Chinese Gated Community: degree of openness and the social impacts

by

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Abstract

Contemporary gated communities in China have only risen to prominence over the past two
decades since the Housing Reform and market economy. Research on this field mainly criticize
Chinese gated community on their negative social impacts by directly borrowing arguments
from the studies of Western gated communities, especially from the US counterparts. However,
the socioeconomic connotation attached to gated communities in the US is not necessarily
applicable to gating in the Chinese cases. Conceptions of cities in the US as the leading parts
of this Chinese urban trend thus have to be questioned and investigated.

This paper aims at analyzing the formation of Chinese gated community based on its unique
historical context and socioeconomic conditions, and constructing a study framework to
measure the degree of openness with its social impact. The historical formation of this peculiar
spatial layout derived from a centralized administration concern, which in turn blended into
the traditional value as a symbol of social order and belonging. As people's preferences for
residence follow the historical traditions and customs, the way residents perceive gatedness is
different from the opinions of the Western liberals. Moreover, the current socioeconomic
environment contributes to distinguishing the specificities of Chinese urbanization process.
The common interests shared by local government, private developers and customers prompt
the prevalence of gated communities around the country. Translating the spatial language
into measurable quantitative index enables the dissection of the gating phenomenon for
objective openness degree assessment. As Chinese gated communities account for a large
proportion of the land development, a comprehensive understanding of the measurable
openness degree based on local context will better facilitate the research on Chinese gated
communities and the rapid urbanization process.

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Chapter 1. Introduction

Gated communities have become a prevailing urban phenomenon in China, proliferating around the country with the trend of rapid urbanization. While gating is not a completely new spatial element under the traditional Chinese local context, it has gained wide acceptance since the Housing Reform during the 1980s. By privatizing and developing land in a relatively exclusive way, the radical increase of gated communities has changed the urban landscape with nationwide effect.

Researches about Chinese gated communities have only risen to prominence in urban studies over the past two decades. Academic arguments examined the Chinese gated community by comparing it with its US counterpart, criticizing its exclusiveness and the negative impact on social stratification. As mentioned by Miao (2003), gated communities in China are turning urban spaces into giant stages set without actors. The walls extend with only occasional punctured gates. Davis and Caldeira further expand the understanding by indicating gated communities are becoming “urban fortresses.” However, these analyses overlook the differences between China and the United States in their historical formation, spatial context, and current socioeconomic status. In the United States, gated community mainly caters for the needs of the rich and the middle classes, as its rationale behind is racial segregation that started around 1950s. However, exclusive compound is the basic housing form for the majority in China. Walled elements and gating have always been important space making elements of traditional Chinese cities that have organized the social interactions throughout history. The number of studies that focused on Chinese gated communities based on local context with a more unbiased understanding has increased recently, but their emphasis mainly lies on the descriptive design aspects. The macro policy and socioeconomic factors behind the nationwide spread of Chinese gated communities need to be explained in full detail.
This paper begins with a literature review on gated communities and an analysis of the spatial enclosure application in China. The main objectives of this research are as follows:

1) Construct a comprehensive understanding of Chinese gated communities' formation by critically comparing it with the US condition. Analyze the driven factors of the contemporary Chinese gated community development based on its specific socioeconomic environment.

2) Create a study framework that dissects the openness degree from polarized measurement, either gated or open. Translate the spatial language into quantitative and measurable indexes that reflect the openness degree of gated communities from perspectives including layers of gating, boundary stiffness, scale, accessibility, amenity allocation, etc.

3) Examine the development trends of Chinese gated communities that call on more intense social interactions and higher openness degree. Refine the study framework by applying it to representative cases in Shanghai.

4) Propose future development guidelines and design strategies based on the study framework as to follow the trend of having higher openness degree, more social interaction, less segregation and stratification.

Understanding the contemporary gated community phenomenon in China requires a fundamental investigation of the Chinese local cultural and political operations. The roles of government, developers and residents in shaping the neighborhood spatial structure are pivotal. By studying how spatial practices of the public and private sides function in a non-Western context, this paper aims at distinguishing the specificities of Chinese urbanization process. The measurable openness degree can bring in new perspective to the gating phenomenon, and contribute to Chinese urban development in achieving a well-balanced residential landscape.
Chapter 2. Literature Review

2.1. Terminology Definition

Gated communities general point to the residential compound that has strict boundaries with entrances guarded by securities and other technology appliances for surveillance (Blakely and Snyder, 1997). They usually consist of small residential streets and various shared amenities. Gated communities are often characterized by closed border of walls and fences, therefore representing a form of urbanism where public space and amenities have been privatized. Blandly et al. (2003) provided a more comprehensive definition that incorporated social and legal aspects with the exclusive physical form: gated communities... and usually characterized by legal agreements (tenancy or leasehold) that tie the residents to a common code of conduct.

In 2000, the Chinese Government Document No.23 defined the term ‘community’ with a clear historical clue: ‘the social collective of people who live in a specific territorially bounded area.’

2.2. Existing Research and Problems

By far gated communities elicit polarized views among scholars and planners. In the main stream of Western research, gated communities have been regarded as a spatial reflection that corresponds to the post-industrial social changes. They are believed by scholars as representing the deep penetration in society of the ideologies of fear and security (Goix, Webster, 2008, p.31). For many researchers, gated community is a place of seclusion, homogeneous enclaves that lead to increased segregation (Blakely and Snyder, 1997; Low, 2003a; Caldeira, 2000; Blandy et. al, 2003; Le Goix, 2003). The view that gated communities help reduce crime danger also raise arguments. Proponents claim that the reduction or exclusion of people makes “nonlocal” much more recognizable, and eliminates potential crime dangers. Others view this as unrealistic, since increase traffic offer more surveillance than decrease the number of people inside the community (Hiller, 2004). Some studies also indicate
that safety in the exclusive compounds is more illusion than reality (Blakely & Snyder, 1998). As criticized by New York Times (2012), gated communities lead to the death of Trayvon Martin as “churn a vicious cycle by attracting like-minded residents who seek shelter from outsiders and whose physical seclusion then worsens paranoid groupthink against outsiders.”

Gated communities are proliferating around China since the 1980s housing reform, and studies about this spatial typology are rapidly increasing. Much of the research mainly starts at the point where scholars cite the US studies on gated community to criticize the local condition, or superficially discussing the phenomenon in China. According to some common notions, gated communities in China are defined as reinforcing residential segregation, promoting the loss of public space, and creating “cities of walls” and “urban fortresses” (Davis, 1990; Mitchell, 1995; Caldeira, 2000). The social stratification and urban space exclusion have been argued as having direct causal relationship with the prevailing of gated communities.

