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A Study on the Application of Miao Culture in Regional Landscape Design

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Abstract
Pingbian Muyang River Park is located in the core area of Dishui Miao City, Pingbian Miao Autonomous County, Honghe Prefecture, Yunnan Province, with a construction area of about 93000 m2. By rational planning and layout of space, reorganizing the original site relationships, and using the "Miao Culture Active Museum" as the theme of park design, we aim to create a unique Miao culture space, allowing people to experience the charm of ethnic culture and the uniqueness of regional landscapes, as if wandering between Miao culture museums in the park. Utilize elements such as water bridge culture and Miao culture in the Pingbian area to create local characteristic landscapes, and summarize the methods of using Miao culture to create regional landscapes. Integrating theory with practice, designing a regional landscape space that embodies the cultural charm of the Miao ethnic group, integrating leisure sightseeing, tourism experience, and health and entertainment. After its completion, the park received widespread attention and recognition from all sectors of society. In 2018, it was successfully declared a national AAAA scenic spot and provided reference and inspiration for landscape design in Yunnan's ethnic areas.

Keywords
Miao culture; Application; Regional landscape; landscape design

With the spread of popular culture and the emergence of regional cultural crises in the process of urbanization and globalization, the social value and public attributes of urban parks beyond leisure value have received more widespread attention and importance[1].The regional culture rooted in ethnic culture is rapidly declining, especially the agricultural production landscape, extensive land use landscape, and unique rural pastoral culture and life[2].In order to prevent the phenomenon of landscape similarity and regional cultural disappearance in suburban towns during urbanization, state governments have established different control standards[3]. The study of Miao culture in the new era has largely broken through the academic perspective of traditional Miao culture research, expanding from traditional Miao historical and anthropological studies to the comprehensive study of Pan Miao culture[4].Studying how to apply Miao culture in regional landscape design has certain reference and guidance significance for the protection of regional culture and landscape design in Yunnan region.

1 Concept of Miao culture

The Miao ethnic group is one of the ancient ethnic groups with a long history in China. In ancient times,

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the "Jiuli", "Sanmiao", "Nanman", and "Jingman" were the ancestors of the Miao ethnic group in different periods.In history, the Miao ethnic group has experienced several large-scale, long-distance, and long-term migrations. Pingbian County is one of the five independent ethnic autonomous counties in China. The Miao ethnic group in Pingbian has five branches, namely Qingmiao, Huamiao, Baimiao, Lvmiao, and Hongmiao. The top three surnames of the Pingbian Miao ethnic group are Xiong, Yang, and Tao[5].Due to different historical experiences and real-life situations, Pingbian has formed a unique Miao culture, with its Miao style architectural culture particularly prominent. Miao architecture has become a typical representative of ethnic culture in southeastern Yunnan, with its unique hanging foot buildings, beautiful leaning, detailed decoration, totem painting and other rich elements.

2 Regional Landscape Design

2.1 Concept

Regional landscape refers to a complex of unique natural and cultural landscapes, as well as some products of human activities, within a specific area. These complexes, together, produce unique features and also have their own unique characteristics. Simultaneously showcasing the natural scenery of the region, it also reflects the traces and context of human transformation of nature.

2.2 Constituent Elements

Regional landscape usually refers to a complex with representative significance that combines natural and cultural elements within a certain physical geographical space. Regional landscapes not only reflect the cultural heritage of a region, but also unique landscape forms that are suitable for the current regional context. The regional landscape encompasses elements such as the local customs and traditions of the region. The constituent elements of regional landscapes can be further divided into two categories: natural elements and cultural elements.

2.2.1Natural Elements

Natural elements are composed of natural geographical and environmental elements, including terrain, vegetation, water bodies, and climate.

2.2.2Humanistic Elements

The human element is the product of human survival in the natural environment, while also transforming nature to meet some of its survival needs and living needs.

2.3 Design Principles

Under the conditions of regional environment, landscape design is relatively stable in a specific environment. The landscape design system it produces is precipitated over time and must meet the local natural conditions and cultural accumulation conditions[6].In landscape design, designers should combine their internal culture and external characteristics in order to create works with regional cultural characteristics.

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2.3.1Respect Natural Conditions

Respect for terrain is the geographical foundation that landscape design follows. The primary principle of landscape design that expresses regional culture is to protect the terrain, coordinate the surrounding environment, and adopt the best design methods.

(1) Respect for the environment and climate

The diverse climate characteristics of Yunnan have led to different styles and patterns in the fields of architecture and landscape. The climate characteristics of a region mainly affect the surrounding landscape in terms of the selection and utilization of landscape plants.

(2)Respect for plants

Plants not only have high ornamental value, but also have certain ecological functions. Respecting local plant species is essential to reflect the unique characteristics of a park. The rational use of local plants is one of the methods to reflect regional characteristics.

2.3.2 Respect local history, folk customs, and culture

Regional culture itself has an open attribute, and its emergence is a process of cultural integration. Landscape systems are not isolated and static, they need to be associated with larger environmental systems besides landscape systems[7].Respecting regional culture means respecting local folk culture.

