

# Research on Environmental Design of Elderly Apartments

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**Abstract:** The rapid aging process in china has made the problem of old-age care for the elderly increasingly serious, and the old-age care institutions have been gradually improved through continuous exploration. As an emerging old-age care facility in china, the elderly apartment, because of its decentralized family care for the elderly does not have medical security facilities, as well as the family-like warmth and kindness that other pension institutions do not have, it is increasingly popular favorite. Some of the existing elderly apartments in china have been transformed from previous nursing homes or nursing homes, while others have been established without more comprehensive construction specifications, and the design principles of most of the elderly apartments constructed in the early days have not adapted to the contemporary elderly. Demand.

## 1. Introduction

According to time calculations, the age of birth of older people over 60 should be before 1950. People born in that era were affected by social and environmental influences at the time. Most people still feel that they are at home in terms of old age. It's better, because there are more children, two or three, and as many as ten or more. Ordinary people also have three or four. In this way, there are more family members who care for the elderly. The elderly and their own the children live together freely and with great joy. However, after 2025, those who are about to age will be our 45-year-olds. These people are subject to national family planning restrictions. Most of them are only children. In the social context, children They are under pressure to study and work, and it is unrealistic to take care of the elderly on both sides. In this way, elderly apartments are favored as new products. The improvement of its internal environment and outdoor environment can create a good living environment for the elderly. The quality of the external environmental space greatly affects the quality of life of the elderly, provides a suitable environment for the elderly, and continuously improves the outdoor of the elderly apartment. Environmental design has become a top priority for landscape designers.

The elderly are physically aging, slow to move, have reduced reaction ability, do n't like noisy, like a quiet environment, have no obstacles to the outdoor environment, can often chat with their peers, like to play with children, and the current living environment in China still considers most The needs of people are not considered more for the elderly in indoor and outdoor facilities, and the activities of the elderly are limited. The construction of elderly apartments takes into account the elderly's use requirements and meets the elderly's physiology, psychology, and behavior. The design of the required outdoor environment is an urgent issue.

The construction of elderly apartments in China has not been long, and the main energy is to meet the elderly's requirements for indoor functions, consideration of room layout, accessibility, and the use of internal facilities by the elderly, and has achieved certain results. However, the research on outdoor environment design is far from enough. It has not paid enough attention to the outdoor environmental functions, the choice of venue location, scale, size, and facilities. The design of the function is not fully excavated and reflected. It is uniform and non-characteristic. It follows a routine, has no long-term plans for greening, cannot adapt to local conditions, and does not consider the mental capacity of the elderly in the design of water bodies. In short, regardless of national conditions and In terms of market needs, or in terms of people-oriented, sustainable development design ideas, research on this topic is an urgent task.

## **2. Basic Elements of Residential Area**

The basic elements of a residential area consist of two major components, namely, material elements and spiritual elements. Material is the carrier of spirit, and spirit is the connotation of material. Material elements include natural factors such as terrain, geology, hydrology, meteorology, and plants, and houses, public buildings, Productive buildings and other types of buildings, as well as road engineering, greening projects, various pipe networks, outdoor retaining engineering and other engineering facilities. The spiritual factors include: human factors: population structure, population quality, residents' behavior, residents' psychology, etc. And social factors: social systems, policies and regulations, economic technology, history and culture, property management, neighborhood relations, etc.

The residential area is usually composed of residential land, public service facility land, road land and public green space. Other harmless land such as land for harmless small factories, land for municipal engineering facilities, and water surface are also allowed. (1) Residential land. Refers to the land occupied by the bottom of the residential building and some open spaces around it, including the path leading to the entrance to the house, the green space next to the house, and the house. (2) Land for public service facilities. Refers to the land occupied by the bases of various public service facilities in residential districts, communities or neighborhoods, and the exclusive land around them, including roads, squares and green land. (3) Road land. Refers to the land for roads at all levels in the residential area, including roads, return yards and parking lots. Residential district-level roads are roads that divide communities or neighborhoods, neighborhood-level roads are internal streets of neighborhoods, and residential group roads are roads that connect a group of houses. (4) Public green space. Refers to the public-use green space at the residential area level, community level, and neighborhoods, including residential community parks, community-level small amusement parks, small areas and strip-shaped green spaces, including children's play areas, youth and adult seniors' activities and rest venues. (5) Other land. Refers to land other than land used for land use, such as land for small factories and workshops, land for municipal public facilities, land for business units, land for protection, etc.

The purpose of the planning and layout of the residential area is to require the planning concept and planning factors: residential, public buildings, roads and green spaces, etc. to be comprehensively and systematically organized, arranged, and implemented into the planning scope through different planning methods and processing methods. The proper location makes the residential area an organic whole and creates a good living environment for the residents. In addition to making full use of the land, rationally and effectively using it, and dealing with the layout relationship among the four land uses, it is also necessary to properly handle the relationships among all aspects of architecture, roads, green space, and space environment, and to fully consider the cultural level of the residents in the residential area, Personnel composition and other characteristics. To meet the residents' physical and cultural, physical and psychological, dynamic and static requirements, and reflect local characteristics. In the National "Code for Urban Residential Area Planning and Design" (GB5018-93), five basic principles, diverse architectural design and group layout, effects of public service facilities, and quantitative principles are proposed. Arrange architectural sketches and identification signs completeness of outdoor space layout, overall planning

