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APPLIED RESEARCH ON SEMIOTICS IN INDUSTRIAL STYLE INTERIOR DESIGN

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Abstract: As a kind of creative social activities of human beings, designing has the typical symbolic characteristics. The application of semiotics in interior design can make a useful attempt for the practice (practical application of design semiotics). This article breaks through the traditional perspective of the interior design research, abstracts the interior design into the symbol system, and uses semiotics techniques and theories to explore the interior design methods, initially establishes the category of the interior design symbol system.

Keywords: Symbol, Semiotics, Interior design, Modeling, Color, Material

1. Introduction

Although the concept of semiotics had proposed a hundred years ago, the study of it has been accelerated only in recent decades. Since the 1960s, the science of semiotics has been developed rapidly in the West and has been spread quickly to various academic areas [1]. The establishment of modern semiotics was marked by the establishment of the International Association for Semiotic Studies (IASS) in Paris in January 1969 and the academic journal 'Semiotics' was regularly published (*Fig. 1*, [2]). After decades of development, semiotics has merged with many disciplines and formed an interdisciplinary theoretical system [3].

The term semiotics is derived from the root 'seme' in the Greek 'semeiotikos', and 'semeiotikos' means 'the interpreter of the symbol'. Semiotics, as the name suggests, is

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the science and theoretical methods that studies symbols and its using behavior, which examines the nature and characteristics of symbols, the various meanings of symbols, the laws of development and change of symbols, the relationship between the symbols with each other and human activities [4].

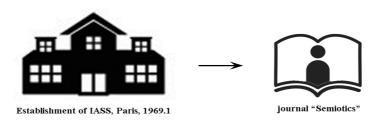


Fig. 1. The establishment of modern semiotics (Draw by Wang Jie)

The study of semiotics has benefited from the major advances made in linguistics, anthropology and phenomenology in the 20th century. The reason why semiotics is widely regarded by all disciplines is that with the development of the trend of the times, it provides people with a new way of thinking, understanding and analyzing problems [5]. Interior design, as an important part of human civilization, is a means used by human beings to express ideas, therefore, it also has the feature of symbols and it is a complete symbolic system [6]. The purpose of this research is to introduce Western modern semiotics theory and analysis method, and studying on symbols of design field, establishes a symbolic system of interior design with its own characteristics to guide the actual design work. Through the interpretation of interior design from the perspective of semiotics, it will not only enable us to view the issue from a new perspective, but also make up for the lack and insufficiency of current theoretical research.

Semiotics research is the key point and hot topics of art research, but most are used in pure art field, with the development of design art in recent decades, gradually applied in the field of architectural design and interior design [7].

2. Industrial style interior design

Industrial style is based on the industrial production and Industrial civilization, contains a large number of industrial symbols and meets contemporary life style and aesthetic needs of the spatial art form. Industrial style interior design, more like a diversified way of thinking, the nostalgic romantic feelings and modern needs of life (that is, humanity) combined with low-key luxury and dynamic style; it reflects the individualized aesthetic viewpoint and cultural taste of the post-industrial era [8].

2.1. The origin and development process of industrial style in design

A hundred years ago, the industrial revolution created an unprecedented civilization of mankind; many industrial buildings that were built at that time have now become

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industrial sites. However, a nostalgic wave of industrial-style decoration has become a trend of fashion, from the birthplace of Europe to the United States and Asia, almost all the major cities in the world can see the industrial-style interior design.

The earliest industrial style originated from the transformation of waste factories, because some old factories were abandoned, and after a simple transformation, became the place where artists creative work and live. Later, the stubborn, cool and somewhat artistic style evolved into an industrial style interior design. However, due to the cold and hard effects of industrial-style, it is not suitable for long-term residence, so in the modern interior design, some other symbols will be used to make it feeling warm and suitable for living.

3. Design symbols in industrial style

Interior design symbols are composed of the modeling, color, materials, these design symbols are the communication media full of information, they are closely related to the designer's intentions and users' concepts, and convey design information to users in different ways. Among them, the modeling symbol is the most dominant aspect, is directly related to the degree of aesthetic and practical, color and material are indispensable components, to a certain extent, to serve the modeling [9]. In the following article the related elaboration will be made on these constituent elements.

