

# Design Method of Community Healthy Park Based on the Aging

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## Abstract

Under the current aging background, the community health garden has become a new opportunity for the landscape architecture industry, which plays a positive role in promoting the healthy life of the elderly. The paper summarizes the design methods of the healing garden and community garden at home and abroad from aspects of spatial layout, planting landscape, road organization, rehabilitation, and organization participation, and discusses the design characteristics and technical means of community gardens in the health care mode to cope with the increasingly significant problems of social aging. The Community Healthy Park, with the help of public space landscape design, the paper systematically puts forward the richness and demand design of community recreation garden in space layout, barrier-free design of traffic and facilities, localized selection of plant landscape, seasonal change and healing function design, and public participation activities. At the same time, it summarizes the key points of Community Healthy Garden design and the healing function of the "sensory" experience. It highlights the local characteristics in plant landscape.

## Keywords

Age-friendly Design, Community Healthy Park, Sensory Experience.

## 1. Introduction

The aging of China's population is rapidly deepening. In 2025, China's population over 60 years old will reach 300 million, and China is becoming a super-aged country. China has become the country with the largest elderly population and the fastest-growing population in the world. To cope with the reality of aging, the Chinese government has clearly proposed the "healthy aging" [1] policy. Our society needs more living places suitable for pension, medical care, and mental support, and also accelerate the rapid rise of the elderly industries. When people are close to nature, the pressure and emotions are soothing and release, and the Healthy Park has emerged and developed.

In order to improve the quality of the city, expand ecological space, increase the green volume of the city, and enhance the happiness index of residents' lives. Street green spaces and pocket parks have increased rapidly in the past three years. The design of government policies has become more deeply rooted in the park, maximized efficacy, and created more. Guidance in a beautiful ecological environment and other directions. The component of community parks not only provide people with fitness and leisure places, but also promote neighborhood exchanges, get close to nature, and improve bad emotions.[2] Especially for the elderly, community park are the most convenient outdoor space for the elderly. This study has conducted research on how community parks are more suitable for the elderly.

## 2. Design Principles

According to the needs of the elderly, Community Healthy Park mainly follows the design of three important design principles: Sustainable Nature, Physical Wellbeing and Sense of

Community. It can enhance the comprehensive life experience of residents through conceptual design such as quiet repair, connection, and creation.

### **2.1. Sustainable Nature**

In order to imitate the forest system to plant, mixed planting should be selected instead of regularly and orderly arrangement. Harmony with nature is more beneficial to enhance people's physical and mental health. The choice of plants is different in height, shape and color, including perennial flowering or autumn leaf plants, skyline plants, and plants. This helps the production of the "ecological performance" process. Each species can grow naturally and replace the old species over time.

Rainwater Garden is currently a popular garden form of natural ecology. Its water management system saves rainwater during the rainy season, and during the dry season, it can use the savings to meet the water demand for the garden, and the minimum cost can achieve the best ecological cycle effect. For example: "Creek" is used as a major drainage and treatment system, together with the "biological wall", collect runoffs from the outside. Most of the pure water flows into the "ecological pool" for retaining and secondary treatment. This can not only provide recycled water for irrigation, but also ensure the quality of the project landscape. This kind of adaptable ecosystem basically becomes food sources and habitats of "urban wildlife" such as birds, aquatic animals, insects and squirrels. effect.

### **2.2. Physical Wellbeing**

The landscape adopts the "whole ramp through" mode, and is equipped with a handrail up and down, and there is no extra transition step. These paths not only ensure the safety of the elderly and disabled people, but also meet the requirements of ambulance traffic. A seat is set up every 30-50 meters along the path, and the elderly can stop at any time. The rough material used on the ground effectively reduces people's risk of slipping and provides sufficient lighting space for night use.

The five major sensory (visual, hearing, taste, smell, smell, and touch) can be exercised in the fragrant healing of garden plants, and ultimately achieve overall health. There are not only the foot massage paths of various coarse stone designs, but also three special physical therapy paths -flat roads, slope, and steps. All of the above are equipped with handrails, and caregivers can accompany rehabilitation and encourage them to rebuild their strength.

