

Research on Soundscape Design Strategies for Public Spaces in Dong Village, Dali

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Abstract. Soundscape reflects the ecological, cultural and social characteristics of regions and ethnic groups and is an important part of the public environment. Because in the past environmental design, the breadth and depth of the design that considers the human settlement environment system as a large framework should be included and involved. Therefore, this article analyzes the existing public space and landscape nodes of the public environment of Dali Dong Village, and uses the knowledge of environmental science, sociology, landscape science and other related disciplines to explore the Dong village public environment as the design practice object. It hopes to provide a useful reference for the research on sound landscape design of traditional ethnic minority settlements in my country.

Keywords: Dong Village Public Environment; Soundscape; Design Strategy.

1. Introduction

1.1. Background

According to the "National New Urbanization Plan (2021-2035)" [1], it is known that the urbanization rate of my country's permanent population has reached 63.89% by the end of 2020. Under the social conditions of rapid economic development, the sound pollution accompanying urban and rural construction has also destroyed the purity and nationality of the traditional settlement soundscape. However, the definition of "intangible cultural heritage" in the Convention for the Protection of Intangible Cultural Heritage has classified soundscape as an important item of cultural heritage for research and protection.

1.2. Overview of Dali Dong Village

Dali Dong Village is located in Rongjiang County, Qiandongnan Prefecture, Guizhou Province. It was included in the preliminary list of China's World Cultural Heritage in 2006. Its natural features remain original and have a typical traditional Dong village spatial form. Due to the lag in transportation development in the area, the traces of commercial development are weak, and the authenticity of the acoustic landscape within the village is well protected.

1.3. Soundscape and Related Concepts

The word "Soundscape" (also referred to as soundscape) was first proposed by Finnish geographer Granoe in the early 20th century, aiming to mobilize the experience of auditory perception in geographical research [2]. The "Handbook of Sound Ecology" written by Barry Trnax clearly distinguishes between "soundscape" and "sound environment". Soundscape is "a sound environment that emphasizes individual subjective feelings and understanding of how sound is perceived [3], and is "Acoustic Communication" elaborates on the interconnection and influence between sound, people and the environment, further demonstrates the important cultural and social functions of sound, and expands the scope of soundscape research to history, ecology, Social, cultural and other fields.

2. Analysis on the Current Situation of Public Environmental Sound Landscape in Dong Village in Dali

2.1. Overview of the Public Environment of Dong Village in Dali

The national music of the Dong ethnic group includes solo singing, duet singing, and "big song" multi-voice chorus; the dances mainly include the "Duoye" dance and the Lusheng dance; the Dong ethnic group has many types of traditional operas, such as the love-themed "Zhulang Niangmei" and "Heroes". The theme of "long-haired girl", etc. [4].

The site selection of the village follows the traditional custom of "the Dong people live on the mountainside" [5]. The spatial form of the Dong village has obvious centripetality. Each residence is centered around the high flat where the drum tower and the altar for worshipping "Sa Sui" stand. It is also the center of social and political activities, a ceremonial space for traditional cultural activities [6], and constitutes the daily social center of the village residents [7]; the altar is the traditional spiritual belief space of the Dali Dong Village; other public spaces such as flower bridges, Zhaimen, respectively play the functions of meeting settlement traffic and defining settlement boundaries.

2.2. Research on the Public Environmental Sound Landscape Characteristics of Dong Village in Dali

2.2.1. Natural Tone Sound in Ecological Environment

Generally speaking, natural keynote sounds refer to background sounds that exist in the natural environment, and are often not sensitive to them due to the listener's inherent hearing habits. For example, the wind blowing through the woods, birds chirping, and streams flowing are all the natural keynote sounds of the Dong Village; the sounds made in the natural environment (atmosphere, water, wind) of the Dong Village, the sounds made by poultry, birds, animals, insects, and plants are all included in the natural base tone. The natural keynote sound is the basis of the public environmental soundscape of the Dong Village. Against the background of the keynote sound, the public environment of the Dong Village appears to be layered and three-dimensional.

2.2.2. The Sound of Cultural Symbols in a Unique Humanistic Atmosphere

Marknotes refer to social sounds that are identifiable, unique, or noticeable among social groups at that time. The existence of sign sounds makes the environmental atmosphere of this specific region identifiable and is an object worthy of protection [8]. Cultural landmark soundscape refers to the soundscape that is related to local humanities and can define attributes such as regional ethnic groups. Its sound sources mainly come from dialects, local songs, musical instruments, labor tools, etc. in the traditional living sound environment [9]. For example, the song and dance culture of the Dong people shows the Dong people's cultural heritage, emotional exchanges, and preservation of historical information. Daily folk activities such as marriages, childbirth, funerals, sacrifices to exorcise evil spirits, and harvests are closely related to ethnic music and dance; the Dong people have There are a wide variety of local musical instruments, among which the most representative one is the Lusheng.

2.2.3. Signal Sounds in Unique Social Environments

The signal sound is a sound that is completely opposite to the keynote sound. The signal sound has the same function as the foreground sound in music. It is to attract people's attention, so the signal sound is generally listened to consciously [8]. From the perspective of social environment, the signal soundscape is a special requirement for prevention, and artificially created sound sources with some special meanings are created. For the Dong people who have lived in a dangerous physical environment for a long time, the significance and role of signal sound is particularly prominent. It can not only warn of approaching danger at any time, but also serve as a tool for the ethnic group to spread information, and can also arouse people's awareness of certain Memories or vigilance of specific historical eras and landscapes. The most common signal sound in Dali Dong Village is drum sound.

