

The Openness of China's Gated Communities from the Reflective Perspective of Border Vacuums

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Abstract. Modern communities emphasize greenness, openness, and sharing. However, gated communities built in China in recent years have negative impact for both the community and the city. Both the internal operation of the gated communities and the external operation of the city have good facilities and layouts, but the overall operation is inconvenient. The function transformation between the community and the city and the interaction between residents are insufficient. Based on the perspective of the system theory and the criticism of the new urbanism theory, this paper proposes the research aim in the driving factors and mechanisms that affect the open connection between the community and the city.

This paper also proposes a theoretical hypothesis that the interaction of residents in space and the transformation of spatial *multifunctionality* are the driving forces for the open connection between the community and the city. Social inclusiveness and spatial *multifunctionality* are the key driving factors. Through case studies, the transformation mechanism and path are reversed. China's gated communities need the integration of spatial *multifunctionality* and social inclusiveness to drive the open connection between the community and the city.

Keywords: Gated communities \cdot Openness \cdot Spatial multifunctionality \cdot social inclusiveness \cdot Border vacuums

1 Introduction

China's gated communities generally have the problems of insufficient spatial interaction among residents and insufficient spatial multi-functional transformation. The modernist functional zoning theory has a profound impact on the construction of gated communities. At present, super blocks, enclosed walls, separation of residential and commercial service facilities, etc., all show that the urban form is single, the social structure is broken, and the community Loss of feeling and other issues. Affected by the changes of the times and the urban environment, the problems of modernism urban residential quarters have become more and more serious: enclosed walls, lack of humanistic atmosphere, monotonous functions, and single urban functions. In terms of facilities, most residents believe that the public service facilities in the residential area lack diversity and cannot meet the needs of residents (Ma and Ouyang 2020).



Fig. 1. The entrances and exits, enclosed spaces, and enclosed walls of gated communities in China

At the level of residents' interaction, the closedness has many disadvantages. From a sociological perspective, a community is a community of human life that exists in a certain boundary and its members have various stable social and psychological connections (Qiu 2013). The gathering of people forms the main body of families, organizations, institutions and groups. The gathering of these subjects forms the form of communities, and the gathering of communities forms towns and even cities (Liu 2017). The community is a part of the city and the basic unit that makes up the city. However, the community has become a gated community, which is only used by certain groups of people, or it has become an insecure slum, where people living there are confined to their own circles (Reicher 2018). From the perspective of social isolation, the long enclosed space greatly increases the walking distance. In the case of social class differentiation, community homogeneity has appeared (Yu 2014). Gated communities cannot promote neighborhood harmony and community cultivation. Introverted closed community spaces are more likely to cause new social isolation. In addition, the closedness of the community has also caused the differentiation of residential space, making the city more differentiated, fragmented and dual-city, forming a community where the lower classes live. On the one hand, the rich and the poor form their own networks of communication, causing social disruption; on the other hand, spatial isolation makes the poor gradually move away from the core of society, prone to poverty solidification and conflicts between classes (Zhu 2015).

At the level of spatial *multifunctionality* transformation between community and urban space, China's gated communities also bring great inconvenience to the livelihood of residents. As the functional unit of the city, the community mainly performs living functions, but the citizens are residents in the community, and labor and human capital in the city. The role switching of citizens between the community and the city requires the connection of community and urban functions.

However, planners influenced by the theory of functional zoning isolate the community from the city, and the working and commercial spaces are separated and placed near residential areas. The city is simply divided by functional areas. This practice makes the city has no integration of life and commerce. The urban space appears to be isolated and fragmented, and the residential communities have lost their former vitality. In addition to the isolation of the increasingly widened roads dominated by cars and other motor vehicles, another important reason is that the residential communities themselves are closed and isolated. This directly leads to the reduction of the possibility of the exchange of material, information, and energy between the community and the outside world, the loss of the urban environment and the living atmosphere, the "death" of neighbors and communities, and the isolation of society (Cao 2018). Urban morphology is also concerned spatial continuity, closed communities inevitably affect the spatial form of the city. Jane Jacobs first proposed the concept of *border vacuums* in *The Death and Life of great American Cities*. A large number of single uses in cities all have the same side, which form a *border vacuum*. These *border vacuums* often become destructive neighborhoods and form the fringe of the city (Jacobs 1989).