However, examining the Chinese gated community cases by indiscriminately referring to the US urban patterns will lead to fragmented and balkanized conclusions. Gating has its own local history in every country (Carvalho, Varkki George and Anthony 1997, Caldeira 2000, Thuillier 2005). Although gated communities appear to be a universal phenomenon, its characteristics and identification in its trajectory of development is not uniform. The exclusive compound is developed according to the local political, legal, and architectural traditions (Glasze, Frantz and Webster 2002b, Glasze 2005). Adapting the gated concept to culturally and geographically varied places therefore needs to be cautious (Webster et al., 2002). Analyzing the social impact and consequences of Chinese gated communities based on Western literature and experiences entails serious risks. Fundamental investigation of gated communities within the distinctive social, cultural, historical and institutional context of contemporary China are the preconditions for reaching objective conclusions and practical guidelines for future development.
Chapter 3. Local Context of Chinese Gated Community

Gated Community is not a new urban format in China, though there is a clear difference between the traditional sealed spatial format and the contemporary gated communities (fengbi xiaoqu). The prevalence of gated communities around China is not only driven by top-down government guidance and control, but also based on voluntary choices made by residents themselves that determine the market direction. It is necessary to analyze the gating typology that transforms throughout the history as well as the socioeconomic driven factors before judging and evaluating the reasonability of gatedness under current social context. The quantitative measurement of openness degree can help to reveal the abundant yet subtle hierarchies ranging from total exclusive to open. The methodology can bring in a new perspective into the gated community research to identity potential field for improvement.

3.1. Historical Context of Chinese Gated Community

Walls and gates are the basic space composition elements of Chinese built environment. The exclusive structure has been rooted in Chinese spatial construction throughout history. In a typical Chinese historical city, the physical sequence started from the individuals’ private yards, extended to the enclosed community wall, and then reached the ultimate boundary consisted of city wall and gates. The gatedness sometimes appeared as objective substances, and sometimes as invisible defined boundary that weaved the housing-unit-clusters into an organic integrity. Understanding the mechanism and implication of gating based on historical context are the premises for understanding the contemporary Chinese gating phenomenon and its social impacts.

3.1.1. Citywide Gating

The traditional Chinese cities can be regarded as a large-scale gated community with limited accesses. The clear boundary not only defined the spatial affiliation, but also shaped the
residents' self-belonging recognition with a strong sense of territory. The citywide gating format can be found in China as early as the Shang Dynasty (BC 1700-1027). As recorded in The Records of Examination of Craftsman (Kaogong Ji), the ideal city layout in feudal ages should be "a squared city of 9x9 miles with three doors on each side." The enclosed spatial structure performed not merely for defense purposes during the cold weapon era. They had become the spatial order that symbolized social value and administration hierarchy. Such spatial paradigm had been replicated throughout the Chinese feudal history. Even in suburban villages and towns where the hierarchy was not rigidly stratified, at least a gate (Pailou) or a certain form of enclosure existed to symbolize the territory and spatial order. Beyond functioning as a central controlling model, gatedness shaped the way people perceive their residence and social interaction patterns as an essential spatial element.

![Figure 1 Kaogong Ji city planning format](image)

### 3.1.2. Neighborhood-scaled Gating

Traditional Chinese cities replicated the enclosed format in different scales, as can be widely witnessed in neighborhood-scaled gating. From the government's administrative consideration, the neighborhood clusters divided by the gates and boundary walls were the basic levels of residence registration unit that conformed to the centralized feudal monarchy.

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1 Kaogong Ji, also named as the Records of Examination of Craftsman, is a classic work on science and technology in Ancient China, compiled towards the end of the Spring and Autumn Period (BC 221).
For instance, the *Li-Fang* System that reached its prime from Sanguo till Tang Dynasty (AC 220-907) was a spatial unit aimed at controlling residents' socioeconomic statues and daily activities directly through a chain effect. *Li* and *Fang* both stand for compounds. Each *Fang* surrounded by walls and gates had strict surveillance and curfew restrictions (Knapp, 2000; Zhang, 2002). 4 households composed a *Lin* (neighborhood), 5 *Lins* composed a *Bao*, 100 households made into a *Li*. This *Bao-Chang* administrative system formed the basic residential unit with shared-interests, and was applied around the country till the 1940s. It is the reflection of Confucianism that regards family value as subordinate to the monarchy domination.

The neighborhood-scaled gating has gained wide variations during the mid-19th century, but the spatial feature of gating and enclosure remained essential. Shanghai has been deeply influenced by Western culture after its opening as a commercial port (Kaibu Event) in 1843. The terraced houses (*Li-Nong*) and Shanghai Gate (*Shikumen*) are hybrids that still carry the historical neighborhood-scaled gating format. Life within these enclosed clusters already became the so-called "Shanghai Lifestyle." Housing units on the ground level facing toward the public streets were usually turned into neighborhood retails. The space between each row
of houses inside the community became the prime public places for social interaction. Spatial compositions were performing to their utmost efficiency. Collective public life and personal private realm coexisted within the gated Linongs.

![Figure 4 Shanghai Siwen Li plan (1914-2012)](image)

The Work-Unit compounds (Danwei) that carried the essence of gating structure have dominated the urban landscape after the establishment of PRC in 1949 for almost three decades. This type of neighborhood-scaled gating was a spatial response to the population boom and Industrial Reform since 1950s. As the most fundamental social and political unit of urban China, the work-unit performed efficiently as a political apparatus by the Party to organize, mobilize, and regulate residents. It is often characterized as occupational homogeneity and personal-wealth heterogeneity (Belsky, 2000, p.59). Residents worked and lived together in the work-unit regardless of their careers, positions, religious believes or income level. The neighborhood committee was the basic administrative coordination within the walls. As a collective community, the work-unit regulated most aspects of individual life including education, canteen, clinic, grocery and other life-necessities. People could suffice
themselves for most of the basic life inquiries in a collective fashion without leaving their own work-unit compound. Therefore, residents had taken it for granted that this form of gating was commonly accepted and was closely related to a well-balanced social life.

![Figure 5 Beijing Jingmian 2nd Work-Unit plan (1952-1997)](image)

The emergence of contemporary gated communities (Fengbi Xiaoqu) in the reform period after 1978 has fundamentally ended the spatial dominance of the work-unit compound. Commodity housing estates have proliferated in the suburbs and on redevelopment sites in the inner city (Miao, 2003). Besides the customs that the gated community inherited from, there are other fundamental social driven factors and rationales that greatly influenced the contemporary gated communities' development, which will be covered in chapter 3.2 further.

