

Study on the Design Strategy of Rural Public Space with The Integration of Intangible Cultural Heritage Resources

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Abstract. This paper explores the ideas and methods of integrating intangible cultural heritage resources into the design of rural public spaces to show the cultural characteristics of rural public spaces and enhance rural vitality. It starts with a review of some of the current problems of rural public spaces in China, and focuses on the coupling relationship between intangible cultural heritage resources and rural public space design. In this way, it provides a basis for the revitalisation of rural development in the context of cultural confidence.

Keywords: Intangible cultural heritage resources; rural public space; spatial design; cultural revitalisation.

1. Introduction

Since the 19th Party Congress put forward the need to firmly establish cultural confidence, promote the prosperity of socialist culture and implement the rural revitalisation strategy, the construction of cultural space in China's countryside has ushered in an unprecedented historical opportunity [1]. Due to the complexity of the reality in the countryside, the lack of cultural confidence has become a great shortcoming in China's countryside at present. Therefore, in order to achieve prosperity in the countryside, it is necessary to subconsciously arouse villagers' cultural self-confidence and pride. As the crystallisation of the traditional culture of local villagers, intangible cultural heritage resources have unique regional characteristics, while the rural public space is an indispensable part of the villagers' everyday space and is very closely linked. How to better integrate intangible cultural heritage in the design of rural public spaces to create spaces with distinctive cultural characteristics is a topic worthy of study by current designers.

2. Explanation of relevant concepts

2.1. Overview of intangible cultural heritage resources

The intangible cultural heritage is a variety of social practices, expressions of ideas, knowledge, skills and related tools, objects, artefacts and cultural sites that are regarded by communities, groups and sometimes individuals as part of their cultural heritage. To date, there are 1,557 national items in China, and 3,610 sub-items declared according to different regions.

2.2. Overview of rural public space

Domestic scholars have various views on rural public spaces, but this paper mainly refers to the space that villagers can freely access to meet their daily interactions, leisure and entertainment, cultural heritage and other activities according to Dai Linlin [2]. More common in villages are places such as village entrances, villagers' activity centres, marketplaces, and the entrance to village kiosks, which attract villagers voluntarily and are usually the places where villagers have the greatest mobility and access to information. According to its use, it can also be classified as a living, recreational, commercial and productive village public space [3]. It is clear from this classification that it has two main attributes: 'public' and 'spatial'. "Public" refers to the interconnection between the social, human and political, and is a social attribute expressed by people in their practical life. "Spatiality" refers to a specific spatial place, made up of material physical elements.

3. Current situation of rural public space design

Since the implementation of the rural revitalisation strategy in 2018, there has been a significant improvement in the condition of rural public spaces in terms of facilities and ecological environment, but it is still possible to summarise some common problems.

3.1. Poor spatial planning and distant neighbourhoods

Due to the composite nature of rural public space, this requires designers to conduct in-depth research on the scale of the entire village, the location of public space, etc., and moreover, they need to have an overall grasp of the local culture and distribution of people, so as to find the most suitable design solution. Through the survey, it was found that most villages have improper spatial planning, resulting in alienation of neighbours. Due to the lack of reasonable planning guidance, they pay more attention to form and pursue external uniformity, copying successful cases from other villages and applying spatial layout and design elements directly to the local area, resulting in a situation where villages with different histories have the same thematic design image. The staff arranged a large number of public activity facilities in the vicinity of the village hall, while only a few facilities were naturally installed in areas far away from the village hall, resulting in an uncoordinated spatial scale and unreasonable distribution. The poor accessibility of public spaces directly leads to a decrease in attractiveness to villagers, with only those nearby and with a strong desire to visit, dividing people and objects in time and space and leaving public spaces unused from time to time.

