

Clan-Cultural Influences on Spatial Organization in Lingnan Traditional Villages: A Case Study of Chengyanggang, Chaoshan

Ziyue Jiang, Yuan Xiong*

Faculty of Innovation and Design, City University of Macau, Macau 999078, China

**Author to whom correspondence should be addressed.*

Copyright: © 2026 Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), permitting distribution and reproduction in any medium, provided the original work is cited.

Abstract: In traditional Lingnan villages, ancestral halls commonly serve as spatial centers, with residences and streets organized around clan relationships. However, the mechanisms underlying this spatial configuration remain insufficiently explained. Taking Chengyanggang Village as a case study, this paper investigates the relationship between clan culture and village space through literature review, field investigation, semi-structured interviews, and spatial hierarchy analysis. The study examines ancestral halls, street networks, residential clusters, and domestic spaces at multiple scales. The findings indicate that the village's spatial structure was shaped not only by environmental conditions and construction techniques but also by the long-term influence of the clan system. Specifically, clan hierarchy and kinship ties informed residential distribution; ancestral halls functioned as centers of public activity; and the proliferation of clan branches drove village expansion along existing street networks. This paper demonstrates how clan relationships and everyday practices jointly shaped the spatial organization of Lingnan traditional villages, contributing a culturally grounded perspective to the understanding of settlement morphology in the region.

Keywords: Clan culture; Traditional villages; Spatial organization; Chengyanggang village; Ancestral halls

Online publication: Aug 6, 2026

1. Introduction

The natural environment and the building technology of the traditional villages are not only factors that influence the spatial shape of the village but also the social interaction between people, culture, and life as well. Particularly in the Lingnan and Chaoshan areas, there is a tendency to have an established spatial structure with the ancestral halls being at the center, where houses are arranged according to the relations of the clans, streets running through the various branches of the families, and clusters of homes. This pattern of space implies that the space occupied by the villages is not necessarily architecturally related; it is also associated with the clan-based organization.

Most of the past research on traditional villages has been devoted to architectural typologies, climatic adaptation and spatial morphology. As an example, some studies have investigated ventilation, moisture control, and courtyard designs in conventional Chaoshan houses, and others have studied common residential types like Si Dian Jin (Four-Point Golden) and Xia Shan Hu (Mountain-Descent Tiger) typologies. Such works have successfully explained the local features of Lingnan vernacular architecture, but they are more inclined towards explaining what the spatial form is, rather than why such spatial organizations come into existence.

From the sociological and rural studies point of view, more focus has been placed on the clan culture *per se*. Fei Xiaotong (2008), in his book *From the Soil*, suggested that traditional Chinese rural society is defined by kinship-based relationships and a differential mode of association, where the intimacy of social relations determines social order and daily life. In the Chaoshan region too, these clan relations affect the spatial distribution^[1]. As an illustration, members of the same lineage branch tend to live in proximity; the ancestral halls are usually located in the central residential area, and the later branching families slowly extend to the outskirts. This spatial form is not the product of one planning action, but it has been stabilizing over long periods of time due to settlement and development of clans.

Over the past few years, certain researchers, such as Zhao Shule (2022), have started to pay attention to the connection between ancestral hall spaces and public activities. It has been noted that Chaoshan ancestral halls are not only used in rituals but also as significant places of decision-making, festivals, and gatherings^[2]. Since clan activities have long been centered on ancestral halls, these areas have slowly evolved into the common center of villages. In the meantime, the street system is not a transportation network alone; main streets, secondary lanes, and residential clusters form a clear spatial hierarchy which, in some ways, represents the organizational structure of the clan.

International studies by Knapp, R. G.(1999) also indicate that the settlement space is closely associated with social relations and cultural practices, providing useful insights for understanding the spatial organization of traditional villages^[3].

Currently, the studies of traditional Chaoshan villages have been conducted on clan culture, residential typologies, and settlement spatial structure in various aspects. Nevertheless, there is little systematic analysis of how clan structures specifically affect village spatial organization. While most scholars agree that clan culture is significant, very few scholars have combined ancestral halls, street systems, residential distribution, and clan relations into a single analytical framework.

This paper uses the example of Chengyanggang Village. In the light of clan culture, it examines the interrelationships between ancestral halls, street networks, residential spaces, and the general structure of the village in an attempt to elucidate how clan relations are involved in forming the spatial organization of traditional villages.

