## Gentrification and Residential Differentiation in Nanjing, China

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Abstract: The institutional environment in China has quite evidently changed during modern socio-economic transitions. Driven both by local government and by marketing force, urban social space was redistributed after the reform of urban land and real estate policies. Urban renewal makes for wide differential rent and therefore gentrification is occurring in China. This paper analyzes the background and institutional environment of gentrification in China, and further discusses the process, characteristics and evolutionary mechanisms in the case of Nanjing, through investigation of the attributes of 1 075 residential communities built during the 1998–2008 at a macro level, and interviewing the residents and analyzing questionnaires in 6 different and typical communities at a micro level. As a socio-spatial course of two-way interaction, gentrification is divided into 3 stages of incubation, occurrence and fast development, according to the time of landmark events and policy reform on the leasehold of land in Nanjing during socio-economic transition. In terms of the socio-spatial characteristics of gentrification in Nanjing, the gentrification process under the trajectory of urban renewal makes urban social space present a new circle-layer structure; the rise of quite a number of gated communities results in the fragmentation of social space and privatization of public space; the management mode of modern communities and the change of life style have aggravated the indifference of neighborhood relationship of gentrified communities. Based on the empirical evidence of this study, this paper indicates that gentrification is quite different between China and western countries with respect to spatio-temporal order, dominant forces, paths of realization and spatial expression, and it further reveals the dynamic mechanism of gentrification developing in China at the present stage.

Keywords: gentrification; gated community; residential differentiation; social spatial fragmentation; Nanjing

## 1 Introduction

After World War II, western countries started to build houses in suburbs of big cities in order to help veterans settle down, which then promoted suburbanization. In the 1960s, Ruth Glass, an English sociologist, took notice of the phenomenon of anti-suburbanization taking place in London, that is, the middle class replacing the working class and returning to the urban center, which he called 'gentrification' (Glass, 1964). At the beginning, gentrification was defined as 'the course of redeveloping and renovating the decrepit residential areas of the lower-income classes of the inner city and transforming them into middle-class neighborhoods' (Smith, 1979; Butler, 1997; Hamnett, 2003). After the climax of suburbanization in western countries during the 1970s–1980s, a great many cities experienced the quick popu-

lation growth, economic recovery and revitalization of central urban areas, which was called 'the movement of returning to the city'. During the course of urban renewal, the high-income group continuously replaced the lowincome one in the decrepit areas of the urban center, and the environment of the urban landscape was improved, which became the symbol of urban socio-economic transition. The movement of socio-economic and spatial restructuring has changed tens of thousands of urban neighborhoods in western countries during the last 50 years of the 20th century (Kennedy and Leonard, 2001). With the development and intensity of study on gentrification, its meaning has been gradually expanded, including: 1) the high-income group outside urban neighborhoods replace the low-income inner-urban one and the latter gradually move out; 2) the living conditions of neighborhoods are correspondingly improved and the environment of the

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inner city and public facilities are notably enhanced; 3) the characteristics of the neighborhood (ethnic composition, faith, income, cultural background, type of work and relaxation, etc.) have changed, and the social structure is united from diversified characteristics to gentrified ones; 4) cultural characteristics of the community and family structure have changed, and young families and core families of the middle class gradually become the mainstream (Smith and Williams, 1986; Kennedy and Leonard, 2001). Certainly, gentrification in western countries is a complicated phenomenon of re-urbanization (Butler, 2007) and the study and debate concerning it continue (Lees, 2003; Butler and Lees, 2006). At present, gentrification is an important socio-spatial characteristic of postindustrial cities in the context of globalization and neoliberalism (Davidson, 2007), and, at different levels, it evolves as an important strategy for urban development operated jointly by city government and private capitals throughout the world coincidently (Smith, 2002).

