Research on the Construction of Dynamic Monitoring System for the Protection of Traditional Villages in Gannan Prefecture Based on Cultural Integrity

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**Abstract:** as the Most Primitive Human Settlement, the Traditional Village Has Accumulated the Life Style and Customs of the Farming Era, and Has Incorporated Many Values Such as History and Culture. Its Monitoring Work Affects the Protection and Sustainable Development of the Traditional Village. Tibetan Rural Settlements in Gannan Have Deep Historical and Cultural Deposits and Contain Rich Ethnic Cultural Connotations. with the Development of Urbanization in Gannan Prefecture, the Living Environment in Tibetan Villages Has Undergone Significant Changes. According to the Needs of Today's Protection, the Concept of Monitoring is Introduced. through Real-Time Understanding of Changes and Trends during Its Existence, a Large Amount of Dynamic Information is Collected, Summarized and Analyzed, and Targeted Control Schemes Are Discussed, Which is More Conducive to the Preservation of Style and Features and the Optimal Development. Therefore, Based on the Perspective of Cultural Integrity, This Paper Elaborates the Idea of Dynamic Monitoring in Detail, and Initially Establishes a Dynamic Monitoring System for the Protection of Traditional Villages in Gannan Prefecture, in Order to Contribute to the Protection and Development of Traditional Villages in Gannan Prefecture.

1. Introduction

Traditional Villages Can Be Said to Be Our Country's Extremely Precious Material and Cultural Heritage, Which Accumulates Our Country's Long-Standing Cultural Heritage and is Also an Important Manifestation of Traditional Lifestyles and Customs. Therefore, It is Urgent to Strengthen the Protection and Development of Traditional Villages in Gannan Prefecture [1]. in 2018, the 19th National Congress of the Communist Party of China Proposed to Vigorously Promote the Strategy of “Rural Revitalization” and Elevate It to the Height of National Strategy, Which Makes the Social Attention Once Again Focus on Rural Areas and Rethink the Protection of Traditional Villages under the Background of “Rural Revitalization” [2]. Influenced by the Cultural Convergence Phenomenon of Urbanization, Gannan Has Gradually Lost the Original Characteristics of Human Settlements. Tibetan Rural Settlements in Gannan Contain Rich Ethnic Cultural Connotations. in the Ecological System of Culture, Cultural Noumenon, Material Space and Human Form an Organic Whole of Culture, Which Are Inseparable [3]. by the End of 2014, More Than 2,500 Villages with Local Features and Distinctive Features Had Been Included in the “Traditional Villages” List, Which Undoubtedly Shows That Attention to Culture and Tradition Has Gradually Spread [4]. However, There Are Still a Lot of Work and Problems to Be Solved about How to Maintain the Permanent Preservation of Traditional Villages, Especially the Related Work of the Protection and Management Department. How to Achieve Certain Development Based on the Original Features of Traditional Villages is the Key Content of the Current Research on the Protection of Traditional Villages in Gannan Prefecture. This Paper Puts Forward the Concept of Dynamic Monitoring for the Protection of Traditional Villages in Gannan Prefecture, and Constructs a Dynamic Monitoring System for the Protection of Traditional Villages in Gannan Prefecture, Hoping to Provide Reference for the Current Protection and Construction Management.
of Traditional Villages in Gannan Prefecture.