This separation between the community and the city is not conducive to the social interaction between residents, and the multi-functional transformation. It is meaningful to pay attention to the space between communities, re-recognize the limitations of community closure, and explore the way of community openness (Yu 2014). It is necessary to explore the driving factors and forces of the openness and integration between the community and the city, and the mechanism of realization.

2 Literature Review

2.1 The Connection Between the Community and City

The production of automobiles led to a radical change in urban construction in the 20th century, and subsequently reflected in roads, streets and squares developed or rebuilt according to various traffic mobility laws. This traffic mobility creates a clear separation of residential and working functions in space (Reicher 2018). Under the leadership of the concept of functional zoning in modern cities, various functional spaces are separated and unconnected, which makes all departments and units become extremely unitary. The separated residential areas are full of residences (Mumford 2005). However, this separation does not conform to the inherent laws of cities and communities. City is an open complex system that integrates material, energy, information and is endowed with a certain spirit (Liu 2017). The community is the basic unit of the social space system, located at the level between the building and the city. The urban space system is composed of many community spaces of different scales. The communities are independent and interrelated, forming a hierarchical, semi-networked, and networked urban space, which together constitute a complex system of human settlements (Yu 2014).

2.2 Criticism of New Urbanism

Jane Jacobs first attacked modernism in the 1960s. In the early 1980s, *New Urbanism* arose, the essence of which was to return to the principles of urban design before the automobile society. For example, creating pedestrian spaces, designing cities with public transportation, especially wheel and rail commuting facilities, emphasizing intensive development, and minimizing the use of cars (Glazer 2012). New urbanism is based on the common tendencies of compact urban forms and mixed zoning developed since the 1970s, and highly appraise the compact urban forms developed in the past few centuries. Neighborhoods should adopt diversity in land use and population. New urbanism shares some common principles: sophisticated functional mixing, mixed housing types, compact layouts, attractive public spaces, and multiple modes of transportation options (Grant 2010).

2.3 Introspection of Border Vacuums

Borders such as railways, riverside areas, campuses, highways, large parking areas and large parks have a common feature, and are most likely to border with lifeless or depressed scenery. Most of the attractive areas in cities are rarely located in areas adjacent to large, single-use areas. **Borders** can easily form a blind spot for most street users in the city. Once such a blind spot is formed, there will be further consequences. The streets immediately adjacent to borders will therefore become empty, and the usage rate of the streets adjacent to them will also be influenced (Jacobs 1989).

2.3.1 Urban Fragmentation Caused by Border Vacuums

Border vacuums also divide the city into fragments, they are just the opposite of the behavior of small parks, which can connect the neighborhoods adjacent to it from all directions and allow people from all directions to gather here. The behavior of border vacuums and streets is also the opposite, because streets link the uses of the two sides of the area together, allowing users to come together. Some urban areas are divided into fragments, the content of the blocks has disappeared. For the planning of some pedestrian streets, if a parking lot is built next to it, and a border vacuum is created in this originally fragile area that is difficult to integrate together, these intentions will actually lead to endless border vacuums and unrelated uses (Jacobs 1989).

2.3.2 Inter-construction of Multifunctionality in Border Areas

The reason for the vacuum zone at theborder area is the lack of popularity. The low utilization rate of some junctions is because the land use density of this single-use area is insufficient. And this phenomenon occurs in large or extended areas, but this does not mean that the border areas which break up the city should be regarded as enemies of urban life. On the contrary, some border areas can be changed, such as developing more uses in their surrounding areas. The mix of utilization requires a rich diversity of content. The integration of different utilization of the city will not fall into chaos. On the contrary, it represents a highly developed complex order (Jacobs 1989).