2. Research methods

There were four methods used. The theoretical framework was established through a literature review. Field research in the village offered primary spatial data based on observation, photography, and measurement. Qualitative information on ancestral hall activities, residential patterns and street use was obtained by conducting semi-structured interviews with elderly residents and long-term inhabitants; their answers were thematically coded. The morphological gradation of main streets to alleys and the center-periphery distribution of residential clusters was analyzed using the spatial hierarchy analysis. Triangulation of these

techniques will guarantee that there is a strong interpretation of the connection between clan culture and spatial organization.

3. Analysis of the clan structure of Chengyanggang Village

3.1. Clan branches, spatial clustering, and the hierarchical village pattern

The clan relations in the traditional Lingnan villages are mostly based on blood relations and their identity as ancestors, with the ancestral halls, rituals, and lineages splitting out of the family tree. The Chaoshan ancestral halls have not only a ritualistic role but also contribute to the local culture and people's involvement in village life (Lin Yuancheng, 2020) ^[4]. Chengyanggang Village demonstrates this. It has been observed that one or two major surnames dominate the population of the village, and it is constantly being divided into sublineages, which over time lead to the formation of several lines. Such branches tend to be concentrated spatially and are at the same time connected through the common origin of their ancestors. In turn, this means that there is an evident settlement pattern of the co-settlement of the lineage. The layout of the space is not random but rather related to the underlying structure of the clans. The various branches of the lineages occupy quite compact spaces, and yet they are associated with each other via the ancestral halls and communal areas, hence creating a hierarchical yet cohesive spatial organization (**Figure 1**).



Figure 1. Chengyanggang village's rural texture.

3.2. From center to periphery: kinship and spatial hierarchy in village layout

Clan organization is not only expressed in terms of the continuity of kinship relations, but also implies a very clear hierarchical order. In traditional clan systems, concepts of seniority and generation distinction are among the most important social principles, and such relations are also expressed in space. Clan identity derived from the clan system means not only the sense of belonging to the lineage group felt by its members, but also self-awareness rooted in the overall clan structure.

The ancestral hall in Chengyanggang Village is usually located at the center of the settlement, and it is surrounded by a relatively high density of primary residential units, whereas peripheral areas were mostly

developed in the later stages of expansion. Generally, the central area houses about 30–40% of all residential units, which is a distribution pattern that is highly associated with internal kinship proximity **Figure 2**.

Spatially, the members of closer kinship relations tend to occupy the areas that are nearer to the ancestral hall, and later emerging branches occupy the more distant ones. This outward expansion of the center forms a spatial gradient between public space and private space, and it is also an indication of the internal hierarchical order of the clan.



Figure 2. Distribution map of ancestral halls in Chengyanggang village.

3.3. The role of ancestral halls in shaping clan activities and public space

The clan activities directly control the use of the village space. It has been reported that in modern rural life, the ancestral halls are still used as places of meeting, as well as a place of cultural gathering and even as part of the rural administration Liu Meixin, 2023) ^[5]. The ceremonies and meetings of clans have to be held in definite areas, and this is why the ancestral houses are located in the middle of the village.

The space around the ancestral hall often creates an open space of a certain dimension for daily casual activities and festive gatherings. In fact, it can be observed that the ancestral hall not only satisfies the ritual functions, but also determines the organizational logic of the surrounding space.

4. Interview data and verification of spatial relationships

To supplement the spatial observation, semi-structured interviews with elderly villagers and long-term residents were carried out, concentrating on the functions of ancestral halls, residential distribution, street uses and village expansion.

After the interviews were conducted, the data gathered were arranged in a systematic manner, and the themes that emerged repeatedly were reduced to key analytical concepts such as the public nature of ancestral halls, concentration of clan activities, kinship-based settlement patterns, clan-based housing clusters, alley-driven expansion and hierarchical street-alley networks. These results were cross-referenced with field observations on the location of ancestral halls, distribution of houses, and alley arrangement to determine whether the clan culture has affected the spatial organization of the village. The table below is a detailed summary of the findings. See **Table 1**.

