



PLANNING MALAYSIA:

Journal of the Malaysian Institute of Planners

VOLUME 23 ISSUE 6 (2025), Page 570 – 584

CONSTRUCTION CHARACTERISTICS OF TRADITIONAL VILLAGES FROM A RESILIENCE PERSPECTIVE IN CENTRAL JIANGXI, CHINA: CASE STUDIES OF ZHUQIAO AND YOUDIAN VILLAGES

Feng Jing¹, Rohaslinda Ramele Ramli^{2*}, Na'asah Nasrudin³, Liang Buqing⁴

^{1,2,3}*College of Built Environment,
UNIVERSITI TEKNOLOGI MARA, SHAH ALAM,
SELANGOR MALAYSIA*

^{1,4}*College of Architecture and Design,
NANCHANG UNIVERSITY, CHINA*

Abstract

Despite centuries of development, many traditional villages in China retain complete settlement forms and traditional buildings, reflecting strong spatial resilience. The village construction system is vital for spatial resilience, yet research on traditional village resilience remains limited. This paper explores traditional village construction's spatial and cultural characteristics through the lens of rural resilience, using Zhuqiao and Youdian Villages in Jiangxi Province as case studies to support heritage preservation and transmission. This study employs literature research, fieldwork, and space syntax analysis to examine the construction characteristics of traditional villages. Key findings include: (1) Traditional villages rely on production space and choose high ground and shallow water to live in, forming a pattern of "Forest-Village-Field-Water." (2) The overall layout of the villages is compact and closed externally to ensure defence and open internally to promote communication. The public space assumes essential spiritual and religious functions, enhancing the village's stability and continuity. (3) The water management system is the core wisdom of village construction. It plays a vital role in improving the village's adaptability to natural disasters and enhancing the comfort of the living environment. These findings offer insights into modern village construction systems.

Keywords: Construction Characteristics, Resilience Theory, Traditional Villages, Youdian and Zhuqiao Villages

² Corresponding author. Email: rohaslinda@uitm.edu.my

INTRODUCTION

During the long development of China's farming civilisation, numerous traditional villages with rich historical and cultural value gradually emerged. Since 2012, national rural revitalisation programmes—such as the Catalogue of Traditional Villages in China—have further promoted the preservation of these settlements, providing official recognition and policy support (Jia et al., 2023; Yuan et al., 2021; Ou et al., 2022; Jing et al., 2024). However, contemporary village construction has increasingly shifted from adapting to natural conditions toward reshaping them, leading to ecological disturbance and the gradual homogenisation of rural landscapes (Xiao & Yong, 2017). The concept of “resilience,” defined as the capacity of socio-ecological systems to adjust and respond to external pressures (Walker et al., 2004), offers a valuable perspective for guiding sustainable rural development (Yan & Lu, 2017). Traditional village construction embodies accumulated local wisdom in terrain adaptation, water management, ecological practices, livelihoods, and cultural norms, yet systematic research linking these elements to resilience theory remains limited.

This study examines two representative villages in central Jiangxi and adopts a resilience perspective to identify their spatial characteristics and formation mechanisms across both physical and social dimensions, to inform a more harmonious human–land relationship in contemporary rural development. Although the analysis is based on two case sites, the in-depth qualitative evidence enables a nuanced understanding of place-specific mechanisms. In line with case-study methodology, the findings are not intended to be statistically generalisable but to offer analytical insights applicable to similar contexts. These insights can therefore support comparative research and guide resilience-oriented settlement planning in culturally and geographically comparable settings.

LITERATURE REVIEW

Research on Rural Community Resilience

Rural community resilience concentrates on the capacity of rural communities to cope with disasters. It represents the intrinsic dynamics of rural community systems to adapt and thrive in adversity (Imperiale & Vanclay, 2016). In particular, the main elements of the research include analysing the key elements of social, economic, and environmental capital in rural communities' flood resilience using the Relative Importance Index (RII) method (Omar Chong & Kamarudin, 2023). It also utilises the measurement of community capacity to cope with disasters through community resilience modelling (Cutter et al., 2008). In the context of globalisation and urbanisation, social, economic and political changes have shifted the discussion of rural community resilience from a single disaster perspective to an integrated perspective. It explores the capacity of rural

communities to adapt and develop as a whole (Yan & Lu, 2017). Furthermore, specific topics mostly revolve around the development path of community resilience and the selection of its assessment indicators. This emphasises the shift from the physical environment to the role of society and people and the construction of an indicator system that includes institutional resilience, infrastructure resilience, economic resilience, social resilience, and other aspects (Sharifi, 2016).

