

## Research on Design Concept of Indoor Green Epidemic Prevention Based on Prevention and Control Policy

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**Absrtact:** as a kind of design idea, green design has been playing an important role in interior design, but since the global spread of the new crown virus overnight in 2020, people have finally paid a heavy price for the willfulness of the earth before. It cost thousands of lives. In this battle without smoke test human nature, but also test the resilience of human resistance to the epidemic, the concept of epidemic prevention and green design concept, gradually with the requirements of the environment, began to introduce into the interior reality, which provides a new development point for interior designers and opens up a new creative field. This paper first analyzes the principles of green epidemic prevention design in interior design, and then discusses the application of green epidemic prevention design in interior design. Finally, the development trend of green epidemic prevention design in interior design is predicted based on the current situation, which provides the basis and guarantee for the application of green epidemic prevention design in interior design.

The sudden, violent and stubborn arrival of the 2020 virus indicates that the situation in the fight against human and disease is grim and long-term and will be accompanied by the history of human existence. Therefore, from the long-term point of view, human beings should seek to improve the earth's environment, from the immediate point of view, there is a comprehensive and serious thinking on all living environments, food hygiene, environmental hygiene, improve their own immunity has attracted much attention. From the outbreak, spread and control of the global epidemic, people's awareness of epidemic prevention and environmental protection is stronger than any other era, for the safety of their own lives and to create a healthy and environmentally friendly living environment has become one of the common concerns. Therefore, the establishment of a green epidemic prevention design concept and the construction of a safe indoor environment have become a common problem for interior designers and the public.

### 1. Introduction

Any virus that survives, thrives in an animal, or in a damp, dark, warm corner, is hard to survive for long in air and sunny spaces. Therefore, the main countermeasure of building and its interior design for the "new crown"<sup>[1]</sup> virus is to maximize the sunlight and ventilation in the indoor space. The interior design should expand the lighting surface and set up sufficient ventilation within the scope of the building structure permission. The spread of the epidemic, confirmed by scientists, viruses can be airborne through people, as well as various objects, so it is particularly important to reduce the use of space objects and resources, providing a spacious, circulating space. In the interior design, all materials and materials are used to the maximum extent in order to reduce the indoor volume, concise decoration form, pursue the most essential function and structure form, reduce consumption, reduce cost, reduce the damage and pollution to the environment caused by dust, noise, exhaust gas and waste water in construction, do not overdecorate, do not engage in pathological space, reduce visual pollution, which will reduce the transmission speed and range of

the virus. In addition, the demolition of old buildings will inevitably bring garbage, noise, waste of manpower and material resources, and also lead to air pollution. Compared with the reconstruction and utilization of the indoor space of the new building, it will reduce the consumption of resources and energy, improve the utilization rate of space, and benefit the protection of the environment. It is the primary principle advocated by the green epidemic prevention design.

People live, work indoor space, usually easy to clean, when the epidemic situation is easy to disinfect is very important, in this anti-epidemic indoor cleaning, disinfection work, people are deeply aware of the following problems: large areas of complex line decoration and carving easy to hide dirt, is germs, viruses shelter. It is very difficult to clean the corner of the trench in these places, and it is difficult to keep the surface clean and disinfected. That's itThe interior design is expected to end from the beginning, such as the installation of automatic disinfection spraying devices at home gates. At present, these intelligent equipment are installed in factories and enterprises with a large number of people. After all, the high cost of some disinfection equipment is not available to ordinary people. This shows. The use of intelligent disinfection equipment is bound to be the future trend of interior design development.

## **2. Problems of Green Epidemic Prevention Design**

### **2.1. Interior decoration materials not "green"<sup>[2]</sup>**

For chemical pollution, in fact, in decoration and decoration, because most of the materials used are chemical materials, and these materials have certain toxicity, which is a serious threat to human health. Many toxic materials can volatilize in the air and spread. And there are some building materials in peacetime no problem, but if encountered high temperature or low temperature, there will be chemical reactions, resulting in air pollution. In many existing green interior design processes, only do surface work, create "aseptic room ", " sunshine room ", " intelligent room ", using green and epidemic prevention concept as the selling point, and do not really green from all aspects of the whole design, such as the use of free formaldehyde materials in the selection of artificial plates. This type of material is not very different from other materials in appearance, but it contains a large number of chemical components will cause great harm to human body and endanger human health. The use of this material not only reduces the environmental health index of the whole indoor environment, but also greatly reduces the safety performance of the indoor living environment.

### **2.2. Inadequate resource recovery**

In the process of interior design, some residual conditions of design materials are often produced. In the current interior design, designers tend to ignore this point and do not do a good job of recycling design for some available resources. As a result, resources do not play the maximum utilization rate. For example, many times in the interior design construction process will produce the plate and so on material balance situation, the designer may use these remaining decoration materials, carries on the innovation design, turns the waste into the treasure, designs some decorative objects which can be supported by this kind of material, as the interior decoration material, this can not only increase the utilization rate of the material, but also reduce the pollution to the natural environment caused by the abandonment of the remaining material, and achieve the effect of energy saving.

### **2.3. Excessive emphasis on decoration and neglect of design connotation**

The global epidemic in 2020 allows people to stay indoors for most of the time, longer than in any era, so interior design directly affects people's psychological needs. Some interior designers pursue the decoration of interior environment one-sidedly, but ignore the essential requirement of

interior design. The primary purpose of interior environment design is to create a comfortable and healthy living environment suitable for one's own residence. However, a small number of interior designers blindly pursue the beauty of interior design, but ignore this fundamental demand of people. In the process of design, the influence of design materials and design patterns on people is not fully taken into account.