### **2.3. Sense of Community**

Use the combination of independent life, family life, and auxiliary life to establish a community spirit through various activities. In order to achieve the goal of connection, the space plan is designed in the space planning, and the interaction of multiple activities is encouraged. For example, sports space is arranged around the stream. Of course, setting a private and quiet leisure outdoor space, in the green trees, gives a feeling of "retreat". The garden also "provides" catering and workshops to achieve the goal of lifelong learning. In addition, there are waterfalls, forests, green lawns, and swimming pools for exercise. People can enjoy time here or jog along the venue.

## **3. Design Content and Method**

### **3.1. Space Type, Layout and Design**

Community Healthy Park should not be limited to a single type of space, but also need to present the spatial characteristics of diversity. Depending on the degree of openness, the type of space can be divided into open space, private space and semi -open space. Different space types are combined in an orderly combination to ensure the opening and closing of the overall space. The venue function layout needs to be reasonably divided into multi -themed and multi -functional

venue space based on the relationship between the venue and the location of the service population, the location of the surrounding facilities, and the active needs of the residents, so that the residents of the community can choose the appropriate rest, activities, and exchange venues. Each theme interval is divided into each other and is linked to each other. On the basis of determining the type of space type and functional layout, the design of personality, aesthetics, and comfortable design of space in different venues. Some venue spaces can appropriately increase mobile service facilities to increase the social distance between people, thereby promoting the flexibility of the venue and interactivity of people and people, and people and people.

### 3.2. Planting Design

Community Healthy Park planting design is based on the "natural experience" as the main tone, allowing the experienter to temporarily escape the tension of life pressure or rehabilitation treatment, and integrate into the embrace of nature. Through the rich planting design in the venue, multi-themed and multi-dimensional landscape experience is provided. In terms of tree species, it is necessary to consider various factors such as flower type, bark, leaf color, plant type, aroma and other aspects. For example, in addition to the ground planting, several large mortars are also set up around the main garden to grow vegetables and herbs. These flower bowls provide convenience for patients using wheelchairs or walking auxiliary to watch.

### 3.3. Road Design

The road mainly considers two aspects: barrier -free pass and guidance design. Cabin -free design is the basic requirement of the Community Healthy Park. The road design must first consider satisfying the width and slope of the wheelchair, as well as the convenience of turning. Secondly, considering that the elderly have problems such as inconvenience of legs and feet and damage to the knees due to their own physiological aging, they should increase the handrails and increase the anti -skid measures of the pavement in the right place to increase the sense of security of the elderly in the venue. For example, a high degree of handrail is added to the roads, steps, and rest seats on the road, steps and rest seats. The road design should also be guided, convenient, and accessible to the guidance, convenience, and accessibility of the passage of the road, pavement and vertical design. In addition, in terms of road lighting design, the problem of vision loss caused by the increase in age should be considered. The lighting should not be too bright nor too dark.

### 3.4. Wellness and Healing

The function of Wellness and Healing mainly uses the sensory "multiple experiences" to achieve auxiliary physiological, psychological and spiritual treatment[3], including the guidance of the five sensor experience of vision, hearing, taste, smell, and touch. The main way is to use local plant planting, rich color configuration, and conscious setting of natural voices to stimulate the sense of the elderly, thereby improving the decline in perception of the elderly due to the aging, illness or mental problems. By providing close-to-natural horticultural activities and various interactive activities to enhance the connection between people and nature, and people, soothing psychological pressure and improving negative emotions.

### 3.5. Interactive Participation

Communication, interaction and entertainment can alleviate the pressure brought by daily life and improve negative emotions, and the elderly need to relieve loneliness and aging through communication and interaction. The Community Healthy Park can be used as a space for the interaction of surrounding residents to interact, and more residents can participate in the construction and maintenance of the park by organizing a variety of activities, see [Table 1](#). For example, the "Letters City" community park in New York is managed by the community

members. The members are responsible for planting, fertilizing, cleaning up the park and duty. Interested volunteers and children can also help watering, weeding or cleaning trails[4]. The community park of Shanghai Chuangzhi Farm has organized a wealth of planting, picking, lectures, and salon activities through the construction of online community co-construction groups, offline release, and online communities to enhance residents' interaction and participation, which Relieve physiological and psychological problems brought by work and life.