2.4 Carriers of Community Openness: Space and Humanity

Functionalism divides urban life into living, working, and leisure functions, which are connected to each other through transportation; however, relatively independent urban residential areas cannot work together with other sections of the city. More importantly, for the community, the single function of the residential area makes the space utilization rate of residential land and the social communication of residents a problem. The real paradox of functional zoning is that it causes the continuity of urban life to be split in the spatial structure of urban functional zoning and the separation of time and space (Yu 2014). Most gated communities in China have an edge boundary composed of railings, fences, and even security and electronic warning devices, and thus clearly divide the *inside* and *outside* of the community, artificially isolating the communication between different systems. In fact, the border is the space that is most likely to induce rich and diverse urban life (Cao 2018).

Excellent residential buildings need supporting facilities in addition to housing: traffic and road connections, urban construction, accessibility of infrastructure and entry flow, as well as the morphological design of transitional spaces, all of which have an impact on the quality of living and the social connections between residents. The decisive influence. The surrounding environment of the residential area and the built community should be comprehensively recognized as "living space" and "relationship network" (spatial and social). People put forward a variety of requirements for the surrounding environment of the residence: it should provide space for individualization and community activities. A good surrounding environment allows communication, meeting and sports to be possible (Reicher 2018). It can be seen that space and residents are important carriers for the openness of communities. The following will analyze which specific driving factors are playing the driving role.

3 Openness from the Perspective of Space System

3.1 System Perspective: Community as a Subsystem of the City

The *neighborhood unit* theory based on modern functionalism overemphasizes the integrity and independence of the unit itself, while isolating the relationship with the surrounding environment system. As a relatively complete system, the urban residential community is an organic part of a larger system to which it belongs—the city. At the same time, the residential community must also be an *open system*. Because only an *open system* can exchange matter, information, and energy with changes in the environment, the various components in the system can also interact and continue to build or disintegrate. As a subsystem of the urban system, the urban community is by no means an isolated and closed system, but has the characteristics of spatial and social integration and penetration (Cao 2018).

3.1.1 Analysis of Driving Force: The Interaction Between Residents and the Transformation of Spatial Functions

There are many driving forces for the open connection between the community and the city, but only two core internal driving forces, the multiple interactions between residents, the functional transformation between the community and its surrounding space. The size of the space that the community public area can provide will definitely have an impact on the frequency of activities. Regardless of other factors, the two show a positive correlation; but when the public spaces are similar in size, social factors often play a key role in the frequency of activities (Zhu 2015). The connecting space is not a closed structure like the divided space, but there should be at least two (or more) openings to increase the interaction of residents. The separated area serves as a place for activities for people to stay in, while the channel has the function of spatial connection, which allows people, materials, and information to enter another area through the connector (Tong 2011). A complete community needs open space, green space, and connecting space with scenic spots; to break the closedness of different spaces.

The residential-oriented functions and structures of communities are difficult to adapt to the development of modern cities (Qu 2019). Some cities in the United States have

parking spaces that exceed 50% of the total urban space, which occupy more space than urban areas (Whyte 2016). This single-function spatial structure is increasingly difficult to meet the diverse functional needs of residents. Even real estate developers have gradually realized that retreating the red line of buildings to obtain green space will make the commercial land they operate more popular (Burnham and Bennett 2017). In addition to meeting the needs of daily life, residents' consumption needs have become more diverse. Consumer activities have gradually changed from a single shopping behavior to a diversified, comfortable and open social activity (Zhu 2015). The use of public space is becoming more and more diverse: such as transportation, consumption, communication, rest space, etc. Therefore, *multifunctionality* is also called the essential characteristic of public space (Reicher 2018). Communities have living functions; cities have multiple functions such as production, ecology, and economy; multiple spatial forms evolve into multiple functional transformations between communities and cities. The community and the city need the transformation of these spatial functions to realize the role switching of residents.

