

# Design of home office residence in the post-Covid-19 Era

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**Abstract.** Recently, due to the impact of the COVID-19, in order to prevent the spread, most people need to stay at home for isolation and cannot go to work. At this time, many companies choose to let employees work at home. In the future, there will be more and more home office people. Starting with the background of home office, the research status of home office at home and abroad, and the concept of home office, this paper carries out a series of studies to explore the design of modern home office residential space. Through practice and design cases, it makes it meet the reasonable and compatible needs of home office, makes a conclusion, and prospects the development trend of home office in the future.

**Keywords:** The post-Covid-19 Era; Work from home; Residential design.

## 1. Introduction

Nowadays, with the rapid development of science and technology, people's lives are also changing, and their working methods have become diverse. The highly developed information age allows people to communicate and talk without gathering together. The fixed mode of going to the company for office, negotiation with customers, meetings and other modes have been gradually broken, and the office forms have become diversified and practical. In the traditional concept, home and office have their own frequency, and there is almost no intersection between the two. For an ordinary office worker, he has to shuttle back and forth between them every day, which wastes a certain amount of space and time, increases the waste of energy, and makes people more tired. Therefore, if we can combine the two, It enables people to complete their work with their own computers and other equipment at home, which not only reduces the waste of space and time, but also enables people to work in their own comfortable environment and reduces the boredom of the office. And now, with the normalization of the epidemic, more and more people work at home. With the continuous growth of the team, the needs of people working at home have also been exposed. It is necessary to explore a reasonably compatible residential design between home and office.

## 2. Characteristics of home office residence

### 2.1 Composition of home office residential space

A home office residence should include bedroom, kitchen, dining room, bathroom, living room, studio, study and other spaces. Each space should be clearly distinguished in design, not interfering with each other and reasonably compatible.

**Bedroom:** first of all, the bedroom should be private. There is a certain space for transition with the living room, and it should be placed in a quiet area to ensure better rest quality. The bedroom area is also worth considering. It should not be too small to avoid depression, and it should be considered for the future. In terms of lighting, full consideration should also be given. Sufficient light can also improve the residents' living experience.

**Kitchen:** the kitchen area should be fully considered so that users can safely enjoy the feeling of cooking. The kitchen streamline should be reasonable and arranged according to storage, cleaning and operation to ensure the smooth cooking process and improve the use efficiency. Both open kitchen and closed kitchen have good characteristics. Open kitchen can fully display the charm of cooking and adapt to the trend of modernization. Closed kitchen can avoid the impact on other spaces during cooking.

**Restaurant:** the restaurant is usually close to the kitchen, which will be very convenient. In the home office residence, the function of the restaurant in the external reception should also be taken

into account to provide a comfortable dining environment for visitors when receiving guests for dinner.

**Living room:** the living room generally also undertakes part of the traffic area of the residence, which can reduce a certain traffic occupation area. In addition, it should fully consider whether the door opening, window, balcony and other positions are appropriate, otherwise it will affect the layout of furniture, and finally lead to a waste of space. Lighting should also be fully considered to avoid too dark indoors.

**Toilet:** the general toilet should have three functions, namely, washing, showering and squatting. If conditions permit, it is best to achieve dry and wet separation, which can greatly improve the use efficiency and do not interfere with each other. And the distance from the bedroom and other spaces should be considered when setting the toilet.

**Studio:** one of the important spaces for people who work at home, without too many rules and regulations, so as to make work more efficient. There is a lot of time to stay inside every day, so the lighting part needs to be taken into account, and the working environment should be comfortable and appropriate, which can make people relax inside and burst out more inspiration when working.

There are other auxiliary spaces, such as balconies, storage rooms, etc. Although the area is a little smaller than others, it is still an important role in life. In short, regardless of the size of the residential space, it is necessary to meet the basic living needs, reasonably plan the distribution space, and design the residential space to meet the needs of the home office crowd.

## **2.2 Characteristics of home office functional space**

### **2.2.1 Multilevel**

In traditional residences, the study is used for people to learn to read. In home office residences, the study is not only used to learn to read, but also added to the office, and the area will change. Among them, it is not only necessary to meet the office functions, but also to add the reception function, which can create a good communication environment for office workers. In terms of bedrooms, the difference between primary and secondary bedrooms is becoming smaller and smaller, and the area difference is almost small, reducing the area of rest and increasing the space for office storage. Home office needs to increase external exchanges to achieve business purposes. In terms of receiving guests, restaurants are particularly important. They promote work through pleasant conversations during meals and create multi-level communication opportunities for office workers.