In addition, community resilience is included in rural policy-making to stop population loss in rural areas and to maintain and improve the living and service levels in rural areas (Imperiale & Vanclay, 2016). As a particular part of rural communities, resilience research on traditional villages is focused chiefly on the adaptability of settlements to the water environment. This is mainly in the watery areas of the South (Wang, 2020) and the water-scarce regions in the Northwest (Ou et al., 2022), and other specific geographical areas or typical settlements as an example. It summarises the attributes of the water ecosystem adaptability of the settlements from the aspects of settlement siting and camping, the overall layout, and the farmland and water conservancy. This includes the influencing factors and the revelation of modern floods and flooding disasters (Guo et al., 2022; Han et al., 2023).

Research on Traditional Villages in Jiangxi Province

Jiangxi, China, is a prominent province rich in traditional villages, both in number and value. Jiangxi's geography, surrounded by mountains on three sides, makes external transportation less convenient and causes economic development to be relatively lagging behind. This is also why many ancient villages with complete layouts, stable structures, and rich cultures have been preserved during the process of urbanisation. As of 2023, 413 ancient villages in Jiangxi have been listed in China's Catalogue of Traditional Villages. This is in addition to one model city and three model counties for the concentrated and continuous protection and usage of traditional settlements.

Existing research has achieved relatively affluent results in the spatial characterisation of traditional settlements. At the macro level, the spatial layout, spatio-temporal evolution characteristics (Chen et al., 2021; Hu et al., 2021), and site selection characteristics (Li et al., 2018) of traditional villages in Jiangxi have been explored in depth using Geographic Information System (GIS) tools. At the micro level, the research focuses on case studies revolving around the rationality analysis of village site selection (Zhou et al., 2022), the ecological wisdom of water management and its inspiration to contemporary times (Xu et al., 2017), the selection of building materials for traditional architecture (Yang & Long, 2021), and the characteristics of façade (Duan et al., 2018). However, current research focuses on traditional settlements, mainly in terms of physical space. It

pays less attention to the natural, social, and economic environments in which villages are situated and the wisdom-building methods embedded in their interactions with human beings.

METHODOLOGY

Choice of Research Locations

This research selected Zhuqiao and Youdian Villages in Jinxi County, central Jiangxi Province, which exhibit significant spatial and social resilience characteristics, as research samples. Both villages are listed in the List of Famous Historical and Cultural Chinese Villages and the List of Traditional Chinese Villages for their complete spatial patterns and traditional architectural features. This highlights their high historical and cultural value and representativeness. In addition, the two villages, in terms of site selection, defence system, streets and lanes, and building layout, unite the survival wisdom of the villagers in coping with the natural environment and social changes. They also fully reflect traditional villages' adaptive capacity and stability in facing external risks and environmental changes. Accordingly, these construction features provide an essential reference for modern village planning and resilient community shaping. The location, building period, topographic feature, surname, economic strength, and number of traditional buildings of the two villages are provided in Figure 1 and Table 1.

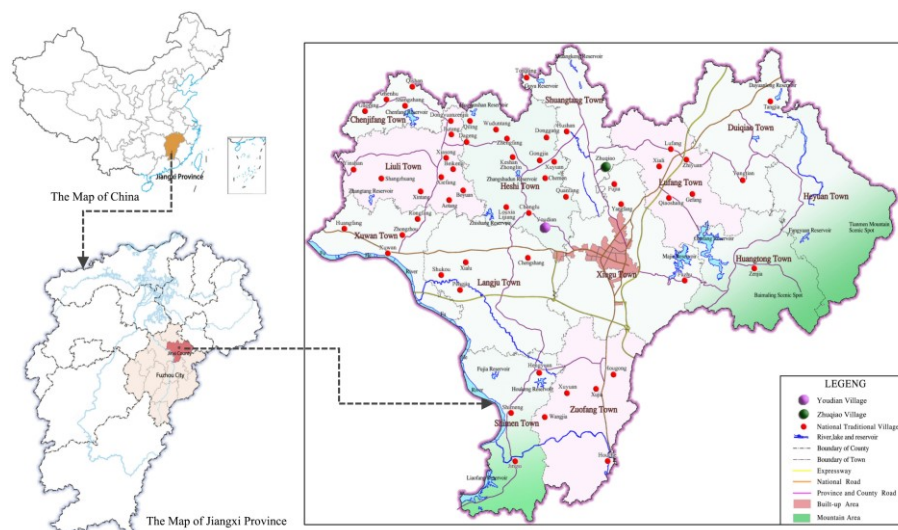


Figure 1: The Location of Zhuqiao and Youdian Villages, Jiangxi Province, China
Source: Author, (2024)