3.1.2 Uncertainty Analysis of Driving Force

Whether it has multifunctionality is the core uncertainty in the transformation of spatial function. Excellent planning means that many of these buildings are mixed with many functions (Glazer 2012). Enclosing a community does not mean closing. The enclosed area can be functionally diversified. In an urban area that is dominated by residential buildings or has many residential buildings, the more types and complexity of primary uses, the more dynamic they are, just like the situation in the downtown area. In real life, the lack of residential areas mixed with work to operate in the city is very unsatisfactory.

Whether it is socially inclusive is the core uncertainty in the interaction of residents in space. In the public space, many social processes are taking place. On the one hand, conversion, communication, socialization, games, sports, leisure and nursing are taking place; on the other hand, the public space is also a space where people feel threatened, uneasy and excluded in the city (Reicher 2018). The trend of entrusting urban development to real estate developers or independent large clients has led to the strengthening of privatization, strengthening a selective and social isolation, and cities becoming more and more suitable for customers with spending power. The elderly, children, the poor and some women are marginalized. As a result, the city loses the essential elements of urbanity (that is, the colorful and mixed publicity of the city), resulting in damage to the overall quality. The phenomenon of space "separation of utilization" caused by the process of social exclusion has begun to increase precisely in attractive residential areas.

3.1.3 Theoretical Hypothesis

According to the above analysis, two dimensions of openness can be summarized, the social dimension and the spatial function dimension. The combination of different dimensions can form communities in different scenarios, such as open communities, multi-functional communities, inclusive communities, and closed communities (Fig. 2). The current theoretical hypothesis can be put forward: the community, the border space and

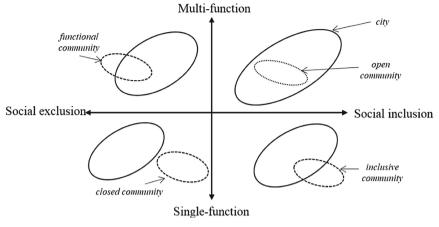


Fig. 2. Analysis framework

the urban space system are mutually influenced, connected and shaped, rather than independent and separated spatial forms. The interaction between people in space and the transformation of space functions are the key driving forces for the open integration of communities and cities. The multifunctionality of space and the degree of social inclusiveness determine the process of community openness with city (Fig. 2).

4 Case Studies of Open and Gated Communities in China

Qicai and Longjiang community are pilot communities launched by the Zhejiang Provincial Government. Qicai focuses on building an open community with integrated services. Longjiang Community is trying to merge the original four small communities into a comprehensive joint community. The two pilot communities are in contrast with the traditional Chinese gated communities, and their exploration has important analytical and reference significance. The agglomeration of spatial human flow is the best indicator of openness. This article will analyze the openness of Zhejiang University in Hangzhou, Henan Qingshuiwan community, Longjiang community, and Qicai community based on the crowd gathering effect.

4.1 Closed Boundary Between the Campus and the City

The Zijingang Campus of Zhejiang University is located on the west side of the famous West Lake in Hangzhou. The campus has beautiful scenery, but the border between the campus and the city is a highly enclosed river course, and a fence is even built around the river course to prevent citizens from approaching. The riverside area can be turned into a seam. Such a border area should allow some passages for the public to enter, look at the water surface, and observe the traffic on the water. Boating, boat trips, fishing, and swimming activities all contribute to the formation of an organic seam rather than a barrier at the problem-prone junction between the shore and the water. On the riverside of Zhejiang University, people can only occasionally see citizens coming to fish in the city. They climbed over the fence that blocked the citizens from approaching and sat there for a whole day. Regardless of the harvest, they enjoyed it very much. The closedness of the river boundary on the campus of Zhejiang University has caused the loss of the multifunctional mixing and social interaction of the space between the community and the city. Originally, teachers and students on campus could interact more with the citizens, but now they can only face each other across the river. The citizens cannot share the beautiful scenery of the campus, nor can the campus share the flow of people around the campus.