Neighborhood-scaled gating formats such as Li-Fang, Li-Nong and the Work-Unit share a common characteristic: the spatial morphology was driven by top-down regulation considerations, and then shaped the residents' understanding of standardized living format afterwards. Throughout the Chinese history, people have been used to the gatedness and collective living pattern. The gates and walls have become symbolic figures that stand for a sense of security and social recognition. Such kind of perception has been deeply rooted in Chinese culture, which is quite different to Western liberals' perspective when judging the gated communities and enclosed living pattern.
3.1.3. Housing-scaled Gating

The gating format has been further decomposed into enclosed housing-scaled units. This ultimate subdivision of gating level helps to explain contemporary gated communities' wide acceptance from a cultural perspective. The courtyard (Siheyuan) is among the most famous gated household in northern Chinese cities, and its exclusiveness corresponds to the spatial hierarchy and traditional beliefs. The walls and gates of courtyards delineate private properties with a strong sense of security and territory. Moreover, they define the collective family lifestyle and reflect the family hierarchy.

The importance of gating in forging the centrality of families and increasing security protection through the inward composition can be found in southern China as well. The radiance structure of Tulou (earth building) in Fujian Province shows a clue of modern gated community design. The concentric circled structure starts from the family shrine in the center, extends through the public facilities (dining, meeting, livestock, etc.) inside Tulou, and eventually reaches the individuals household units that stand against thick walls as the outer layer. In short, the spatial variations and various application of household-scaled gating around the country reflect the importance of walls and gates to realizing the traditional value and essence of family hierarchy.

Figure 6  Beijing courtyard bird's-eye view  Figure 7  Fujian Tulou sectional view
3.1.4. Traditional Gating Format and its Social Impact

The cultural traits manifest themselves in physical forms as the inward-oriented spatial format. Enclosed neighborhoods represent the continuity with the historical context of collectivist culture. Territoriality operates not only through formal 'hard' tactics, but also through subtle ideological and moral persuasion. The walls and gates of houses in China generally convey a sign of self-identification and recognition more than a sense of strict administration. Residents have got used to the spatial exclusiveness that comply with their inward family structure and collective aggregation custom. From the neighborhood level, the moral constrain in the enclosed compounds is the spatial precondition that enables social interactions and ensure safety. In a traditional neighborhood or village, residents can easily detect outsiders because of their acquaintances between each member within the exclusive boundary. If the street supervision is one of the key points to ensure safety as mentioned by Jane Jacobs (1961), then the social surveillance in traditional gated neighborhoods is the way people seek protection from each other.

In a word, the interpretation of communities' gating phenomenon has to be based on the distinctive Chinese historical background and local context. A strong social value and the certain mode of social interaction conveyed by the exclusive structure pervade behind the gates. In trying to maintain the integrity of the living environment, residents often draw upon discourses to construct moral geographies of exclusion/inclusion that form territoriality and social life. The historical rationale critically explains customers’ preferences toward gated communities in modern times.

3.2. Driven Factors of Contemporary Gating Phenomenon

The Chinese Market Reform since 1978 drove the overwhelming prevalence of modern gated communities in the commodity housing market. The society has transformed from a centralized-macro economy into a liberal market economy. Land distribution, tax collecting
methods and population component have changed. Meanwhile, property management has appeared, and people’s life styles have converted radically. The proliferation of contemporary gated communities is driven by the combined motivation from local governments, private developers, and consumers. Building up the connection between contemporary gated communities with their historical precedents is one method to understand customers’ preferences that determine the market direction. Analyzing the socioeconomic factors and rationales from a broad social perspective is another premise to understand the gating phenomenon.

3.2.1. Residents’ Preferences

Users’ preferences always determine the market direction. As mentioned before, tenants have strong rooted preferences of space that reflect their traditional beliefs. They also have strong concern about their own safety under current unstable social environment. Moreover, residents tend to aggregate and share the paid amenities and services with identical groups of people from their own same social level.

Security is always the main concern throughout history. A survey conducted by Vanke in 2007 (Pow and Kong, 2007) revealed that 46% of tenants ranked security and its exclusive character as important factors for a “satisfying quality of life.” To comply with such market preferences, the property management companies have raised their level of gating and exclusiveness to a great extent. Opening up limited numbers of entrances with security guard inspection is the most basic procedure. Beyond that, property management companies have installed 24x7 infrared alarms, surveillance cameras, electric walls, and card-activated entrances. Visitors have to go through a series of ID verification and personal document recording before they can gain access to the property. Security guards patrol frequently to prevent suspicious outsiders do damage to the community. The numerous methods may vary, to name just a few. Generally speaking, tenants feel more safe and secure when protected by these various procedures.
Besides, people in large cities around China show a trend of retreating back to their own private territory by avoiding the traditional social interactions with their neighbors. A recent survey on Vanke Garden City shows that families living in large cities rarely stay in close contact with their neighbors. Young urbanities generally enjoy the privacy from not knowing people living next door (Pow, 2007, p.813-833). Social pattern has changed radically. Maintaining a sense of privacy is crucial for the household’s well-being.

The gatedness and protection methods might sound constrained for liberals, but they have become selling points that attract users very effectively in China. Those residents who value their privacy and security highly are in a big favor of strict access control and gatedness. Moreover, many of the gated communities’ appeals are underpinned by the club-economy dynamics (Webster et al., 2002). The obsession with security is more than just enhancing safety in gated communities. The gating elements plus the exclusiveness management control have become symbols that represent a well-maintained, high-end community. They become symbols of prestige that suggest the importance and exclusivity of its habitants (Pow and Kong, 2007).

### 3.2.2. Developers’ Management Concerns

Developers are for-profit corporations who seek out places where they can establish exclusive control of resources as an amenity for their customers. Their prime concerns about investment return and daily management cost partially explains the gatedness and exclusive spatial format of Chinese gated communities. After purchasing the leasehold of land from the local government, all the public services and infrastructures will become internal duties implemented by the private developers themselves. This further generates the monthly fee charged on the tenants. The daily maintenance duties carried by the property management sector include security surveillance, street cleaning, gardening, electricity, water supply, shuttle bus service, kindergarten and daycare centers, etc.
The privatization of space creates a legal framework to deny the public access to resources within a controlled space (Low, 2003a; Madanipour et. al, 1998; McKenzie, 1994). The right to use the internal facilities and local streets are exclusive, which in turn forms a “membership club” contractual relationship. To provide legitimate property management service and maintain the order inside the community, developers prefer to erect physical barrier as to repel nonmembers. In order to ensure that every penny is spent for their own benefit, tenants also tend to accept the “Matthew Effect” of self-reinforcing (Yao, Wei, 2012, p691-693). The bi-directional intentions become motivating forces for both developers and homeowners to foster the exclusive residence cluster inside gates (e.g., McKenzie, 1998; Bible and Hsieh, 2001).