3.2. Fractured cultural memory and loss of regional characteristics

Rural cultural revitalization runs through the entire field and process of rural revitalization, providing a lasting spiritual impetus for rural revitalization. Rural construction is centered on cultural construction, while rural public space is the carrier of cultural expression [4]. In the past forty years, due to the accelerated progress of urbanisation and the gradual deepening of the dichotomy between urban and rural areas, foreign ideas and values have had a huge impact on traditional cultural concepts in the countryside, and the pattern of farmers, rural areas and agriculture has changed dramatically in almost one generation. Research shows that older people have memories of public life in the countryside, middle-aged people have a much better impression of jumping jacks and playing marbles than of traditional culture such as rituals and temple fairs, while young people are less interested in public activities in the countryside, and the public space in the countryside is gradually developing into a 'centre for elderly activities'. As the memory of the rural community ages, there is a clear cultural divide between the young and the old, and a greater desire for the convenience of urban spaces rich in cultural and recreational activities. The weakening of rural cultural needs and cultural consumption capacity has led to the disintegration of rural cultural spaces and the disconnection of distinctive cultures, making rural public spaces lose their inherent humanistic value and present a soulless, meaningless physical space.

In some areas with mediocre resources, a large number of young and strong labourers have migrated out of the countryside for higher economic returns, leaving behind basically elderly people who lack the ability to be culturally innovative. According to the statistics of the 7th National Census in 2021, the number of rural people in China is about 556 million, with 20.04% of the population over 60 years old, and the "hollowing out the problem of "hollowing out" and "ageing" has intensified. In some areas with better resources, cultural tourism has become the main source of income for farmers, urban and utilitarian culture is rapidly invading the countryside, commercial culture is slowly dominating the countryside towards, traditional culture is gradually disintegrating under the impact of modernisation, and regional characteristics are gradually being lost.

3.3. The design lacks humanity and interactivity

Ecological livability is an important element in the implementation of China's rural revitalisation strategy, which should distinguish between basic livelihood needs and market capital interests, and

should pay attention to the construction of rural infrastructure, improve the quality of rural public space and consolidate the future sustainable development of the countryside. In rural public space contains three elements: people, public space and landscape, which complement each other. However, in the process of rural public space planning there are many improperly utilized space forms, resulting in wasted space, such as the poor utilization of space at the intersection of rural roads, which often becomes a dirty and noisy mouth, easily causing traffic problems. There is also a lack of humanity in the scale of rural landscape design, with slopes lacking gentle slope measures; there is no public space set up around the civic square, and only planting ponds are added, lacking the function of resting and cooling, and no iconic landscape representing the image of the countryside is set up, resulting in a serious lack of spatial vitality; public debris is arbitrarily piled up in flower beds, and greenery is left unmanaged and eventually withers and dies.

The reason why rural public spaces are not desired is the lack of interaction, firstly between people and things. The books, which have never been updated, are covered in dust. At the same time, there is a lack of interaction between people, and the fitness squares planned for rural public spaces are directly based on urban public space construction models that are unbalanced in scale and lack open space.

4. Analysis of the coupling relationship between intangible cultural heritage resources and rural public space

They are an important part of vernacular culture. Due to their special nature of being alive, they can reflect the production and lifestyle of villagers to the greatest extent possible, awakening nostalgic memories and arousing people's resonance. As a material carrier, it can reveal the historical footprints and heritage development of intangible cultural heritage resources in the changing times to a certain extent. Therefore, there is a coupling relationship between rural public space and intangible cultural heritage resources that is mutually influential and mutually beneficial.

4.1. Intangible cultural heritage resources are important materials for the design of rural public space

The use of intangible cultural heritage resources in the design of rural public spaces can promote the revitalisation of rural culture. At present, the prerequisite for the construction of beautiful villages is to respect their historical and cultural connotations, respect the customs and habits of local villagers, adopt the principle of adapting to local conditions and gradual progress, and adhere to conservation-oriented and development-oriented renewal measures to avoid the occurrence of problems such as the extinction of traditional culture and the uniformity of rural appearance. Intangible cultural heritage resources are traditional culture with unique local characteristics created by villagers in a specific environment, reflecting not only the local natural ecological environment, the villagers' production and lifestyle, traditional folklore and other material resources, but also the spiritual resources of the villagers' religious beliefs, harmonious thoughts and noble morals. Its most prominent feature is that it is consistent with the specific national history and social background, a living expression of national personality and aesthetics, and a powerful means of maintaining the characteristics of rural regional culture.