**Table 1.** Distance between various types of social activities

Types of activity space	Interpersonal distance	Use function of space	Site space form
Personal view space	15cm~120cm	Physical exercise, Self-regulation, Experience nature	Private space
Human and social space	120cm~360cm	Physical exercise, Social activities of small groups, Collective social activity	Semi-open space
Multiplayer activity space	>360cm	Multi-person participation in physical exercise, Social activities of small groups, Experience nature	Open space

In summary, under the premise of ensuring security, Community Healthy Park serves all ages in the community, especially for the elderly in the community to provide a space for the elderly in the community. Through comfortable space layout, barrier-free road design, "sensory" experience close to nature, and public participation and interactive experience, to improve the quality of life and regulate physical and mental health. At the same time, it has significant healing and health effects on the elderly group.[5-6]

#### 4. Project Practice

Taking "Chashan Community Healthy Park" as an example, it is a proposed project. The behavioral patterns of the elderly group and physical and psychological needs are fully considered. Plant five sensor parks (sensory stimulation parks), gardening healing parks (gardening experience, aromatic plantations), five elements of pharmacological parks (Chinese medicine five elements in the human body), Small space), as well as urban shared farm areas.

According to Maslow's demand level theory, landscape design hopes to create a place where the sense of security, comfort, belonging, respected, and self-worth is given. Combining the memory of the older generation with the modern pension method, restore the leisure scenes of the older generations such as tea, birds, and listening to play in the space. Let the elderly be in it, like ordinary daily life, and from the five aspects of food, housing, raising, entertainment, and protection, let them always learn, rely on, grow up, to be happy, to be care.

On the streamline, the main and different design and differentiated design are conducive to the discern and memory route of the elderly. The barrier-free design in the region meets the safety of the elderly. The width of all channels in the park can ensure that the elderly in the wheelchair enters the area without barrier. According to the physical and mental needs of the elderly group, fully follow the principles of roads, safety, identification, tables and chairs, and greening systems such as appropriate aging, safety, easy to identify, easy to control and choose, easy to reach, and easy communication. Design consideration. Plants are mainly safety, characteristic, and functional, and introduce four seasons of fragrant flower plants to ensure the four-hour landscape. Use the quiet configuration of plants to give people the most comfortable visual and olfactory experience.

#### 4.1. Entrance space

The landscape extends to a certain extension of the eaves of the building, forming a gallery covering the rain and rain. The vehicle can be stopped directly along the entrance area under the entrance water, which can avoid the sun and rain, but also shake a distinguished experience.

#### 4.2. Vibrant hydrophilic area

Passing through the experience center is a wide landscape scroll. The flowing sound of the flowing water can stimulate the auditory perception of the elderly. The Chinese -style water scenery is pleasing to the eye, sitting on the water shore, showing the poetic and artistic meaning of landscape habitat. A barrier -free wind and rain corridor runs through the sides of the apartment, which realizes barrier -free traffic in the park. The promenade can also be used as an art gallery, showing the old art works such as calligraphy and painting, handicrafts, etc., so that they can fully feel the value and significance of the elderly life. In the design of the corridor, the details of the aging are considered. The top adopts the form of a combination of wooden grille and glass, which can meet the sunlight and can also have a rainproof effect. The corridor is equipped with comprehensive service facilities, which can provide the elderly with basic hot water, cleaning, storage and other services. The hydrophilic leisure card seats create a cozy outdoor exchange area. The glass fence ensures the safety of the elderly by the lake.

#### 4.3. Social space

This is a localized courtyard space that is composed of a small space in series and incorporating the elements of Lao Chengdu's life elements, and restores the urban situation that the older generation is familiar with. The number of people in each small space is 4-6 people. While satisfying the elderly drinking tea, chess and cards, listening books, and some leisure and entertainment activities, they also promote the communication between the elderly.