Table 1. Interview outline and data organization

Number	Participant profile	Focus point	Typical answer	Key summary	Conclusion
A1	A resident, aged 78	Venues for discussing key village affairs.	The ancestral hall is the most important place; in the past, all village matters were discussed there.	The ancestral hall serves as the central public space.	An ancestral hall possesses both a central role and a public nature.
A2	A member of the clan, aged 72	The main venue for ancestral worship, festivals, or public events.	Ancestral worship ceremonies, meetings, and wedding celebrations are typically held near the ancestral hall.	Clan activities are concentrated in certain areas.	Clan activities reinforce the central role of the ancestral hall.
A3	A resident, aged 68	The relationship between kinship ties and residential distance	The closer relatives all lived nearby; only as the branches multiplied did they gradually expand outward.	Blood-related settlements.	Residential distribution is influenced by clan relationships.
A4	An elderly resident of the village, aged 75	Whether established site selection guidance existed during past house construction.	In the past, building a house also required considering family lineage; the location wasn't chosen arbitrarily.	The hierarchical order influences site selection.	The spatial hierarchy corresponds to the clan hierarchy.
A5	A resident, aged 70	The future development direction for new housing projects.	As more people gathered behind, construction gradually expanded outward along the alley.	Expand along the alley.	The village expands along the existing structure.
A6	A senior member of the clan, aged 82	Space utilization during festivals such as Qingming and the Winter Solstice.	During the Qingming Festival and Winter Solstice, the ancestral hall is particularly bustling with a large crowd.	Festival activities.	The event cycle enhances the utilization of public spaces.
A7	A resident, aged 65	Whether different apartment complexes share relatively concentrated residential areas.	Each household typically lives together, with their own designated area.	The branches form residential clusters.	The space exhibits a branched aggregation structure.
A8	A resident, aged 74	The Differences in the Use of Main Streets and Alleys.	The narrow alleys connect every household, while the main roads are used by everyone.	The streets and alleys are clearly graded.	The streets and alleys have a hierarchical structure.

The interview results broadly support the spatial analysis. The ancestral hall functions as the public center of the village, residential distribution reflects kinship ties, and the street network exhibits a clear hierarchy. Taken together, these findings suggest that clan culture continues to shape the spatial organization of the village.

5. Analysis of the spatial organization of residential houses and villages: A case study of Chengyanggang Village

5.1. The basic spatial composition of residential buildings

The chapter provides a detailed description of the traditional houses and spatial layout of Chengyanggang Village based on field research, analysis of spatial hierarchy, and interview information. The conventional houses in Lingnan and Chaoshan areas developed slowly with the impact of the long-term local living

conditions and environmental factors, which led to relatively stable space arrangements. Chengyanggang village has retained most of its original Chaoshan traditional settlement pattern, and there is a distinct similarity between the spatial structure of the village and the clan relations within it.

The interior spatial design of the traditional houses in the village of Chengyanggang is mostly made up of three elements, which are the hall, courtyard, and living rooms. They are arranged around a central line that creates a clear structure of space. The center of the house is the hall, where the family members will be able to conduct most of their social activities and also conduct rituals and other ceremonies. It is located between various functional spaces, and the courtyard provides sufficient light and air as well as movement between the areas. Rooms like the bedroom can be found on one side or at the rear of the hall with more privacy. The plan of the entire place shows a gradual process of turning the public into the private. In the Chaoshan area, there is a rather constant relationship of space in the main hall, the courtyard, and the living quarters (Lin Jiena, 2024) ^[6]. Not only does the basic front hall-courtyard-back hall scheme allow the adaptation of the Lingnan region to its humid weather conditions, but it is also the basis of the future layers of the space, and therefore this scheme becomes an important prototype of the organization of the residential space in the Lingnan tradition.

5.2. Spatial hierarchy and usage relationships

It is also worth noting that the hierarchy of space in the old house does not only depend on the functions, but it also has a connection to the way of life and social interaction among families. Rapoport (1969) believed that there are other factors, besides climate, materials, technology, etc ^[7]. The buildings of the Chengyanggang Village have an open front and street side with a very large entrance, and this part is used for everyday living and going out; the hall is the place where the family members spend their time; the interior of the house is composed of rooms, which can be accessed by the residents of the house only. The courtyard acts as a buffer zone between the various areas so that no one area is connected with the other one.

The living rooms are the ones that start to change in the outside and inside of a home, so there is a hierarchy of openness and privacy as well, which can be compared to the real-life usage of homes. The houses of the families were also built in such a way that they spread out on the horizontal or vertical axis when the family was large enough, and the clan had branches. In most cases, the houses were added to the current houses with the addition of space but without any break in space. Houses tend to have a hall-centered plan where it is followed by a succession of enlarging and deepening parts, and this is not only because of natural conditions and construction methods but also because of the clans and the need to perform the functions practically.