In the design of public spaces in villages, the regional and ethnic nature of their intangible cultural heritage resources should be given full play, which can enhance villagers' understanding and love of their local culture, strengthen the national cultural awareness of the younger generation, and in turn promote their cultural identity and self-confidence.

Secondly, intangible cultural heritage can promote the development of rural culture and tourism, and realise the prosperity of the industry. With the development of urbanisation, the pace of life of city dwellers is accelerating and the pressure is increasing day by day. In order for people to return to nature and feel the tranquillity and comfort of the countryside, the new industry of rural tourism has come into being, which aims to meet the needs of tourists for sightseeing, leisure, holiday and

experience. Purely rural tourism is no longer enough to meet the needs of tourists, who are more interested in the local, experiential and authentic nature of the countryside. Rural public space is a place for villagers and tourists to communicate, leisure, activities and entertainment, and has a strong local atmosphere. It is also designed with villagers and tourists as the main users, so what tourists hear, see and hear in rural public space plays a pivotal role in the whole rural tourism [5]. The use of intangible cultural heritage resources for cultural tourism development, like cultural services and cultural products, its regional and ethnic characteristics can not only solve the problems of homogenisation of rural tourism and formalisation of tourism products, but also enhance the visibility of the countryside, attract a large number of visitors, form a strong cultural atmosphere, so that visitors are implicitly influenced, which also brings development opportunities for the countryside, develops the rural economy and enhances competitiveness.

Giving priority to non-traditional resources in the design of rural public spaces can promote the revitalization of talents. Talent revitalisation is the core soul that fuels development, and is an important factor in achieving a stable countryside and a prosperous agriculture. Intangible cultural heritage is a carrier of villagers' knowledge of production and life, and its development process is constantly optimised as the environment changes, i.e., in the face of problems encountered in the development process, its skills and knowledge also need to undergo targeted transformation and innovation, such as the preferences of the audience and the materials used for production. Therefore, attaching great importance to local intangible cultural heritage and carrying out research and training programmes for intangible cultural heritage inheritors can help stimulate the creativity of villagers and their ability to react in the face of crises, solve the bottleneck in the development of rural cultural talents, and train a group of professionals who can inherit intangible cultural heritage culture and rural artisans, such as the national inheritor of the Nantong whistleboard harrier kite making technique Guo Chengyi. For example, the Nantong whistling kite making technique has a national-level inheritor, Guo Chengyi, provincial-level inheritors, such as Zhang Wenzhi and Lu Baoru, and municipal-level inheritors, such as Yu Haitao and Zhu Jun. It is also possible to optimise the rural environment and smooth the flow of talents to the countryside, so as to attract outstanding cultural talents who have started their own businesses to return to their hometowns.

4.2. Rural public space design is a driving force for the dissemination of intangible cultural heritage

The creation of culture in rural public space gradually becomes the focus of construction. In-depth excavation of local intangible cultural heritage resources, their organic integration with rural public space, the construction of a cultural, distinctive rural public space, while giving villagers a sense of belonging and happiness, has the following effects on the dissemination of local intangible cultural heritage resources.

Firstly, rural public space provides the material carrier for the survival of intangible cultural heritage resources, and can reflect the characteristics of local intangible cultural heritage resources in terms of spatial composition and spatial form, i.e., the relationship between external and internal forms. For example, the theatre square in public space is an important venue for villagers to hold local traditional folklore and carry traditional culture during festivals, and the theatre plays a role in accommodating folklore culture in space.

Secondly, the design of rural public space can further shape the cultural atmosphere for the dissemination of intangible cultural heritage resources, which is both public and shared, and it is a link and bridge connecting people with people, people with society and people with culture. In the landscape planning of rural public spaces, designers often refine rural intangible cultural heritage into important elements of the landscape. In the development of cultural and creative products, the studio has incorporated more and more rural intangible cultural heritage into relevant products, which have come into the public eye in the form of cultural commodities, such as small ornaments, decorative paintings and so on, and the products are sold to many regions at home and abroad. At the same time, the construction of public spaces in the villages has greatly facilitated the exchange of cultural

activities and shaped the cultural atmosphere of the villagers. Banacha is one of the ten landmarks of Beichuan County in Sichuan Province. At night, it is lit up from top to bottom with the sheep motif believed in by the Qiang people, and the architecture is typical of the Qiang people. Three Qiang songs and dances are performed in the public square every day, and visitors can feel the local ethnic cultural symbols everywhere once they enter the space of Banacha Commercial Street.

