

Research on the Renewal Strategy of Daiwei Historical Village from the Perspective of Shrinkage

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Abstract. With the transformation of urban construction and the implementation of the rural revitalization strategy, it makes the renewal and development of historical villages face "shrinking crisis" and "regeneration opportunity". After summing up the research on shrinkage, this paper puts forward that the renewal of historical villages should hold four shrinking perspectives including agricultural ecology, effective population, historical culture and educational inheritance. Through studying and analyzing the three levels of the social environment, artificial environment and natural environment, three strategies of renewal for agriculture, rural areas and farmers are put forward by taking Daiwei village as an example. These strategies are "adhere to agricultural production, promote industrial innovation", "adhere to rural urbanization, improve the living environment" and "adhere to farmer's education, inherit history and culture".

Keywords: Shrinkage; Historical Village; Daiwei Village; Renewal.

1. Introduction

With the gradual deepening of China's "new normal" transformation, the traditional planning idea based on the "growth model" has been unable to meet the construction requirements of the high-quality development of new urbanization. It is in this context that all social parties begin to pay attention to the law of urban development and a series of issues such as shrinking cities. In the "Key Construction Tasks for New Urbanization in 2019" recently released by the National Development and Reform Commission, the concept of "small and medium-sized shrinking cities" is put forward, and the strategic direction of development is clarified. It indicates that the "shrinkage" state has been attached great importance at the national level.

Zhangzhou has a long history and profound cultural accumulation. There are many historical villages in its jurisdiction, which play an indispensable role in culture heritage. In the implementation of the strategy of rural revitalization, reviving "historical villages" has distinct characteristics of the times and faces the general challenges of village revitalization.

2. Related Content of Shrinkage

2.1 Definition of Shrinkage

At present, the understanding of shrinkage is more about cities, and the definition is uncertain. Abroad, the Urban Shrinkage Project of the German Federal Cultural Foundation introduced "urban shrinkage" to the international academic community, depicting the phenomenon of the massive loss of urban population and the resulting hollowing of urban some areas [1]. In China, K. Wu, Y. Long, and Y. Yang put forward a definition suitable for the shrinking problem in Asia, which was referred to the long-term phenomenon of population from concentration to decrease within a region, including large to single city or metropolitan area, and small to a certain area or town in the city, accompanied by regional economic decline and structural crisis [2].

2.2 Study of Shrinkage

The western countries had a deep exploration process on the problem of urban shrinkage. The German urban planners formulated policies to solve the serious surplus of housing, and the British used of the "urban revival" strategy to discuss the problem of urban recession [3]. The facets

of discussion were very rich: some scholar used life cycle theory to interpret urban shrinkage [4], and some scholar viewed urban shrinkage from a perspective of Neo liberalism [5]. The contents of the discussion covered a wide range: some researcher explored the relationship between urban shrinkage and housing [6], and some researcher explored the reasons and spatial performance involved in urban shrinkage [7]. The discussion also conveyed a positive view: urban shrinkage could be solved by strengthening greening, revitalizing economic development and increasing social inclusion [8]. These research contents are profound and theoretical, and become the theoretical basis of other countries or regions to study the shrinking problem.

In terms of domestic urban shrinkage, the initial research mainly referred to the experience and related theories of foreign shrinking cities. Y. Long, K. Wu, and J. H. Wang found that the population of 180 cities contracted from the study of urban population change [9]. Subsequently, the breadth of research increased. W. Zhang, F. Shan, and C. G. Zheng put forward a new concept system of multi-dimensional shrinking city around three core elements: population, economy and space [10]. K. Wu summarized the current domestic five major cognitive misunderstandings about urban shrinkage and constructed "Globalization - localization near-long-distance loop feedback mode" [11]. In recent years, research became more targeted. X. Guan and L. Teng proposed corresponding urban renewal strategies for the main manifestations of urban shrinkage in old industrial areas [12], while C. S. Wang, J. J. Chen and Y. Lai analyzed urban transportation planning strategies under the background of "shrinking planning" [13]. These studies have had a certain impact on urban planning and urban policies, but their shortcomings are that they do not reflect the difference between urban and rural areas.

