

The development trend and optimization of interior design

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Abstract. [Purpose/Significance] Since the development of domestic commercial housing, interior space design has slowly exposed many problems and hidden dangers, and more and more people are aware of the importance of interior space design. [Methodology/Process] By analyzing the many hidden dangers that the occupants of interior design may face in the context of the new era, this paper proposes that interior design in the new environment should reasonably layout space, optimize interior space design, and improve the living environment as the new development direction of interior design nowadays. [Conclusion] This paper mainly puts forward rationalized suggestions for interior space layout, function allocation, humanized design and other issues. This paper will not only separate the interior space more reasonably, but also redefine the layout of interior space, which is more in line with the necessary conditions for modern people's daily life. With the rapid development of today's economy, China's construction industry has been developing comprehensively and rapidly, and people are paying more and more attention to the living environment. In the process of modern interior design, people's lifestyles have also changed dramatically. People's quality of life has improved significantly, and they are paying more attention to interior design as they are putting forward higher-level requirements for residential comfort and functionality. People realize that indoor living space is not only to meet the needs of human living, but also to reasonably plan the indoor space, optimize the design of indoor space, effectively improve the living environment, and to reflect the humane living environment. The practicality, reasonableness and comfort design of space layout is what we need to pay close attention to.

Keywords: Architectural space; Interior space layout; Optimal design; Humanized design.

1. The interior layout design of traditional residential buildings

In traditional residential space, whether in the layout of indoor space or in the functional use, designers pay more attention to the practical function [1]. In traditional residential design, designers tend to focus on the decoration of walls, floors and ceilings. In this case, the function of the interior space is not fully utilized, and it cannot meet people's needs for interior space layout. With the development of society, people's lifestyle has changed, and the shortcomings of traditional residential space design have slowly emerged, most of the residential space design generally lacks the extreme rationalization of space and reasonable consideration of comfort. The shortcomings of traditional residential architecture are mainly manifested in the following aspects.

1.1 House type problem

In the traditional residential space design, some developers increase the depth of the house type in order to sell more area, and the whole house type is slender house type, which is not conducive to the ventilation of the whole house, and the air flow of the room becomes poor. Traditional residential space layout design, the division of space is relatively single. Some residential bathrooms do not have windows, and the exhaust gas after bathing and toileting in the confined space all have to be pumped and discharged by the exhaust fan, and the ventilation is shared between upstairs and downstairs, so that bacteria can breed, spread and spread in the ventilation, making the safety index of people living indoors drop.

1.2 Lack of necessary disinfection facilities at the entrance of the house

The entrance is the first point of entry, and the traditional function of the entrance is to store clothes. The traditional interior layout design can no longer meet people's demand for efficient use of space

functions. The safety of the residential environment is a common concern of the public. As people home time, in addition to normal living life, people's demand for living environment is getting higher and higher; when they return home, they should do some necessary disinfection measures, such as clothing change, disinfection, etc. These need to be done before entering the living space, and this time the entryway plays a big role. The much-needed function of the entrance is short of the traditional residential space design, which also makes the indoor space not get the security and health protection.

1.3 Not paying attention to indoor cultural taste and unreasonable aesthetic pursuit

In the process of interior design, some designers do not pay attention to the cultural taste of the interior, the application of decorative materials is not standardized, the color and form of the decorated position do not pay attention to the harmony between human and nature, and the concept of humanized design is not cleverly integrated into the architectural interior design, resulting in the design of the interior does not have a high cultural connotation, and cannot meet the objective needs of people for interior design in many aspects in real time. For example, the excessive pursuit of gorgeous lighting, the installation of many large chandeliers in the room, and the improper use of reflective shades and frosted light bulbs, inadvertently increase the consumption of indoor resources and easily make people feel depressed.

1.4 Ignore functional and humanized design, do not pay attention to interior design innovation

In the design process, some designers ignore the functional design of the interior, do not fully consider the objective needs of the occupants in the interior, overemphasize the aesthetics of the interior, the functional design is not in place, and cannot objectively present the value of the diversity of the interior, resulting in the overall effect of the interior design is not high. In this process, humanized design has become the key point of interior design in the new era. However, some designers do not integrate the concept of humanized design into the specific design, do not adhere to the principle of humanization, and do not reasonably design interior lighting and decorations from the psychological, physiological and emotional needs of the occupants, which cannot meet the objective needs of people in various aspects such as health and environmental protection, resulting in poor interior design.

2. Based on the new era background of the interior layout design key points

The problems exposed by the traditional interior layout during the new epidemic should be of great concern to people. The interior as the main place for people to live up. It makes people's requirements for interior space layout higher and higher, especially the demand for the rationality, functionality and comfort of space layout is especially needed. In the study, it is found that the current interior space layout lacks reasonable consideration of space in the process of use. In indoor space design, people should reflect on the needs of the indoor environment, or the needs of the whole city design, optimize the layout of interior design, from the entry to the entrance to kill cleaning, isolation suite, safe drainage, healthy fresh air and so on everything, planning ahead, re-planning space design. From the perspective of health, safety and comfort, we will make rationalization suggestions.