Finally, the design of rural public spaces from the perspective of rural modernisation can expand a number of new rural non-fossil heritage businesses, and in the construction of beautiful villages, rural non-fossil heritage needs to keep pace with the times and continue to innovate. In the past, intangible cultural heritage were greatly restricted due to a number of unfavourable factors such as remote location and inconvenient transportation, but with the development of information technology and changes in the industrial model, intelligent enterprises such as creator spaces and innovation factories have been created in villages, enabling rural intangible cultural heritage to successfully take on "wings" through the "Internet +" model. With the development of information technology and changes in the industrial model, the villages have created creative spaces, innovative factories and other intelligent enterprises, so that rural non-foreign heritage can successfully take "wings" through the "Internet +" model and spread to the north and south of the country.

5. Study on the design strategy of rural public space under the integration of intangible cultural heritage resources

China's non-traditional heritage is rich in resources and diverse in types. The list of representative items of non-traditional heritage is divided into ten categories, including traditional skills, folk literature and folklore, most of which originate from the countryside. By refining them and applying their modelling language, graphic symbols and auspicious meanings to the design of rural public spaces, the link between the two can be effectively established, helping rural public spaces to enhance their cultural quality and showcase local cultural characteristics, so that they can form a unique rural public space style that integrates personalisation, artistry and inheritance. In the design of intangible cultural heritage resources as the main body, how to use cultural elements as the guide to design the overall form and spatial landscape, so as to achieve the transformation between intangible culture and tangible space, this is the key to the organic combination of the two. For example, in the case of Nantong's traditional folk art of whistling kite making, research was conducted on the place of origin to sort out its historical background and specific events, and integrate its representative cultural qualities, including typical symbols, words, colours, textures and outline shapes. The integration of the integrated intangible cultural heritage with the spatial characteristics of each node allows each node to be integrated with the corresponding rural intangible cultural heritage, and the nodes are linked in an orderly manner by giving them a certain theme, thus making the whole design space a whole and bringing out the coherence of the design.



Figure. 1 Aerial view of the design of the intangible cultural heritage Tupelo Park (self-drawn by the author)



Figure. 2 Partial rendering of the intangible cultural heritage Toubou Park (self-drawn by the author)

5.1. Integrating the distinctive features of intangible cultural heritage and contributing to the overall layout of rural public space

The first step in integrating intangible cultural heritage into the design of rural public spaces is to integrate local specific intangible cultural heritage from both a temporal vertical and spatial horizontal perspective.

In the longitudinal perspective of time, the main objective is to sort out the cultural lineage of intangible cultural heritage resources, i.e., the development status, cultural connotations and expressions in different time periods. Intangible cultural heritage present different cultural characteristics in the same region and at different times, so we explore them vertically in time in terms of their single attributes, explore the differences between different time periods, gradually analyse the value of their existence and development, and provide strong support for the cultural part of rural public space design. In the horizontal perspective of space, the main focus is on the space required by intangible cultural heritage resources in a certain period of time, in-depth analysis of the existing spatial types in the area and the permeable relationship within the space, and the influence of cultural development on spatial zoning, functional types and organisation in conjunction with the relevant intangible cultural heritage derivation, so as to provide guidance for the design of public space with the help of intangible cultural heritage resources and ensure the overall coordination of rural public space design with the integration of intangible cultural heritage resources. This study will provide a basis for guiding the design of public spaces with the help of intangible cultural heritage resources, and ensure the overall coordination of the design of rural public spaces with the integration of intangible cultural heritage resources.

In the process of integration, it is necessary to pay attention to the fitting part and to seek the unique. For villages with diverse intangible cultural heritage resources, it is necessary to analyse them according to their spatial needs, cultural heritage and human environment, to identify their core cultural characteristics, to select the fitting part of the intangible cultural heritage resources and to determine the main status of their rural public space design. Secondly, the same type of intangible cultural heritage may be found in several regions, for example, the national intangible cultural heritage Miao embroidery techniques include Leishan Miao embroidery, Chengbu Chengbu Miao embroidery, and Huaxi. For example, there are Miao embroideries in Leshan, Miao embroideries in Chengbu, Miao embroideries in Huaxi, Miao embroideries in Jianhe, and Miao embroideries in Jianhe, all of which are unique to different regions.