Table 1: Background of Zhuqiao and Youdian Villages

Aspects	Zhuqiao Village	Youdian Village
Building period	Late 14th century	Early 15th century
Topographic feature	Flatland	Foothill
Surname	Yu surname	Hu surname
Economic strength	Relatively strong, engaging in business in ancient time	Relatively weak, engaging in agriculture in ancient time
Traditional buildings	109 buildings, mainly built in the Qing Dynasty, including gatehouses, ancestral clans, academies, temples, workshops, residential buildings, etc	38 buildings, mainly built in the Ming Dynasty, including gatehouses, ancestral clans, temples, residential dwellings, etc

Source: Author, 2024

Research Methods

Data for this study were obtained through field surveys, semi-structured interviews, and documents from sources such as Jinxi county records, genealogies, relevant academic papers, media, and official websites. The research methodology combines qualitative and quantitative analysis.

First, primary data were collected through Google Maps, village genealogies, academic papers, and documentaries to gain a preliminary understanding of the villages. Second, a field survey of the two villages was conducted to record the construction elements of the villages using photography, aerial photography, and architectural mapping to collect first-hand data. Third, interviews with villagers were undertaken to supplement and deepen the understanding of some historical information. Fourth, Space syntax provides a quantitative basis for analysing the relationship between spatial layout and social function, but the purpose of this study is explanatory rather than predictive. Integrating space syntax analysis with qualitative evidence from fieldwork, documentary materials, and interviews allows for a more holistic understanding of the construction logic and resilience mechanisms of traditional settlements. Fifth, the qualitative analysis method compares the differences and similarities between the two villages regarding settlement pattern, site selection wisdom, space layout and social functions, and water management system and habitat concept.

RESULTS

Combined with examining research cases, the paper analyses the spatial construction characteristics of traditional settlements from three aspects: settlement pattern and site selection wisdom, spatial layout and social function, and water management system and concept of human habitation, and then explores their potential social semantics.

Settlement Pattern and Site Selection Wisdom

Site selection is the first step in the construction of a settlement. In farming societies, arable land, water, and climate are the most basic human survival resources and decisive factors for the sustainable advancement of villages. Therefore, the fertility of the soil, the flatness of the terrain, the adequacy of the water source and the suitability of the climate are the primary considerations for the construction of the village (Zhou & Feng, 2015). After determining the settlement site, the people conducted the overall construction of the settlement habitat. This includes transforming the landscape environment, opening fields, planting forests, and constructing housing.

Feng Shui is the study of site selection and layout of human settlements formed by ancient people as they adapted to the natural environment. Feng Shui believes the ideal settlement environment should follow the principle of “pillow mountain facing the water, sitting in the north and facing the south” (Zeng & Zhu, 2018). Meanwhile, Pillow Mountain refers to a settlement that faces the water and is surrounded by hills to shield it from the chilly north wind. It is intended to satisfy the daily water consumption and agricultural irrigation needs of the inhabitants. Moreover, sitting in the north and facing the south refers to the orientation of the building for good ventilation and lighting. The siting of Zhuqiao and Youdian Villages reflects traditional Chinese Feng Shui theories and principles. In particular, Zhuqiao Village is in the downstream plain area of the Fuhe River, with a flat terrain. The village faces the endless farmlands in the west, and continuous small hills embrace it in the east. Furthermore, a small stream flows from south to north and eventually joins the Fuhe River (Figure 2-a). Conversely, the topography of Youdian Village is high in the north and west, low in the south and east, built around hills on three sides, with farmland in the southeast and a river passing through in the northwest (Figure 2-b).

According to the literature analysis and the fieldwork on the village, the farmland is the core factor for the site selection of the settlement in the farming era. On this basis, further consideration was given to the coordination between the natural environment of mountains and water and the construction of villages. First, the ancients created fields in the flat land and drew water from rivers for irrigation. Second, the surrounding hills were planted with woods, which, on the one hand, were conducive to soil and water conservation and climate regulation

and, on the other hand, provided fuel for village life. Third, the villages were built at the foot of the hills, sheltered by the woods, which provided some defence, protected from floods, and had easy access to the fields for cultivation. After long-term construction process, the traditional villages in Jinxi generally formed an overall pattern of “Forest-Village-Field-Water” (Figure 3). This kind of site selection aligns with China’s ancient Feng Shui concept. That is to say, it conforms to the natural geographic conditions and environmental patterns, reflecting the harmony between man and nature.