Fig. 3. The boundary space between Zhejiang University and the city



Fig. 4. The stall economy between the boundary of Qingshuiwan community and the city

4.2 Stall Economy in High-End Community: An Analysis of Social Inclusion

Qingshuiwan Community is a high-end community located in Xinyang City, Henan Province. The functional design of the space between the community and the city has been very successful, introducing a large number of commercial formats, such as food courts, gyms, and cinemas, attracting a large number of people. But what is controversial is the stall economy (Fig. 4), which is located at the junction of the community and the city. As a commercial format that is popular with residents and citizens, it is not only expelled by community managers, but also constantly facing the confine of city managers.. But in fact, the flow of people attracted by the stall economy has not only increased the popularity of the space between the community and the city, but also increased the flow of people to the commercial space of the community and improved the overall economic benefits. In the survey, the stall economy did not affect the normal life of community residents, nor did it affect the formal retail market. The reason why the stall economy is rejected by the upper-class communities is its own popularity and incompatibility with the high-end community environment. It can be seen that although the community is very successful in functional design, it is very repulsive to the popular stall economy. The fundamental reason for the loss of part of the flow of people is insufficient social tolerance.

4.3 Social Boundary Integration of Gated Communities

Longjiang United Community is located in Longgang City, Zhejiang Province. It is composed of Dongcheng, Xiabu, Tuchang, and New America communities (Fig. 5),

with a permanent population of 41,490. In 2021, the city government decided to merge the four communities into a united community. The biggest problem with community integration is not the physical boundaries between the original communities, but the residents' sense of identity with the new united community. The social boundaries between residents in the original communities need to be downplayed. To establish the social and psychological identity of the new community. The physical boundary between the original communities undoubtedly caused a certain obstacle to the integration of the communities. The junctions between the communities are physical structures such as single-function roads and walls. The narrow roads are crowded with residents' cars and they are not used for residents' activities. The worst part of the communication space is that crowded roads often cause disputes between community residents due to traffic jams, bumping cars and other traffic problems, which further increases the difficulty of social integration of community residents.

Although the physical boundary between the original communities still exists, the leaders of the United Community have successfully completed the integration of the residents of the four communities on the social boundary through their efforts. The measures they have taken include cultural co-construction activities; social resource integration; establishment of a grassroots governance council to guide prestigious old secretaries and old village chiefs to participate in conflict mediation and policy handling; and guide volunteer organizations to settle in community joint organizations. Initiateing multiple subjects to jointly build social activities; build a new united community comprehensive service center. Through the social dimension of emotional co-construction activities, the social estrangement between residents is weakened and the social bond between residents is strengthened. At the same time, carrying out community cultural activities to promote and enhance the vitality of residents, create a peaceful social atmosphere, repair and improve the social structure of the community. In the process of integration, the united community is committed to social interaction and integration, and still retains the physical space boundary, which determines the unity of its boundary space. However, social joint activities have achieved results, and the interaction and integration between residents have been effectively improved.



Fig. 5. Zoning map of the original community, pedestrian entrances and exits, and the border space of the original community

4.4 The Openness of Hangzhou Qicai Community

Qicai Community has a building area of 480,000 square meters and a population of 9261. It is located in Xiaoshan District, Hangzhou City. The area originally belonged to the urban-rural fringe area and has no urban agglomeration effect. However, after the Qicai Group reconstructed its original site, it gradually formed an agglomeration community. The center (6–1) even attracted the population of the nearby city to settle down. Its community openness construction is undoubtedly very successful.