2. Problems in the Protection of Traditional Villages in Gannan Prefecture

2.1 How to Deal with the Relationship between Village Protection and Development

Urbanization construction has brought unprecedented opportunities for the protection and development of traditional villages. However, it should not be ignored that some local leaders' ideas of quick success and instant benefits have led to traditional villages emphasizing development but neglecting protection, resulting in serious destruction and extinction of traditional villages. Due to the difficulty of intangible cultural heritage protection, the protection focus of traditional villages in China in recent years is still biased towards the protection and restoration of intangible cultural heritage [5]. However, this kind of value orientation, which lays too much stress on material culture, makes it difficult to highlight the cultural value of non-heritage traditional villages. The purpose of the protection of cultural integrity is that the ontological connotation, subjective value and materialized form of intangible culture in traditional villages can be protected integrally. As the objects to be protected are limited to a few buildings of so-called historical, artistic and scientific value, a large number of ordinary traditional buildings in the city are usually not paid attention to, not to mention the vast villages which are limited by the ancient hierarchy and relatively backward in economic development [6]. For example, some local cadres are too eager for quick success and instant benefits to attach importance to development and neglect protection, resulting in the disappearance of traditional villages. The protection mode of “killing the goose that lays the golden eggs” by a few real estate developers or local organizations has caused great damage to traditional villages. The original style and scale of traditional streets and lanes have disappeared completely, which is in sharp contrast to the relatively well-protected villages and leads to the whole village style and features being neither fish nor fowl. Because some traditional buildings, even if repaired, can only be closed when they cannot be used reasonably and legally, in fact, the damaged speed of closed buildings is sometimes faster than normal use, so this is called “negative protection”.

2.2 The Contradiction between the Village Living Environment and the Villagers' Need to Improve Their Living Space

Traditional villages are the product of farming culture, and there are some incongruities with modern life, such as dirty, chaotic and poor environment, lack of necessary sanitation facilities in residential houses, etc. The protection of a large number of non-heritage traditional villages is still limited to the protection and restoration of single buildings and material space, and the protection of non-material culture lacks integrity and systematic interpretation and research. The public space in Tibetan rural settlements is the carrier of settlement politics, economy and culture. The characteristics of public space are diverse, and it has a very important position and value [7]. Although local governments adopt various financial support measures to promote the inheritance and development of intangible cultural heritage, the outflow of labor force from most traditional villages in China is increasingly serious, and the phenomenon of village spatialization is widespread. When activation and utilization are widely used, the problem also appears. Since activation is the replacement of new functions into old buildings, the difference in functions necessarily requires necessary renovation of old buildings [8]. At the same time, due to lack of funds, the process of village protection often lags behind the natural damage rate of the village. When there is financial resources to repair and maintain the village, the overall pattern of the village has changed, and a large number of traditional buildings have either been seriously damaged or completely destroyed. Therefore, once it is identified as a tourist attraction, it is often followed by large-scale construction. Improper construction will inevitably bring damage to its original features.
3. Construction of Dynamic Monitoring System for Protection of Traditional Villages in Gannan Prefecture

3.1 Necessity Analysis of Dynamic Monitoring of Traditional Village Protection in Gannan Prefecture

The so-called dynamic monitoring mainly refers to real-time and comprehensive monitoring of specific targets and objects to obtain a large number of relatively complete information and data. Based on the analysis of these data and information, specific problems that may exist are obtained, and reasonable methods and solutions are selected for optimization [9]. Through the distribution and protection of traditional buildings on both sides of streets and lanes, streets and lanes are divided into streets and lanes with historical features and streets and lanes with general features. The formation of water network is divided into natural water bodies and fire fighting ditches, and their external manifestations and usage are analyzed. In this process, people, the material environment and the core value itself constitute the integrity of culture. Without human being as creator and token of cultural symbol, it is difficult for any culture to spread and continue. Tibetan rural settlements in Gannan have a long history and cultural deposits. It consists of public space and residential buildings, of which public space is the core element. Now it is included in the protected ranks, not to catch up with or surpass other neighboring villages according to the development track of ordinary villages through external forces, but to keep their inherent forms and features [10]. Judging from the current implementation status of the protection of traditional villages in Gannan Prefecture of China, the development of tourism in many areas has led to these traditional villages being used as tourist spots for people to visit and play. This will pose a greater threat to the protection of traditional villages, making it difficult to achieve comprehensive and effective protection functions, and urgent rectification and optimization are needed.