Gentrification is presented in western countries in the setting of political and economic transition, large-scale urban renewal and life style change of the young middle class and so on (Smith, 2002). In China, the continuous institutional transition since 1978 has been providing cities with conditions necessary for gentrification: first, the reform of income distribution system made some people 'get rich first', gradually developing the new middle class with stratum cultural traits; second, the reform of land and housing systems activated the value of real estate, which provides the benefit to drive necessarily for government and enterprises to manage the city and 'produce space'; third, the sustained and stable economic growth and quick urbanization created an ideal circumstance for urban renewal and beautification. In the 1990s, a phenomenon like early gentrification in western countries appeared in Chinese cities with socio-economic transition and urban renewal. Different from western countries, gentrification in China is a socio-spatial process in which original residents are replaced by groups with higher social and economic status in the urban center and surrounding areas after renewal and redevelopment. Here, we want to emphasize that the meaning of gentrification is extensive, which at least includes gentrification of residence, employment, business, service, and so on, and it can be classed into both landscape and cultural gentrification. Meanwhile, gentrification of residence is the most representative process. It can be said that the change

of urban residential space and neighborhood character is an important aspect reflecting the complicated socio-spatial process of gentrification. This paper tries to analyze the background and evolving process of gentrification in Nanjing and the residential differentiation. On this basis, the authors try to conclude the differences of socio-spatial character between gentrification in western countries and that in China, and the dynamic mechanisms of evolution behind them in China.

## 2 Materials and Methodology

## 2.1 Study area

There were 7.59×10<sup>6</sup> permanent residents, 5.41×10<sup>6</sup> of which were registered, and 573 km<sup>2</sup> urban built-up areas in Nanjing in 2008. The 10 districts which were studied in this paper include Xuanwu, Baixia, Qinhuai, Jianye, Gulou, Xiaguan, Pukou, Qixia, Yuhua and Jiangning. The study area mainly covers the urban developed areas of Nanjing, which is mainly divided into 3 cycle-layers according to the distance from the urban center in the development of Nanjing: the inner city within the city wall of the Ming Dynasty, the outer city between the city wall and the highway and the Changjiang River, and the suburb beyond the highway (Fig. 1).

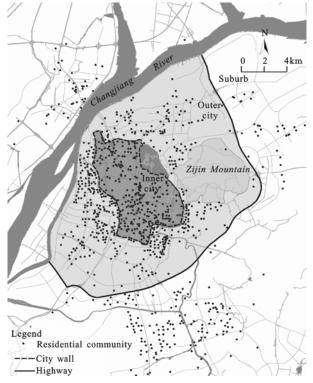


Fig. 1 Sketch of study area in Nanjing

## 2.2 Method and data

The socio-economic data of the Fifth National Census in 2000 cannot accurately reflect the current urban sociospatial structure and trends of evolution under conditions of rapid urbanization; moreover, it was deficient of data of private housing and the social economy, which is the main obstacle for studying gentrification. For a country of housing privatization, the evidence of a housing market can help to describe socio-spatial prospects instead, due to circumstances lacking statistics on the urban population (Knox and Pinch, 2000). The proportion of private housing in Chinese cities and towns was up to 81.62% in 2005. In terms of the new characteristics of gentrification and residential differentiation in Nanjing, this paper uses the data of a secondary market of housing<sup>(1)</sup>, which is often used by western scholars to demonstrate the structure of urban residential space. And it makes a systematic analysis of space at macro-level and residents at micro-level, combining with survey samples of gentrified communities. Here 1 075 communities built during 1998-2008 were studied in respect to housing type, price of per unit area (the average transaction price in 2008), land areas, plot ratio and number of families participating in the study, the evolution of character and developing tendencies of residential spatial differentiation in Nanjing (Table 1). At the micro-level of neighborhoods, the developmental condition of different communities was investigated, especially gentrified ones, by choosing 6 communities with different stratum attributes to conduct a sampling interview and hand out questionnaires (535 of 1 000 dispensed are available) on family structure, occupation, individual incline for choosing house, leisure activities, community attachment and neighborhood relations and so on.