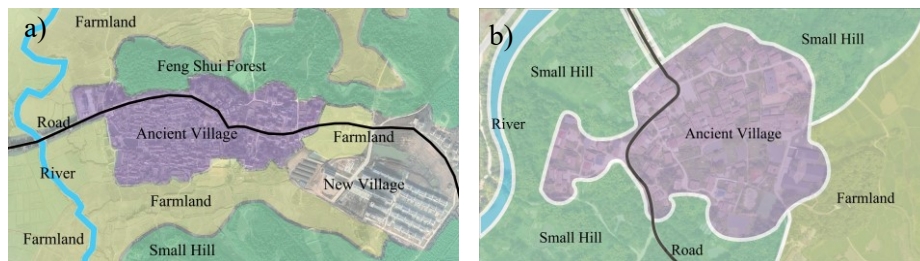


Figure 2: Siting Patterns of Zhuqiao and Youdian Villages
 Source: Author, (2024)

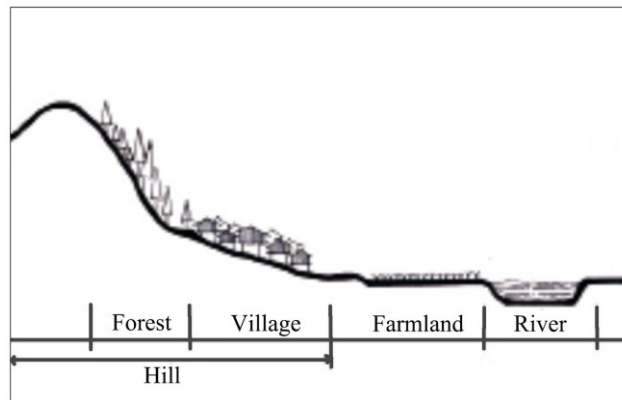


Figure 3: Typical Section of the Traditional Settlements
 Source: Author, (2024)

Spatial Layout and Social Function

Streets and lanes are crucial constituents of the internal space of traditional settlements, connecting traffic, public space, and various types of functional buildings. They have a significant function in stabilising the spatial order of villages (Li & Liu, 2020). Spatial syntax, a theory for studying the relationship between spatial organisation and human activities, reveals spatial features and

their intrinsic laws through quantitative analysis (Bill & Sheng, 2014). In this study, we adopt the axial analysis method of spatial syntax and use ‘integration degree’ and ‘selection degree’ as the core parameters to analyse the spatial features of the case villages and the connection between space and human activities.

To ensure the scientificity of the study, the topographic map of the villages and satellite image map, combined with on-site research and aerial photography, were integrated into this study and traced in Computer-Aided Design (CAD) to generate the road network and village texture maps of Zhuqiao and Youdian Villages. Subsequently, quantitative analysis was performed using Depthmap software to obtain the integration and selectivity analysis maps of the road axes, with the colours of the maps going from darker to lighter and the values decreasing thereafter.

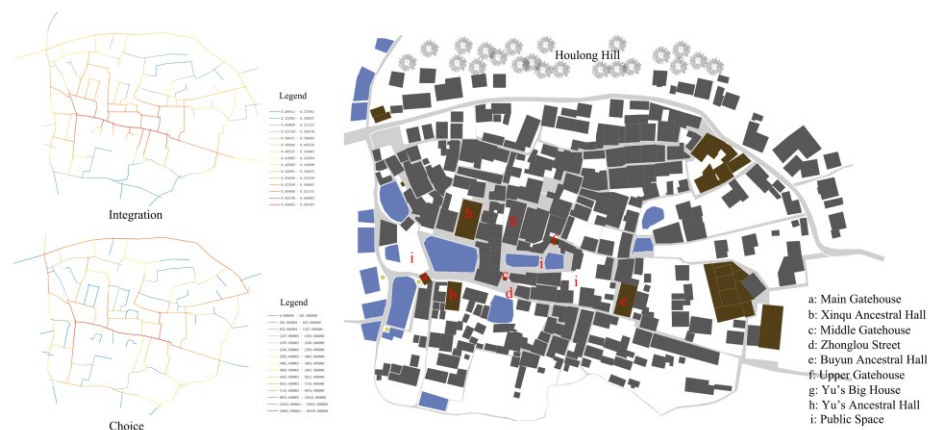


Figure 4: The Space Syntax Analysis of Zhuqiao Village
Source: Author, (2024)

As displayed in Figure 4, the axis system of Zhuqiao Village is more complex. The most integrated red axis is Zhonglou Street, which divides the village into north and south parts and links critical public buildings and spaces such as the main Gate House, Zhonglou, Yu Clan Ancestral Hall, Buyun Ancestral Hall, and Yangzheng Workshop, making it the core area of the village. This area carries critical social functions such as clan rituals, religious ceremonies and festivals. In addition, public buildings such as Canglan Academy and Yu's Big House are distributed near the highly integrated orange axis, further strengthening the village's spatial organisation. The ponds in front of the main, middle, and upper gatehouse indicate that the water environment positively enhances spatial integration. Meanwhile, the blue axes with lower integration are

located at the edge of the village, have poor accessibility, and are mainly quiet residential areas. Note that the axis with the highest degree of selection is concentrated in the area of the main gatehouse and Zhonglou Street. It serves as the main entrance and passageway of the village. It becomes the core area for villagers to gather, rest, and engage in commercial activities, fully demonstrating its convenience and centrality.

