

On the influence of space division in interior design with the example of two generations in the same room

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Abstract

At the present stage, the existence of suitable living space patterns for different family members, the functional classification of space, and the division of interior space require more research by designers. There has been sufficient research on various aspects of interior space division, but there is a lack of research on the division of interior space for two generations living together. The study of this type of living space has led to the division of the functional areas that should exist in the interior space and the use of different partitioning methods to divide the space. In addition, different designs are used to provide a comprehensive solution to the emotional connection and privacy of the family members, to increase the use of the interior space and to improve the comfort of the interior.

Keywords

Interior design; Humanized design; Interior space division.

1. Overview of spatial segmentation

1.1. Interior space division methods and forms

At the end of the twentieth century, when social and economic development is growing at a rapid pace, the requirements for interior design and other related arts and design are becoming higher and higher. From the simple division of space in the past, the emphasis has now shifted to a design concept that focuses on the emotions of people, and the requirements for interiors have gradually increased. The desire to explore new ideas in modern design and to design an environment that meets the aesthetics and needs of specific occupants. This requires designers to understand the different needs and aesthetics of different families, to study the principles and techniques of traditional interior space creation, to absorb the design styles of various countries, eras and nationalities, and to take the best and remove the worst. The design of modern interior design works that reflect the spirit of modern interior design and meet the requirements of different types of families. Interior design space division is mainly for the interior division of the interior. The division of space within the building requires the design to take full account of the environment and the function of the interior, to ensure that the division of space can meet both the basic function of use and the aesthetic needs, which makes the design to make a scientific and reasonable space division planning. The division of space is the first step in the entire interior design process, and it is also a crucial step in the entire design process, and the reasonableness of the division of space determines the basic elements of the quality of the entire interior design. The division of space is the basis of interior design, the division of functional space and the combination of space forms, functional space links are carried out through the interior space division. It is also basic to divide the combination of the material and spiritual needs of each family member in the room. Today, interior space is divided into the following categories: structural space, open space, dynamic space, static space, suspended space, shared space, child space, closed space, staggered space, recessed space, convex space, flowing space, sunken space, virtual space, psychedelic space. The combination of interior spaces can be divided into four main types: partial division, absolute

division, symbolic division and flexible division. Different division methods are applied to different spatial environments. Space is the main body of the building. Compared to interior decoration and furnishings, space treatment is particularly important in interior design. The ultimate object of interior design is the human being, and the feeling and sensation of living in an interior environment is the most effective criterion for measuring the quality of interior design work.

2. The influence of household size on the classification of space and its functional significance

2.1. Analysis of the current situation of the house type

One of the most fundamental elements of society is the 'family', and the 'family' is defined in terms of social relations as a community of people living in long-term relationships, such as marriage and blood, and the construction of family houses is a very important part of the construction of society in China. In today's rapidly urbanising society, indoor housing environments are being developed too quickly in the short term, lacking detailed research into environmental needs and lacking design solutions that are tailored to the characteristics of different family situations and specific changes in usage needs. Different family structures give rise to very different lifestyles and behavioural habits, and the needs for residential interior design vary greatly. The evolution of the current smaller, more diverse family structure has determined the changes in our current living patterns. This determines the changes in our current living patterns and the complexity of our living spaces. The flexibility and versatility of the spatial design approach has also put forward higher requirements.

Since the 1990s, interior design in China has developed as an independent industry and has become relatively mature, with a pattern of increasingly detailed development. Nowadays, most residential interiors are able to meet the basic design requirements of clear space structure and reasonable flow. However, as social consumption patterns continue to develop, people's individual needs are also becoming more apparent, and as the times change, people's needs for interior space functions are also changing. Therefore, how to find a balance between the unchanging nature of the building and the changing needs of the living space through interior design research methods is the main problem to be solved in this paper.