## 3 Results and Analyses

## 3.1 Socio-spatial process of gentrification in Nanjing

Gentrification is a socio-spatial course of two-way interaction, not merely a phenomenon of the renewal of their environment and the relocation of wealthy residents. The occurrence of gentrification is attributed to the realization of housing expense disparity (i. e. differential rent in this paper) (Smith, 2002); however, the spatial difference of the market price of urban land relies on the marketization transition of relative socio-economic relations and policies on urban land. Therefore, gentrification in Nanjing is generally divided into 3 development stages, according to the time of landmark events and policy reform on leasehold of land in Nanjing during socio-economic transition.

## 3.1.1 Stage of incubation in 1978-1987

After the reform and opening-up in 1978, Nanjing experienced rapid economic development. Capital source for urban construction had gradually diversified and the improvement of residential environment was emphasized.

		Inner city		Outer city		Suburb	
		Serviced apartments	Gentrified communities	Gated communities	Common communities	Villa	Affordable housing
Macro-attribute	Quantity	53	48	80	319	22	37
	Plot ratio	5.2	2.3	2.2	2.0	0.2	1.5
	Land area (m <sup>2</sup> )	12000	56000	87800	73400	350000	315000
	Price (yuan (RMB)/m <sup>2</sup> )	15500	14800	15000	8650	13900	3600
Micro-attribute	Case community	Junlin Interna- tional Mansion	Palace Interna- tional Garden	East Silver City	Longjiang Gar- den	Baijia Lake Villa	Hengsheng Scenic Garden
	Age of householder	30.1	35.0	31.4	44.2	43.5	47.2
	Family member (persons)	1.8	3.3	2.8	3.2	3.5	3.3
	Family monthly income (yuan)	7500	16000	9000	7000	23000	4500
	Chief reasons for choosing house	Location, transportation	Circumstance, location	Circumstance, location	Location, price	Circumstance, public security	Price, transportation
	Familiar neighbor (persons)	0–2	5-10	10-20	40–50	0–5	20–30

Table 1 Comparison of attributes of residential communities in Nanjing

Notes: Data of plot ratio, land area and price are average values of similar communities in Nanjing; data of age of householder, family members, familiar neighbor and family monthly income are average values of all residents interviewed in same community

① The data are gained from Nanjing Real Estate Exchange Center in 2009

The area of newly built housing during 1978–1987 exceeded the total of that of the previous 30 years. The investment on fixed assets in Nanjing was up to  $1.919 \times 10^{10}$ , increasing 21.1% per year on average, and the proportion of nonproductive investment increased to 27% in 1987 from 15% in 1978. As the system of income distribution was reformed and the management of urban household registration was relaxed, a differentiation occurred, presenting an upper class, middle class and lower class in Nanjing. And the middle-class required a higher-grade residential environment, which has gradually developed into a potential group for utilization of gentrified housing.

### 3.1.2 Stage of occurrence in 1988-1997

Gentrification has appeared in big cities of China during the ten years since 1988, as the housing reform was put forward and gradually implemented. In 1992, the policy on urban land was changed in Nanjing, where free government allocation was replaced by compensated assignment, which made the city gain new motivation for redevelopment. In order to resolve the problem that population was excessively concentrated in the inner city, the city government adopted a strategy of urban development to strictly control housing development in central areas, transferring the center for common housing development to new districts and gradually distributing the population and activities over a wider area away from the older urban districts. Consequently, the disparity in housing expenses rapidly presented itself in central urban areas. Nanjing began to redevelop on a large scale, the investment on fixed assets increased 5.63×10<sup>9</sup> per year on average and the downtown environment of the city was greatly improved. The traditionally dilapidated neighborhood of the urban center was restructured into or functionally replaced by top-grade communities, marketplaces, hotels, office buildings, places of entertainment, etc., attracting a great deal of the middle-class to live and work here.

## 3.1.3 Stage of fast development since 1998

Gentrification in Nanjing has developed rapidly since the marketization reform of urban housing system began from 1998. Table 2 showed that, during 1998–2008, in the main city zone, buildings of  $8.1 \times 10^6$  m<sup>2</sup> were demolished, involving  $1.25 \times 10^5$  households, and over  $5.5 \times 10^{10}$  m<sup>2</sup> of commercial housing was newly constructed. At the same time, urban sprawl and gentrification advanced rapidly. At that time, improved reform on the

urban land and housing system provided gentrification with a basis of marketization and policy guarantee; while, the acceleration of urban renewal created a good chance and physical condition for it. The large-scale demolition and redevelopment caused urban residents to relocate frequently. The market mechanism for allocating urban land was initially established in March 2000 in Nanjing, where differential rent (housing expense disparity) of the advantaged areas was completely activated and the realization of gentrification in urban space released massive energy rapidly.