Fig. 6. Public center (6-1), public transportation station (6-2), social parking lot (6-3)

4.4.1 Multifunctional Utilization in Junction Space

In order to attract more people, Qicai Group re-planned and reconstructed the original site of the bus interchange station that was originally planned to be demolished, and built a new community-urban integrated transportation station (6-2). The completed bus station is located at the core of the community center, and the bus lines are connected to the nearby subway station and the international airport. This not only facilitates the residents of the Qicai community to travel to Hangzhou and the airport, but also attracts residents from the surrounding communities to transfer. At the same time, the junction space between the community and the city is multi-functional, integrating the bus center, community hospital, parking lot (6-3), cinema, fitness space, cultural and service center to realize multi-functional utilization in a connected building. The first floor is the bus station, and the second floor and above are social parking lots, cultural facilities, sports and health facilities, and public welfare elderly healthy living halls. Public transportation is the link. It greatly facilitates the diverse needs of the people. This multi-functional space has greatly attracted the flow of people from the local community and surrounding communities to carry out various social activities.

4.4.2 Open Community Centers to Create Social Inclusion

Whether the newly introduced commercial formats can match the living standards of the indigenous people in the community is the key to the success of community inclusiveness. The community has established a community entrepreneurship center and various social service associations to help new residents find employment and entrepreneurship, solve the economic and living problems, and better integrate into the community. Through highly active community members, the community has formed more than ten societies such as martial arts clubs, tea art clubs, drama clubs, English clubs, and reading clubs. In 2019, it attracted more than 3 million people, the community square hosted more than 100 neighborhood activities and performances, and the community cultural living room held more than 500 neighborhood culture and charity classes. The community has also established a volunteer system to serve public welfare spaces such as community libraries, public service centers, and colorful living health center. These volunteer services have greatly enhanced the active participation of all kinds of people in the community.

There are three key factors for the success of the colorful community. One is to have a public transportation system that is convenient for residents to travel, attracts the people, and connects with the city. The second is the highly multifunctional space between the community and the city, which greatly facilitates the lives of residents and attracts the people from the surrounding communities and cities. The third is to attach importance to the social inclusiveness of communities, therefor migrants and new residents can better integrate community life.

5 Driving Mechanism and Path of Open Community

5.1 Comparative Analysis of Cases

5.1.1 Multi-function and Single-Function of Space

The border of Zhejiang University undoubtedly corresponds to a closed community, and it has given less consideration to its role in this urban area, or exerted its imagination. It closes itself tightly and isolates itself from the world. The emergence of the interconstruction of the university and the city is lost. Longjiang United Community obviously corresponds to an inclusive community that integrates with the social dimension of the city. It achieves social integration while preserving the physical boundaries. Qingshuiwan community corresponds to a functional community that is partially integrated with the city. Qicai is undoubtedly an open community that is fully integrated with the city. The multi-functional use of these communities in the junction space shows that the functional diversity will attract more people. Therefore, the versatility of space is undoubtedly a key factor in the openness of the community.

5.1.2 Social Inclusion and Exclusion

Zhejiang University has undoubtedly failed in the construction of social inclusiveness. The closed river channel may have beautiful scenery, but there is no bridge for communication and interaction between the campus and the citizens. Although Longjiang Community has a single function on the physical boundary of space, its social organization co-construction activities undoubtedly integrate the residents of the original different communities. Qicai community opened the community service center to the city, while the Qingshuiwan community was expelling stalls, which formed a sharp contrast in the contrast of social inclusiveness. Improving social inclusiveness between the community and the city would obviously attract more people, thereby increasing its overall economic benefits. Therefore, social inclusion is also a key factor in community openness.

5.2 Driving Mechanism and Path Exploration

Enhancing functional diversity and inclusiveness between communities and cities is the foundation of openness. The junction space between the community and the city should be the junction with various concentrated uses and activities (Jacobs 2005). At the same time, the gathering of people can save education, medical care, water supply, garbage disposal, communications, and many other equipment, settings, and services (Zheng 2018). Spaces influence and construct each other. For the connection of different spaces, the method of mixing functions can be adopted. The activity space and the commercial space can be placed together, therefor they can connect with each other spatially, which obviously helps to improve the vitality of the community and attract more people, make the activities, exchanges and communication of community residents more convenient (Zhu 2015). On this basis, more specific mechanisms and paths can be proposed.