Adjacent to the middle of the wind and rain corridor, the design of the gray space of the corridor is designed with a theater space containing the stage area and outdoor watching area. The old people can conduct tea art, drama viewing and event exchanges here. Outdoor viewing area uses mobile combination tables and chairs. The size of the tables and chairs is in line with the physical scale of the elderly, and it is convenient for the elderly to use the elderly. In the middle of the leisure courtyard, a beautiful cherry tree is dotted. In the spring of cherry blossoms, the old people and their families drank tea here and listened to the show, leisurely and comfortable.

#### 4.4. Stilling Space-Bamboo Garden

Bamboo forests of different sizes form a different scale and relatively independent space. There is both space to relax with friends and family, and you can get a quiet solo space. It has certain privacy and meets the different social needs of the elderly. Bamboo is a plain plant that is calm and peaceful. It can provide a space for calm and observation to the elderly, and it also creates a rich landscape effect in the landscape. The periphery of the bamboo forest is set up with aging handrails to meet the needs of the old man of the wheelchair, and it can also be used to stop the slow -moving elderly. On the ground paving material, select flat, non -slip, anti -glare materials to ensure the safety and comfort of walking.

#### 4.5. Five -sensory garden

The design is designed to comprehensively stimulate the five senses of the human body (visual, hearing, smell, touch, and taste), which has the role of relieving stress, soothing emotions, restoring the spirit, and restoring the mind. The characteristics of the wind chime device, the bugling bird, the characteristics of the plant and the water can stimulate the hearing. The olfactory experience created by medicinal aromatherapy can help enhance immunity, and Kang's pebble ground can strengthen the vestibular system and body perception system of the elderly.

In addition to the five sensations, it is still a parent-child interactive park. Powder with soft ground materials such as plastic, and the corners are treated with smooth activity facilities to avoid children's bumps during the game. Different areas meet the activities of children at different ages, and ensure that there are enough rest and stools to provide parents to take care of parents.

#### 4.6. Sports garden

In order to ensure that the healthy elderly and the elderly have no obstacles to the functional space of the park, the minimum width of the park's road is 1.5m or above. The design has a recreational trail that runs through the entire park around the building, which is convenient for walking and wheelchairs.

The Sports Garden is located at the widest trail and is also in the center of the park. There are squares that can accommodate 10-20 people at the same time in the park. Configure the fitness area of the equipment as a composite space, the old people can exercise activities here. The ground pavement is flat and non-slip, and the equipment is mainly aging equipment with soothing, rehabilitation functional training and cognitive training. Have enough lighting to ensure the safety of the elderly. On the side of the equipment, a leisure flower gallery is set up for the elderly to relax and chat. The plants and gallery are intertwined. The mottled sunlight is just sprinkled on the aging seats. The space is open and warm.

In addition to the above functional space, the design also provides a casual space for the weak elderly to sit and watch. Sitting under the forest, accompanied by breeze meditation, feel the comfort of the plant to nourish the body and mind, and enjoy the quiet time. Considering that the elderly like to play with flowers and plants, the design also provides a flower art operation platform for the elderly to be close and touching plants. Through the skills of mastering the past, find a sense of belonging and participation.

### 5. Conclusion

As Chinese socialist construction has entered a new era, people should actively respond to the public's demand for physiological health, psychological guidance, and fulfillment of the quality of life quality and health and livability. The construction of the Community Healthy Park integrates the research results of many disciplines such as landscape design, psychology, and medicine. It is an attempt for multidisciplinary cross-integration. Its construction also gradually moved from a single auxiliary hospital treatment, health and nursing and nursing model to the public, and towards the road of naturalization, diversified space, and sustainable development of landscapes.

In the context of accelerating the development of society, the Community Healthy Park, as a public open space, must be more and more applied to the construction of hospitals, nursing homes, nursing homes, community green spaces, and park green spaces. Community Healthy Park faces community residents, which can better meet the health healing of the elderly and the health needs of urban sub-healthy people. It also promotes popular science education through the close natural horticultural activity, pulls closer community neighborhoods, and strengthens the cohesion of the community. As a landscape garden designer, we should deeply explore the way to actively respond to the aging of society from the landscape design level, and then promote the construction of a friendly community in the whole age, and meet the needs of the elderly.

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