

Exploring the Plant Types and Layout of Green Spaces in Modern Residential Areas

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Abstract: Greening of residential areas is not only the main part of the green space system, but also the core part of the improvement of the ecological environment. The article first summarizes the characteristics of the green space in the residential area, and then analyzes the principles that need to be followed in the layout of the green space landscape, for example, ecological, artistic, etc., and finally discusses the “plant selection and application”, which involves dividing the green space, For the designer and reference to many aspects such as scenery and borrowing scenery.

1. Introduction

First of all, it should be clear that the green space design work for modern residential areas needs to have the characteristics of natural beauty, ecology and artistry. Specifically, it is to give the modern residential area a good visual effect through the way of plant landscaping. You don't have to leave the residential area to appreciate and appreciate the charm of nature. This has a role in the sustainable development of society. The significance of the content explored in this article is self-evident.

2. The Characteristics of Green Areas in Residential Areas

The research shows that whether it is Sanya modern residential area, Liaoning high-end residential area or Shanghai luxury residential area, the designed green space landscape has the following characteristics: First, the green space is divided into recreation space for children, elderly activities, for example, walking roads, Simple activity facilities, movable playgrounds, etc., according to the needs of different groups of people, arrange the corresponding service content; Secondly, increase the amount of space green and layering through the roof greening method, and improve the climate environment of the residential area; According to the scale of the green space in the residential area, adjust the design plan to avoid setting up buildings with excessive volume and excessive quantity; finally, based on the environmental requirements put forward by the residential area, the shrubs, trees, ground cover and other plants with different ecological habits The configuration will focus on the plane and elevational composition of different plant combinations, and organically combine plant landscaping with roads and buildings[1]. The designer should ensure that the selected configuration method can not only make the greening function fully exerted, but also meet the requirements of the residents for the green environment. In addition, the green quantity and green area are the main indicators to measure the value of green space in residential areas. Therefore, designers should maximize the ecological benefits of plants by increasing the leaf area index and the green volume. Convenience.

3. The Layout Principle of Green Space Landscape

3.1 Ecological

The role of the green space landscape is mainly to create an ecological environment. When carrying out related work, the designer should avoid the situation where the original ecology is damaged. The role of the ecological environment is to lay the foundation for the realization of the

sustainable development goals, to provide residents with a way to return to nature, so that they have a more thorough understanding of the natural spirit. Designers can use plants that can make the natural environment more balanced according to the actual situation, and use nature to achieve the goal of landscape circulation.

3.2 Functionality

In addition to accommodation, human requirements for residential areas include psychological and behavioral rules. That is to say, residential areas should meet the requirements of residents' daily life and travel activities. When designing green landscapes, designers should proceed from the perspective of building leisure places. According to the requirements of the residents, the landscape atmosphere is designed to make the value of the green landscape fully utilized.

3.3 Artistic

In today's society, human beings have higher requirements for artistic beauty than in the past. Therefore, in designing green areas in residential areas, designers should pay attention to artistic beauty, natural beauty and form beauty, and ensure that the designed green space landscape can meet the spiritual needs of residents. Give it spiritual pleasure[2].

3.4 Regionality

The principle of regionality means that when the designer carries out related work, he needs to consider the characteristics of the natural environment and the needs of plant growth, follow the principle of adapting to local conditions, complete the follow-up planning and design work based on the original landscape, and coordinate the landscape. The integrity of the guarantee, so as to achieve the purpose of combining history and modernity.

4. The Choice and use of Plants

Plant landscaping consists of two parts, one is design composition and the other is element collocation. The focus of design composition is plant type and layout. Designers should follow the needs of modern residential areas and follow plant landscaping design. In principle, the selection of plant types is carried out to complete the subsequent functional layout and spatial layout. The collocation of elements refers to the combination of plant landscaping and elements such as buildings and water bodies, so that the landscaping has the ornamental value it deserves. Taking Rongshenghua as an example, the method used in the design of the green space in the residential area mainly includes the following:

4.1 Reasonable choice of plant type

The use of plant landscaping to arrange green areas in residential areas should first be based on artistic, natural, living and scientific characteristics. The topographical conditions of modern residential areas and the climatic conditions of the areas in which they are located should be selected to ensure the plants. The layering, color and artistic beauty of the landscaping; secondly, based on the seasonal changes, the plants are selected and cultivated to provide the agility and seasonality of the green space in the residential area. The seasonal plants include cloves and plum blossoms. In the spring, etc., reasonable selection of plant types allows residents to enjoy different landscapes in different seasons. In addition, designers can also refer to the characteristics of plants to create unique landscapes, such as prune spring, willow drizzle, etc. According to the characteristics of the plant, the design of the theme landscape is completed, and the theme landscapes that are more common in the residential area include the Gui Garden and the Tao Garden. Of course, when using the plant landscape to arrange the green space in the residential area, the designer needs to consider the content, including: by scientifically combining different elements, combining plants, roads, ponds and other factors to create Relying on the landscapes such as Huajing, Wuhu and Linyin Road, the designed landscape has more outstanding agility. For example, the combination of plants and rocks forms a landscape that is set off against each other, staggering

the landscape, enhancing the three-dimensional sense and color beauty of modern residential areas, and highlighting its beautiful lines by planting a small number of hanging plants on the rocks.

