

Thinking about the Design of Commercial Industry Space Facilities under the Background of Epidemic Situation

Lili Wang*

Hengyang Normal University, Hengyang China

*Corresponding Author.

Abstract

Objects: Based on the changes of people's life, work and social mode during the epidemic, it also brings a series of problems and thoughts to our interior designers in the interior space design, especially in the public commercial industry space. Methods: the design of commercial space should pay more attention to the space functions such as ventilation quality, light environment, convenient human flow, rapid evacuation and other space functions, as well as relevant indoor space and facilities. Results: when we design commercial space, we should pay more attention to the detailed design of space identification guidance, space furnishing arrangement, spatial light environment and space air quality. Inclusion: let the interior space facilities design of commercial space not only stay in the form of simple interface, but also return to the essence of commercial space, and continue the whole process service between building space and business space environment.

Keywords: Epidemic situation, business, industry, space, facilities

I. Introduction

In the context of commercialization and rapid consumption, people have adapted to various peculiar and dazzling architectural forms and various highly integrated public commercial spaces. With the acceleration of people's life rhythm and the improvement of the quality of living space, on the one hand, it is the individualization and privacy of community living space, on the other hand, it is the comprehensive and intensive public commercial space. Even if they entertain relatives and friends, people also choose to eat outside or have entertainment activities outside the family. People's life style gradually forms a private family life, social activities of public mode. However, the emergence of the epidemic has made this mode of space use greatly challenged. The crowd gathering in public places has caused difficulties in personnel management. However, due to the commercial consumption stop caused by the outbreak, a large number of space is idle, and the peculiar space form has become the most important thing for people, the security and privacy of public commercial space have become the consideration of people in their choice.

Therefore, the pursuit of formal and visual changes and unique commercial space design will no longer be the first consideration. When designing commercial space, the interior designers focus on thinking mode of "clear function", "safe use", "green environmental protection", and focus on the ventilation quality, light environment, convenient flow of people in the interior space. In the space functions such as rapid evacuation, we should pay more attention to the detailed design of space sign guidance, space furnishing arrangement, space light environment and space air quality when we design commercial space, so that the interior design of commercial space is no longer merely a formal feeling of simple interface, and return to the essence of commercial space. The whole process service between the architectural space and the commercial space environment is continued.

Based on the changes in people's life, work and social mode during the epidemic, we also bring a series of thinking to our interior designers in the design of interior space, especially in public commercial space

II. Rethinking the Scale of Commercial Space

Affected by the epidemic, people's work, shopping, life, exercise and social ways and places have changed dramatically. And how will the epidemic affect the development of modern and future commercial space? During

the epidemic, how can various business environments continue to exert their important influence on people's consumption and life in the past? As interior designers, what should we consider first when designing commercial space? The author thinks that the first step is to create a safe and clean environment. With the psychological change of social distance, the first consideration is the scale of space. The scale consideration should be considered in two aspects:

One is the long-term nature of space scale, that is, when we usually consider commercial space design, the general period of commercial space decoration is three to five years, that is, to ensure the normal use of form and function within this period, so this scale is designed and considered according to the conventional human engineering scale. For example, the size of some conventional home and facilities, and the distance between public spaces, etc.

Second, the transitional scale or temporary scale during the epidemic period, during the epidemic period or even after the epidemic, people's social scale will become different from the usual one, and the personal distance between physiology and psychology will be emphasized. The physiological scale shall be considered from the health and safety perspective, and the change of psychological scale shall be considered from the change of people's communication relationship. For example, some shopping malls, shopping centers or shops' entrance, cashier or service center, etc., these people are highly crowded, and special scale is needed in the special period of the epidemic. The shopping experience of customers will change with the severity of the epidemic. In the short term, how to deal with the social safety distance measures of 1.5m will affect the shopping experience of customers.

The application of temporary building form during the epidemic period -- the construction of container Hospital of Huoshen mountain and leishenshan hospital in China. Other countries have also built temporary epidemic prevention ward and temporary tent room to cope with the epidemic. The temporary building forms are exposed to the public view. How can these product forms be combined with our interior design? Can interior designers design and develop convenient home and facilities suitable for such temporary transitional space and build efficient and practical temporary indoor space form? In the future, this can become a new research topic and development direction.

III. The Design and Setting of Public Facilities in Commercial Space

After the outbreak, people have reconsidered their social ways and public space safety and health issues. In commercial space, customers prefer to choose shopping environment with automatic doors, convenient hand washing pools and other facilities. The commercial space environment needs to be in its convenience facilities more strict and frequent cleaning and disinfection measures shall be taken in rest areas of public areas and other areas that need to be open to the public for a long time. Free cleaning and disinfection articles shall also be added to public areas, especially toilets. For the space and facility design of commercial environment, the following aspects can be considered:

3.1 Main entrance to commercial space

First, the main entrance of commercial space of public buildings should be designed with double-layer portal area, which separates the main entrance of human flow from fire fighting entrance, so as to facilitate the personnel guidance in daily and emergency situations; Secondly, the main pedestrian passage should avoid the straight-line connection type of opening mode, and prevent the smooth access of the air and harmful gas; It is convenient for people to stop and turn around, facilitate the congestion of large numbers of people entering, and facilitate the detection of service personnel in emergency period; Thirdly, the main personnel access should design automatic door system as far as possible to prevent cross infection caused by a large number of people touching; Under the condition of conditions, electronic infrared scanning and intelligent monitoring system can be added to facilitate the personnel monitoring in emergency state. The first barrier for indoor and outdoor safety protection of buildings shall be fully done.

