

Research on the architectural characteristics and revitalization utilization of Shanxi Jinnan Dikengyuan

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Abstract: As a unique form of residential architecture in northern China, Shanxi Jinnan Dikengyuan has rich historical and cultural value as well as ecological and environmental protection significance. However, with the acceleration of urbanization and the outflow of rural population, underground pit houses are facing the dilemma of protection and revitalization. The aim of this study is to explore strategies and methods for the protection and revitalization of the unique features of Shanxi Jinnan Dikengyuan, in order to achieve its sustainable development.

Key words: Shanxi Jinnan; pit yard; characteristic protection; activation and utilization; sustainable development

1 Introduction

Through on-site investigation and literature research on Jinnan Dikengyuan, the historical evolution, architectural characteristics, and cultural connotations of Dikengyuan were analyzed. On this basis, principles and strategies for the protection and revitalization of the characteristics of the underground pit institute were proposed, including protecting the authenticity, integrity, and diversity of the institute, strengthening its maintenance and management, and promoting its revitalization and sustainable development. Finally, through specific case analysis, the practical achievements of the protection and revitalization of the characteristics of Dikengyuan were demonstrated, providing reference and inspiration for the protection and revitalization of traditional residential buildings in other regions.

2 Outlook and development direction for future research

2.1 Outlook for future research

Firstly, in terms of protection and inheritance, we need to comprehensively protect the architectural style, folk culture, and other characteristics of the underground pit courtyard, making it a unique cultural heritage of the local area that can be passed down from generation to generation. Secondly, innovation and integration will combine the traditional characteristics of the underground courtyard with modern elements, develop emerging fields such as cultural tourism and creative industries, and inject new vitality into the local economic development.

2.2 Development direction

Firstly, tourism development should fully tap into the tourism resources of the underground pit courtyard, develop attractive tourism products such as folk cultural experiences, farmhouse entertainment, etc., in order to attract more tourists and drive the prosperity of the local economy. Secondly, cultural creativity is based on the cultural elements of the

underground pit courtyard, developing cultural and creative industries such as handicraft production, folk art performances, etc., in order to enhance the cultural value of the underground pit courtyard. Once again, the focus is on green agriculture, utilizing the ecological advantages of pit yards, developing green agriculture, promoting environmentally friendly agricultural methods such as organic planting, increasing the added value of agricultural products, and achieving coordinated economic and environmental development [1].

3 The architectural characteristics and cultural connotation of Shanxi Jinnan Dikengyuan

3.1 Architectural characteristics of Shanxi Jinnan Dikengyuan

Firstly, underground excavation. Pit courtyards are usually excavated underground, with a depth of about 7-8 meters, a width of about 3-4 meters, and a height of about 3 meters. Inside, there are bedrooms, kitchens, storage rooms, etc. Secondly, the walls of the pit courtyard are made of compacted loess, which has good sound insulation, fire prevention and other properties. Once again, it is warm in winter and cool in summer. Due to its underground location, the underground pit courtyard is warm in winter and cool in summer, with temperatures about 10 degrees lower than the ground in summer and about 10 degrees higher than the ground in winter. In addition, it is environmentally friendly and energy saving. The underground pit courtyard does not require a large amount of building materials and energy consumption, and has good environmental and energy-saving effects [2].

3.2 The cultural connotation of Shanxi Jinnan Dikengyuan

(1) Family culture: Pit houses are usually the gathering place of a family, reflecting family culture. They are not only places of residence, but also symbols of family inheritance and cohesion. Here, family members live and work together, forming a tradition of close interpersonal relationships and mutual assistance and cooperation.

(2) Folk culture: The architectural style, decorative art, and lifestyle of the underground pit courtyard all reflect the local folk culture. For example, the inner walls of the cave dwellings in the underground pit courtyard are often painted with various auspicious patterns, such as wealthy peonies, pine and crane longevity, reflecting people's yearning for a better life.