2.2. Analysis of the current situation of the two-generation family type

In the case of two-generation families, for example, there are two types of family: a couple with an elderly person and a parent with a child. The lifestyle and behaviour of the family are characterised by the couple's concern for family life, with childcare and meeting the needs of the child at the centre of their lives; in the case of a parent with a child, due to the small size of the family and the simple relationship between the members, great importance is attached to harmony within the family. Daily life is centred on the family and activities within the home such as eating, watching TV and other daily activities become an important part of family communication. The need for a walk-in storage room is the strongest, from the moment there are children, children's clothes, toys, books, food, etc. began to become the main content of the storage increase. As children grow up, this type of related items are eliminated frequently and in large quantities. Couples are generally in the midst of their careers and are more concerned with their personal appearance, and have a considerable amount of clothing, shoes, hats and cosmetics. The family has to work outside of the home, so the daily life of the family follows the parents' schedule of going to and coming from work, creating a very regular routine. In the other case, it is necessary to consider the elderly in addition to the first type of couple. The elderly are mostly in the role of serving the middle-aged generation and grandchildren, so family life is more regular, with cooking, laundry, cleaning and other household chores being carried out at home; multigenerational cohabitation retains the traditional values of our traditional family concept, which emphasises "intergenerational kinship",

but there are more differences in the work habits of family members. The survey results show that the most important factors in a family are, in descending order, the health of the family, the growth of children, career development, family harmony and material enjoyment. 88.2% of respondents over 40 years of age chose "health" as the goal of family life. In multigenerational families, the elderly have the time and energy to take care of the family's daily life after retirement, which is an important condition for the development of family health awareness and a healthy lifestyle. The number of bedrooms required varies between the two situations and can be divided into two and three bedrooms respectively, leading to a difference in the size of the household. The situation is even more complex in the case of larger families of three or four people; it is therefore essential to define the relationships between family members and to analyse the needs for living space in terms of family demographics and to propose standards for the type and size of housing. It is important to provide the private space required by the elderly, the couple and the children, as well as the space for interaction between the family members, while maintaining privacy and strengthening the emotional ties between them. The two-generation family covers two generations and the social experience of each generation is different, so it is normal that there are differences in perceptions between generations. This is reflected in family life in terms of parenting, expectations, financial management, the pace of life and attitudes in their respective fields, even father and son have their own personalities. In addition to finding a home that is suitable for two generations of family members, the current layout of flat houses tends to be unchanging, and the result of the tight living space is that different generations have intertwined living spaces, which can cause inconvenience. Another difficult situation is that the existing layout has resulted in a disparity in the pace of life of different generations, which can lead to mutual interference. As a result of late marriage and childbirth, the age gap between generations has grown to about 35 years old, making it difficult to share the same habits in terms of living and working hours, diet, daily activities, household chores and so on. It is important that there is enough space in the living space to allow for proper segregation, which is essential for the development of the second generation.

2.3. Analysis of the spatial division of the two generations together

The interior space is made up of many parts with different functions, which are divided into different areas according to people's different habits and activities. How to reasonably divide the different functions of the interior space is also necessary to design the division according to the needs of different types of families and family members, so as to meet the needs of different types of family homes and to make the division of space more humane. In the case of two-generation families, for example, in the case of parents with one child, the requirements for housing and interior design are reflected in the following aspects: (1) the choice of house type. The research shows that most of these families prefer a three-bedroom household, with the couple living in separate rooms from their children, and with a room for mobility. There are many ideas for the use of mobile rooms, such as temporary bedrooms, study rooms, storage rooms, audio-visual rooms, etc. (2) The design of dining and living spaces is emphasized. The dining room and living room are spaces where the family can interact and communicate together, so nuclear families attach great importance to the scale and interior design of these two spaces. They prefer a large living room and a dining room with a good dining environment, while the scale and design of the bedrooms are relatively relaxed. (3) Kitchen space is important. As they cook more at home, they are more concerned about the interior environment of the kitchen. They prefer an enclosed kitchen to avoid contamination of other spaces and to facilitate cleaning. They want to have plenty of work surfaces, not only a lot of cutlery and kitchenware, but also a certain amount of storage space for vegetables, food, snacks and other foods. (4) The need for separate storage is very strong. In addition to kitchen storage, there is also a strong demand for separate storage for seasonal clothing, bedding, children's books and musical instruments. (5) Safety is important. In many cases, children are the only ones at home in one-child families, and safety is a major concern for parents

