of various exhibition objects in the whole exhibition space. It is an interwoven problem between the object on display and the place on display. The other is a moving line for visitors to visit and move throughout the exhibition space. It is an interwoven problem between people and the exhibition site.

Design involves the creation and display of material and culture, so the designer's knowledge, values and cultural concepts affect the meaning of design communication. From the perspective of culture, design is also a kind of cultural projection activity. The knowledge reserve, life experience and outlook on life of designers have cultural deposits. Through the practice of consumption activities, the spread of transnational popular elements and the cognitive facts between national cultures, the modern design concept appears to be more diversified and complex and has multi-cultural styles. Therefore, space designers should be good at using symbols to improve the image of space design works. Social groups should explore symbols of space works together to gather sense of identity. Designers should use symbols skillfully to improve the effectiveness of their works (Eco, 1980). Design behavior is a two-way communication between designers and consumers, which can only be completed through the realization of common particles of both sides. The research and application of semiotics in design performance should stimulate related issues that are different from intuitive design.

Although image is a symbol that can be understood at a glance, it is the easiest to convey information to achieve the effect of communication, but many space designers have some wrong ideas about image, for example, image can replace text image, so that space design works are easier to be accepted by the public; The image must be obvious and clear; Image design is a pure art. The works designed by space designers based on their own artistic positioning are, to a large extent, difficult to meet people's pursuit of beauty.

A really good visual design must fully consider the needs of product users, as well as the interaction between users and products. Multimedia

producers must understand how images play their function of visual communication design and how people watch, recognize, remember and use images (Qiu, 2001).

Space design should be combined with local spiritual culture and material culture, but also deeply influenced by the symbol system. The author tries to explore the influence of the characteristics of semiotics on space design and meaning transmission, and explains the basic cognition of symbols in space design with the dimension of symbols, cultural background and classification of symbols applied in space design. The pursuit of various possibilities of life in space design contains the meaning and connotation derived from symbolic value.

For example, modernism is the western mainstream society's way of imagining life culture and the choice of democratic life style. Through the spread of multinational corporations and media, this design imagination has become a common choice of other ethnic groups. However, when introducing foreign modern culture, many countries usually adopt a compromise position, and the material culture is allowed, while the national culture is regarded as a unique experience that cannot be copied. Therefore, what they advocate is a spirit of mixing or combining foreign technology with local culture. This study attempts to use Saussure's symbolic two-axis theory, namely the genealogical axis and the adjacent axis, as the design method.

4.1 Theme Description

Theme design -- the visual expression of Changchun Impression, the expression media is set as the folk museum.

4.2 Proceeding Steps

(1) Data collection: Conducted interviews and surveys on the human and geographical environments of different regions of Changchun, without limiting the objects, and recorded the influence of the city and its characters from various angles as initial data.

(2) Establish each genealogical axis: make card records of the collected data, classify the collected data objectively by KJ method, and establish the genealogical axis of Changchun City.

(3) Design execution (adjacent axis operation): According to the set theme concept, the designer chooses symbols in line with the theme concept from the established family tree axis to make a combination, which is called visual representation. Figure 1- Figure 3 Interpretation of works.



Figure 1: The Manchukuo Palace



Figure 2: Guilin Road Pedestrian Street in Changchun



Figure 3: Changchun Jingyuetan Forest Park

Through the application of Saussure's two-axis theory to the design of this theme folk museum, the completed works are as follows. For example, a. Thematic concept: Changchun historical impression. b. Combination of

genealogy axis: text + Manchu Palace + Xinmin Street. c. Analysis of symbols with symbolic meaning: Symbols with the puppet palace as the theme have communication significance and are historical symbols in Changchun area to produce historical and cultural significance. a. The impression of Changchun's eating culture. b. Combination of genealogy axis: Cold noodle + Guilin Road + character. Korean characters. c. Analysis of symbolic meaning: The symbols of cold noodles are used together with the historical silhouette of the Korean nationality to convey the history of snacks. a. Theme concept: Ecological impression of Changchun. b. Combination of family tree axis: Clear moon + South Lake + North Lake. c. Symbolic meaning analysis: Use the unique ecological environment of Changchun -- the clear moon to connect Changchun. The space design operation of Changchun Folk Museum is based on Saussure's two-axis symbol theory, and the following conclusions are drawn:

First, Through the research and discussion of Saussure's semiotic theory, designers have an extra layer of thinking on the operation of symbols, and discuss that symbols have the function of conveying the meaning of symbols. This will further clarify the selection and evaluation of symbols for designers who usually use a large number of images to convey, and improve the efficiency of communication. Second, The combination and design of multiple genealogical axis elements can improve the meaning construction of a single image in the folk museum, thus creating creative spatial effects. This design concept is also applicable to other media. Third, In addition to the symbols used to convey the theme, it is also helpful to add the symbols of the genealogical axis with issues to the operation of genealogical axis. Fourth. In addition to the selection of symbols to convey the concept of the theme, the design of folklore museum also includes other factors such as the designer's presentation skills and design style, which may also affect the interpretation and preferences of visitors. However, this study only explores the issue of symbols, and only puts forward new attempts and thoughts on methods in the whole design performance. As for other design aspects, further research is needed to build more complete knowledge.

5. CONCLUSION

Space design is re-edited by absorbing culture as an element, which is typical and novel, seemingly random and arbitrary transformation. In fact, another meaning indicates that good works still have their own rules. I

believe that the concept and analysis summarized in this paper, if it can be applied to design teaching or practical creation, will help to clarify the direction and exert the power of design in a confused conception. It is also helpful for the cultivation and promotion of creativity. The process of space design is to gradually visualize, symbolize and beautify the creative thinking of designers. It is an organic process of selecting, transforming, combining and recreating design elements according to design thinking and image, so as to form a specific space design symbol system that can be understood and felt. Space design has developed into a professional subject of design, and the symbol as the most basic element. For space designers, the key to winning depends on the feel of the shape. Bauhaus, the earliest source of modern design education, adopts a set of training methods developed according to the changes of different places and times. This method is based on Bauhaus's basic course, including the study of materials and texture. Johannes Itten, the creator of Bauhaus's Modern Basics course, has spoken of the ability to translate the cumulative experience of observation and perception into shape through montage. Ready-made object design and creation is based on the concept of collage and re-editing of objects. The concept established is the transformation of observation and perception of object attributes and symbolic meaning. As Steve Jobs, founder of Apple, said: Creativity is simply the ability to connect something. Creative people have the ability to combine what they have seen, heard and experienced and synthesize it into something new.

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