Moreover, unlike the work-unit system where state surveillance or grassroots control are relatively strong, private developers are primary interested in protecting the housing investment of homeowners. With the retreat of Resident’s Committees (Juweihui) in its social and political functions, micro-management of citizens’ private lives gradually formed into the enclosed housing management styles.

3.2.3. National Driven Factors

On the national level, four leading factors have driven the wave of gated community construction since the Housing Reform:

1) Land control and tax regulation
2) Housing market boom and Chinese suburbanization process
3) Income stratification and filtration
4) Social stability maintenance

Frist of all, the fiscal model and municipal political economy are strong factors that have driven the gated community development. China’s land leasehold system and tax collecting regulations mark the fundamental differences between the Chinese and Western countries’
real estate development practices. In Mainland China, all urban land is owned by the central government. Government has every right to the land resources by only leasing them to the developer for several decades. According to the Property Law of People's Republic of China (2006 draft), the land leasehold period of validity for residential purposes is 70 years. Besides, the central government divided the tax revenue into Internal Revenue and Local Tax since 1994. This regulation means that local governments (on province level) have to derive most of their income from land sales instead of property tax. Therefore, the most practical way for local governments to increase fiscal income is to lease land resource to private developers who offer to develop properties and provide infrastructure on large pieces of lands. This top-down policy have contributed to the wave of real estate development around the country ever since.

Secondly, the rapid urbanization process creates an excessive demand for housing around the cities in the expanded suburban areas, and gating the development is one of the most practical ways to manage the booming urban population in a relatively short time frame. During the last three decades, 51.27% of the population around the country has been classified as urban, approaching around 700 million. A substantial part of this increased number comes from the immigration population. In 2006, 132 million of rural labor forces out of total 516 million left to find work in cities. Among them, one fifth were accompanied by their family, thus be presumed to have settled down in the cities (Friedman, 2012, p.193-207). The extremely imbalanced housing supply and demand instigated the developers and local government to turn pieces of raw land into large-scaled gated residence for profit and easier management. In 2000, there were altogether 44,100 million square meters of residential floor area around the country, which was four times the number of 1985 (National Bureau of Statistics of China, 2001, p.344). Among all the communities in Shanghai during the 1990s, Miao (2003) estimated that 83% were gated.

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Thirdly, people feel insecure within an unstable social environment. Residents’ longing for security entailed the prevalence of gates and walls. Though there are also researches that question the direct causality of gatedness to crime rates, there is without doubt that Chinese people feel much more secured within controlled walls. According to the Nanjing study conducted by Xu et al. in 2009, security was the leading concern (35% of respondents) for homebuyers. In the middle-class neighborhoods, the sense of fear may come from the migrant workers who have been portrayed as the unstable social component by media. In Shanghai, it was estimated that there are well over 4 million rural migrant workers currently settle down for a living in the city (Pow, 2006, p.1546). This transient population is often considered culturally and morally inferior as a threat to the society's stability. Hence, demands for security guards, gates, walls, and surveillance are rational. Market-driven mechanism tends to filter people according to their income or residential registration status (Huji) automatically. The residents tend to aggregate with neighbors from their own social level, especially with the same income level. This is not exclusive to Chinese residents, but a worldwide phenomenon that is based on human nature.

3.3. Study Framework: Openness Degree Measurement

This paper introduces the quantitative method to measure the openness degree of contemporary Chinese gated communities. As mentioned before, both historical context and current socioeconomic conditions explain the formation and rationale of Chinese gated communities. There is no definite enclosed or openness in contemporary Chinese Gated Communities. Multiple aspects and degrees of openness coexist. Establishing an objective study framework can provide a deeper insight into this certain exclusive living typology by translating the spatial language into measurable results. The methodology constructed has the potential to gain universal application on analyzing variations of enclosed living compounds by abstracting the fundamental structural essence. The degree of openness can mainly be analyzed from the following three aspects.
3.3.1. Layers of Gating and Boundary Stiffness

The gating structure can be analyzed as varying from a single layer of gating to a series of concentric layers of gating with different boundary stiffness levels, which is related to the security and publicity levels. In the following diagrams, the darker color represents higher openness and public level. The higher level the boundary stiffness, the thicker the gate is represented. Gates without door or surveillance are displayed as dash lines.

For instance, the historical gating cases examined in Chapter 3 can be abstracted and analyzed into the layers of gating as follows. The historical Li-Fang and Tulou both reveal a double-layered gating structure that simply identifies inside and outside. There are limited numbers of access at the periphery, and both the two types of residence have strict access control. Therefore, the boundary stiffness is extremely rigid. There is a sharp turn from the public to the private realm on two sides of the outer boundary wall.

![Diagram](https://example.com/diagram.png)

Figure 8 Tang Dynasty Li-Fang layers of gating and boundary stiffness analysis (AC 618-907)
Li-Nong’s additional layer of building gate adds richness to the social activities within the compound. A Li-Nong usually does not have strict access control on the building and community boundary, but it is often supervised by surrounding neighbors. The space in front of each building gate has become one of the most popular social grounds for chatting and interactions. Altogether the four layers of gating enable a smooth transition from the public space towards the intimate personal household.
Work-Unit that prevailed during the Industrial Reform since the 1950s also have four layers of gating, but its openness degree is less than Li-Nong’s. It had an elastic boundary at the building-gate layer, but the outer boundary adjacent to the public had stricter control. People outside the work-unit usually had to go through identification check before visiting someone from the inside. Therefore it was harder for people as well as other social resource to filtrate into the compound, leaving it with lower openness degree.

The traditional gated community that originated directly from the work-unit has the same three-layered gating structure, but the characteristic of each layer has changed. The outer gates are less controlled because there was no such concept as property management during the early stages of the Chinese Economic Reform in the 1980s. Residents started to install the safety doors both for their house and for their apartment building in response to the unstable macro condition. The stratification of income and career further contributed to the rigid boundary. Overall, the openness degree decreased due to the more rigid stiffness.
The contemporary gated community evolves out of its traditional precedent, but has multiple layers with different stiffness level. The main community gate has strict access control. Building gates and household gates all have higher level of stiffness compared to the traditional gated communities. However, various public facilities filtrate inside the community that adds a blurred zone between public and the private areas. The involvement of public amenities and infrastructure raise the overall openness degree.
Based on the previous analysis diagrams, it is safe to say that the modern gated communities cannot be treated as totally gated as the perceived term indicates. It has similarities to its historical precedents, but there are clear differences in layers of gating and the stiffness degree. Counting the numbers of layers and evaluating the boundary will be useful methods to examine the gated community's structure and its openness degree. Even though the contemporary communities are still gated, social resources and facilities already start to filtrate into the community and turn the boundary from rigid into elastic and fuzzy.