2.1 Optimize the design of household type

Through a large number of surveys, the interior design of the household design disadvantages. This requires that we should start from the experience of improving the comfort and health of the residents in the house type design, so as to achieve north-south ventilation, abundant sunlight, no dark room and air circulation; at the same time, we need to configure an independent entrance hall in the house to meet the needs of living. In the design of indoor space, the living room area can be increased, and the through-hall design can also be chosen to meet the needs of the occupants in various scenes as far as possible; try to equip two bathrooms or design the bedroom to include a bathroom suite, and

the double bathroom design is firstly to avoid the cross-use of the occupants, and at the same time, it can meet the needs of the occupants in their daily life.

2.2 Entryway measures

The entrance is a transition area connecting indoor and outdoor, and it is a key place to isolate and remove viruses attached to people or things. The function of the entrance becomes an important space to disinfect and wash hands, and isolate bacteria and viruses from family members. On this basis, we can learn from the concept of "semi-polluted area" of the hospital, and we should consider whether we can set up a series of cleaning measures such as hand washing station and washing machine in the entryway position, which can provide hand cleaning, clothing washing, garbage transfer, disinfection, living environment, etc. in addition to the regular function of changing shoes and storing things in the entryway. In addition to the regular functions of shoe changing and storage, it also provides functions such as hand cleaning, clothes washing, garbage transfer, disinfection, and living environment beautification. In this way, there is an independent isolation space before entering the house, which makes the interior safer and healthier. Changing the traditional design layout of the entrance not only reduces the waste of natural resources, but also effectively uses the functional space, redefines the original space function, gives it new functional attributes, and combines it into a new format of future indoor space layout.

2.3 Ventilation prevention and control measures

Good indoor ventilation is what is needed for commercial houses at present. Optimize the building space and plan layout to improve the ventilation effect, which requires a reasonable architectural layout in the residential design. It can also be designed, for example, to enhance the ventilation effect or provide efficient filters and ultraviolet sterilization devices. In addition, we should use devices with independent ventilation systems, and local air purification in each area as much as possible; distinguish the orientation of rooms, subdivide heating and air conditioning areas, and control the system in zones.

2.4 Humanized residential equipment configuration and piping layout

People in China generally recognize the importance of home environment. In the selection of the desired residence is no longer limited to the location, orientation, area and other aspects, the function of the residence will also be taken into account. This requires more high-frequency zero-touch designs, such as face recognition systems and inductive switches. Separate switches for each room and separate ductwork. Duct layout as far as possible from the distance of the exhaust fan to set the air inlet; in addition. In addition, avoid the back-up of harmful substances in the drainage system due to the lack of hygiene, which will pollute the indoor environment.

3. Conclusion and reflection

In conclusion, in the design process, designers should take the problem as the basis, adhere to the principles of modern design, according to the specific requirements of interior design, take feasible means to carry out interior design work at a high level to ensure that interior design is more scientific and reasonable, truly implement the concept of interior design in the new era, and constantly promote the healthy and stable development of the construction industry in the new era and accelerate the pace of social and economic development. The design should not only focus on strengthening the practicality of the residence, but also increase the research on the emergency use mechanism of the residence, so that the residence can play a greater role in responding to emergencies.

In the new situation, interior humanized design has become an inevitable trend, and is also an objective refraction of the connotation of modern building construction. In the design process, designers should also attach great importance to humanized design, integrating the concept of human-centered design into the interior design, so that the interior of the building has distinct human

characteristics. In the design process, designers should integrate humanistic elements into the layout of interior space, adhere to a series of principles such as economy and practicality, and scientifically lay out the interior space from the perspective of aesthetics, so as to maximize the application of interior space while objectively presenting humanistic features and meeting the objective aesthetic needs of occupants at all levels in real time. Designers should integrate humanistic elements into the interior color scheme, objectively grasp all aspects of building functions, including specific features, and reasonably match interior colors with the psychological and physiological objective needs of occupants at all levels. Designers should also pay attention to the integration of humane elements in material selection, where the materials used meet the preferences of the occupants, do not emit harmful gases in the process of application, and can be recycled, which has the characteristics of saving and environmental protection.

The process of social development is a "magnifying glass" that exposes the shortcomings of interior design, but at the same time is a "catalyst" for optimizing interior design, bringing a huge impact on people's habits and concepts. Residential space is an important place for modern people to work, study, and live, a shelter from the wind, and a place for us to relax physically and mentally. From the perspective of space design, from the perspective of self-protection, we should design a green and healthy living environment, reasonably separate indoor space, achieve harmony between human and architecture, human and nature, and build a green line of defense for human physical and mental health.

The city is entering a new era of great health, and residential design will also be redefined to further create healthy and intelligent habitats to meet people's needs for better living conditions. We believe that people will reflect deeply on the needs of interior environment and space layout, balancing the needs of both. What we should think about is what is wrong with the current interior design. We should strive to make design not only for the present but also for the future.

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