### **2.2.2 Variability**

The home office residence has broken the unchanging space layout of the traditional residence. With the addition of the office nature, the space that is not limited by the original wall division is more changeable, and is more favored by the home office crowd. The variability of the home office residence space can be realized through flexible furniture layout, partition or some decorations, which adds the possibility to realize the space requirements of the home office crowd.

### **2.2.3 Openness**

Home office housing should be open in office, because home office, like office outside, also needs exchanges and exchanges. In the design, it should not be too closed, too blocking the line of sight, and the light cannot penetrate. It should create an open space with a sense of transparency and freshness, and provide more communication and more humanized design for office people.

## **3. Characteristics of home office residence**

### **3.1 Principle of integrity**

A complete home office residential space should have all kinds of space needed for home and office. How to effectively distribute the proportion of each space area and how to coordinate each

space relationship harmoniously, we should complete it from the perspective of integrity. The living room, living room, kitchen, dining room, office and working room, meeting room and other spaces need to be divided as a whole, so as to facilitate the use of home office people.

### **3.2 Humanization principle**

The ideal living temperature is 26 °C. You can't feel the cold and heat, so that the comfort of home comes naturally. The ideal living space should be that each area of life is clearly distributed, the order of use is natural, and you can have your own entertainment space. It is beautiful to relax after work. The ideal home and work environment should have a comfortable area, various work-related equipment, entertainment and relaxation after rest, and an environment where customers can talk freely when they arrive.

### **3.3 Individualization principle**

Part of the reason for the emergence of people who work at home is that they want to get rid of the boring traditional office mode. People need touching personalized design, which can highlight themselves, show their personality characteristics, and be more active at work. In order to realize their ideas and show their value, they need to break the conventional mode, keep up with the trend of the times, reflect their unique personality and attract customers.

### **3.4 Adaptability principle**

In the traditional residential design, the division of space is relatively uniform, and the characteristics are almost the same, which does not highlight a certain space. The home office type residence is not only used for living, but also adds the attribute of office. The home office people not only need a comfortable living environment, but also need to meet the needs of work. Therefore, when designing the home office type residence, they need to comply with the trend of the market, meet the needs of people who work at home.

## **4. Conclusion**

This paper mainly studies the home office housing design in the post epidemic era. With the normalization of the epidemic, the home office population will continue to increase. The traditional housing design can no longer meet the needs of the home office population, so it is necessary to study and explore the design of the home office housing.

There are many home office residences, but there are still some problems. For example, due to home office, people travel less and their health needs to be considered. And face-to-face communication with people may be less, and interpersonal relationships will gradually fade. The development of every kind of thing is accompanied by advantages and disadvantages. Since the home office residence exists, it also has its advantages, and the problems can be solved in the long river of time.

The style of the residential office space makes good use of the natural light source, which not only creates changes and breeds the indoor atmosphere, but also makes the existence of night and day more meaningful, and tells the emotions of the four seasons in the depth of view. Irregular height and shape design seems to be its surging artistic inspiration. Laser lights, spotlights, etc. form a psychedelic light. The light and shadow change with the music. Sometimes they are projected on dark wallpapers, and sometimes on modern pure color walls, so that the working atmosphere can vary from person to person. Classical wallpapers and bright colors form a resonance of contradiction and harmony, "just like the process of making movies, you will find that people need a dramatic contradiction, but also hope to find a harmonious point in the contradiction".

This paper also starts from the background and research status of home office, through a series of consulting and research, analyzes the psychological and functional needs of home office people, and understands the characteristics of home office housing, such as the functional composition and

characteristics of home office space. Sort out the design principles of home office space, and finally describe the design methods of home office space according to the principles.

In the future, there will be more and more home office people. With the progress of the times, there will be more new designs for home office houses. We will continue to explore on this road, and there will be problems to solve. After the research and exploration, we will summarize and put forward ideas and suggestions to pave the way for future research.

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