By analysing Figure 5, the spatial pattern of Youdian Village is relatively straightforward, with half buildings and half ponds. The village has a relatively simple axial system that can be summarised as a one horizontal and five vertical layout structure, with access to five north-south alleys through five gatehouses. Conversely, the red and orange axes, which are highly integrated, are mainly located in the 'Jinshi Di,' 'Shilang Fang,' 'Shangshu Fu,' 'Fangbo Xing,' and the Hu Ancestral Hall. Together with the water ponds, these public buildings constitute the public space of Youdian Village, demonstrating the close correlation between social functions and spatial layout. The highly selective area is the cross-street, the central passageway connecting both within and outside of the village and simultaneously connecting the five north-south alleyways with high penetration capacity.



Figure 5: The Space Syntax Analysis of Youdian Village
 Source: Author, (2024)

By analysing the spatial syntax of the case villages, the relationship between traditional villages' social roles and their geographical arrangement can be better understood. The general spatial shape of the two villages is compact, illustrating a pattern of 'external closure and internal openness,' balancing defence and communication functions. In particular, external closure helps to protect against natural disasters and external intrusion, while internal openness

promotes villagers' interaction and cooperation. In addition, the analysis reveals that areas with high integration and selectivity tend to have public spaces such as ancestral halls, water ponds, squares and temples. They are the centres of villagers' lives and social lives and essential venues for spiritual and religious activities, particularly ancestral halls, which are vital vehicles for family rituals and strengthen the villages' social stability and cultural continuity.

Water Management System and the Concept of Human Habitation

Water management is an adaptive hydrological regulation and sustainable use based on the systematic knowledge of natural elements such as geography, environment, climate and hydrology. It aims to satisfy the demands of production and life, spirituality and culture, as well as disaster prevention and avoidance (Ou et al., 2022). Traditional villages' water management systems include diversion and storage (Xu et al., 2017). Diversion comprises: firstly, the diversion of the water system on the village's periphery to prevent flooding; secondly, the construction of the village's internal drainage system to reduce waterlogging caused by heavy rainfall. Water storage is mainly reflected in the village's pond system layout. Thus, designing ponds in low-lying areas has the functions of storing and collecting rainwater as well as meeting the multiple needs of daily life, agricultural irrigation, and ecological maintenance.

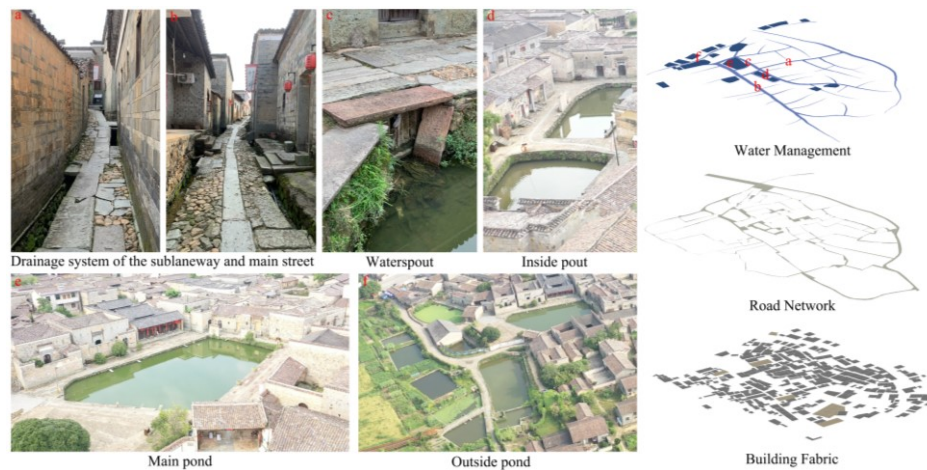


Figure 6: The Water Management System in Zhuqiao Village

Source: Author, (2024)

Zhuqiao Village is situated on high east and low west terrain, with hills to the east and a river to the west. The site selection for the high ground avoids flooding and facilitates flood discharge during the rainy season. As displayed in

