Construction of Hierarchical Analysis System of Landscape Pattern Diversity Index

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Abstract: This paper discusses the construction of the hierarchical analysis system of landscape pattern diversity index. It is important to emphasize the beauty of rhythm. Under the premise of color, texture, variety, and light and shade, it is necessary to emphasize the harmonious symbiosis between each other and create a comfortable and pleasant living space. Similar to the repetition of the similar rhythm in music or poetry according to a certain law, it is called rhythm. The same is true for design of the courtyard. Only the skillful use of the synchronization of the multiple rhythms can give visitors a wonderful aftertaste of rhythm. The proposed model will guide the further development of the related subjects and the future research will be focused on the optimizations.

1. Introduction

The application of the landscape ecology in village planning is relatively early in the study of land remediation and sustainable land use in rural areas. Landscape pattern optimization refers to the adjustment and optimization of the spatial distribution and quantity of patches of various landscape types on the basis of fully understanding the coupling relationship between patterns and processes, so as to achieve the maximum ecological benefits. Conceptual model, mathematical model and the GIS technology are commonly used in the landscape pattern optimization. However, the raster spatial data involved in landscape pattern optimization have the characteristics of large number of pixels and large amount of calculation. The above methods cannot meet the requirements of modern landscape pattern optimization for high-performance computing. Therefore, for the consideration of the related issues, we should consider the following factors. (1) Urban air pollution. The concentration of the urban air pollutants depends on the total amount of pollutant emissions. It is also related to factors such as the height of the discharge source, ventilation, meteorology and also topography. Factors affecting the diffusion of the air pollutants include wind and turbulence, air temperature and atmospheric stability, weather conditions and underlying spatial environment. (2) Urban wind environment. In the city, under the influence of different building density, building aspect ratio, street trend and other factors, different wind direction wind speeds will also then occur in the city, resulting in a complex urban wind environment. (3) The unique climate and environmental effects of urban

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underlying surfaces. The mitigation effect on urban heat islands is significantly different. Urban water bodies mainly include rivers, lakes, wetlands and other water surface types, which have the ecological function of the cooling and humidifying, and can form a certain degree as the lake effect.

For its own development, the human beings naturally need a relatively stable place system. The place is characterized and ambience, so the place can be considered a "whole" view. This is not a simple visual integrity, but also includes the continuity of time and the unity of these determines the integrity of the general urban landscape space. The city ecosystem foreign has the dependence while this dependence also creates the city landscape space unstable important attribute. The city interior extends in all directions the transportation network, the penetration entire city landscape, cuts it many size different block body, this with the exterior big area continuous distribution farmland, the natural landscape forms the sharp contrast. The city landscape space instability is with the urban population work, the life corresponds. However, in practice, it is very difficult to reflect the value of urban green space biodiversity and recreation. Conservation biologists find it challenging and challenging to meet the demand for the greenfields recreation while maintaining biodiversity. The landscape stability mainly manifests in the plant community's structure stable and the steady succession renewal. The plant multiplicity is one of community characteristic important targets, can reflect to a certain extent draws out the community the habitat difference, the structure type, the succession stage and the stable degree. The different type plant individual size difference has leaves can hold the plant individual quantity difference in the certain spatial criterion scope to be obvious as the individual small floristic component to plant multiple computation decision function. Therefore, in the following subsections, we will discuss in detail of the proposed methodology.

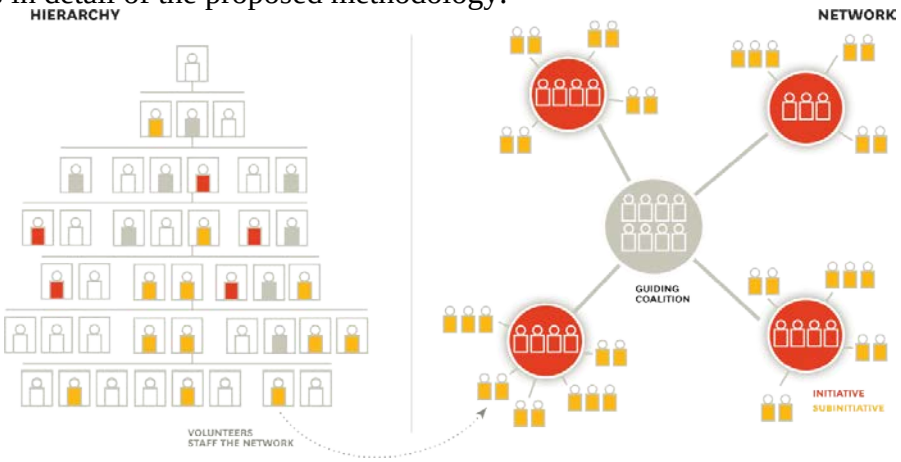

Fig. 1 The Overall Hierarchical Analysis System of Landscape Pattern Diversity Index

2. Our Proposed Methodology

2.1 The Landscape System Overview.

The structure and function of the landscape pattern are also closely related to biodiversity. In addition to genetic diversity, species diversity, and ecosystem diversity, more and more scholars have extended the connotation of biodiversity to the higher scale spaces, ie biodiversity at the landscape scales. The biological species abundance to the environment change response often is the lag, current species quantity very possibly reduces comes under early the environmental variation influence, even if the modern current ecological environment did not have the change, the species multiplicity still possibly to continue to reduce. Between therefore, moves in the great criterion space scope research

landscape pattern and with the humanity the relations has the vital significance regarding the realization society sustainable development as well as establishment corresponding biodiversity early warning mechanism.