3 The Application of Miao Culture in Landscape Design of Pingbian Dalongshu Wetland Park

3.1 Park Introduction

Pingbian Muyang River Park is located in the core area of Dishui Miao City, Pingbian County, Honghe Prefecture, covering an area of 9.3 hectares. It starts from Pingbian Avenue in the west and ends at the planned No. 5 Road in the east, with a total length of about 1280 meters. The width of Muyang River is 12-70 meters, the east-west drop is 70 meters, and the green belt on both sides is 10-30 meters. It is the core landscape area of Dishui Miao City characteristic town. The surrounding area is dominated by characteristic Miao City business district, with convenient transportation. Pingbian has a rich Miao culture and is an important display and gathering place for Chinese Miao culture, known as the "hometown that Miao people around the world long for.". The park was launched in 2015 and completed in 2017. After completion, it became a well-known urban park and was successfully declared an AAAA level scenic spot in 2018. Parks nowadays have a profound impact on people, not only as recreational places for local residents, but also as places for foreign tourists to check in(Fig. 1).

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Fig. 1 Top Plan of Muyang River Park

3.2 Miao Culture Leading Design

The origin of the Miao ethnic group can be traced back to the Yan Huang period, approximately 5000 to 6000 years ago. The activities of the Jiuli tribe led by Chi You are roughly located in the middle and lower reaches of the Yellow River and the lower reaches of the Yangtze River basin today[8.Design ethnic migration routes as clues, park routes, ethnic festivals and activity layout square nodes, and scenes based on Miao culture.

3.3 Utilization of Existing Terrain

For each venue, there is an ideal use; For each purpose, there is an ideal venue[9].The height difference between the east and west of the site is 30 meters, and the height difference between the north and south is 20 meters. A dam is used to connect the upstream and downstream, and the dam itself is also the main passage for visitors in the east and west directions. Steps and ramps are used to treat the local height difference of the site. On the contrary, areas with relatively flat terrain need to be artificially processed to create gentle slopes and increase spatial hierarchy, with a focus on soothing the space. The walking system of the park is arranged along the riverbank, with a gentle slope design of 2-4% and local areas of 8%.

3.4 The Application of Architectural Culture

The construction of the Pingbian Miao historical migration landscape corridor has retrieved fragments of history, expressed nostalgia for ancestors, and continued ethnic culture. Based on the construction of the Miao cultural landscape corridor, three important elements reflecting the theme are extracted: regional landscape, Miao style architecture, and characteristic plants. The project is characterized by "Miao culture" and aims to create a cultural tourism journey of "enjoyment", "taste", and "appreciation", providing an immersive experience of the Pingbian regional landscape. Based on the framework of "One Belt, Two Corridors, Eleven Points", the overall planning of the park is taken into account (Fig. 2). The framework of the plan is in the

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shape of a park, while the Miao culture is a hidden thread that runs through the design. Only by carrying the distinctive memories of regional culture, can the landscape have vitality, and the park also has the sense of place of Miao culture.



Fig.2 Plan of Muyang River Park

4 The application of Local Plants

The climate type of Pingbian is a northern tropical climate, with an average annual temperature of 21-22 ℃ and an average temperature of over 15 ℃ in the coldest month. It is ≥ 10 ℃ annually and has no frost throughout the year. The Daweishan National Nature Reserve is known as the "base of rare animals and plants", and the local plant species are abundant. Make full use of existing plants, fully integrate artificial and natural elements, and the overall planning principle is "flowers in all seasons, evergreen throughout all seasons". Combine deciduous plants with evergreen plants, and configure rich landscape layers. The local climate is pleasant and it is a well-known fruit town in China. Local characteristic fruit trees and plants for observing flowers and leaves are also the focus of local plant selection.

Based on the diversity and rationality of ecology, scientifically and reasonably allocate plants such as flowers, leaves, fruits, and aquatic plants. The selection of ornamental plants mainly considers color, shape, species, and seasonal flowering period: Magnolia in spring, Ziwei in summer, and roses in autumn; There are plum blossoms in winter. Reasonable allocation allows for seasonal flower appreciation. The selection of foliar plants mainly considers adaptability and color. Leaf colors include red sumac and red leaf plum, purple coptis chinensis and Canadian redbud, yellow ginkgo and yellow bellflower. Fruit plants mainly consider climate adaptability and local characteristics: "Feizixiao" lychee, red heart kiwifruit, and loquat. The selection of aquatic plants takes into account the characteristics and visual effects of the water body: wide water surface areas - water lily communities, reeds, and water hyacinth; Water Narrow Community - Flower Leaf Water Onion, Yellow Acorus, Water Onion, cattail, and Sea Life Flower. The selection of evergreen plants mainly considers local tree species and economic benefits, such as Lechang Hanxiao, Dianpu, Yunnan Luanshu, Chuishi Haitang, etc. The multi-level combination of trees, shrubs, flowers, and ground cover, with staggered height and height, combined with flowers and leaves, constructs a plant population ecosystem.

5 Conclusion

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Pingbian is home to the rich flora and fauna resources of Dawei Mountain, unique Miao ethnic dwellings and Miao style architecture, and mysterious and quaint festival activities, all of which are complete and rustic regional landscapes. Due to limitations in funding and construction period, there are certain deficiencies in the landscape of Pingbian Dalongshu Wetland Park, which fails to perfectly interpret the regional landscape characteristics of Pingbian. I hope this study can provide reference for the design and research of regional landscapes in ethnic regions.

Note: Unless otherwise specified, all images in the text are drawn or taken by the author.

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