Figure 6, the village is large in scale and has a complex internal water management system comprising major streets, lanes and ponds. Among them, Zhonglou Street is the main drainage channel, about 300 metres long and 3 metres wide. The middle of the street is paved with green stone slabs, and the edges are equipped with open ditches to ensure smooth drainage over the centuries. Furthermore, the network of alleys is perpendicular to Zhonglou Street in the shape of a fishbone, which facilitates drainage in the northern area. Each lane is provided with a 60-80 cm drainage ditch, either an open ditch or a culvert underneath the bluestone slabs, connecting to the drainage system of the residential houses and ultimately diverting the rainwater into the ponds. Moreover, the village's water storage system comprises eight ponds connected by large ditches and small drainage holes. When the rainwater pools and exceeds the storage capacity of the ponds, it flows into the next pond along the terrain to prevent waterlogging. Additionally, the decentralised ponds reduce the pressure on rainwater drainage and storage and provide villagers in each area with water for living and fire-fighting purposes. Correspondingly, the seven ponds outside the village are connected to farmland to provide agricultural irrigation during the dry season.

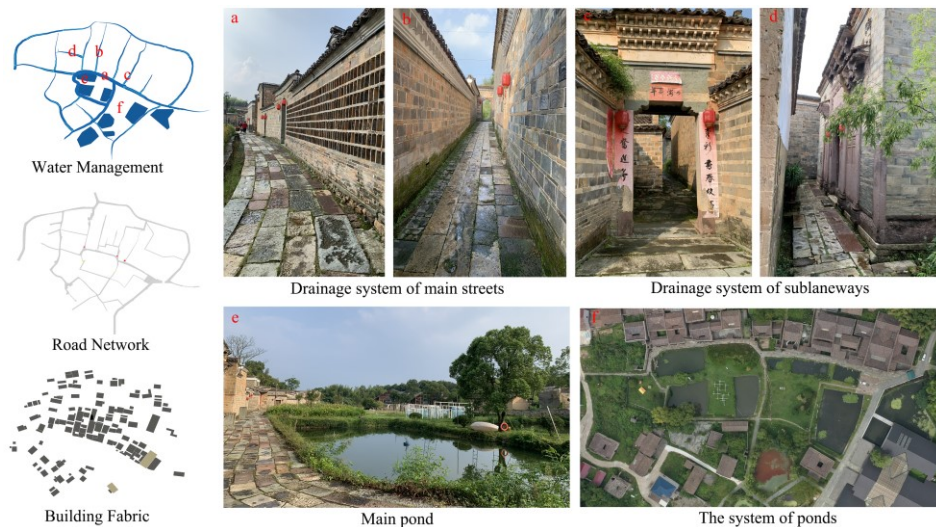


Figure 7: The Water Management System in Youdian Village

Source: Author, (2024)

Youdian Village is smaller in scale, and the internal drainage system is clearly defined. According to Figure 7, the village is bounded by a cross-street, with drainage areas to the north and water storage areas to the south. The cross-

street is the main drainage channel, and most houses are located north of the cross-street, effectively reducing the impact of heavy rainfall on the village. In addition, the street network is laid out perpendicular to the cross-street, with rainwater being discharged along the road to the cross-street according to the land's topography and then into the ponds. Ditches connect seven ponds within the village and can be separated as required. The pond system can adjust the water level and volume with seasonal changes. For example, during the flood season, the water level is kept constant by opening gates and releasing water. Conversely, during the dry season, the stored water can meet the basic water needs of the residents.

The water management system of traditional villages is an essential wisdom in the construction of villages and has a direct connection to the human environment. It consists of ponds, ditches, and wells, to name a few. It undertakes collecting, storing, and distributing water resources, which meets the needs of residents living and fire-fighting water, guarantees agricultural irrigation, and is an essential support for village ecology and agrarian production. The water management system design makes traditional villages demonstrate strong adaptability and resilience when dealing with disasters such as floods, droughts and fires. At the same time, the water management system profoundly influences the formation and evolution of the habitat. The rational layout of water conservancy facilities, such as ponds and ditches, improves the village environment and enhances living comfort. Public buildings and green facilities such as ancestral halls, temples, squares, and ancient trees, to name a few, are mostly arranged around the water ponds, which become places for villagers to relax and socialise, enriching the village landscape and reinforcing the cohesion and social stability of the village.