3.1. Metal modeling symbols

In industrial style interior design, the metal pipe, iron plate, bolt, elbow, rust iron plate, valves, etc. are always been extracted as design symbols (*Fig. 2*). Decoration and furnishings as a detail of the interior design is the most able to reflect the design style, the display of the structure beauty of the furnishings is also the usual industrial style visual impression [10, pp. 47-56]. Metal racks, double joint water pipes and classic household items, for example sewing machines, typewriters, camera, etc. can become the decorations with a strong sense of times, can also be demonstrated through the 'new things to do with the old' approach, to transform, re-processing the industrial materials through the modern expression techniques to give the furnishings a sense of history and modern fashion.



Fig. 2. Metal modeling symbols in industrial style interior design

Metal pipeline: Steel pipe is the original building structure and facilities in interior, originally, is the symbols that designers try to hide, but in industrial style interior design, it play a very important decorative role, is the important symbols to reflect the

industrial style. Change the messy state of the pipeline, according to some sort of classification, they can be used as a linear symbol in the space composition, embody the beauty of order.

Metal lamp: The industrial-style lamps and lanterns (Fig. 3) are relatively free and unconstrained in the usage of materials, all the available industrial symbols can be easily processed into lamps and lanterns, which are durable, high temperature-resistant, shock-proof, waterproof and dust-proof, maintenance and replacement of light more convenient. Nostalgic industrial-style lamps are used by a combination of different industrial symbols with obvious characteristics of the times and are welcomed by the younger generation nowadays, which is in line with their psychological needs of pursuit of strong personalities. The lamps with obvious industrial features have a metallic texture and distinctive industrial manufacturing features. The metal skeletons and double joint lamps greatly reflect the characteristics of industrial style.



Fig. 3. Metal lamps as design symbols (Designed by Wang Jie, H.J)

Metal ornaments: In the industrial style of interior design, the designer's idea is not only reflected in the basic modeling design, more importantly, in the decoration and furnishings [11]. Industrial-style interior furnishings are inseparable from the industrial symbols, as most of the industrial symbols are steel parts, used in the interior furnishings, cannot help but give people a sense of cold, in order to avoid this feelings, pick some special metal ornaments (Fig. 4), showing a distinctive industrial features, and also well eliminate the monotony of the industrial atmosphere.

Metal custom-made furniture: The metal material as the main structure, together with wood, artificial panel, glass, stone, etc., can be processed into various shapes and styles of metal furniture, that is simple structure, durable and unique furnishings, and with traces of human civilization, is a manifestation of natural and humanistic [12]. Pure metal in the style is too cold, the method of mixing and matching metal with wood can realize both of the warm feeling and the coarse expansion. For example, the big table, bar counter, plant box, some small tables and shelves (Fig. 5) were designed in this

industrial style interior design project, and all of them were custom-made metal and wood furniture.



Fig. 4. Metal ornaments as design symbols (Designed by Wang Jie, H.J)

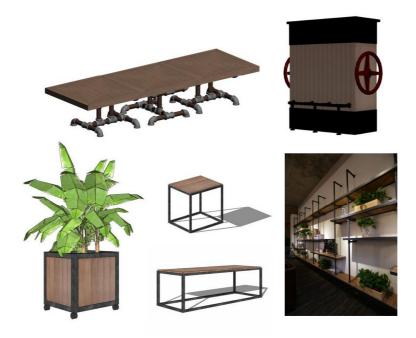


Fig. 5. Metal custom-made furniture as design symbols (Designed by Wang Jie, H.J)

3.2. Color symbols in industrial style

Although the interior design of industrial style is simple in material and color selection, it is necessary to give full consideration to the user's personality and hobby in the choice of colors, in order to meet the needs of different groups of people [13, pp. 101-103].

The first impression that industrial interior style brings to most people is the appearance of cold, because of the brown, ocher, dark, blue, these low tones and deep, neutral, calm colors (*Fig. 6*) are commonly used to highlight the industry features. The design of industrial style does not make the interior space into a factory; reasonable color matching is the key to 'warm' the industrial style.



Fig. 6. Analysis of color symbols in industrial style (Designed by Wang Jie, H.J)

3.3. New material symbols in industrial style

New material symbols in industrial style can be seen in Fig. 7.