#### **2.4. Inadequate technical and economic considerations**

The interior design of green epidemic prevention is not only based on design to complete the whole project, but also needs to be combined with economy, technology, management and people's psychological needs to look at this process in all directions. As a green epidemic prevention design, not only green environmental protection on materials is enough, but also green construction means should be implemented to maximize environmental benefits, avoid extravagance and waste, and do a good job in all aspects of management during the implementation of the whole design.

### **3. Green Epidemic Prevention Design Concept**

#### **3.1. People-based**

The so-called interior design is to design the living environment of people. For people, indoor environment is an important factor affecting their physical and mental health and living standard, and people can actively transform their living environment. Especially in the epidemic period, people's psychological needs are more important. It can be seen that the most fundamental demand point of indoor environment design lies in the users of indoor environment. In order to have a harmonious indoor environment and make people live comfortably, we need to study people's physiological characteristics. So that people can stay indoors safely for a long time. As the primary task of interior design, it is to ensure people's physical and mental health and life safety. Human physiological characteristics determine the layout elements of indoor space, such as furniture layout, space size and so on. Therefore, as an interior designer, it is necessary to understand ergonomics, combine people's physiological characteristics with spatial design, and determine the specific materials and related values of each decorative material in interior design through scientific analysis and judgment.

#### **3.2. Space design**

Because each indoor space has different characteristics, therefore, interior designers need to choose green materials according to different space forms, and reasonably configure the indoor space. It is the beauty of interior design and the utilization of resources can achieve a win-win situation. Create a natural, fresh indoor environment. In the process of design, designers should create an environment that combines nature with indoor space according to the characteristics of the whole space and the changes that the design will bring to the space, and make rational use of natural conditions such as light and wind. In addition, the design of indoor space also needs to pay attention to functional requirements. For example, the height of the door should be designed according to the height of the male, and the height of each floor of the staircase should be designed according to the average height of the female. For the different uses of each space also need to make a difference, such as living room, kitchen, bathroom and so on, all need to be designed according to people's different demand points, while ensuring the full use of natural resources to meet the requirements of indoor functionality.

#### **3.3. Resource savings**

The interior design of "green epidemic prevention" <sup>[3]</sup> can be seen from the appellation as a new design concept that saves energy, environmental protection, ecology and safety of interior design.

According to the principle of "green ", it is necessary to make effective use of resources to achieve green interior design. To maximize the use of indoor materials, refuse extravagance and waste, reduce costs and reduce consumption. To achieve this, first of all, people need to change the traditional aesthetic concept, no longer excessive pursuit of luxury, but advocate the simplicity of interior design. Secondly, designers need to choose when selecting materials for interior design. From the point of view of practicability, we should think more about the method of making full use of materials, avoid the use of excessive decorative materials, and at the same time, Minimize the use of non-renewable energy. Finally, adhere to the principle of recycling, strive to achieve indoor function demolition work, part of the energy can be reused, which can not only effectively reduce the economic investment of some ornaments in the decoration process, but also help to protect the environment. Reduce environmental pollution caused by discarded waste materials.

### **3.4. Selection of materials**

As the final realization of green interior design, the choice of green materials plays an important role in the whole green interior design. Green material refers to the material with small environmental pollution, low energy consumption and high performance. The use of this type of material is not only conducive to recycling and resource recovery after use, but also can effectively reduce environmental pollution. Therefore, green materials are essential in green interior design. In the selection of green materials, it is necessary to select some materials with high-tech elements, such as lighting and insulation dimming glass, insulation wall, endothermic glass, etc., and some economical materials can also be used. Such as the use of energy-saving lamps, the use of water-saving valves, through the use of these green materials, can greatly improve environmental pollution. As far as possible to reduce the paving of wood materials, if you must use wood materials, then in the wood painting work, you can choose as far as possible low pollution, less harmful substances of water-based paint, in this way to reduce pollution, To achieve the purpose of protecting the environment. This approach applies equally to other materials, to the extent possible for renewable sources of energy, such as the need to use non-renewable sources of energy, and to the extent possible for the selection of less polluting and consumed materials.

### **3.5. Return to Nature**

The reason for the epidemic situation is that people spend more time indoors than outside, stay indoors for a long time, do not accept the baptism of the sun, will induce various psychological and physical diseases, the concept of green epidemic prevention design, essentially want to achieve harmonious coexistence between residents and living environment. For example, the use of large floor windows to increase indoor natural photometry, as well as the use of rattan, hemp plant decoration materials to enhance the overall indoor and natural combination. This not only meets the demand of indoor beauty, but also makes the indoor and natural environment closer, and achieves the effect of "green"<sup>[4]</sup> design.

## **4. Conclusion:**

Green epidemic prevention design is a new concept, but also a new design method, in the design, designers need to according to the specific needs of the indoor environment, ecological environment, residents between the three aspects of overall planning, to achieve harmonious coexistence between man and nature, while improving people's quality of life, to achieve low-carbon environmental protection, sustainable development. The global epidemic situation, let people gradually start to pursue the concept and behavior of green epidemic prevention, has gradually become popular. As far as interior design is concerned, green epidemic prevention design is popular and has a wide influence. Therefore, the application of green epidemic prevention design concept can not only effectively improve people's quality of life, improve the living environment, but also give the earth

should have a clean and comfortable environment.

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