when they are away. Burglary prevention, fire prevention, gas poisoning prevention and accidental injury prevention are all key considerations in the design. (6) Pay attention to the effect of interior design. This type of family is generally in the career rise or stable period, income is more stable, has the next generation, the marriage and life satisfaction is stronger. They attach more importance to the design of the interior of the home, especially the design of the living room, and want to reflect a certain taste, representing their more mature, stable outlook on life and values, and generally do not like to pursue too new and quirky style.

The requirements of a family with one parent and one elderly person in terms of housing and interior design are reflected in the following aspects: (1) choice of floor plan. As it is necessary to provide several separate bedrooms for family members to live in, there is a tendency to choose a house type with more rooms. When the total area of the house is a certain size, the priority is to ensure that the bedroom area is a priority, while the requirements for the living room can be relatively relaxed. In addition, there is a strong demand for two bathrooms in the house, especially in the elderly room for their convenience. (2) Emphasis on functionality. Of all the family types, the extended family is the most "functional", with very specific needs, often based on practical experience in the use of the home, and a strong focus on design rationality. (3) Independent private space. In order to ensure the most basic quality of life and to avoid disturbing each other, each person's room in an extended family is "dedicated to their own", especially in the middle-aged couple's generation, where the master bedroom is the most private, and in the elderly, where the bedroom is less private. Family activities are concentrated in the living and dining room spaces, and in these common spaces each family member has his or her own customary place, such as the sofa seat or the dining chair. This phenomenon is explained by the fact that there is an underlying 'rule' and a stable 'sense of order' in a situation where there are many family members and complex relationships. (4) The need for sorted storage is strong. The need for storage is a natural consequence of the large size of the family. The need for sorted storage is on the one hand to enable the sorting of different items such as clothes, books and food, and on the other hand to enable separate storage for different users, especially the elderly who require separate storage for their personal belongings. (5) Diverse interior design needs. The interior design needs of multi-generational families vary from person to person, and in summary, middle-aged couples attach more importance to the decoration and design of the living room, considering it to be the "face" of the home and should be given the most attention. The design of other spaces should be practical. The elderly in extended family homes are of a home-based nature, so the accessibility of the indoor and outdoor environment is a requirement, with anti-slip and anti-collision being the most basic safety requirements. Almost all of the elderly interviewed wanted more grab bars in the bathroom to reduce the risk of slipping and falling. In addition, older people generally prefer wooden furniture. In the design of space for the elderly, a reasonable layout of the interior is particularly important, not only to meet their walking and activity needs, but also to reduce bumps and bruises for their physical and mental health. In addition to spacious aisles, the design of the living environment for the elderly should also reduce the contact of the elderly with the corners and take into account the need for the elderly to walk around with the aid of walls or handrails due to the deterioration of their functions. The layout of the living space should be based on the living and behavioural habits of each elderly person, who cannot fully adapt to normal standards and live in a space that is not suitable for their behavioural habits. The design of the living space is based on the individual aesthetic standards and habits. In the living space of the elderly, in addition to the large amount of space set aside for activities, there are also some small spaces to be considered. For example, the kitchen and the bathroom, especially the kitchen, which is a space where fire and electricity are integrated, are the biggest threats to the elderly.

3. The family's need for spatial division

3.1. The influence of family habits and spatial division

In the case of meeting the living needs of family members, the interior is divided into spaces for activities, entertainment and learning, strengthening the emotional links between family members, reflecting the humanistic sentiment of the design, taking into account practicality while focusing on functionality, using different materials and methods to partition and combine the interior to make people feel warm in the living space and to meet the emotional needs of different family members. In addition to ensuring the basic living space needs of family members, the space is divided as flexibly and humanely as possible. This is also a very necessary part of the current indoor space division, a good space division is a good embodiment of happiness and humane care.