4.2 Obstacle and view

When designing the landscape of modern residential areas, the application of the obstacles is applied. Specifically, it is to arrange the flowers and trees and the rocks at the scenic spots to obscure the residents' sights, so as to change the way of the sightseeing direction and the role of the obstacles. It is the landscape effect that forms the "inhibition of the shadows"; the viewfinder refers to the income from the good scenery in the landscape view, the design method of using the plants and walls to cover the rest of the scenery, and the rational application of the zoning technique can beautify the green space of the residential area. Effect.

4.3 To achieve appropriate tree

As a residential area of human living space, it represents the level of human life. In recent years, the design for residential areas has become more and more perfect, and the living of residents has been improved. However, there are still problems to be solved, for example, Building houses in residential areas often causes great damage to the soil in the area. Based on this, designers should be the first choice for plants with strong resistance, poor tolerance and easy management. In plants that meet the above requirements, the selection and cultivation of fast-growing plants will ensure the survival rate of plants to the greatest extent. In addition, designers need to consider the combination of different plants, for example, the combination of flowers, herbs and shrubs, the matching of ornamental plants and fruit trees, on the basis of which, the three-dimensional greening and plane greening methods can be rationally applied. Guarantee the design effect.

4.4 Scenery and borrowing

The view of the scene refers to the means of arranging the scene at the end of the line of sight when using the road axis and the landscape axis when arranging the landscape plane. Generally speaking, the view is divided into indirect view and direct view. Among them, the indirect view of the scene is that the position is relatively concealed, giving a sense of "looking looming", directly pointing to the view is a clear view, for example, the road is exhausted. Trees, pavilions or flower stands[3]. The borrowing scene refers to the method of superimposing the scene inside the garden and the scene outside the garden. Whether it is designed for classical gardens or modern landscapes, this method can be used. This can not only make up for the lack of spatial scale. It can also make the landscape have a richer spatial level, giving the residents in it a far-sighted feeling.

4.5 Implementing the concept of people-oriented

The green space in the residential area is closely related to the life of the residents. Therefore, when selecting and arranging the plant type, the designer should use the requirements of the residents for sunshine, ventilation and light as the main reference. According to local conditions, choose bright and simple flowers and trees. Match. For example, in the northern residential area represented by a high-end residential area in Shenyang, when designing the green landscape, the designer should control the proportion of the evergreen tree species to be within $\geq 2/5$, with shrubs and vegetation. Mainly because of the spring, autumn and winter winds in the northern region and sufficient sunshine in summer. It should be noted that in the course of work, the designer should not blindly cater to the aesthetics and taste of the residents, but rather improve the taste and level of the residents by designing the green space in the residential area.

4.6 Missing scenes and framed scenes

Leaking scene refers to the sight seen through the false objects such as fences and flower windows. The role of the leakage scene is mainly reflected in two aspects. One is to attract residents to explore the landscape in depth, and the other is to give the landscape an illusion and confusion. Aesthetic. The frame view refers to the practice of setting the frame-and-hole structure from the actual situation and guiding the residents to appreciate the landscape at a specific location. The

advantage of the frame view is that it can create a pleasing landscape effect, which is often used in the residential area. In the process of designing green space, the results achieved are also obvious.

4.7 Separating the green space in light of the actual situation

When dividing the green space, the designer needs to consider the needs and feelings of the residents. For those who are at rest, the closed space can bring a safe and hidden feeling, and provide convenience for the rest, and the open part of the space is the resident. The communication provides convenience, and both are indispensable. It can be seen that the role of the space is to create the spatial scale required by the residents, to make the visual landscape more abundant, and to obtain the effect of “garden in the garden”. Specifically, designers can use plants, walls or hedges to divide the space, and then use the flower stands, rocks and trees to divide the water surface to achieve the effect of widening the space. It is necessary to pay attention to the fact that the slender flower frame cannot be divided. The effect, while the too thick flower stand will bring a sense of blockage. Under the premise of the conditions, the ground height difference can be adjusted to achieve the effect of dividing the space and increasing the space level.

5. Conclusion

It can be seen from the above analysis that in designing the green space of the residential area, the designer should follow the principle of people-oriented and local conditions, and take the characteristics of the residential area as a reference. Under the guidance of the aesthetic concept, complete the plant, color and shape. Only in this way can the value of the modern residential area be fully developed, thus ensuring the positive effect of the green space in the residential area on the sustainable development of the society and exerting it to the fullest extent.

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References

- [1] Deng Hu. Plant Planting in Modern Residential Areas--Taking Qinghai Lake Baolong Xuhui City as an Example. *Chinese Flower Gardening*, 2019(06): 50-51.
- [2] Cheng Guangjun, Wang Zhiqiang. Analysis of the connotation of plant landscape and its function in the environment of modern residential areas. *Chinese and foreign architecture*, 2016 (12): 95-96.
- [3] Cheng Guangjun, Chen Yan. Interpretation of the principles and methods of plant landscape design and its application in modern residential green space. *Chinese and foreign architecture*, 2017 (01): 117-119.