

On the Application of System Engineering in Interior Design

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Abstract. Interior design can fund human's own development and establish a kind of living space and environment suitable for human being. It is the expansion and extension of architectural design and is a very extensive professional. This paper analyzes what is interior design and engineering thought, and further discusses the application of system engineering thought in interior design.

What is Interior Design and Systems Engineering

What is interior design? Interior design mainly includes two aspects: horizontal system and vertical system. As an object of systematic research, the contents, related fields, elements, procedures and links of interior design can be integrated with the system viewpoint and method. Thus the interior design system is formed. In the design process, interior design involves many factors, such as psychology, physiology, materials science, economics, optics, acoustics and behavioral science. In the process of design conception, modification, unearthed, construction and so on, all links should be considered synthetically, that is, longitudinal system [1].

What is the idea of systems engineering? The idea of systems engineering has an organizational function, being able to reconcile a variety of relevant factors, representing a paradigm of "an arrangement in which there is hope for new knowledge in the acquired and foreseeable future". According to the systematization of things, in order to get the best way to deal with the problem, from the point of view of the system, the research object is studied as a system, and the system thought and method combining quantitative and qualitative are used. From the interaction, relation and restriction between the whole and the part, a complex thing is examined synthetically and accurately. System thought tool It can provide a powerful theoretical tool for solving complex things with outstanding characteristics such as integrity, optimization and comprehensiveness.

Application of System Engineering in Interior Design

Connotation of horizontal and Longitudinal Systems in Interior Design. Interior design contains many factors that restrict each other, and it is a comprehensive interdisciplinary subject with many factors. Generally speaking, the horizontal system of interior design emphasizes the correlation of design factors. In the design process, we should pay attention to the interaction and conflict of each factor in the horizontal system, and consider each factor in the horizontal system as a whole. In general, the factors of the horizontal system of the interior design system include not only the building system, the environmental system, the lighting system, but also the structural system, the water supply and drainage system, the fire protection system, the HVAC system and the marking system. Display art system and other factors. In order to make the room The interior design achieves the good design effect, must make each subsystem in the interior design mutually cooperate and the cooperation. In addition, the purpose of interior design is to create living space and environment suitable for survival and promote the development of human beings by coordinating the relations of various horizontal systems and under the restriction of various conditions. In order to solve the problems in the process of realizing the final design scheme, the designer must adapt to the design scheme of Party A. Therefore, in order to realize the whole design scheme, the vertical system in interior design emphasizes the process of the design system. [2]Environmental psychology is generally divided into two aspects. The first is environment, which literally means the environment around where people live. Indoor environment itself has its

limitations, its structure, mode, style all affect our senses. Environmental psychology is generally divided into two aspects. The first is environment, which literally means the environment around where people live. Indoor environment itself has its limitations, its structure, mode, style all affect our senses and behavior. Psychology mainly studies people's emotions, will, cognition, thinking, character, etc. Thus, it can be seen that environmental psychology is a discipline that studies the relationship between environment and human beings. Designers in the design room environment is based on psychological design to design the environment and behavior. Psychology mainly studies people's emotions, will, cognition, thinking, character, etc. Thus, it can be seen that environmental psychology is a discipline that studies the relationship between environment and human beings. Designers in the design room environment is based on psychological design to design the environment.

Application of System Engineering in Interior Design.

Project determination phase. When the designer determines the interior design project, only when Party A trusts the designer, can the designer get the entrustment of Party A, and then the designer can get the bidding for the interior design project. And feel the owner of the letter of attorney and the task of the design, consider the scheme. Therefore, the development of a design begins with the designer's determination of the design project. On the basis of establishing this kind of cooperative relationship, first of all, the design unit should define the scope, content, space requirement and investment quota of the design project, and then it can start the interior design. The completion of any interior design system is a station. On this basis.

Project analysis phase. It is impossible for any interior designer to fully grasp the problems that arise in the type of indoor space. The stage of project analysis is to collect, collate and summarize relevant information, to investigate the contents of the project in depth, and to fully analyze the deficiencies of the space. Thus in the fuzzy and no way to start, so that the design can gradually clear up. At the beginning of a project, the designer has to investigate and analyze the project adequately, collect the project analysis and related information, so that the project design has a clear position. Any person will change in different environments because there are fundamental differences between human psychology and environment. People do not want to be obstructed by foreign things in the field of their own cognition, but the indoor environment is just a kind of independent space for people, which needs to understand the distance, environment, degree of intimacy and behavior characteristics between people. If the relationship between people needs some space, privacy plays a very important role in interior design. It is not difficult to see this in daily life. For example, when students need to live in a dormitory, they usually choose the shop at the end of the room or in the corner. This is determined by people's sleeping habits in their daily lives, without interruptions during rest. In daily life and work rest, most people are indoors, and from a psychological point of view, people have adapted to live and work in this small space. In any open land will look for an object or a place to rely on to survive. Therefore interior design also needs to consider this kind of "backing" to carry on the design, it is necessary to add some furniture which can get the dependable backing in the indoor some open ground.