Regarding the general spatial organization of the village, Chengyanggang Village has a layout that is based on the ancestral hall, and the street and alley hierarchies and residential clusters are arranged in this way. The village still maintains a comparatively intact comb-like layout as well as traditional Chaoshan residential designs like Four-Point Golden and Mountain-Descent Tiger designs. Being the most significant public structure of the village, the ancestral hall is usually placed at the center or at some important points, not only as a symbol of the clan but also as a place where rituals, deliberations, and other activities take place. A system of ancestral halls has been developed by Chengyanggang Village: the main ancestral hall is situated in the village centre, with the surrounding spaces devoted to worship and gatherings; branch ancestral halls of different branches of clans are located in various residential clusters and are spatially linked to their respective housing areas, creating a distinct stratified spatial structure. The ancestral halls are the

spatial center of the village, which not only represents the organization of the clan relationships within the spatial framework.

5.3. Spatial configuration of the street-alley system and residential aggregations

The street-alley network is the most important part of the system of the ancestral hall, home, and public place. The hierarchy of streets and alleys in the village of Chengyanggang has a well-defined level of differentiation between the main street and the branches of the alleys. The primary avenue connects the ancestral halls with the large space of the people, where the size of the space is bigger, and the purpose of it is to serve as a transport and social activity center. Other branch alleyways are much narrower than other types of residential buildings, as they are built into the houses of separate families and family lines. The pattern of streets and alleys is also associated with the residential patterns of the clan branches. The various branches make relatively small settlements on the basis of particular alleys, so that the entire village can be considered as having a certain degree of zoning. It is the street order that shows the spatial arrangement of the relations between clans, and the distribution of the population according to the village's spatial structure.

In Chengyanggang Village, the residential units of different clan branches show a significant clustered pattern. Families with close kinship relations mainly live in the vicinity of the ancestral hall and central area, and descendant branches gradually spread outwards. In total, more than 70% of the residential units are concentrated into different clusters, thus forming clear residential boundaries. This pattern not only reinforces internal clan relations, but also maintains inter-cluster relations via the street and alley network.

With the increase in population and the creation of new branches of clans, more residential units are being constructed along streets or at the periphery. However, they all still fit into the current spatial structure with continuity between the old and the new areas. Chengyanggang Village has therefore created a model of spatial organization based on the ancestral hall, which is connected by streets and alleys and where the distribution of residential buildings is clustered: an obvious indication of the long-term impact of clan relations on the spatial organization of the village.

5.4. Residential distribution and clan groupings

The layout of the village, Chengyanggang, is based on the ancestral house and has a definite hierarchy of streets and lanes with houses built in such a way that they are arranged around the ancestral hall, and the settlement was progressively added to the existing one. These are also interdependent features: the location of the ancestral house will affect the distribution of residential units as well as the structure of the street-alley; the structure of the street-alley will ensure that there is a connection between the clusters of residential buildings. Therefore, the spatial arrangement of the village is determined by the natural and practical factors, but also by the fact that the relations among clans have been part of the organization of space.

6. The impact of clan culture on the spatial organization of Chengyanggang Village

6.1. Clan relationships and the spatial morphology of the village

The analysis of the clan, spatial arrangement, and village structure in Chengyanggang Village has been done in the previous chapters. The chapter continues to explain how the clan relationship is also involved in the formation of the villages as well as the distribution of residential space, public activities, and expansion of the village. Put differently, it is not a matter of the culture of clans in an abstract sense but that of their actual

embodiment in the ancestral halls, streets, and organization of residences. The way the natural environment, building processes, family relations, and everyday life were connected did not result in the emergence of the spatial design of the Chengyanggang Village; this was a long-term process. Another research on traditional villages suggests that when we preserve the traditional village, we must not only preserve the buildings but also the shape of the village, lifestyle, and social connections of the villagers Cheng Yeqing, (2024) ^[8]. It is therefore the blood relationships which form the basis of the village space in terms of the clans. As the main physical point of the clan identity, ancestral halls have an impact on the design of the village: they are located in the center where most of the houses are concentrated, and then new homes are built around the existing ones with the growth of the branches of the clans, and the entire area grows towards the periphery. This system is a representation of the living relations between people, and at the same time there is order and continuity in the evolution of the village.