Fig. 7. Analysis of material symbols in industrial style (Designed by Wang Jie, H.J)

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- (1) cement: Whether it is the wall, the ceiling or the ground, in industrial-style interior space, cement can serve as a good background, it make people to easily think of the last century of industrial age people's office and public space. As polished cement is durable, easy to clean, construction technology is simple, and the cost is low, coupled with a significant background function, so that cement gradually returns to the application of interior decoration.
- (2) *clay brick*: Red clay brick is the first choice of performance of industrial style, as if people could find the atmosphere of those old buildings exist, easily create a rough industrial feeling, so that the interior presents a kind of old but new-modern visual effects. Of course, the color is not limited to red, it can be brushed white, gray, black, or some other high brightness colors.
- (3) *steel plate*: steel plate texture is also a clear sign of industrial style. The usage of steel plate as a design symbol is common in recent years; this material can bring a strong sense of heavy historical. Many raw materials are waste recycling, from the demolition of the factory. With the development of science and technology, some other materials can follow this texture and then further promote the application of steel plate.
- (4) scrap rusty steel plate: the color and texture of rusty steel plate is an original and simple beauty, the usage of it, is to show precipitation of history and the memory of industrial civilization. The rediscovery and reuse of the aesthetic value of waste materials can be a new way of innovation in interior design, maintaining the feature of waste materials and their special aesthetic, explores them experimentally and presents in another form, give new life to waste materials.
- (5) wood: the usage of log-style wood, and even recycled old wood, gives the impression of vicissitudes from the texture to the color, making the memory of the great industrial age impressively engraved on each plank. Wooden material can make all the space appearance of the same, but they can retain their own characteristics, more industrial atmosphere.
- (6) distressed leather: distressed leather can be combined with a variety of materials to form a diversified style, which fully reflects the interior modernity and fashion feeling. The coordination of distressed leather with the color and texture of other design symbols can increase the sense of age and nostalgia of industrial style interior spaces.

4. Problems need to be paid attention in practical application

Industrial style is the re-thinking of the post-modern design style of the industrial age, the old industrial era has come to an end, and in the field of interior design, the emerging industrial style is unique. Now the interior design of industrial-style sought after by young people, on the one hand, it is in line with the current aesthetic, on the other hand, the rapid development of urbanization throughout the country, making a large number of old houses are facing transformation and demolition issues, which provides a broad platform for the industrial style design.

4.1. Combination industrial style with the connotation of space

Industrial style interior design is unique style, but still cannot be mechanically designed, reasonable absorption of local customs and practices, combined with regional advantages, examine the local culture, to achieve the overall harmony of space and the historical atmosphere of the environment in order to continue and develop this style better [14].

4.2. Avoid to form a cold and boring space atmosphere

Modern design is different from the past to meet the functional needs only, but also to provide a richer and varied spiritual and cultural connotation, need designers to use industrial style modeling and furnishings, combined with warm lighting of various types of lamps to alleviate the cold atmosphere of industrial style.

To sum up (Fig. 8):



Fig. 8. The realized view of the Industrial style interior design (Designed by Wang Jie, H.J)

- (1) The industrial style has some very special design symbols;
- (2) The industrial style has a very strong era feature and the industrial sense, including the various industrial heritage left over from each era;

(3) Industrial style with distinctive features of decorative, interior decoration symbols with an obvious industrial style.

5. Conclusion

Between the design semiotics and interior design to build a bridge, regard the interior design of modeling, color, material and so on as an intuitive and specific symbol, carried out a detailed and in-depth analysis of these design symbols under the guidance of semiotics theory, make it from aesthetic creation to semantic creation in semiotics view, realize the combination of design semiotic theory and interior design practice. Interior design is based on design symbols: modeling: color and material, and is subjected to specific factors as structure, construction rules and technical conditions. In design projects, designers can use different symbols, different expressions, different combinations, permutations, as well as accurate grasp of the usage of modeling, color and materials to create a large number of rich interior design symbols and cultural connotations, to give the user a different visual experience, and to convey the accuracy of the function and meaning of the interior to the user.

Starting from a series of basic problems: the concept, origin and development of industrial style, deeply excavated the main forms of industrial style to make a thorough analysis of it is innovation, by exploring its value, the author designed this project mainly focuses on the applied research of industrial style in interior design. The purpose is to retain some symbols of industrial buildings that can best reflect its own characteristics, the reuse of these industrial symbols retains the people's sense of identity and belonging to the culture, forms a diverse space, enhances the visual recognition of industrial style spaces. Therefore, the proper reuse of industrial symbols is one of the main problems in the process of industrial style design, which helps to retain the characteristics of industrial style, show the soul of industrial style, and reembody the value and functionality of old industrial buildings.

Acknowledgements

This Industrial style interior design has been realized in 2016, and the design work was participated in the competition 'Design for China' that was held by China Artists Association in October 2016, the design work won the first prize, and it was published in a book 'Design for China, The collection of the selected works of the seventh national exhibition of environment art design'. [15].

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