3.2 Public elevator

There are two kinds of public elevators in commercial space, one is hand elevator and the other is vertical elevator. The handrail material of the escalator and the vertical elevator room shall be made of materials with poor adsorption and easy to clean, such as metal plate, glass, composite decorative panel, etc., to prevent the adsorption of dust or harmful substances; If the space conditions inside the building allow, the space plane scale can be increased appropriately, which is convenient for the waiting and gathering of a large number of people and vertical flow of personnel; Necessary cleaning and disinfection facilities and equipment shall be set up in the elevator entrance and exit or elevator room to improve the humanized service function and public safety; In the case of multiple elevators set in high-rise commercial buildings, it is suggested to adopt layered and segmented control to avoid the cross use of a large number of personnel, so as to facilitate the emergency management in the later period.

3.3 Public toilet

The design of public toilets in commercial space is the key point. First, it is suggested to adopt the non-door layout of main entrance in space design to reduce the cross contact between the entrances and the visitors; Secondly, the space layout should be separated from the dry and wet, and the toilet for disabled persons and the storage room for cleaning tools should be equipped. If the space conditions permit, the family toilet can be equipped to make the functional areas of the toilet reasonable, reduce the intersection and mixing of various personnel, and ensure the ventilation in the room is smooth; Third, the toilet for men and women should be reasonably set up with hand washing area, mop pool and toilet area, and the traffic passage should be set with appropriate waiting distance scale; Fourth, toilet equipment and facilities should be equipped with complete, dry and wet classification garbage bins, hand paper boxes, dryers, storage platforms, convenient for toilet personnel to use.

3.4 Business space oriented logo

Many commercial space logo design is often separated from space design, which leads to the lack of obvious indoor space guidance and unclear moving line of people. In the special commercial space environment of indoor space, the reservation of main sign positions in main space, channel and node should be taken into account, and the modeling effect and formal aesthetic feeling cannot be excessively pursued, while the convenience and safety of space use are ignored; The logo design in commercial space usually provides key directional information for people in daily or emergency situations to the greatest extent. The clear and conspicuous logo design and location placement will bring the user the greatest convenience; the carrier and placement position of logo design should be clear and clear. Besides the necessary sign guidance or corporate culture characteristics, there are no need for too many decorative elements. The display of logo and the collocation of spatial design form can complement each other to form the effect of prompt guidance.

3.5 Air quality in indoor space

In commercial space, because of being in relatively closed environment, ventilation facilities in indoor space are often the most decisive factors of space environment quality. The design of the position and form of ventilation in space is often a key point for designers to consider when designing the top surface of commercial space, but designers often have decorative effects of surface form. It is possible to interfere with the indoor ventilation effect and not meet the environmental quality requirements. After the epidemic situation is over, more attention should be paid to the design of indoor ventilation system, and the generation of such problems should be avoided as far as possible. For example, the use of decorative materials for the shelter treatment of air outlets, and the use of a large number of decorative air outlets for beautiful appearance may cause the possibility of poor ventilation effect or accumulation of harmful substances.

IV. Conclusion

The outbreak of the epidemic has changed people's life and social style. People spend at least three quarters of their time indoors every day. Many challenging problems are put forward to interior designers. In order to do interior design, especially for the interior design of public commercial space, the coexistence of safety, efficiency and communication between the spaces should be fully considered. This paper tries to create a more safe and humanized sustainable business space environment in this challenge from the angle of interior space design and facility setting, and provides some reference value for interior designers in the future in the design of commercial space.

References

- [1] L.F. Yi "The research on urban commercial space design under the influence of Internet economy," Shenyang Normal University, 2020.
- [2] Z. Wang, "Analysis of the influence of light on commercial space," China residential facilities, no.4, pp. 81-82, 2020.
- [3] J.P. Shi, "The application of public art in urban commercial space," Art education, no. 3, pp. 211-214, 2020.
- [4] J. Xue, T.H. Sun, "Analysis of the design of signage guidance system in the multi perspective of commercial space - Taking impression city of Jinan as an example," Design, vol. 33, no. 5, pp. 158-160, 2020.
- [5] M.C. Xu, Z.J. Wu, "Iteration and design research of complex commercial complex," Journal of fine arts, no. 2, pp. 102-107, 2020.
- [6] T. Mao, F. Luo, "Application Research on green and low carbon concept in interior design," Jushe, no. 7, pp. 31-32, 2021.
- [7] H.M. Xie, "Application Research based on green and low carbon concept in interior design," Private Science and Technology, no. 10, pp. 172, 2015.
- [8] M.W. Fan, "The analysis of interior design principles under the concept of low carbon economy," Journal of Changchun University, no. 3, pp. 99-101, 2011.
- [9] X.H. Xiao, "Application strategy of green environmental protection materials in interior decoration design, Material protection, no. 1, pp. 225-226, 2021.
- [10] B.Y. Ma, "Based on the analysis of the influence of the interior decoration design and the design style," Modern Property, no. 9, 2018.
- [11] F. Gong, H.W. Yang, C. Yi, "Business model research of shared office space based on sharing economy," Market Modernization, no. 01, pp. 247-248, 2017.
- [12] Z.W. Yang, "Discussion on lighting design of large shopping malls," Jushe, no. 36, pp. 101-103, 2018.
- [13] P.P. Jiao, "Experimental study on the selection of the best lighting source in the interior space of low-rise public buildings in Zhengzhou City," Science and Technology Bulletin, vol. 34, no. 12, pp. 227-230, 2018.