1. Physiological needs of living: physiological needs is the foundation of human survival, it is to meet the normal operation of human life functions and the need to effectively maintain the balance of the human body. Physiological needs mainly refer to the human demand for air, sunlight, water and basic residential security in nature. Physiological needs are the primary consideration in the design of living spaces. For example, in the design of small and medium-sized houses, attention should be paid to ventilation and lighting after the division of indoor space to ensure normal daylighting, etc.

2. The need for a sense of domain and a sense of privacy. Drawing on this definition in the home space, the meaning can be understood as the need for the occupants to have their own independent space in the living space. This space has certain spatial boundaries and a private scope. It allows the occupant to have a sense of self-security in this space. This can also be called a "sense of domain", which is more of a psychological loyalty to the space and makes the occupants feel safe and secure in the space. In the design of small and medium-sized houses, in order to meet the requirements of people's spatial domain and domain sense, attention should be paid to the design of closed spaces in residential space, such as bedrooms, bathrooms, etc.

3. Interpersonal needs: people live in groups and need to interact with other people. When the above-mentioned needs are met, only the material needs of life are completed, and the spiritual needs of the next level. For example, social activities such as friends and neighbours and visits from family and friends. This kind of friendly and emotional interaction with neighbours from far and near will contribute positively to the satisfaction of the occupants' spiritual needs. Therefore, after the emergence of this demand, in small and medium-sized residential spaces, in addition to the basic space presented in the living space, it is also necessary to set up recreation rooms, meeting rooms and other spaces.

4. Self-realisation needs: Self-realisation includes the need for construction, proper name and aesthetics. Residents want to plan their own preferences and tastes to build their living environment according to their own tastes and preferences at the time, so as to achieve self-actualisation. In the era of self-cultivation and house building, the inhabitants could modify and expand their houses according to the changing needs of the family size and family behaviour during the changing stages of the family life cycle. However, in the modern living environment, the occupant's house is already a fixed structure received from the developer, and there is very little room for self-change. Therefore, in the design of small and medium-sized houses, it is necessary to improve the spatial planning and design, taking into account the actual family situation, to fully study and analyse the needs of the family and its members, and to use this as a theoretical basis for the design of living space needs, to make a house that meets the life cycle stages and to reserve variable space for the arrival of subsequent stages in order to meet the actual needs of the occupants.

3.2. Thinking about living space

In the general perception, the home and the house are inseparable, and sometimes they are combined into one. The house is known as the vehicle of the family, and it must at least be able to sleep, cook and bathe. For example, a small flat with only one room, plus a room and a bathroom,

can be described as a house because it fulfils the minimum requirements for a house, but in fact there are many such flats in the city that meet the technical needs of single people or newlyweds. In traditional society, when a family is established, in order to maintain a standard of living, the house must be of a certain size, so that all the family members cannot be gathered in a single room, but have a separate functional room. Together with at least one bathroom, this makes for a habitable residential space. There is no single, fixed idea of how large a home needs to be and in cities homes are almost always sold in a limited number of units and sizes in the market where they are located and buyers are limited to the choices they can make within their means. The fact is that times are changing and the habits and behaviours of each generation are different, but even after many years there is still little difference between the types of homes put on the market by the development authorities. This is why an in-depth study of different family members, for example, offers more options and provides a good living environment for different family members.

4. Summary

In China, the real and symbolic significance of the home still occupies an irreplaceable place in every family. Since the founding of the country, the living conditions of urban dwellers in China have gradually changed from 'subsistence' to 'comfort', and the interior design of the home has played a vital role in this process. People are the essence of living, and behaviour and space are the surface of living. Although the results of interior design are mainly in the form of man-made environments and formal aesthetics, the aim of design is to show an understanding of the behaviour and psychology of the user through the material means of creating a living environment. Good interior design should be the product of meeting people's needs and the result of an 'adaptive' development of their lifestyles. The article examines the relationship between population and spatial segmentation, taking into account the various factors that contribute to the creation of a welcoming and happy interior space. Secondly, the division and combination of spaces helps to lay the foundations for subsequent design, combining population, family needs and lifestyles to identify specific rules and patterns for quick and accurate design.

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