Table 2 Condition of demolished and newly-built housing in Nanjing in 1998–2008

Year	Households of demolished housing (×10 <sup>3</sup> )	Building area of demolished housing (×10 <sup>5</sup> m <sup>2</sup> )	Newly-built area of commer- cial housing (×10 <sup>6</sup> m <sup>2</sup> )
1998	10.70	5.870	2.7046
1999	6.96	3.560	3.1433
2000	8.25	3.573	2.9755
2001	13.00	8.200	3.0909
2002	19.13	11.571	3.7443
2003	24.20	17.900	3.3624
2004	9.84	8.316	5.7856
2005	5.81	4.799	5.6451
2006	12.46	7.230	6.7143
2007	8.98	5.625	8.7087
2008	6.05	4.387	9.9854
Total	125.38	81.031	55.1601

Source: Nanjing Local Chronicles Office, 2009

## 3.2 Character of gentrification and residential differentiation in Nanjing

Urban residential space is an important aspect of 'socio-spatial dialectic'. Socio-economic reform promotes the creation and evolution of urban residential differentiation, while the cumulative effects caused by physical spatial circumstance are realized and further develop social relations. Under the background of urban transition, the socio-economic process is transformed and the change of urban land use occurs rapidly. That is, the change of the downtown urban environment and the reproduction of urban residential structures, which are caused and promoted by the process of gentrification, are the most direct and representative spatial visualized responses and constitute an important level of the reconstruction of economic, social and spatial relations in the complicated gentrification process (Smith and Wil-

liams, 1986).

## 3.2.1 New circle-layer structure of urban social space

In recent years, the price of commercial housing has been increasing at a high speed in Nanjing, while that of central urban areas has been the highest, and the differential of housing expenses is more and more obvious between urban central and outlying areas. Due to factors like differential rent, price of land and plot ratio, the land blocks of demolition in the inner city of Nanjing are distributed in small size and patches, taking Xinjiekou as a center and the subway line and main streets as axes, most of which are on the streets or on the waterfront. The land use of central areas is changed after demolition, and land for industry and traditional residence is constantly replaced by that for mixed function of green space, open space, modern residence, business, working and entertainment; therein, residential land is mostly used for top-grade superintended apartments, mainly attracting the young middle class. While the middle class with higher consumption level is inclined to choose a residential environment with better ecological standards and high quality, those who claim life taste, cultural preference and class spirit are likely to seek superior life quality. Consequently, a great many gated communities are built rapidly in the areas within sight of central areas, such as the waterfront of Xuanwu Lake and Qinhuai River, which gradually become the new assembling areas for the middle and upper classes. Figure 2 shows that urban renewal in Nanjing dictates that the poor residents move out of the inner city and the gentrified class relocates there. This study finds that the residents in gentrified communities, after displacement and relocation, are obviously different from those in common communities in respect to age, structure, occupation, family income, life-style and mental attitude in choosing a house.

# 3.2.2 Fragmentation of social space and privatization of public space

The gated community is one of the important spatial representations of gentrification in China, which makes up for the deficiency of 'collective assumption' by privatizing public space and renovating aspects of the residential environment, and it is consequently pursued by developers and urban residents because it caters to residential demands of the middle- and upper-class. The small-scale gated communities lead to polarization and fragmentation of urban space, and, for example, gated

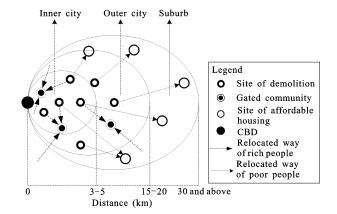
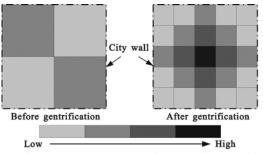