In terms of rural shrinkage in China, the change of village population was mainly discussed from the regional perspective. From the perspective of spatial distribution, Q. Q. Dong and D. J. Fan believed that the areas were mainly concentrated in rural areas with relatively low economic development levels such as the middle and western regions [14]. Y.S. Liu and R. Yang found that the hollow areas of rural population were mainly concentrated in the northern border, the developed counties on the eastern coast, the two lakes plain, and the traditional agricultural areas in the central region [15]. These studies are mostly from the village macro perspective, but lack of micro perspective.

2.3 Differences in Urban and Rural Shrinkage

Urban shrinkage is a comprehensive manifestation of urban population, social and economic development problems and loss of growth momentum. Shrinking cities are mostly caused by the first population decrease, the economic downturn, and then the spatial dilapidation [16]. Rural and urban are the community of social development, so the contraction problems faced by rural and urban areas are similar. For example, the loss population, aging and other issues, which are the basis of all shrinkage research. But after all, there are differences between urban and rural areas, and there are still some special problems in rural shrinkage that cannot be avoided, such as the deterioration of ecological environment, the idle land, the single rural industry, the separation of rural culture, and the low cultural quality of farmers and so on.

2.4 Shrinking Perspective of Historical Villages

Most of the historical villages are towns or villages that can reflect the traditional style and local national characteristics in a certain historical period. Considering the differences between urban and rural shrinkage, it is believed that the study from the following four shrinking perspective can provide suggestions for the local government and relevant decision-making departments in formulating positive and stable rural revitalization policies, namely, agricultural ecological perspective, effective population perspective, historical and cultural perspective and education inheritance perspective. Fig. 1 shows the shrinking perspective of historical villages.

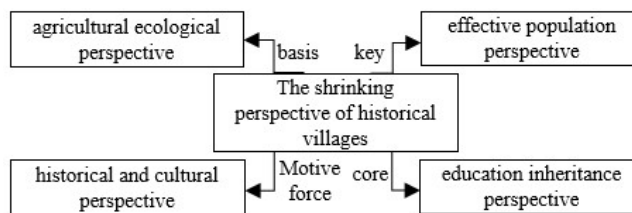


Fig 1. The shrinking perspective of historical villages

2.4.1 The Agricultural Ecological Perspective

Most of the renewal of historical villages is based on the village appearance and building protection, but less on agricultural modernization, industrial synergy, ecological assistance and management effectiveness. The purpose of agricultural ecological perspective is to make the construction of villages return to its foundation, which is the basis of studying the renewal of historical villages from the shrinking perspective.

2.4.2 The Effective Population Perspective

The concept of effective population is to introduce external population which is helpful to village construction based on maintaining the existing rural population. The perspective emphasizes that the external population becomes a participant in the village construction rather than a bystander. It expresses the way of multi-party cooperation, and it is the key and means to study the renewal of historical villages from the perspective of contraction.

2.4.3 The Historical and Cultural Perspective

In the tide of urbanization, the traditional features and cultural elements of ordinary villages have disappeared. Although the new rural construction has guided the village construction, it seems that the situation of "one side of a thousand villages" has appeared. This perspective emphasizes the interaction and application of culture in all kinds of activities, which is the motive force and carrier of studying the renewal of historical villages from the perspective of shrinkage.

2.4.4 The Educational Inheritance Perspective

In the process of urbanization, most of the problems faced by historical villages can be overcome by corresponding means, but these are superficial repair only. In order to fundamentally innovate the construction or renewal of historical villages, we need to work hard on education. From the perspective of educational inheritance, the focus is to train the villagers of all ages on awareness of protection, service, culture, innovation and management, which is also the core of solving other problems of historical villages from inside to outside.

3. Overview of Daiwei Village

3.1 Basic Situation

Daiwei village is an administrative village located in Zhangzhou, Fujian Province. It is the fourth batch of provincial-level historical and cultural villages and the sixth batch of Chinese historical and cultural villages, and is currently applying for World Cultural Heritage. Daiwei village has four main features. Firstly, it has high historical value. There are 560 years of history from Jingtai period of Ming Dynasty to now, and a lot of historical information is preserved. Secondly, it has excellent environmental value. The location of Daiwei village, the structure of the village, and the treatment of the water area reflect the content of Chinese Fengshui theory. Thirdly, there are many cultural values. It not only embodies the material culture such as red brick culture, silk-road culture and farming culture, but also embodies the immaterial culture such as Xiang Opera and Jin Ge. Finally, it has strong characteristic value. The 276 houses are the largest and best-preserved ancient residential buildings in southern Fujian.