DISCUSSION AND CONCLUSION

This study reveals the construction characteristics of traditional villages in central Jiangxi, exemplifying the core principle of resilience theory: settlements sustain system stability through continual adaptation and reorganization in response to external changes (Walker et al., 2004). The analysis demonstrates that village construction incorporates three interrelated dimensions of resilience. First, ecological resilience is embedded in site-selection strategies—the 'Forest–Village–Field–Water' layout shows how villages adapt to local climate, hydrology, and terrain to reduce risk and support agricultural productivity. Second, social resilience derives from spatial organization; enclosed perimeters, interconnected lanes, and culturally meaningful public spaces promote social interaction, shared identity, and community stability. Third, infrastructure resilience is evident in decentralised water-management systems, with ponds, ditches, and wells providing robust capacity for water use, irrigation, drainage,

and flood control, ensuring durable village function. Collectively, these features highlight that traditional villages function as integrated socio-ecological systems shaped by ongoing adaptation and hold valuable lessons for current rural development.

Extending these findings, the study integrates site-selection, socio-spatial function, and water management within a unified resilience framework, offering a holistic perspective on how traditional settlements operate and how daily spatial practices shape adaptive capacities. While the research is grounded in Chinese cases, the mechanisms identified, including ecologically informed siting, cohesive social spatial structures, and decentralised water management systems, can inform analyses of traditional and vernacular settlements in diverse contexts. The main limitation of this study is its focus on two cases; despite the depth of qualitative insights, the findings are not intended for statistical generalisation. Future research should expand the comparative analysis to include additional settlement types and employ more systematic quantitative validation, such as locally adapted resilience indices, to further assess and extend the analytical framework proposed here.

ETHICS STATEMENT

All field investigations, interviews, and data collection conducted in this study complied with established research ethics guidelines. Informed consent was obtained from all participants, and anonymity and confidentiality were ensured throughout the study.

ACKNOWLEDGEMENT

The authors acknowledge that the Jinxi County Traditional Village Research Center provides village preservation documents. This work was supported by the Humanities and Social Sciences Research Project for Universities in Jiangxi Province, China (Project No. LS22205).

REFERENCES

- Bill, H., & Sheng, Q. (2014). The now and future of space syntax. *Architectural Journal*, 8, 60–65. [doi:10.3969/j.issn.0529-1399.2014.08.011](https://doi.org/10.3969/j.issn.0529-1399.2014.08.011)
- Chen, Q. T., Zhang, L., Duan, Y. P., & Fan, S. Q. (2021). Spatial-temporal pattern and evolution of traditional villages in Jiangxi province. *National Remote Sensing Bulletin*, 25(12), 2460–2471. [doi:10.11834/jrs.20211194](https://doi.org/10.11834/jrs.20211194)
- Cutter, S. L., Barnes, L., Berry, M., Burton, C., Evans, E., Tate, E., & Webb, J. (2008). A place-based model for understanding community resilience to natural disasters. *Global Environmental Change*, 18(4), 598–606. [doi:10.1016/j.gloenvcha.2008.07.013](https://doi.org/10.1016/j.gloenvcha.2008.07.013)