The conceptual phase of the concept. After a variety of different design information resources have been occupied, the designer has expanded its own thinking from the aspects of space form, popular trend, composition law, artistic style, material composition, building component, decoration method and so on in order to seek the ideal design concept. In fact, the conception of concept is to use the way of graphic thinking, from the aspects of environment, material, function, style and so on, to comprehensively analyze the design project and the social survey data, so as to make an overall artistic image. In addition, in order to improve the feasibility of the conceptual design. The concept concept stage is good, and the coordination and distribution between the indoor designer and the relevant professional will be required. Professional designers of water and drainage lighting systems, heating and air conditioning systems, acoustic systems and electrical control systems discuss and communicate with each other, and continue to deliberate on the design projects.

Design stage. In order to determine the final design plan, the designer needs to revise and

optimize the design plan repeatedly in the process of Party A's communication. In fact, the designer should communicate the formed design concept to Party A synthetically on the basis of clear concept by means of graphics, material materials, words and so on. Only when all kinds of factors are highly unified can the project be concretized. Therefore, designers should pay attention to the interaction of various factors in the interior design system, need to treat the interior design as a system and attach importance to the relationship between them.

Design and construction stage. For designers, an important part of interior design system is the stage of design and construction. How to realize the design plan, we should begin to implement the specific project of interior design. When the construction drawing is completed, we should coordinate with the owner, guide the construction side of the project, handle the decoration, water, wind, electricity, In order to create the best effect in the lowest cost, the coordination of the terminal equipment pipeline, such as audio equipment, must deal with the conflicts and contradictions of the relevant units before the construction can be carried out. In the process of interior design, designers should consider people's psychological feelings, which is a development trend after interior design. The eye is the first organ of environmental contact. The brain is the main body when responding to the environment. It can be said that the quality and comfort of the environment are judged by the sensory organ and the brain together. Therefore, interior designers should combine sensory organs and psychology with cognitive environment, which not only improves the theoretical concept of design, but also is more persuasive than the first design drawing. Environmental psychology is a kind of reaction subject of people's cognition of external environment, and it is also a kind of personal environmental requirement of its users. Response measures can be understood as a way for designers to understand when creating an environment for a user, but it can also be used to guide the user so that it can experience the ideal environment. So in the design to grasp the psychological flexibility is essential for interior design.

Design optimization stage. In the concrete construction process, any indoor project will have problems. Therefore, in order to continuously improve and create a more ideal indoor environment, a responsible designer should pay attention to the problems that arise. And take the corresponding measures actively, as the project goes on, put forward the best way and method of improvement. At the same time, to constantly update their ideas, without exceeding the budget, design drawings, design scheme changes, and further optimize the design phase. Human psychology and using function are the main basis of interior design. Only in this way can the comfort of indoor environment be reflected. In interior design, the quality of function determines the success of the project, so the interior design should meet the needs of material function and spiritual function to regulate the individual senses. People's demand for material function is not only a physical need but also a physical need. Everyone wants to have a good indoor environment so that they can work and live better. Interior design is based on various shapes. From a psychological point of view, people like regular form and shape, so designers can not design with excessive exaggeration. The concept of design should accord with the changes of human psychology, and different designs have different effects on human psychology.

Post-configuration phase. In fact, the key to interior design lies in the furnishing arrangement in the late stage, and is not the decoration of the interface, in that the furniture, the decoration, the lamps, the furnishings and the greening are different. Due to the influence of the design concept of the "Light decoration, middle decoration", the difference between the nature, function and environment of your sister's space is that the furnishings are different. Therefore, the important link in interior design is how to properly configure the matching of the furnishings, the decoration, the lamps and the green furniture[3].

Summary

In order to make up for the deficiency of the designer, the design scheme should be verified and followed up after all the designs have been completed. Will measure the owner's opinion and satisfaction, the determination user environment suitability, the optimization design, increases and accumulates the design project specialized knowledge and the experience.

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