4 Principles and strategies for protecting and activating the characteristics of Shanxi Jinnan Dikengyuan

4.1 Principles for protecting and activating the characteristics of Shanxi Jinnan Dikengyuan

(1) Protection priority: As a unique cultural heritage, the protection of the underground pit courtyard should be given top priority. We need to take measures to protect its original structure, style, and historical features, prevent improper renovation and damage, and ensure that the authenticity and integrity of the underground pit courtyard can be inherited. Prioritizing protection means respecting history and treating the underground pit courtyard as a historical witness and cultural treasure to protect its unique value. This requires the formulation of relevant protection regulations and policies to strengthen their protection and management. At the same time, it is necessary to encourage residents and all sectors of society to participate in protection work, and create a good atmosphere for the whole society to jointly protect [3].

(2) Sustainable development: Seeking sustainable development models based on protection. Through reasonable planning and management, combined with modern technology and concepts, the underground pit courtyard can achieve sustainable development in terms of economy, society, and environment, and create better living conditions for local residents. Sustainable development means not only protecting the historical value of underground pits, but also adapting them to the needs and development of modern society. This requires the formulation of sustainable development plans and policies, encouraging residents to participate, promoting innovation and development of underground pits, making them a growth point for the local economy and an engine for social development.

(3) Resident participation: The protection and revitalization of underground pits cannot be achieved without the active participation of local residents. It is crucial to encourage residents to participate in the decision-making process, unleash their wisdom and creativity, and jointly promote the protection and development of pit houses, forming a good atmosphere for community protection. Resident participation means respecting the wishes and needs of residents, viewing them as the main body for the protection and revitalization of the underground pit courtyard. This requires the establishment of an effective resident participation mechanism, encouraging resident participation in decision-making and management, providing training and support, and making residents active participants and beneficiaries of the protection and revitalization of underground pits [4].

4.2 Strategies for protecting and activating the characteristics of Shanxi Jinnan Dikengyuan

(1) Strengthen planning and management: Develop a comprehensive and scientific protection plan, clarify the protection scope, protection measures, and management requirements of the pit institute. Establish an effective management mechanism, strengthen supervision and guidance on protection work, and ensure the smooth implementation of the plan. It is crucial to develop a comprehensive and scientific protection plan to ensure the smooth progress of the protection and revitalization of the underground pit institute.

(2) Improve infrastructure: In order to improve the living quality and attractiveness of the pit courtyard, it is necessary to increase investment in infrastructure. This includes improving transportation conditions, ensuring water and electricity supply, enhancing sanitation facilities, etc., in order to provide convenience for residents and tourists, and create a comfortable living and tourism environment. Improving transportation conditions is one of the important measures to enhance the living quality and attractiveness of underground pit courtyards. Pit courtyards are usually located in more remote areas, and inconvenient transportation has become one of the limiting factors for their development. To solve this problem, it is possible to consider increasing the construction and renovation of roads, improving their traffic capacity and quality. At the same time, public transportation routes can be increased or specialized tourist buses can be established to provide convenient transportation services for residents and tourists.

(3) Develop cultural tourism: The unique charm of Dikengyuan makes it a high-quality resource for developing cultural tourism. This can be achieved through organizing folk exhibitions, traditional skill exhibitions, and other activities that attract tourists to experience the culture of the underground pit courtyard. At the same time, cultivating professional tour guides will help improve the quality of tourism services. As a unique form of residential architecture, Dikengyuan has rich cultural connotations and historical value. In order to better protect and inherit the culture of Dikengyuan, activities such as folk exhibitions and traditional skills exhibitions can be held.

(4) Education and publicity: Through education and publicity activities, public awareness of the protection of underground pit yards can be cultivated. Activities such as introducing the culture of the underground pit courtyard into campuses and communities through lectures and training will help popularize its historical and cultural knowledge while enhancing people's cultural identity.

5 Conclusion

This article provides useful reference and inspiration for the protection and development of Shanxi Jinnan Dikengyuan through the study of its characteristic protection and revitalization utilization. Through in-depth research and analysis, corresponding strategies and methods are proposed to promote the sustainable development of the underground pit courtyard, making it a model for the integration of traditional culture and modern life.

Conflicts of interest

The author declares no conflicts of interest regarding the publication of this paper.

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