## **3. Design Measures for Elderly Apartments**

Design of indoor living environment. The physiological characteristics of the elderly determine that the apartment for the elderly should start from a convenient and practical perspective. The indoor space should not be too large or too small. Too large a space will cause inconvenience to the elderly and a lack of psychological safety. Too small space will make people depressed and impermeable. Designers should follow the principle of accessibility, and pay attention to small details, and strive to minimize the difficulties of the elderly in their daily self-care, which will help improve the health and independence of the elderly. The barrier-free design should not only

facilitate the use of the elderly, encourage the elderly to take care of themselves, take appropriate activities to slow down aging, but also reserve space. Once the elderly lose their ability to take care of others and take care of others, the room can also provide corresponding space conditions. The kitchen and bathroom are important parts of the house, and it is of great significance to meet the living function and ensure the improvement of the quality of life. When the kitchen is operated, the human body usually stays standing for a long period of 30 minutes to about 1 hour. Due to the decline of the elderly's physical fitness, they often feel tired. When designing, the kitchen operating table should be adjusted to 750mm-800mm according to the characteristics of the elderly. The width of the tabletop should not be less than 500mm, and the depth of the undercut clearance should not be less than 200mm, so that the elderly can sit and operate. The bathroom should be provided with appropriate handrails and handles. Pay attention to the non-slip treatment of the floor to prevent the elderly from falling due to the water on the floor. A call for help device or a split phone can be installed near the handrail, which is conducive to the elderly to be rescued in the event of an emergency. After the elderly enter the advanced age, their outdoor activities and living abilities are almost lost, and their daily activities are mainly indoors. The elderly spend half of their day in the bedroom. It must be private and easy for the elderly to sleep and rest. The color of the bedroom space should be calm and quiet, and avoid excessive light stimulation to ensure that the elderly can get enough sleep. Under the premise of ensuring safety, sufficient sunlight and natural ventilation are required. Large-area windows can be selected to protect the physical and mental health of the elderly. The living room is a public space where seniors and their families can interact. Most of the style is simple and generous, with bright colors. Due to the gradual decline of the physical function of the elderly and the decline of their operating capabilities, they should use as much furniture as possible, which is smooth, free of edges and corners, and easy to operate, to ensure the elderly's safety to the greatest extent. The floor and wall are made of healthy, environmentally friendly, durable, wear-resistant materials. The ground is mainly level and it is best not to have a height difference. If you need to set up steps, you can use a slope transition. Greening is also an important part of the design of elderly apartments. It can play a role in purifying the air, beautifying the environment, and regulating humidity. It can also ease the visual fatigue and tension of the elderly, and has a subtle effect on the physical and mental health of the elderly. The hobbies and interests of the elderly must be developed with corresponding venues and conditions. For example, the elderly can plant flowers and plants on the balcony, enrich and enrich their leisure time, cultivate their sentiments, and achieve self-worth.

Design for outdoor leisure environment. The design of the outdoor environment should be designed according to the physiological characteristics of the elderly to increase the opportunity for the elderly to get close to nature. At the same time, it is necessary to consider the requirements for the elderly to carry out outdoor activities and communicate with neighbors, to avoid the negative psychology abandoned by the society, and to address the problem of aging with a more positive attitude. Elderly people usually like to carry out habitual activities at fixed times and places in outdoor communication. Therefore, it is important to set up sitting and resting facilities such as pavilions and tree-lined squares that are suitable for the gathering of the elderly. Promoting social interaction of the elderly is directly related to their participation Enthusiasm and happiness. The elderly apartment courtyard roads are mainly pedestrian paths, supplemented by roadways. Because elderly people have physical inconvenience and their response sensitivity decreases, this design can avoid hidden safety hazards. On the one hand, we must not only ensure the safety of road traffic, but also consider the requirements for fun and ornamental roads of the elderly when they walk. The specific method is that the sidewalk can be designed without obstacles, the road surface is flat, and the sections with the ground height difference are connected by ramps. Try to avoid sweeping straight line sections, and more use the effect of winding paths, more seats on both sides of the road, pavilions to facilitate the elderly to rest. Set up more interesting gadget facilities, so that the elderly can stop and appreciate, relax and not feel bored. There must be complete service facilities and facilities around elderly apartments, such as hospitals, banks, fitness and entertainment and cultural and educational venues.

#### **4. Conclusion**

This article aims at the problems of current communication needs, fitness space, outdoor environmental facilities, roads, and greening in elderly apartments. It puts forward specific practices and ideas, and finally uses a practical work to improve the focus and perspective of the thesis. It is rigorous to use the language of life to explain. I ask your colleagues to understand. In addition, the specific methods I have proposed to solve the problems are still very superficial, such as energy conservation issues, environmental protection issues, sewage and garbage disposal issues, information technology, The more esoteric problems such as high-tech application problems and ground elevation processing problems need to be further studied in depth to better improve the theory of outdoor environment design.

#### **References**

- [1] Jiang Xia. Research on the Environmental Design of elderly apartments [J]. West Leather, 2018 (7): 26-26.
- [2] Li Shasha, Qin Nan. Research on Environmental Design of elderly apartments [J]. Housing and Real Estate, 2017 (15): 146.
- [3] Chen Dongyan, Zou Zhirong, Chang Yalan. Environmental Design and Behavior of Outdoor Space for elderly apartments [J]. Northern Horticulture, 2011 (16): 121-125.
- [4] Ba Mengzhen, Wang Hui, Zhu Shumin. Investigation and Research on the Environmental Design of elderly apartments [J]. Doors & Windows, 2018.
- [5] Xing Zhipeng. Research on the Living Environment Design of the elderly apartments [J]. Popular Literature, 2017 (11).
- [6] Meng Dongsheng, Cao Longfeng. Landscape Design of Outdoor Activity Space for elderly apartments [J]. Ding Guan Guan, 2017 (1): 102-103.