3.3.2. Scale and Accessibility

Distance and accessibility index determine the possibility of interactions between users and functions. There are mainly three types of 'distance index' that are useful to reveal the openness degree of the gated community.

1) The distance between gates and the density of gates

The distance between the gates (maximum/minimum/average distance) determines the filtration possibility from urban into private properties. The longer the average distance \( L \) is, the harder it will be for both sides of users to interact or for resources to get exchanged, thus the lower the openness degree of the whole community. The distance between gates will be acceptable if it does not exceed a certain statistical index, for instance 500m walking distance.

![Figure 14  Distance between gates and accessibility](image)

Likewise, the denser the gates are located around the community, the more open the community will be. If the total length of the community is \( L \), and the numbers of gates
are $N$, then $N/L$ should exceed a certain percentage to reach a satisfying level. For instance, the 500m limit means the index should at least be 0.2% ($4*100/2000\%$, 100 as the correction index). Some gates are closed all the times due to management considerations. Those gates cannot be regarded as effective samples for calculation.

2) Land coverage of walkable distance from the gates

The land coverage of walkable distance from the gates determines the convenience level for people to reach the public realm. The lower the coverage, the more difficult it will be for the residents living in the uncovered areas to walk out of the community. This indicator is closely related with the gate allocation, as more gates will surely raise the coverage and increase the openness degree.

![Legend](200m Walking Distance, Uncovered Area)

Figure 15  Land coverage of walkable distance from public transit (with walls and gates)

3) Land coverage of walkable distance from public transportation

The land coverage of walkable distance from transportation stations (mainly bus stops and subway stations) determines the possibility for people to approach the gated community via public transits. Metro and buses are still the main transit modes in China. The higher the land coverage, the more tightly the community is connected to the transit stations, and therefore more closely tied up to the city with higher openness degree. From the comparison of with-gates and without-gates, we can clearly sense how gates impede the accessibility from the public towards the private property.
3.3.3. User Proportion of Community Amenity

One of the most important factors to define the openness degree is the proportion of users of the community amenities. This indicator can reveal to what extent “outsiders” have mingled together with the local tenants. The more open the gated community is, the more outsiders will use the facilities. The user proportion is important because all types of indicators that evaluate openness degree are eventually related with human usages analysis.
There are mainly two challenges and obstacles that need to be further refined before defining a proper proportion that stands for the acceptable openness degree. Firstly, different types of amenity will have different weight factor in determining the openness degree of the whole gated community. In here, the current popular amenities are combined into 5 groups: retail, food & drink, healthcare, service and manufacture. The first three categories will have a greater impact on the community because of their frequent usages. Therefore they should be allocated with larger weight factors. Secondly, the user data is needed for each category. Due to the location proximity, it is reasonable that all the community facilities will have more members from their own tenant pool. The proportion of public users that marks the difference between openness and exclusiveness might reasonably fall below 50%. In order to reach a more precise membership proportion that can reflect the openness degree, wide ranges of samples have to be collected and analyzed. Constrained to time and resources at hand, this paper use estimated percentages to explain the study framework and to lay the foundation for follow-up research.

Assuming that the proportions representing the differences of open/exclusive of users from each amenity group are at hand, and then these standardized indexes can be used as references to examine the other community samples. Each gated community’s information plotted will be compared with the common standard as to measure its own openness degree, either above the market average or below. The result will give useful suggestions about whether the community can raise or lower down the boundary control on a certain group of amenities based on its own circumstances.

![Figure 18 Work-unit amenity user proportion](image-url)
Figure 19  Early Gated Community amenity user proportion

Figure 20  Shanghai Vanke City Garden amenity user proportion estimation

Figure 21  Shanghai Vanke Holiday Town amenity user proportion estimation
3.4. Conclusion

Gated community is not a new trend in urban China that picks up everything from the suburbanization trends in the US. Using the existing stratifying problems of US gated community as arguments to criticize Chinese gated community is biased. This academic viewpoint overlooks the fundamental distinctions of socioeconomic and living value differences between these two countries. In fact, China has a strong gating and enclave tradition. In China, there is less emphasis concerned to race, but more in respect to income and Huji. The rationale behind the countrywide acceptance and application of gating format includes the spatial evolvement, and the cultural values that have been implemented through thousands of years of history. Moreover, contemporary gated community performs as one of the most practical resolutions to current Chinese social issues due to the rapid urbanization.. Enclosed large-scale development is one of the most practical solutions to meet with the challenges brought along with rising income, booming population, and social turbulences. The physical and social order observed match the disciplined workforce that constitutes the backbone of gated communities. The gates help to maintain a “harmonious society” by providing what residents and the society need for the most. Territorial in gated communities is conditioned and shaped by strong moral concerns for safety and order.

The quantitative evaluation and measurement of openness degree are essential steps to analyze contemporary Chinese gated communities and their social impact. Openness of a gated community exists in different formats, as can be measured through indexes including scale, serving distance, land coverage, users’ proportion etc. The quantitative method breaks down the gating phenomenon into more defined sectors, thus making it possible to evaluate the fuzzy region between definite gating and total openness in the compound residence. The main challenge lies in refining the standardized index that represents qualified openness degree. The measurement is a framework that provides the research foundation for follow-up studies. More samples are needed in the future to refine the framework.
Chapter 4. Urbanized Transitions of Chinese Gated Community

The application of Chinese gated communities is driven by the socioeconomic conditions under rapid urbanization, and there is a clear opening trend in the spatial format. As a permanent feature of urban China, gated community’s physical form will have an increasing impact on the broad urban landscape. By applying the openness degree measurement framework to examine real cases, we can not only testify the methodology, but also identify the possible improvement for the community’s gating layout as to follow the overall urbanized social transition.

Before analyzing the openness degree and urbanized transition of gated communities in contemporary times, important characteristics of Chinese gated community need to be clarified. Compared to the US gated communities, the average density in Chinese gated communities is much higher. In general, a gated community can house over 2000 households, which is often more than the overall population of a regular town in the US. The average grid length in China is in mega size. Walking for more than 500m along the community wall for a road interval is quite common. The target customers are also quite different between these two countries. US gated community mainly caters for the needs of the rich and the middle classes, while in China it is for the majority. These properties are among the premises for judging the gated communities in China. Although gated communities may not be the main cause of social and spatial stratification and segregation, they certainly reflect this social condition. There are specifically three problems caused by gating public land into private communities that have raised disputes:

1) Restrictive access control increases boundary stiffness and discourages social interaction.
2) Large-scaled enclosed land impedes walkability and intensifies the traffic congestion.
3) The low proportion of public users decreases the facilities’ value and efficiency.
This paper mainly uses two representative cases developed by Vanke in Shanghai to identify current problems and potential future trends. The two communities are compared by the openness degree measurement framework proposed in Chapter 3. The proposals are tailored to the physical, cultural and economic realities in current Chinese urbanizing cities.