6.2. Clan hierarchy and its spatial correspondences

The spatial arrangements clearly reflect the hierarchical organization of the clan. The ancestral hall is a high-level spatial node with strong public and symbolic importance Lin Jiena, 2024) ^[6]; therefore, its immediate environment tends to be a core residential area, whereas peripheral regions tend to become more private. This pattern of spatial distribution that decreases as one moves away from the center fits well with the internal kinship dynamics and hierarchy of the clan. Likewise, in single-family houses, the spatial hierarchy of the main hall, courtyard and living quarters is mirrored by the functional relations within the household. Therefore, not only does the spatial hierarchy emerge due to the functional differentiation, but it also demonstrates the significance of social relationships in the spatial structure.

6.3. The role of clan activities in shaping spatial functions and organization

The spatial functions are directly affected by clan activities. There is a need for a specific space where ritual ceremonies and deliberations can be performed; hence, ancestral halls and their surroundings are the main public areas in villages. In the meantime, streets and alleys act as connectors and transitional components of everyday life, connecting various spatial units and preserving overall spatial continuity. One can see that the emergence of spatial functions is not only conditioned by daily needs but also has much to do with organizational patterns of clan activities.

The streets were then gradually occupied by new houses as the clan branches spread and the spatial arrangement was preserved. The social relations are organized in the form of the clan system, which organizes the human settlement patterns and the needs of the space to be a unique spatial organization over time Chen Zhaojia, (2025) ^[9]. More specifically, the clans determine the residential units, the clan activities determine the spatial functions, the development of the branch of the clan determines the spatial growth, and the formation of structural elements such as centers of ancestral halls, spatial hierarchy, and street networks. Therefore, the village space is not created by one aspect but through a process of social interaction. Moreover, it has been observed that there are high correlations between the number of ancestral halls, the number of streets, and the number of houses, which is why the role of the clan structure in the spatial distribution of the villages is very important.

7. Conclusion

The study takes Chengyanggang Village as a representative Lingnan traditional settlement to examine how its spatial organization was formed. The findings indicate that village space cannot be explained solely by environmental conditions or construction techniques, but is the result of interactions among natural factors, building practices, and clan culture. In Chengyanggang Village, the ancestral hall gradually became the spatial and social center through repeated communal activities, while kinship ties encouraged residential clustering and shaped the hierarchical street network. These spatial characteristics demonstrate that the village developed through the long-term continuity of clan relationships rather than formal planning. At the same time, the humid subtropical climate, local topography, land resources, and population growth also influenced the physical form and expansion of the settlement. This study treats clan culture as an analytical factor rather than merely a cultural background and proposes a framework linking clan organization, social relations, spatial needs, and spatial structure. The framework not only explains the spatial formation of Chengyanggang Village but also provides a reference for analyzing other lineage-based settlements in the Lingnan region. Although the research is limited by its single-case focus and relatively simple quantitative analysis, it offers a useful basis for future comparative studies, the application of advanced spatial analysis methods, and the conservation and sustainable renewal of traditional villages.

Disclosure statement

The authors declare no conflict of interest.

References

- [1] Fei X, 2008, *From the Soil* (Xiangtu Zhongguo). Peking University Press.
- [2] Zhao S, 2022, *Research on Renewal Strategies of Ancestral Hall Architecture in Chaoshan Traditional Villages from the Perspective of Rural Governance*, thesis, Shantou University.
- [3] Knapp R, 1999, *China's Traditional Rural Architecture: A Cultural Geography of the Common House*. University of Hawai'i Press.
- [4] Lin Y, Yang R, Lai Q, et al., 2020, Place Attachment Formation and Rural Governance: A Chaoshan Ancestral Hall Case Study. *Tropical Geography*, 40(4): 732–743.
- [5] Liu M, Cai X, Huang K, 2023, The Reproduction of Ancestral Hall Space from the Perspective of Rural Cultural Governance: Guangdong Cases. *Progress in Geography*, 42(8): 1597–1608.
- [6] Lin J, 2024, *Research on Traditional Residential Types in the Chaozhou–Jieyang Region Based on Dwelling–Ritual Spatial Analysis*, thesis, South China University of Technology.
- [7] Rapoport A, 1969, *House Form and Culture*. Prentice-Hall.
- [8] Cheng Y, Wang C, Liu L, et al., 2024, Protection and Utilization of Chinese Traditional Villages for Rural Revitalization: Challenges and Prospects. *Journal of Natural Resources*, 39(8): 1701–1722.
- [9] Chen Z, 2025, *Research on Color Characteristics and Evolution of Chaoshan Traditional Villages Based on Cultural Memory Theory*, thesis, Guangzhou University.

Publisher's note

Bio-Byword Scientific Publishing remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.