3.2 Protection Process

Since 2009, different teams have carried out protection activities for Daiwei village, which has achieved phased results. The Table 1 records the contents of protection process.

Table 1. Contents of protection process

time	Protection process
2011	The Daiwei Ancient Residents Council was established.
2012	The "Daiwei Ancient Residential Buildings Cultural Relics Protection Village Regulations and Civil Agreement" was formulated
2013	The ancient architecture experts of Zhangzhou Urban Planning Institute and Xiamen University formulated the protection plan.
2014	The ancient house was repaired, with a total investment of 3,459,400 yuan. China Urban Construction Research Institute prepares detailed plans.
2015	The "Protection Plan (2014-2030)" was implemented to determine the protection level and scope of Daiwei villages.
2016-2019	The surrounding colleges and universities have incorporated the protection and renewal of Daiwei village into the curriculum to provide localized services.

4. Research and Analysis

4.1 Research Contents

Articles analyzes Daiwei village from three levels: social environment, artificial environment and natural environment. The social environment reflects shrink background. The artificial environment reflects the interaction of people, the use of ancient houses, and the management of development. The natural environment reflects the status of ecology and agriculture.

4.1.1 Social Environment Analysis

The historical evolution of Daiwei village is clear, and its folk cultural resources have their own characteristics, but the industrial economy is single and the population is in a state of loss. It has the typical characteristics of historical village in a shrinking state. The Table 2 records the situation of social environment of Daiwei village.

Table 2. Situation of social environment of Daiwei Village

project	situation
History	Built in the Ming Dynasty, developed in the Qing Dynasty, flourished in the 1950s, Selected provincial historical and cultural villages in 2012, China's historical and cultural villages in 2014, the ancient village protection plan approved in 2015.
Characteristic culture	There are Red brick building culture, sea silk culture, folk custom culture.
Demographic characteristics	The population is decreasing year by year. The proportion of women in the permanent population is higher than that of men, and the middle-aged and elderly population exceeds 50%.The level of education and income are low.
Industrial economy	Mainly based on aquatic shrimp farming and high-quality agricultural planting. At present, the industrial economy is lagging behind.

4.1.2 Artificial Environment Analysis

The artificial environment analysis of Daiwei village can be carried out from three aspects of people, objects and space. Firstly, the villagers have insufficient understanding of their own village culture, commercial operation, and tourism development. Due to the lack of cultural training and education, they cannot interact with tourists and become the best disseminators of village culture. Because of staying a short time, on the other hand, the tourists neither receive cultural nor expand consumption. So, they cannot become participants in cultural heritage. Secondly,

Architectural protection is dominant, but the utilization rate of architecture is low. So, it has not become the carrier of cultural communication. Finally, all kinds of space image are not good, showing imperfect management and other problems.

4.1.3 Natural Environment Analysis

The natural environment of Daiwei village is beautiful, forming a landscape pattern of "three mountains are surrounded by green water" with the village, and a unique landscape of "community is surrounded by harbors" with the ancient house. Research shows that village development and tourism development only stay in the core protection scope, and do not make good use of the external natural environment, exposing the shortcomings of incomplete protection and development awareness.

5. Update Strategy

5.1 Adhere to Agricultural Production and Promote Industrial Innovation

Agricultural production is the foundation of rural development, and it is also the fundamental difference from city. Therefore, insisting on agricultural production is the bottom line for the renewal of Daiwei village. Traditional villages take agriculture as their leading industry, with a single industrial structure and low added value of products. To activate the vitality of Daiwei village, it is necessary to promote its industrial innovation, adjust its industrial structure and find high value-added industries which are suitable for their own development and closely related to agriculture under the premise of upper planning. Based on determining modern agriculture as the leading industry, Daiwei village should make great efforts to innovate related tourism industry, and transform the industrial achievements into tourism products and landscape products.

The renewal practice of Daiwei village mainly comes from two aspects: industrial upgrading and agricultural tourism product development. In terms of industrial upgrading, the government plays a leading and promoting role in providing policy support, technical support and financial support. The developer build tourism development platforms to comprehensively develop accommodation facilities, interactive facilities, local products and agricultural resources in the region. Villagers should raise awareness of agricultural landscape protection, pay attention to the preservation of agricultural cultural symbols, and actively innovate agricultural experiential activities. In terms of agricultural tourism product development, brand industrial parks can be built, and agricultural-friendly projects can be developed. The table III records the renewal planning of agricultural projects.