3.2 Construction Level of Dynamic Monitoring System for the Protection of Traditional Villages in Gannan Prefecture

Dynamic monitoring of the surrounding environment of villages. Monitoring, this aspect of monitoring needs to have as wide a field of vision as possible, and can effectively analyze and find all kinds of unfavorable problems and influencing factors that may exist around. On the one hand, understanding the traditional villages to be monitored is the starting point of dynamic monitoring. On the other hand, it is beneficial to adopt corresponding measures for villages with different protection conditions, thus making monitoring more effective. Influenced by religious belief, tribal system and economic trade, Tibetan rural settlements in Gannan have formed different types of settlement characteristics. For most traditional villages, in order to better promote the corresponding protection effect to achieve maximum effect, it is necessary to ensure that the environment around the corresponding villages is well monitored. For example, the surrounding fields and mountain forests and other areas may have a certain impact on the orderly development of traditional villages and need to be effectively monitored. Of course, although monitoring is the same, it cannot be applied simply because of different objects and purposes.

Dynamic monitoring of village ontology. The comprehensive and systematic dynamic monitoring of the traditional villages themselves is also an essential and important part. The dynamic monitoring of the villages themselves needs to involve the overall layout of the traditional villages. They have become the communication channel between the village interior and the outside world, and at the same time they have organized the activities within the village in an orderly way. For the construction of dynamic monitoring system in this aspect, the effective installation of public security monitoring equipment is generally adopted to carry out the implementation, and all data and image information acquired during the operation of these equipment are analyzed, so that the specific changes can be more comprehensively understood. Secondly, the value elements of the traditional villages to be monitored are divided into layers, and the traditional village forms are inspected from outside and inside. It is found that the value remains of the traditional villages are not clear at a glance, but are displayed in layers and sequences, and are in a semi-network structure.
In view of this situation, dynamic monitoring, that is, dynamic monitoring and continuous control, is an inevitable trend for the protection and development of traditional villages in Gannan Prefecture, which will change with the changes of objectives and objects.

Dynamic monitoring of traditional buildings. In the process of protecting traditional villages in our country, the protection of traditional buildings can be said to be one of the core contents. Only by effectively strengthening the effective protection of traditional buildings can we realize the protection and improvement of all-round traditional villages. The architectural space is divided into traditional buildings and modern buildings. Traditional buildings are the core expression of traditional elements in villages, which need to be classified and protected after evaluation of its current situation. From the perspective of village development, the fields and mountains around the village are actually resources, and changes in the natural environment will have a great impact on the village itself. The research on the characteristics of the public space of Tibetan rural settlements in Gannan can enrich the research results of rural settlements in western minority areas. To perfect the theories and methods of human settlement environment with regional and ethnic characteristics in order to realize the sustainable development of human settlement environment in Tibetan rural settlements. The understanding of villages will not only become the starting point of monitoring, but also adopt corresponding measures for villages with different situations, thus making monitoring more effective. In the stage of village renovation, the historical culture, current development and existing problems of the village should be understood in combination with monitoring data, and the characteristics and differences of the village should be implemented into the renovation design work in a timely manner.

4. Application Measures of Dynamic Monitoring System for Protection of Traditional Villages in Gannan Prefecture

4.1 Data Image Information Summary

In the protection of traditional villages in Gannan Prefecture, the reason why the dynamic monitoring system can play an ideal and positive role is largely because the corresponding data and images can accurately and timely reflect all aspects and changes of traditional villages. There is no expression entity in the social and cultural space, so it is more vulnerable to destruction, with irrecoverability and vulnerability. Except for specific areas, if the security monitoring facilities have been extended to villages, the image data of the villages can be shared. However, the monitoring of traditional buildings and environmental elements requires more intensive monitoring points. The regional culture of Gannan consists of social culture and geographical environment, which affects the characteristics of Tibetan rural settlements. The types of rural settlements are influenced by social culture and geographical environment, forming the regional culture of Tibetan rural settlements in Gannan. Classification and classification of value elements in traditional villages under dynamic monitoring and protection, and investigation of village morphology from the outside to the inside, can display the material heritage in the villages at different levels. Therefore, data summary should be divided into three types: short-term, medium-term and long-term. For natural disasters such as development and construction, renovation of old houses or sudden occurrence, timely summary is required, while monitoring such as changes in the four boundaries of villages and village morphology can be summarized for half a year.