Therefore, for the analysis of the research framework, we should consider listed aspects.

- In order to make full use of natural resources through questioning of niche complementarity and spatial complementarity and the time alternation, more substances and more products and good soil and water conservation and ornamental benefits can be then obtained under the same material and energy input. The following principles should be applied in the allocation of the forest species: in the study of landscape water conservation forest allocation, it is important to put the appropriate trees and improve the ecological environment. In the later period, many researchers in planning, architecture and ecology have further strengthened the deterministic visual environment and ecological attributes in the acoustic landscape. It is the development of acoustic landscape theory, and the construction of acoustic landscape theory and tourism, planning, architecture, geography, ecology, bridges in applications such as the environment have expanded the application of acoustic landscape theory.
- On the basis of fully investigating the background of vegetation in a certain region, this paper puts forward the vegetation allocation pattern, and also decides how to allocate, that is, from vegetation to the vegetation, by referring to the species collocation composition of the original vegetation background. In practice, the combination of the two is considered, and tree species selection and appropriate spatial pattern allocation are carried out in accordance with local conditions and disaster fortification.

2.2 Landscape Diversity.

Science and technology have changed the world and also provided various conveniences for our lives. Various advanced technologies and the materials have also provided more possibilities for the design of urban landscapes in China, which has led to new changes in the design of designers. Modern technology has made great progress in color, light and shadow, and can better simulate the desired environment according to demand. Understood some region landscape pattern the change may provide the scientific basis for this region resources reasonable management use. Vegetation's landscape pattern may reflect the general vegetation spatial distribution and dynamic the environment non-uniformity and the disturbance condition integrated control basic characteristic. Through to the landscape pattern origin mechanism analysis, the definite system productive forces, stable and the habitat quality controlling factor, then forecast effectively the landscape the tendency, is establishes the landscape management and the design goal, the formulation landscape management measure foundation and the basis. Therefore, the following aspects should be well considered.

1) In the current development of Internet technology today, a variety of ideas filled the Internet, everyone is affected by many different voices and ideas, but also caused a variety of ideas. This kind of thinking makes the urban garden landscape style appear a great difference. For urban garden design, each designer has their own style, which is also related to the designer's experience, knowledge, character, site environment, etc.
2) Not only the city botanical garden design the functionality that has now joined the very many artistic culture as caused the modern botanical garden design to have the style difference. The immediately city botanical garden design style all joins the different culture to manifest the botanical garden having great originality, like joins art, the nature, the ecology and so on many kinds of factors.

People have a new understanding and thinking about the city square, and began to re-evaluate the impact of urban space and environmental art on people, and re-recognize the status, value and role of

the people in the urban square space. In today's diversified and fast-paced life, the urban landscape design trend is bold and innovative, paying more attention to the inheritance of historical and cultural connotations and the coordination with modern civilization. The purpose of urban plaza space to meet the needs of people's life, social, cultural and activities is to fully demonstrate the city's own charm, development level and local characteristics, and reflect the city's economic, cultural, social and also comprehensive development levels from different aspects.

2.3 Hierarchical Analysis System of Landscape Pattern Diversity Index.

When planning the green space system in the urban planning area, the most basic goal is to fully reflect the characteristics of the city itself. Therefore, when configuring the resources of the green space system, it is necessary to integrate the urban characteristics and enhance the overall mental outlook of the city. This can also show the difference between the other cities and highlight their own advantages. Before planning, we must carefully consider the urban natural environment and human conditions, and make the constant adjustments in the planning; timely discuss and discuss the problems found, so that the design plan is continuously optimized; for key issues, we need to listen to the opinions and suggestions of experts to ensure green space planning as the characteristics. The introduction of the integrated design of the urban new district logo landscape mainly stems from two aspects: one is the breakage of the iconic landscape between the new district and the old town in time and content; the other is the disconnects between the landscape and the whole. Its essence refers to the urban overall environmental system and synchronic people as basis of its design, with diachronic urban cultural capital, natural environmental resources, built-up area characteristics as a clue, with personality, continuity, synergy, optimization, integrity As a basic principle, from the urban level, facing the intangible human capital and tangible physical environment of the city, combing and summarizing, refining the characteristic attributes of the urban landmarks, integrating and also reconstructing the urban landmark system, and rationally arranging the various hierarchical landmark systems in space, and finally establish a hierarchical and holistic landmark system that is conducive to strengthening the city's theme image as enhancing the recognizability of the district, and having unique aesthetic characteristics and synergy at the spatial and temporal levels. In landscape design, more efficient and low-emission environmental protection and energy-saving landscapes should be promoted. The plant configuration should be prominent, and the park-style or garden-style landscape layout should be the main focus to improve the occupation of the green vegetation in landscape design. The density is hierarchical and layered, making it easy and enjoyable to enjoy nature and enjoy the beauty. More imitation of ecological nature everywhere filled with birds and flowers and spring is the most direct humanistic affirmation of a landscape design.

3. Summary

In this paper, we discuss the construction of hierarchical analysis system of landscape pattern diversity index. The current landscape design is not simply planting flowers and plants, but a whole overall coordination. It is to talk about the ingenious combination of plants, water bodies, hard stones and wood to truly meet the needs of people today. Even put the landscape inside the interior design, intent to enjoy nature anytime, anywhere. The proposed model will guide the further development of the related subjects and the future research will be focused on the optimizations.

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