Table 3. Renewal planning of agricultural projects

category	project	effect	result
Children and Adolescents Project	Fruit and vegetable picking and identification	popularize agricultural knowledge	Directional communication; consumers
Young Adult Project	Experience farming and volunteer farming	Experience farming culture	Two way communication; Consumers; producers
Elderly Project	Fruit and vegetable picking, knowledge promotion	Publicizing farming experience	

5.2 Adhere to Rural Urbanization and Improve the Living Environment

Rural urbanization means to restore its ecological environment, upgrade its living facilities, repair its ancient houses, and finally improve the living environment. This is not only the material guarantee of life, but also the focus of historical village renewal. The ecological types of Daiwei village are rich, there are mountains, water and fields, but the environmental quality needs to be improved. The renewal strategy should make full use of the advantages of different types, restore the environmental quality, highlight the characteristics of mountains, water and fields. In addition, upgrading the living infrastructure and living service facilities of Daiwei Village is an important part of perfecting the living environment. The renewal strategy should not only take full account of the upgrading of the

infrastructure such as water supply, power supply, gas, telecommunications and the service facilities such as garbage collection, lighting instructions, but also focus on building the living culture facilities of Daiwei village, such as street and lane texture, characteristic drainage ditch and so on. Finally, the ancient houses of historical villages are important carriers of human settlement environment, and the renewal strategy needs to formulate corresponding measures according to their quality and function.

5.3 Adhere to the Education of Farmers and Inherit History and Culture

Whether it is the agricultural renewal of Daiwei village or the upgrading of rural life, these are external expressions. While the education training of villagers and the display of history and culture are the core of updating sustainable development. The renewal strategy can adopt the development mode of "classroom" and "showcase". The former focuses on the cultivation of villagers' inner culture, quality and ability, while the latter emphasizes the display and output of Daiwei village culture.

5.3.1 "Classroom" Mode

First, the model is to invite architecture experts, agricultural experts, service talent and creative talent to carry out live Internet broadcast, in order to achieve the purpose of promoting the characteristic culture of Daiwei village and attracting potential tourists. At the same time, experts and the village government reach a cooperation intention of training villagers to cultivate the cultural atmosphere of the whole village.

Secondly, the village committee formulates preferential policies to attract the surrounding cultural and creative artists for artistic creation, to provide them with free rental space for a certain period, and to require them to regularly display their creative works. More importantly, they are required to regularly train children and teenagers on cultural and artistic creativity.

Thirdly, the village committee establishes the cooperation mechanism with the surrounding colleges and universities to facilitate the students' sketching, team building and practice. At the same time, students can spread the knowledge of culture, architecture and ecological protection to the young people.

Finally, the village committee signs a cooperation agreement with the surrounding companies and social organizations to provide them with a platform for showing corporate culture and team spirit. Accordingly, they train the villagers in management ability, execution ability and cooperation ability. Fig. 2 shows the contents of classroom mode.

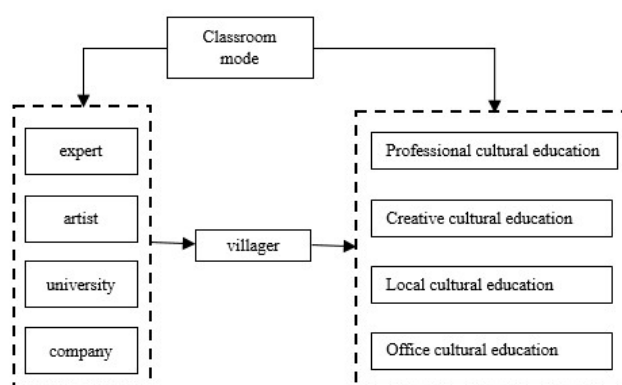


Fig 2. The contents of classroom mode

5.3.2 "Showcase" Mode

The main function of this mode is to display. The village committee activates and inherits the local traditional culture by providing display platform or space for folklore activities, cultural exhibitions and food production. The table IV records the contents of "showcase" model.