- Duan, Y. P., Xu, S. L., Xiao, H. Y., & Ni, S. M. (2018). Interpretation of traditional village façade in Jinxi County, Jiangxi Province. *Research on Heritages and Preservation*, 3(12), 66–70. [link](#)
- Guo, H. Z., Zhou, Y. N., & Wang, R. (2022). Enlightenment of traditional village water management system for contemporary urban water management: A case study of traditional waterlogging pond system in Southeast Shanxi Province. *Urban Development Studies*, 29(4), 9–15. [doi:10.3969/j.issn.1006-3862.2022.04.010](#)
- Han, L. W., Lin, Z. R., & Zhao, Z. F. (2023). Adaptation to droughts and floods: Construction mechanisms and contemporary enlightenment—A case study of traditional villages in Taihang Mountains. *Industrial Construction*. [link](#)
- Hu, D., Zhou, S. Y., Chen, Z. X., & Gu, L. L. (2021). Effect of “Traditional Chinese Village” policy under rapid urbanisation in China: Taking Jiangxi Province as an example. *Progress in Geography*, 40(1), 104–113. [doi:10.18306/dlkxjz.2021.01.010](#)
- Imperiale, A. J., & Vanclay, F. (2016). Experiencing local community resilience in action: Learning from post-disaster communities. *Journal of Rural Studies*, 47, 204–219. [doi:10.1016/j.jrurstud.2016.08.002](#)
- Jia, S., Bin Mohd Isa, M. H., & Binti Abdul Aziz, Z. (2023). Spatial characteristics of defensive traditional architecture in multiethnic village of Guangxi: Case studies of Mozhuang Village and Guxietun Village. *Frontiers of Architectural Research*, 12(4), 683–699. [doi:10.1016/j.foar.2023.05.003](#)
- Jing, F., Ramli, R. R., Nasrudin, N., & Buqing, L. (2024). Conservation and revitalization of traditional Chinese villages: A case study of Jinxi County, China. *Planning Malaysia*, 22(34). [doi:10.21837/pm.v22i34.1641](#)
- Li, J. L., & Liu, Y. H. (2020). Research on the natural ecological adaptability in the construction of traditional villages in Jinzhong area: A case study of Hougou Village, Yuci District. *Modern Urban Research*, 6, 41–47. [doi:10.3969/j.issn.1009-6000.2020.06.006](#)
- Li, P., Li, Z., & Min, Z. R. (2018). A study on the feature laws and comprehensive reason of site selection of ancient villages in Jiangxi Province. *Urban Studies*, 25(4), 131–136. [doi:10.3969/j.issn.1006-3862.2018.04.017](#)
- Omar Chong, N., & Kamarudin, K. H. (2023). Disaster resilience rural community (DRRC) community capitals: Case studies in the rural area of East Coast, Peninsular Malaysia. *Planning Malaysia*, 21(26). [doi:10.21837/pm.v21i26.1258](#)
- Ou, Y. P., Li, X. L., & Shun, J. Y. (2022). Green human settlement construction based on water management in traditional villages in semi-arid areas: Taking Laochi in Guanzhong Region as an example. *City Planning Review*, 46(11), 116–124. [link](#)
- Sharifi, A. (2016). A critical review of selected tools for assessing community resilience. *Ecological Indicators*, 69, 629–647. [doi:10.1016/j.ecolind.2016.05.023](#)
- Walker, B., Holling, C. S., Carpenter, S. R., & Kinzig, A. (2004). Resilience, adaptability and transformability in social-ecological systems. *Ecology and Society*, 9(2). [link](#)
- Wang, Y. (2020). Environmental prevention function of water gap space of Huizhou ancient villages and its enlightenment on security. *City Planning Review*, 44(3), 93–101. [doi:10.11819/cpr20200312a](#)

- Xiao, J., & Yong, Y. Q. (2017). Landscape of traditional settlements in eastern Sichuan based on ecological adaptation. *Acta Ecologica Sinica*, 37(13), 4529–4537. [doi:10.5846/stxb201603190492](https://doi.org/10.5846/stxb201603190492)
- Xu, D. M., Wang, M. M., & Wang, Y. C. (2017). Link between man-made system and nature: Inspired by the ecophronesis of Meipei Ancient Village in Jiangxi Province. *South Architecture*, 6, 111–115. [doi:10.3969/j.issn.1000-0232.2017.06.111](https://doi.org/10.3969/j.issn.1000-0232.2017.06.111)
- Yan, W., & Lu, J. (2017). Two models for revitalizing village: Enlightenments under resilient perspective. *Urban Planning International*, 32(4), 22–28. [doi:10.22217/upi.2017.127](https://doi.org/10.22217/upi.2017.127)
- Yang, X., & Long, C. Y. (2021). The construction of traditional rural settlements in central Jiangxi Province: Taking Dongyuan Village, Jinxi County, Jiangxi Province as an example. *Huazhong Architecture*, 39(5), 82–85. [link](#)
- Yuan, X. M., Zhu, J. X., Li, L., Guan, B. T., & Si, M. (2021). Resilience of the rural social-ecological system with traditional farming wisdom: A case study of Hekeng Village, Nanjing County, Fujian Province. *Chinese Landscape Architecture*, 37(7), 31–36. [link](#)
- Zeng, W., & Zhu, W. W. (2018). The ecological thought and wisdom connotation about the space construction of traditional villages. *Development of Small Cities & Town*, 36(10), 79–84, 91. [doi:10.3969/j.issn.1009-1483.2018.10.013](https://doi.org/10.3969/j.issn.1009-1483.2018.10.013)
- Zhou, Z. X., & Feng, J. C. (2015). Construction of ethnic minority settlement in mountainous area in Guizhou under survival pressure: A case study of Biandan Mountain Area. *City Planning Review*, 39(9), 74–81. [doi:10.11819/cpr20150913a](https://doi.org/10.11819/cpr20150913a)
- Zhou, Z. Y., Deng, J., Wang, P. F., Zhou, C. L., Xu, Y. X., Jiang, W. P., & Ma, K. (2022). Physical environment study of traditional village patterns in Jinxi County, Jiangxi Province based on CFD simulation. *Processes*, 10(11), 2453. [doi:10.3390/pr10112453](https://doi.org/10.3390/pr10112453)

Received: 30th April 2025. Accepted: 4th September 2025