4.1. Case Background
Vanke City Garden and Vanke Holiday Town both locate in Shanghai. Vanke City Garden is among the earliest and most established housing enclaves in Shanghai. It offers a wide array of amenities and commercial facilities within the gates, which was a new trial back in 1992. Vanke Holiday Town was completed in 2005, roughly a decade later than Vanke City Garden. The differences between the two properties' gating structures and daily operations form a real picture of the market's trials during the last ten years. Though the communities are still gated, there is a trend of becoming more livable and urbanized with higher degrees of openness.

Figure 22 Site location analysis
Figure 23  Shanghai Vanke Holiday Town configuration

Figure 24  Shanghai Vanke Holiday Town configuration
### Table 1: Shanghai Vanke City Garden and Holiday Town Index

<table>
<thead>
<tr>
<th></th>
<th>Holiday Town</th>
<th>City Garden</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Land Area</td>
<td>42.3 ha</td>
<td>65.3 ha</td>
</tr>
<tr>
<td>Dimension</td>
<td>750m x 730m</td>
<td>1000m x 780m</td>
</tr>
<tr>
<td>Total Building Area</td>
<td>56.7 ha</td>
<td>72.9 ha</td>
</tr>
<tr>
<td>FAR</td>
<td>1.3</td>
<td>1.1</td>
</tr>
<tr>
<td>Total Housing Units</td>
<td>4239</td>
<td>5400</td>
</tr>
<tr>
<td>Population</td>
<td>12717</td>
<td>16327</td>
</tr>
<tr>
<td>Unit/Ha</td>
<td>100.2</td>
<td>82.7</td>
</tr>
<tr>
<td>Population/Ha</td>
<td>300.6</td>
<td>250.0</td>
</tr>
<tr>
<td>Green Space Ratio</td>
<td>36.4%</td>
<td>13.2%</td>
</tr>
</tbody>
</table>

4.2. Layers of Gating and Boundary Stiffness

4.2.1. Existing Problems

The current problem that the majority of gated communities encounter today mainly lies in the simplified layer of gating structure. There is almost no transition from the public to the private property, as described in the study framework in Chapter 3. Social resources could not filtrate into the gated community gradually and effectively. There is no function programed to encourage positive interaction between the interfaces of public and private areas.

The typical gated community has a simple three-layered gating structure. The outer layer just contains walls and gates. Usually there is a security kiosk at the entrance, but it rarely checks the identity of people coming in as long as they do not look suspicious. The password keyboards at each building’s entrance often do not function well. Due to the lack of surveillance and facility maintenance from the property management side, residents have to raise the stiffness level of their own household boundary by installing safety doors and windows. The stiffness level of is Housing Gate>Building Gate>Community Gate.

---

Vanke City Garden already shows a trend of opening up, but its fundamental layers of gating still follow the traditional gated community’s structure. The difference is that it has a higher level of boundary stiffness at the periphery with strict access control. Meanwhile, the stiffness level of each household is less rigid, as can be seen that some households even do not install safety windows. The boundary stiffness level ranks as: Community Gate > Housing Gate > Building Gate. Generally speaking, there is no effective interaction between each layer of gating. Procedures must be taken to soften the outer boundary that is rigid nowadays.

4.2.2. Current Trends

The increased layers of gating and its social impact can be reflected in Vanke Holiday Town. Holiday Town has created an interim zone from public to private, which is a prominent change from the previous simplified outer boundary. The property’s openness degree has risen remarkably after the public street Lancang Road cuts through the community’s land parcel. Lancang Road brings public facilities and urban activities into the property. It not only releases the traffic pressure, but also helps to foster a more refined road network that has changed the deserted streets into a walkable and lively streetscape.
What Holiday Town is experimenting represents a new trend: breaking down the public and private segmentation by adding an additional layer of gating with elastic boundary to the existing structure. The whole developed property has an invisible gated periphery that gives people a sense of domain once they enter the public street. The neighborhoods on both sides of the public street have their own gates and walls as their second layer of boundary. Inside each gated neighborhood, the traditional layers of building-gate and apartment-gate repeat.

The four layers of gating have distinct levels of stiffness. The outside layer of gating is indeed invisible and open that allows commercial facilities and public transportation to come in. The second layer of gating has rigid level of stiffness, as its strict access control comes with human and technology surveillances. Beyond these two layers are the building-gate and the apartment-gate layers that are only used for functional considerations as usual. The invisible layer of boundary (shown as dash line below) remarkably breaks down the isolation between public and private spaces.

![Security surveillance methods of Vanke Holiday Town](image)

**Figure 27** Security surveillance methods of Vanke Holiday Town

![Boundary stiffness of Vanke Holiday Town](image)

**Figure 28** Boundary stiffness of Vanke Holiday Town
4.3. Scale and Accessibility

4.3.1. Existing Problems

In typical Chinese gated communities, the scale of neighborhood blocks is too big that it aggregates the traffic congestion on both public streets and private community pathways. According to Miao's research (2003), the average gated community covers 12 hectares with 2000 to 3000 units. Under most circumstances, the distance between publicly accessible street intersections could reach up to 500m-1000m, which is the entire side length of a residential quarter. Along the side of the gated neighborhood, there are usually few entrances with strict control on both vehicles and pedestrians.

The 65.3 ha Vanke City Garden represents exactly such mega-scaled gated community. The maximum effective distance between gates exceeds 630m, and the average distance reach up
to 447m. The density index is around 2.009 (7*1000/3483). The land coverage of walkable distance from the gates is 53.1%. These indexes reveal how inconvenient it is for people to cross the gates, and how low the openness degree is from the scale perspective.

Road networks both inside and outside the gated community are not performing efficiently as well. The restrictive access control procedures prevent outside traffic from interfering the environment inside the gates, but also push additional traffic onto the public streets. Pedestrians and vehicle transportation are forced to make a detour, leaving most of the roads inside the communities empty at the same time. Such a problem becomes even more critical due to the rapidly increased vehicle ownership. At the same time, traffic within the gated communities also encounters serious congestion. The limited numbers of entrances restricted the traffic volume at per time. According to the security guards from Vanke, traffic congestion
is so serious during rush hours that they have to put additional manpower to maintain the order. If the inner roads have more accesses to the public streets, tenants would no longer suffer from such inconvenient chaos and low-efficiencies.