5.2. Refining local intangible cultural heritage elements to show the cultural characteristics of rural public space

After the integration of the intangible cultural heritage, the elements are refined, as the symbols of these intangible cultural heritage often include the most representative features of things, so that people can associate them with various detailed features of rural intangible cultural heritage at first sight, and combine them. First of all, for the skills-based intangible cultural heritage, such as traditional skills, they can be incorporated into the landscape, the village entrance landscape wall and public facilities through borrowing and symbolic expressions, thus creating a cultural atmosphere in

the rural public space while providing people with a rich imagination and perpetuating the local culture. The 'cloud brocade' themed KFC restaurant in Nanjing is based on the 'Nanjing Cloud Brocade Wooden Machine Weaving Technique', which is a national non-traditional heritage, and fully refines the elements of cloud brocade, visualising them and applying them in the form of artistic symbols on the walls, tables, lamps and counters. The space is decorated in black. The overall space is set against a large black background, with red as the base colour for the pattern, giving it a strong but not overpowering visual feel. The 'historical context' of Yun brocade is extracted and presented in symbolic form on the staircase walls for interpretation. The integration of intangible cultural heritage resources in the dining space is an innovative way to bring people a cultural experience that intertwines tradition and modernity, not only highlighting the characteristics of intangible cultural heritage and meeting the cultural needs of the public, but also giving new value and meaning to intangible cultural heritage resources in a new era.

Secondly, in the face of intangible cultural heritage, which is only transmitted through written records, oral transcriptions and habits, it can be refined and summarised into abstract symbols through the modern design language of points, lines and surfaces. It is the cultural and spiritual connotations that are reflected, rather than the external forms. For example, the Zen town of Putuo Zhujiajian is based on the national intangible cultural heritage "Legend of Guanyin" Buddhist folklore, and through the development of a Zen-themed cultural tourism industry, the intangible cultural heritage resources are disseminated. In the spatial planning, four areas are created, namely the Baishan District, the Guanyin Cultural Park, the Cihang Square and the Songmou Tip, with a focus on developing a Zen cultural expo experience and using historical and cultural elements to show the cultural characteristics of the rural public space. The Kintaro Town in Koyama-cho, for example, is based on the folklore of the "Kintaro Legend", which explores the legend of Kintaro, strengthens the character, and restores Kintaro-related sites and facilities, including the birth shrine, resting stones, drinking ponds, and so on, and creates a series of cultural symbols such as memorial culture, folklore activities, books and videos. A series of cultural symbols will be developed to create a cultural system of "Kintaro tourism".

5.3. Reconstructing the display space of intangible cultural heritage and enhancing the practicality of rural public space

Faced with the multiple problems of inappropriate planning of rural public spaces, disconnected cultural memory and lack of humane design, it is imperative to reorganise rural public spaces, taking into account the existing types of rural public spaces, their development and the integration and refinement of intangible cultural heritage elements, starting with three approaches: conservation, renovation and revival.

The first step is to preserve the cultural heritage in its original historical state and to ensure that it is in good condition for use and has a longer service life through routine maintenance and regular checks and repairs. For the existing rural cultural space patterns of historical significance, such as cultural scenes of heritage dance performances, folklore activities, historical and cultural buildings, and elements of the environmental landscape reflecting the social production of villagers, etc., the least intrusive conservation methods should be used to preserve the authenticity and integrity of the original scenes. They are built up over the long history of the countryside, uniting the villagers' collective memory and sense of cultural identity, and are of great significance to the excavation of local traditional culture, ancient and modern celebrities, and historical changes.

The second is renovation, which focuses on the built environment that does not adapt to the needs of modern society, making full use of unused space resources, such as old abandoned factories, old warehouses, village squares and other legacy public buildings, to carry out renovation activities according to local conditions. The essence of the renovation is to take the preservation of the original history and culture of the village as the basis, superimpose an innovative and creative model, change its original use function and realise the implantation and replacement of cultural functions by means of renovation and reuse, so that the original outdated public space is given vitality and revitalised. The space will be rejuvenated and revitalised through the reuse of the original outdated public space.