4.2 Analysis of Data and Image Information

A comprehensive and effective analysis of the collected data and image information is also the key link to ensure that it can give full play to the protection value of the traditional villages in Gannan Prefecture. It is not an inherent mode of state and will change with the development of villages. Therefore, it cannot be fixed on the existing tense to prevent its new development in the new living space and time. The traditional village is a place where local villagers live in concentrated communities. Changes are inevitable. In the past, strict hierarchy, economic level and building materials controlled the development of the village. Therefore, its style and features have
continued throughout the evolution process of thousands of years. Most of the existing intangible cultural heritage only exists in oral legends and book records. In contrast, physical space and material heritage can awaken and strengthen people's understanding of intangible culture. Therefore, the core of creating cultural space lies in how to conceptualize the connotation of intangible culture into reality and interpret the connotation of virtual culture with materialized forms. The specific process can be simply summarized as extracting symbols and creating space. Figure 1 below shows the construction process of cultural integrity space.

Families in the same geographical and cultural background in Gannan rely on geographical relations to form villages. The implementation of a self-sufficient natural economy, constitute a common customs and ethics, patriarchal clan kinship network. Its main purpose is to better promote the corresponding data image information to give a strong information feedback effect in the corresponding area, focusing on some possible changes, analyzing whether it will form certain threats and adverse effects on the traditional villages, and ensuring the accuracy of its judgment. As the departments and personnel in charge of the protection of traditional villages in Gannan Prefecture are familiar with the current situation of the villages and can grasp the purpose and significance of the protection, they can make judgments through the change trend of the villages so as to take appropriate, targeted and timely guidance or stop actions.

4.3 Preparation of Investigation and Analysis Report

After analyzing and judging the contents of the corresponding monitoring information, an investigation and analysis report shall be prepared in a timely manner to reflect all kinds of problems that may exist in detail and comprehensively, and a statement shall be made in combination with the specific maintenance measures and treatment schemes of these problems to form a complete investigation file. The original social life is the basis for the operation of traditional villages, many of which have become weak under the impact of modern civilization. As a result, the inner spiritual structure of traditional villages has begun to loosen. The collected data should be thoroughly sorted out and judged, and the seemingly chaotic dynamic monitoring data should be concentrated, and useful information should be extracted and refined to find out the internal change rules, which is helpful for the preventive protection of traditional villages. In addition, a sound and reliable review mechanism should be formed to facilitate the follow-up work. In the presentation of such reports, it is necessary to ensure that they can realize the regular reporting mode as much as possible, and avoid long-term non-reporting or obvious passive reporting characteristics. The content should focus on statements and elaborate the analysis results of monitoring data, so as to provide the basis for decision-making bodies to take future actions. Regular reports can transform the passive supervision into active guidance and intervention. Village protection and management departments should be targeted to strengthen the optimal allocation of resources and real-time adjustment of management. Information systems should also be constructed when necessary to strengthen information exchange and sharing with government agencies such as the Urban Construction Bureau, the Cultural Bureau and the Ministry of Environmental Protection.

5. Conclusion

Gannan Tibetans have a long history and splendid culture. Regional culture affects Tibetan
ideology, living customs and inhabitation patterns, and permeates the fields of architecture and art. Tibetan rural settlements in Gannan have deep historical and cultural deposits and contain rich ethnic cultural connotations. The study on the establishment of a dynamic monitoring system for the protection of traditional villages in Gannan Prefecture aims to introduce village protection into an orderly development track so that traditional villages with historical and cultural details in China can be completely and permanently preserved. This is not only the need for historical and cultural protection, but also the requirement for sustainable social development. The construction of the protection and monitoring system for the traditional villages in Gannan Prefecture hopes that the development of these villages can be brought into an orderly track so that the villages that have maintained their traditional features after long-term development can continue to exist. This operating system can reduce a lot of energy consumed by relevant competent departments due to the need to know the changes of traditional villages in real time by using current technical means, so that the analysis and research carried out for protection can be further deepened and incorporated into a scientific management system, thus improving the rationality of control.

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References