![Figure 31 Shanghai Vanke City Garden public transportaion coverage analysis](image)

Due to City Garden’s excessive size, the land coverage of walking distance from public transit stations is extremely low (48.2% as estimated). The inner part of the gated community is almost disconnected with the rest of the city. The only remarkable improvement Vanke City Garden has made is to use part of the community land for #911 bus terminal that is operate by the Shanghai Transportation Group. The #911 bus line links the gated community from its inside to altogether 33 stops around Shanghai, covering main destinations including Huahai Road and People’s Square. This is a revolutionary process towards opening up the gated community and creating more urban flow interchange, because most of the gated communities developed during the same time at most provide shuttle bus service that stop outside the main gate, not to mention letting public bus lines coming into the community.
4.3.2. Current Trends

From typical gated community to Vanke City Garden and then towards Vanke Holiday Town, there is a trend of reducing the scale of blocks and improving the accessibilities for residents. These transitions match what Jacobs pointed out: “frequent streets and short blocks are valuable because of the fabric of intricate cross-use that they permit among the users of a city neighborhood” (1993, pp.285-286). In Vanke Holiday Town, the extended contact surface between the community and the public facilities created by dividing the mega block into smaller blocks is one of the key factors that contribute to the livelihood of the streets.

1) Reduce block size and walking distance

Compared to City Garden and other precedents, Vanke Holiday Town shows the trend of reducing block size by dividing the whole property into smaller sub-communities. Lancang Road cut the development property into two main parts, which further contains four clusters of neighborhoods that all belong to Holiday Town estate. The maximum distance between accessible gates\(^4\) is 210m, and the average distance is 125m.

Another trend that has increased the gated community’s openness degree is its increased numbers of entrances. The main idea is still to keep non-residents outside the gates, so gates remain guarded by securities that can recognize most of the homeowners. However, due to technology development and the improved management methods, more and more gates come in the form of automatize ID card gates with security camera. Thus, additional entrances can be opened up without placing extra manpower. Tenants who complained that the human surveillance might violate their privacy can also enjoy a much more liberal living environment. The density of the gates equals 4.12 (11*1000/2670). The land coverage of walkable distance from the gates reaches 70.7%.

\(^4\) Some gates are only used for emergency occasions, as have not been calculated as effective sample.
Figure 32  Shanghai Vanke Holiday Town block size and gate distance

Figure 33  Shanghai Vanke Holiday Town public transportation coverage analysis
The small-scaled neighborhoods inside the gates are more intimate. Tenants have a better chance to get acquainted with their neighbors, which is important for neighborhood surveillance as well as fostering a strong sense of belonging. The improved sense of safety can be proven by the fact that no single household has installed the safety window.

2) Improved public accessibility

There is an obvious trend of increased accessibility from public transit stations in modern gated communities. For instance, the Lancang Road that goes through Vanke Holiday Town enhanced the traffic accessibility for residents. There are 5 bus lines running on Lancang Road, with 2 bus stops located directly outside the community gate. The land coverage of walkable distance from public transit is 59.6%. The furthest distance from the community inside to public transportation outside has been greatly reduced. Residents have more direct access to bus stops or public facilities outside their community.
4.4. Amenity Allocation and User Proportion

4.4.1. Existing Problems and Introspections

Under most circumstances, a typical gated community contains open space, clubhouse, gym, playground, kindergarten, on-site medical facilities and small groceries. Most of the times, the public amenities are placed in the core area as the hub for neighborhood activities. Their central location also ensures the residents' rights from non-member infringement.

Such segregation of functions from the urban setting becomes a point of attack of Chinese gated communities. There are academic arguments that criticize private gated communities of rejecting the right of other urban populations to approach the resources inside the gates (Wu, 2005, p.243). The exclusiveness and form of territoriality also leaves the surrounding streets and sidewalk barren of urban activities and social life (Pow, 2006, p.1543). Physical fences and walls encourage a compartmentalized society that “ceases to promote the liberal tradition of sharing of urban public space by different classes to increase mutual understanding and to provide social safety-valves” (Davis, 1992, pp.155-156).

These critiques have to be re-evaluated according to the specific Chinese local context. The exclusiveness of amenities can be accepted to a certain extent due to the large user pool the facilities are serving. Besides, Chinese tend to have different preferences for their social life. The plazas outside shopping malls or commercial streets are among the most popular places where they tend to enjoy their collective social life. Of course, higher openness degree of amenities with more users from public side is not only good for the business, but also good for constructing a well-balanced living environment.

Vanke City Garden is a representative example that already increased its openness degree through amenity distribution. Its large numbers of commercial facilities inside the neighborhood no longer serves the local residents exclusively. Almost all the ground floors of
the buildings on the east side have been turned into retails, restaurants or real estate agencies that caters for the public needs as well. In general, it has four groups of amenities that cover 17 types of commercial uses. According to site observation and facility’s serving distance, we can estimate that the average public users’ proportion in City Garden ranks higher than that in the traditional gated communities.

Figure 35  Shanghai Vanke Holiday Town amenity allocation

Figure 36  Shanghai Vanke City Garden amenity user proportion estimation
Though Vanke City Garden already shows a great improvement in opening up amenities to the public, the accessibility is still constrained by the community gate control. Increasing safety hazards by loosening the access control or sacrificing business and openness by keeping the outer boundary as rigid as it is seems to be a dilemma.

4.4.2. Multi-layered Allocation and Mixed User Proportion

Amenity allocation also tends to transit into linear arrangements along the multiple layers of gating structure in newly developed gated communities. Different layers of gating with different degrees of stiffness serve different proportions of public users. The more public users get involved, the higher the openness degree of the community will be.

In Vanke Holiday Town, all the retail functions on the ground level are combined with the apartment buildings (Dishang) along the Lancang Road. The commercial atmosphere is so rich that all the ground floor apartments along Lancang Road with specifically designed gardens
have also been converted into retails with entrances directly facing the street. According to the site investigation, there are mainly five groups of public facilities. The estimated public user proportion will be higher due to the faculties' direct accessibility to the public.

![Chart showing amenity user proportion estimation for Shanghai Vanke City Garden.](image)

**Figure 38** Shanghai Vanke City Garden amenity user proportion estimation

### 4.5. Conclusion

Although defining the community's characteristics and social impacts by only referring to other countries' social conditions is biased, we should still be aware of the imperfections of contemporary Chinese gated community's spatial layout. As examined in this chapter, stiff layers of boundary tend to cut off the connection of neighborhoods to the public realm. Block size aggregates traffic congestion, and impedes accessibility for users. Because of the physical layout, the users of the community's amenities are constraint. Social resources have not performed efficiently, since they should be able to serve a larger populating. The spatial composition of gated community will greatly influence the urban landscape in China, thus there is an urgent need to resolve all these disadvantages.