Table 4. Contents of “showcase” model

Inheritance method	Participants	effect
Hold folk activities	Tourists, Surrounding students, employees	Increase attention
Build a cultural exhibition hall	Tourists, Employees, college students	Establish a good interaction platform with the surrounding staff and students
Show production process	Villagers, tourists	Inheritance and dissemination of non-material culture

6. Conclusion

With the implementation of the strategy of village revitalization, especially the rise of village tourism, more and more people realize the value of historical villages, but the shrinking problem under the new normal obviously restricts its development. Therefore, from the perspective of shrinkage, adopting the renewal strategy which is different from the city and has the characteristics of the village will make the shrinking historical village meet a new opportunity for transformation and development.

Daiwei village is a typical historical village, and its shrinking problems and development opportunities are representative in Zhangzhou and even Fujian Province. In the perspective of agricultural ecology, effective population, historical cultural and educational inheritance, the three strategies of "insisting on agricultural production, promoting industrial innovation", "insisting on rural urbanization, perfecting human settlement environment" and "insisting on farmers' education, inheriting history and culture" are emphasized. The article hopes to provide a demonstration for the transformation and development of similar historical village.

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References

- [1] I. Audirac, “Shrinking cities: an unfit term for American urban policy,” *Cities*, vol. 75, pp. 12-19, May 2018.
- [2] K. Wu, Y. Long, and Y. Yang, “Urban shrinkage in the Beijing-Tianjin-Hebei region and Yangtze River delta: patterns, trajectory and factors,” *Modern Urban Research*, pp. 26-35, September 2015.
- [3] K. Gromann, M. Bontje, A. Haase and V. Mykhnenko, “Shrinking cities: Notes for the further research agenda,” *Cities*, vol. 35, pp. 221 – 225, April 2013.
- [4] D E. Booth, “Regional long waves and urban policy,” *Urban Studies*, vol.24, pp. 447-459, June 1987.
- [5] D. Harvey, *A Brief History of Neoliberalism*, English: Oxford University Press, 2005, pp.47-48.
- [6] D. Haase, S. Lautenbach, and R. Seppelt, “Modeling simulating residential mobility in a Shrinking city using an agent-based approach,” *Environmental Modeling & Software*, vol. 25, pp. 1225–1240, October 2010.
- [7] R. Beauregard, “Shrinking cities,” *International Encyclopedia of the Social and Behavioral Sciences*, vol. 8, pp. 917-922, March 2015.
- [8] C. Martinez – Fernandez, and T. Weyman, “Shrinking cities in Australia, Japan, Europe and the USA: From a global process to local policy responses,” *Progress in Planning*, vol. 105, pp.1-48, April 2016.
- [9] Y. Long, K. Wu, and J. H. Wang, “Shrinking cities in China,” *Modern City Research*, pp. 14-19, September 2015.
- [10] W. Zhang, F. F. Shan, C. G. Zheng, and R. Hu, “Multi-dimensional identification and driving mechanism analysis of shrinking city in China,” *Urban Development Studies*, vol. 26, pp. 32-40, March 2019.

- [11] K. Wu, "The cognitive misunderstanding of urban shrinkage and the response of spatial planning," *Beijing Planning Review*, vol. 186, pp. 4-11, March 2019.
- [12] X. Guan, and L. Teng, "Renewal strategy of old industrial zone with shrinkage problem: Taking Shenyang as an example," *Journal of Shenyang University (Social Science)*, vol. 21, pp. 12-16, February 2019.
- [13] C. S. Wang, J. J. Chen, and Y. Lai, "Analysis on urban transportation planning Strategy under the background of "shrinking planning: Revelation of scenario analysis and dynamic planning," *Urban Development Studies*, vol. 23, pp. 88-94, August 2016.
- [14] Q. Q. Dong, and D.J. Fan, "Progress and prospects on the study of rural population hollowing in China," *Journal of Nanchang Normal University*, vol. 33, pp. 15-20, October 2012.
- [15] Y. S. Liu, and R. Yang, "The spatial characteristics and formation mechanism of the County urbanization in China," *Acta Geographica Sinica*, vol. 67, pp. 1011-1020, August 2012.
- [16] Y. Long, and A. P. Wen, "Y Long: Shrinking cities should take advantage of the trend more, and less buck the trend," *Beijing Planning Review*, pp. 186-190, March 2019.