5.2.1 Promote the Functional Connection Between the Community and City Through Spatial Multifunctional Integration

The multifunctional design of the space between the community and the city is one of the important paths for the open community. For example, the mutual construction of communities, parks, and squares is reflected in the multi-functional integration of leisure, ecological and economic functions. Streets should not only have traffic functions, they can play a supplementary role to the lack of public space in residential areas, and have the functions of leisure and free activities for residents. Many children play in the streets because they like the atmosphere of the streets (White 2016). At the same time, a diversified community public transportation system is needed, such as building a distribution center for high-speed rail, subway, bus, and fast rail; a multi-functional community integrating office, shopping, culture, education, residence and elderly care within a radius of 800 m. At the same time, the public service facilities can also be open and shared, building an open community with multi-functionality, integration, spatial connectivity, and a complete transportation system.

5.2.2 Enhancing Social Inclusion to Promote Interaction Between Communities and Cities

The promotion of inclusiveness in the social dimension is also an important path. In the transformation of space, the proportion of residents' communication space such as public and connection spaces should be increased, and the occupation of the residents' communication space by parking space and commercial space should be reduced. At the same time, the internal space of the community should be better integrated with park squares, streets and public service facilities. To adopt inclusive policies and plans, such as increasing public facilities in low-income communities to implement social spatial structural adjustments. And to promote the adoption of inclusive space design in low- and middle-income communities such as affordable housing and low-rent housing provided by the government. Community-level centers, such as squares, parks and other public spaces can be opened to the city by government policies to encourage developers to invest in construction, serving both the community and the city.

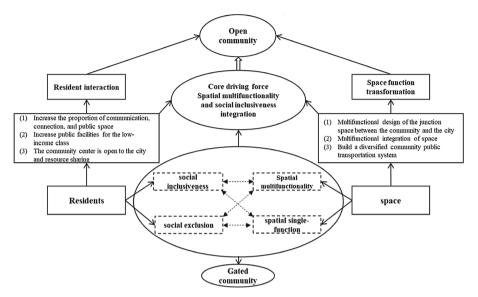


Fig. 7. The driving mechanism and path of community openness

5.2.3 Collaborative Integration of Space Multifunctionality and Social Inclusion

Previous studies believed that simply increasing the diversity of space functions can improve space utilization. However, the research shows that only the improvement of the spatial function dimension plays a limited role, and the multi-dimensional integration of spatial function and social inclusiveness is needed to promote the community openness. Based on this, this paper proposes a fusion mechanism and path as show in Fig. 7.

6 Conclusion

This paper supports Jacobs' border vacuum theory and the multifunctional planning theory of New Urbanism through observations, inductions and comparative analysis of real cases. At the same time, it integrates the inclusive factors of the social dimension into the theoretical framework of community openness, trying to build a holistic system framework. The relationship between the community and the urban space is an inter-constructive relationship that influences, connects, and shapes each other, rather than separate spatial forms. The spatial design of a single functional structure makes the community and the city function unable to be well connected, leading to urban fragmentation. The living function of the community and the production and ecological functions

of the city are not in direct conflict or independent. It is necessary to think about the functional relationship between the community and the urban space. Many factors in cities and communities may lead to the desolation of boundary space, it is important to understand the characteristics and functions of border vacuums.

The importance of the multi-functionality of community space has been elaborated by new urbanism theory, but the interpretation of social inclusiveness is not sufficient. The transformation of the community can not just stop at the physical and functional dimensions. It also requires careful conception and coordination in the social and urban dimensions. In the renewal of old communities, it is necessary to comprehensively consider the relationship between the community and the surrounding areas and even the entire city to enhance social tolerance and promote interaction between residents and citizens. The core problem is how to integrate the multifunctionality and social inclusiveness through mechanisms to build a more open community. This paper has made some attempts, but more in-depth exploration and research are needed.

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