There is a clear trend of opening up the gated community, as can be evaluated in a quantitative way by using the openness degree measurement framework. The increase of gating layers creates a more gentle transition from the public to the private side. The
boundaries tend to transit from rigid to elastic, or even invisible as only implying the sense of place. Even though private developers are still purchasing land in large parcels, the development itself tends to be divided into smaller and more human scaled pieces. The decreased block size improves traffic efficiency and accessibility that eventually connects the community more tightly to the city. Diverse amenities filtrated through the softened layers of boundaries, creating a lively atmosphere. The transitions and changes might be subtle or even minor, but they can change the urban settings tremendously when functioned together. Such opening transformation is definitely an ideal direction for Chinese gated community’s future development. Unlike before when we can only roughly evaluate a community in polarized way as either enclosed or open, now we can employ the quantitative measurement to explore exactly to what degrees of openness has the community reached, and how much room is there left for improvement.
Chapter 5. Proposal and Guideline for Future Development

The prevalence of gated communities around China is ultimately a response to consumers’ desires as well as to the socioeconomic foundation. Developers see gated projects as an important niche marketing strategy in a competitive environment (Grant and Mittelsteadt, 2004, p.914). The trend of raising the openness degree of contemporary gated communities will continue due to the increased need of social interaction. There are mainly three factors that might be constructive to opening up the community.

5.1. Design Strategies

There are mainly three procedures to maintain the safety and enclosed living environment while following the trend of opening up the community. Firstly, creating more layers from public towards each household with different levels of boundary stiffness and amenity can help to establish a fluent transition from total public towards purely privacy. The multiple-layered gating structure can contain lively urban functions and intimate neighborhood facilities at the same time. In order to achieve this structure, amenity allocation and road hierarchy have to be carefully designed. According to previous case studies, facilities are best placed along the community boundary directly facing the public street. Inside retail or kindergartens like examples in Vanke City Garden or Holiday Town will inevitably encounter the dilemma between business profit and access control.

Another important procedure is to divide the land into more human scaled pieces under the premise of keeping its market value, and to improve accessibility. Smaller communities with gates can keep the brand name of the developer, but also embrace public street life in-between each land parcel. Careful positioned gates with different surveillance methods can create an elastic boundary that enables filtration mechanism. Easier accessibility can bring
convenience to the users, raise the property's comprehensive value, encourage social interactions, and become a catalyst factor to support creativity and vitality.

5.2. Property management and boundary stiffness
Proper community management is another key factor to construct a softened boundary that contributes to the overall openness degree. It is true that as long as residents know their streets are under inspection of the security guards, they will feel as secured as inspected by their neighbors, or even more. This also explains why security inspection becomes one of the evaluation standards for a “good quality gated community.” Rarely will someone feel extremely offended by the appearance of the security guards, since that is part of the service they pay for the whole property fee package. The additional input for human power and facility can be balanced by the commercial income opened up to the public.

5.3. Government Involvement and Policy Guidelines
The social problems of gated communities and their solutions are far beyond the scope of physical design’s capability, which require the public sector involvement. Cutting a large piece of land into smaller parcels and bringing in more public transportation facilities are the two procedures that may greatly enhance the openness degree of gated communities. Such implementations require the participation of the public sector during early development phases. Through partnerships with local government, developers can mingled public facilities with their private properties. The partnership will eventually benefit the city with better-functioned amenities, more refined road network, and higher return. Take Vanke Holiday Town as an example, the commercial revenue generated by the additional customers will eventually becoming part of the community development investment return. In order to achieve the win-win results, the government can give incentives (tax, rent, land price, etc.) for developers to combine public transportation facilities into their design. The public sectors can also set policy guidelines to define the standardized openness degree as derived from the
measurement framework. These regulations can become useful amendments to the existing detailed control planning regulation (Kong Zhi Xing Xiang Gui). Considering the fact that most of the land in the suburbs have been turned into, or are on the process of transitioning into gated communities, proper regulations and guidelines will determine the city’s spatial appearance to a great extent.
Chapter 6. Conclusion

The concept of gated community is not a completely new spatial format in China. Examples of gating phenomenon in China range from the ancient walled cities to the neighborhood clusters and residential wards. The traditional Chinese enclosed neighborhoods are the precursor to the modern gated community in imposing enclave logic and social order on space. Communities created have been divided according to employment types, religious, and class lines, etc. While the physical form of gating is similar between China and the US gated communities, the underlying implications are different. Security is but one aspect that residents generally desire from gating. The US based theories on gated communities that emerged in recent decades mainly emphasize on racial segregation, fear of crime, and private provision of services (Blakely and Snyder, 1997; Hayden, 2003; Low, 2003). The dominant Western-based theories are less applicable to the cases in contemporary Chinese cities. The gating phenomenon in China may be attributed to the country's collectivist-oriented culture and strong market economy development mode. Neither the historical origins nor their dynamics of ongoing political mechanisms of gated neighborhoods are reducible to a Western-centered or generic US city mode.

This paper discusses the historical context and socioeconomic driven factors of Chinese gated community. There is no doubt that social and spatial segregation is in the making in Chinese cities, and gating reinforces that process. However, the physical enclosure that has been in existence for centuries is not the primary cause of social stratification and exclusion. The collectivist culture embedded in Chinese society and political control contribute to the widespread character of gating around the country. It is the combined effect of culture and social context that prompt the long-existing and widespread neighborhood gating structure in China. In general, gating and enclosure foster society's solidarity instead of become the main cause of segregation. While the country is transitioning towards a sounder market
economy, maintaining social stability will always be the topmost concern. Therefore, Chinese used to build gates, and the gating phenomenon will surely continue in foreseeable future.

The potential improvement of gated communities is not a singular one, but certain trends of having more interactions between the public and the private property sides are discernible. The study framework dissects the gating phenomenon into measurable openness degree evaluation. It helps to identify the subtle and blurred zone between definite exclusive and open. In relation to the urbanization process and the overall social impact of gated communities, we discuss the following measurements by applying the methodology to representative cases in Shanghai:

1) Layers of gating and boundary stiffness.
2) Block scale and accessibility.
3) Amenity allocation and user proportion.

Constrained to time and available resources at hand, the standardized indexes that represent the ideal openness degree in these three categories are based on estimation. Testing the framework on large sample pools can further refine the indicators, i.e. the proper proportion of public users, the idea land coverage of walkable distance. Private developers and public sectors can apply the measurements plan the layout before real construction begins. They can also use this framework to modify existing built community to improve the living quality. From an academic point of view, this framework adds richness to the existing research on enclosed compounds by differentiating the various hierarchies of boundary and stiffness. In a word, abstracting and refining the fundamental structure of gated communities help to construct a common ground for further case comparison. Bringing in the quantitative measurement into subjective analysis can help to identify potential issues and possible solutions in contemporary Chinese gated communities. The construction of a lively community with reasonable degrees of openness requires the combined effort from both top-down and bottom-up, including the three parties of government, private developers and household owners.
Bibliography