2.3. Current Status of Acoustic Landscape Issues in Dong Village

2.3.1. Reduction of Soundscape Characteristics

The rapid development of my country's economy has also caused the Dong village to experience the invasion of weak and marginalized cultures by strong economic and cultural forces. This invasion has been shown to be irresistible over a long period of time, and its soundscape shape has gradually shown that it has been gradually assimilated by strong economic and cultural forces. trend, resulting in the weakening of its characteristics, which is specifically manifested in the weakening of the characteristics of natural tone sounds, the dilution of the characteristics of cultural landmark sounds, and the functional degradation of signal sounds.

2.3.2. Protection of “Static” Soundscapes

Existing conservation measures focus on presenting the original soundscape elements of the Dong Village in static exhibitions in the form of a museum. However, these current methods are too static and isolated, separated from the environmental space generated by soundscape elements, causing the social functions and cultural significance of soundscape elements to gradually dissipate.

3. Acoustic Landscape Design Strategy in Public Environment of Dong Village

3.1. Theme Soundscape Interpretation is Partitioned

Based on the previous analysis and summary of the Dong Village’s public environmental soundscape, the Dong Village’s soundscape components were closely combined with their corresponding functional spaces that carry the soundscape elements. By sorting out the sound sources and natural environment in Dali Dong Village. The public environment of the Dong Village is divided into three loud landscape theme areas, namely the natural tone theme area, the cultural sign sound theme area, and the social signal sound theme area.

3.2. Diversified Expression of Soundscape Content

In terms of the overall functional experience zone, streamline organization and landscape layout are carried out, and the soundscape elements of the Dong Village are decomposed in the order of "initial (snoop space) - transition (Listen carefully space) - climax (wait and listen space) - The experience rhythm of "buffer (sound-making space) - end (listening space)" is used as the overall plan; starting from the soundscape elements, the functional attributes of the space carrying the soundscape, and the rhythm of people's space experience, the following rhythm is presented:

1) snoop space – natural soundscape expectations. This part mainly includes common public functional spaces in Dong villages such as flower bridges, bluestone trails, and stream banks; at the same time, it serves as the entrance to the entire experience area and highlights the theme of the space. It needs to set up attractive soundscape elements in a consistent audio-visual situation, and has a certain The cultural recognition and landscape guidance attract tourists’ audio-visual attention and enthusiasm.

2) Listen carefully space – Natural soundscape perception. This part mainly includes public functional spaces such as ancient wells, farmland, and linear mountain trails; the transition space is the process of connecting the initial space to the climax space. Therefore, soundscape elements are used to enhance the theme soundscape atmosphere, which is efficient and interesting, ensuring the fun of tourists.

3) wait and listen space – Folklore soundscape performance. This part includes the main public functional spaces such as Drum Tower Ping, Drum Tower, and wooden drum display; through the atmosphere of the first two parts and the emotional foreshadowing of tourists, in this part you will feel the strong atmosphere of folk culture and soundscape, making people stop and watch. The

original space is constructed with national symbols to bring fresh stimulation to visitors, which awakens consciousness and generates emotions, allowing visitors to subjectively stop.

4) sound-making space – An ethnic soundscape experience. This part includes the soundscape experience space such as the grain drying installation, the rattan bell basket installation, Dong unique soundscape display, and Dong drama performances. Having experienced the emotional impact of the Dong folk culture soundscape, I have a strong desire to explore the folk culture soundscape. The buffer space is just the right place to reminisce about previous cultural experiences and interact with the soundscape. Relaxed interaction will bring people a better comfortable experience.

5) listening space – A natural soundscape experience. This part includes public functional spaces such as Tingbu, pebble beach, and stream bank; after having in-depth experience of various soundscapes of the Dong people, people are eager to communicate and discuss, and the natural and comfortable soundscape atmosphere can bring better Thinking about the environment: The width of the road softly controls the rhythm of people's walking and the opportunities for communication between people, so that tourists can stroll in the natural sound landscape atmosphere of Dong Village and deepen their impression of the sound environment of the entire Dong Village.

3.3. Diverse Experience of Behavioral Patterns

Through the interaction between people, the interaction between people and things, and the interaction between things, we will explore people's auditory behavioral activities, combine the various existing soundscape resources in Dong Village, re-create artistic techniques, and give them a new social Signal soundscape function. For example:

1) Wooden Drum Sound Landscape Installation - People and Wooden Drums

By viewing the traditional cultural symbols in Gulouping, tourists are stimulated to experience the soundscape of the Dong people. Through the interactive experience of traditional wooden drums, they can have a deeper understanding and perception of the soundscape of the Dong people and the subsequent traditional culture. The logo sound experience paves the way.

2)Heliangsheng landscape installation - interaction between wind and wooden bars, people and wooden bars

The agricultural structures that were originally used for drying corn grains in single groups were connected together to form a whole wooden structure, and two adjacent pieces of wood were hung on it. When people pass through and caress with their hands, a beautiful note will be formed.

3)"Wind" installation - Wind and Dong Brocade

A pavilion is made of wood and Dong steps. Visitors rest here and suddenly look up and discover that the "wind" can be heard and seen. In the process of "watching" and "listening", they can appreciate the artistic crystallization of the Dong village and understand the Dong people. The breadth and depth of culture.

4. Conclusion

This article mainly explores the characteristics of Dong Village's soundscape, auditory perception methods, and auditory behavioral habits, and discusses the creation of a good Dong Village's public environmental soundscape atmosphere. It also takes the public environment design of Dali Dong Village as an example to investigate the current status of its soundscape. Collect information and summarize it, analyze existing acoustic landscape problems, and propose targeted landscape design strategies. The paper proposes and demonstrates innovative concepts with timely significance or methods that can be promoted and other highlights.

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