The Beauty of Slope Land: Practical Study on Aesthetic Features in Landscape Design of Mountain Residential District

Yi Li1*, Duwen Shen1 and Ran Zhang1

1 Architectural and Urban Planning Department, Chongqing Real Estate College, Chongqing, 401331, China

* Corresponding author’s e-mail: cqfdc2008@163.com

Abstract. Through the analysis of rhythm, symmetry contrast, texture proportion, diversity unification and other aesthetic features in the landscape of the slope, it is fully used in the landscape planning process of Liang ping sunshine and rose city in Chongqing to create a modern community landscape that leads modern urban life. Creating slope landscape features and improve the quality of mountain residential district.

1. Background

Chinese mountains account for about 67% of the country's land area, and at least 50% of the country's urban terrain is mountainous[1]. Facing the contradiction between urbanization and land resources, combined with the fact that residential land occupies the largest proportion of urban and rural construction land, the allowed slope and the planned slope limit are the highest, and the proportion of residential green land occupied is relatively large, it is necessary to make full use of sloping land to create landscape of mountainous residential areas. It not only saves and intensive land, but also improves the quality of residential areas.

According to the Code for Vertical Planning of Urban and Rural Construction Land in China[2], the natural gradient and planning gradient of residential land should be less than 25% in the selection and layout of urban and rural construction land. The undulating terrain of mountainous residential areas increases the difficulty of building layout and road organization, but it can create a unique style and artistic building skyline, providing original and unique three-dimensional activity space. At the same time, we can use the terrain to create a public service facility supporting different space experience, which is not only land-saving but also economical and applicable [3]. Combining with the requirements of low-impact development, respecting the original terrain and landform of the mountain area, reasonably using the terrain and geological conditions, and developing the characteristic and practical mountain residential landscape space, can comprehensively improve the living quality, create interactive communities, and increase the private communication space. Therefore, this study combs the unique aesthetic characteristics of the slope landscape, and applies it to the practice of specific projects in mountain residential areas, in order to provide a reference for the construction of slope landscape in residential district.

2. Aesthetic Characteristics of Slope Landscape

2.1. Rhythm and cadence
In the slope landscape planning, we should follow the rhythm and rhythm of the aesthetic feeling law, make full use of space form, color, material, terrain and topography and other elements [4], combining with the reality of the environment to grasp the cadence, ensure functional needs while giving people visual comfort.

2.2. Symmetry and contrast
The slope landscape terrain is changeable and the axis is not obvious. Using symmetrical method in part can achieve the design effect of "big in small" and "unexpected". At the same time, it combines the shape, color, material, virtual and real of landscape elements to form a contrast, complement each other and complement each other, so as to achieve diverse and unified artistic effects.

2.3. Texture and proportion
Homogeneity and proportion are inseparable in the promotion and coordination of the vitality of sloping landscape. For example, the same texture can be expressed by texture direction, concave and convex, similar texture can be expressed by harmonic means, and strong texture can be expressed by contrast[5]. However, in order to achieve the coordination and unification of the quantitative relationship between the whole and the part, the part and the part, and the whole and other collections of the whole[6], it is necessary to meet the aesthetic needs in terms of proportionality and rationality in order to achieve the overall unification.

2.4. Diversity and unity
In the process of realizing the beauty of diversity and unity, the organic combination and integration of various forms and elements can achieve harmony and unity. Only in this way can the sloping landscape form an ever-changing and colorful beauty of harmony[4,7], and further achieve the harmonious coexistence between man and nature.

3. Practice of landscape design in Mountainous Residential District
Chongqing Liangping sunshine rose city is about 6.2km away from Liangping South Railway Station and high-speed exit, 3.5km away from administrative center, and close to Shuanggui Lake New Area
and Shuanggui Lake Park. The project covers an area of about 100 mu, with a total design building area of about 150000 square meters. It is positioned as "green life, medium and high-grade quality community", and the target customers are just need housing consumers. The focus of landscape planning is to create project features, create an elegant and tasteful community life culture atmosphere, and establish a healthy and green life brand.

3.1. Rhythm-cadence creating
In order to broaden the vision and increase the visual space of the house, improve the quality of life, and emphasize the uniqueness and comfort of the landscape, the designer combined with the mountainous terrain, using rhythm design techniques to create the slope landscape belt. The combination of landscape and functional facilities creates an interactive landscape effect. It not only enriches the landscape pattern, avoids the embarrassment of "one side of a thousand cities", but also brings more activity space to the residents[1].

3.2. Symmetrical contrast using
In the entrance landscape of the residential area, the designer makes full use of the aesthetic design techniques of symmetry and contrast. Taking the flower bed on the slope as the axis symmetry, the contrast effect is achieved by using hard pavement and plant configuration, color and green plant collocation, and the sense of community signs hollowing’s false or true. By means of symmetry and contrast, the slope landscape and residential area entrance functions are fully integrated to give people a regular, clean and atmospheric image and improve the quality of the community.
3.3. Texture proportion coordinating

The landscape planner takes into account the simple, bright, modern and generous European style of the project's residential building facade, the materials such as glass, real stone paint, stone, etc., the lines with vertical and horizontal changes in details and full of modern sense, fully coordinates with the building facade in the selection of hard pavement materials and pavement texture of the project, and integrates the building into the landscape and blends together. Green plant space and hard decoration space, public space and private space are fully combined and interpenetrated, and they are integrated in appropriate forms to show their charm.

3.4. Diversified unified applying

In the combination of landscape space, the designer creates suitable landscape and meets different functions according to the actual situation of the project. The entrance landscape is simple and elegant, and the residents can enter the welcome square quickly through ladder steps, which gives the owners a comfortable home feeling. The private space of the local area, from small to large, the limited space creates infinite landscape imagination. Broad lobby landscape extends the landscape to the lobby, making the home full of green. The promenade is connected with the entrance space in series to form a dynamic network, which not only increases the space continuity but also establishes the residents' interaction. Through various spatial combinations and landscape elements, the residents can fully integrate into the nature and live in harmony with the nature.

4. Conclusion

In the process of slope landscape planning and design of Liangping sunshine Rose City Community in Chongqing, planners make full use of aesthetic features such as rhythm, symmetry and contrast, texture and proportion, diversity and unity to create a modern community landscape leading the needs of modern urban life. Create their own characteristics and improve the quality of living.
References
[1] Li Yi. etc. (2019) Beauty of Slope Land: Practical Study on Slope Landscape Design. J. IOP Conference Series Earth and Environmental Science, 310:1-7.
[2] Ministry of Housing and Urban-Rural Construction of the People's Republic of China. (2016) Code for Vertical Planning of Urban-Rural Construction Land. China Construction Industry Press. Beijing.
[3] Li Gaoxiang. (2017) Strategy And Implementation Of Montanic Residential District Planning And Design. J. Planners(Supplement):44-48.
[4] Yang Chengzhu. (2016) Design Research of Landscape Steps. D. Master's Thesis of Southeast University.
[5] Yang Xin, Ganlin. (1996) New Edition of Aesthetic Principles. Peking University Press. Beijing.
[6] Zong Baihua. (2013) Aesthetics and Art [M].Shanghai: East China Normal University Press.
[7] Li Yi. etc. (2015) Art of The Acute Angle—Application of an Acute Angle in Landscape Design. J. Chongqing Architecture, 14: 22-25.