The cultural values will be reflected in the space, the spiritual core of intangible cultural heritage will be incorporated into the renovation, and the distinct cultural characteristics of the public space will be strengthened, including the maintenance of the internal living environment and the improvement and upgrading of the public infrastructure, so as to inherit and promote the historical culture in the process of renovation.

Finally, revitalisation is the creation of new physical spaces and environmental carriers based on local intangible cultural heritage, so that historical rural public spaces can recreate and perpetuate their cultural values, restore cultural feelings and recreate artistic aesthetics, mainly targeting intangible cultural heritage that are bound to fade away in the long history but still retain some records. This type of revival generally explores modern design techniques, incorporates modern cultural and creative functions, replaces traditional intangible cultural heritage displays with technological displays, and revitalises rural public spaces with modern thinking, so that intangible cultural heritage resources can be transformed from "visible" and "audible" to "learnable". The exhibition will be a modern way of revitalising rural public spaces, so that intangible cultural heritage resources can be transformed from "seen" and "heard" to "learned" and "taken away". For example, through vr technology, the fading intangible cultural heritage resources can be reshaped and their related scenes restored, and with the help of vr glasses, they can be presented to the villagers once again across generations, providing a different artistic atmosphere and cultural experience.

Design strategy

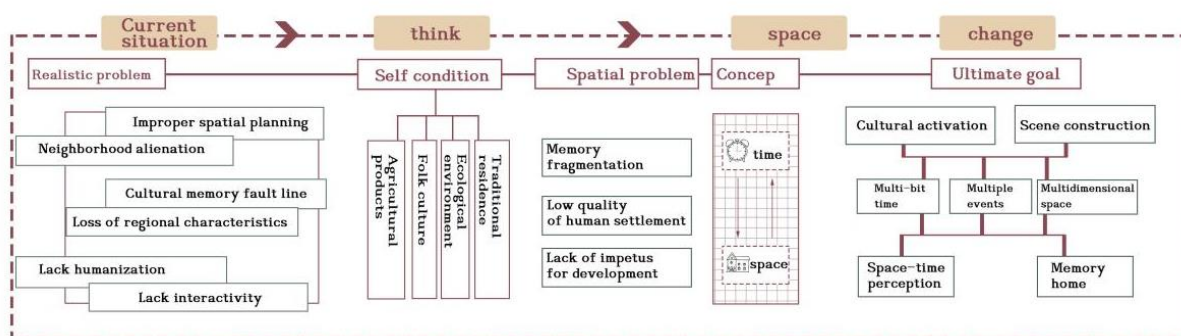


Figure. 3 Design strategy of intangible heritage park (self-drawn by the author)

6. Concluding remarks

To sum up, as the crystallization of local cultural heritage, the intangible cultural heritage resources in the countryside carry the local traditional culture, condense the villagers' wisdom and emotion, and convey the inherent value of the countryside. Based on the current problems highlighted in the design of rural public spaces, the coupling relationship between intangible cultural heritage and rural public space design is analysed through the excavation and integration of intangible cultural heritage, and the following strategies are proposed: firstly, the distinctive features of intangible cultural heritage should be integrated to facilitate the overall layout of rural public spaces. The integration of intangible cultural heritage resources in the design of rural public spaces can often play a "four-two-thousand-jin" role, helping to attract young people and enhance rural vitality. The second is to refine local intangible cultural heritage elements to show the cultural characteristics of rural public spaces. On the one hand, local intangible cultural heritage resources should be excavated and protected, but more importantly, they should be revitalised and utilised to activate the countryside. Finally, it is necessary to reconstruct the display space of intangible cultural heritage and enhance the practicality of rural public space. It is not enough to have sentiment for intangible cultural heritage resources, but also to analyse the interaction between the core audience and the villagers and integrate it with the space design, so that the sentiment can be put into practice. It is also necessary to analyse the interaction

between the core audience and the villagers, and integrate it with the spatial design, so that the sentiment can be put into practice.

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