Fig. 2 Residents' replacement and relocation in gentrification process in Nanjing

communities cover less than 5.0×10<sup>4</sup> m<sup>2</sup> on average in the inner city of Nanjing. The characteristics of spatial segregation are transforming the city. Splintering urbanism are obvious (Graham and Marvin, 2001), and the phenomenon of homogeneity in part and heterogeneity in integration becomes the typical character of residential space in Nanjing. The original social sequence and urban fabric are continuously cut apart by gated communities, and the mosaic spatial segregation between new and old, lower and higher income areas intermingle with each other. The new spatial order presents great heterogeneity both in residential structure and in spatial image, which results in the fragmentation of social space and residential segregation at the neighborhood level. Figure 3 shows that the initial residential structure in the blanket form is gradually disjointed after the gentrification process, and it recombines to a structure of urban residential differentiation which is characterized by central polarization and diversification.



Housing price and economic status of residents from low to high

Fig. 3 Reconstruction and polarization of residential differentiation in inner city of Nanjing before and after gentrification

## 3.2.3 Indifferent neighborhood in gentrified communities

After the residential unit system mode has been dissolved, the state is weakened to control communities while freedom of movement among residents increases. Urban neighborhood offices and residents' committees are losing their roles in managing communities, whose previously obligatory work of community management, public order and maintenance has been taken over by the Estate Management Company, and daily neighborhood relationships, inter-personal communication and mutual assistance, gradually become weaker. Of the surveyed 1 075 communities, 78.5% have an employed Estate Management Company, and therein all of the gentrified ones are managed in protection by estate management. In gated communities, it is hard to form stable social communication in neighboring communities because they are gated and the residents' identities differ greatly; even within the same community, residents associate little with others and they are not quite familiar with each other. With the rapid renewal of the downtown environment, residents always move out before the neighborhood relationships form a stable nature in the community and, as a result, it is difficult to form a community cultural attribute and stratum identification. While the invasion of the Internet's network communication, the fast-paced urbanism and other factors also make the sense of estrangement increase greatly in urban neighborhoods, especially in gentrified communities, this further weakens and destroys human relationships of the urban neighborhood.

# 4 Dynamic Mechanism of Gentrification in China

Gentrification is a complicated and dynamic reconstruction process of urban social space. It is quite different between China and western countries in the aspects of urban developing mechanism and institutional environment, therefore, gentrification has different process, characters and tendency in China. It is necessary to comprehensively consider the regulation environment of government managing space, under the background of globalization and urban transition, and the 'producer' and the 'consumer' in the gentrification process (Hamnett, 2003), in order to understand the occurrence mechanism of gentrification in China.

# **4.1** Gentrification differences between China and western countries

In the context of globalization, gentrification in China, which is based on urban renewal, presents both the same characteristics, mechanism and rules as it does in western countries and the special, complicated and transitional features under the unique background of China. The differences between gentrification in China and in western countries mainly lie in 4 aspects.

First, different spatio-temporal order. Gentrification in western countries occurred in central urban areas after having been depressed and resulting in large-scale sub-urbanization (Smith and Williams, 1986); while, in China, central urban areas do not experience large-scale degradation. Instead, they have been favored as service facilities and the residential environment are improved. Distinct from the movement in western countries where the middle class returns to urban communities from the suburbs, gentrification in China is the process whereby the groups 're-assemble' into special urban spaces, which were previously dispersed, and with high socio-economic status.

Second, different dominant power. The market power plays a leading role in the gentrification process in western countries under the background of mature marketing systems, and gentrification can be attributed to housing expense differential to a great degree (Smith, 2002). While in China, it is obviously dominated by the state and characterized by an uncompleted-market economy, the government promotes the process of gentrification by activating demands of the middle class, creating conditions for capital circulation, promoting urban beautification and infrastructure construction, integrating land resources and tackling the problem of fragmented property rights and so on (He, 2007).

Third, different ways of realization. The gentrification process in western countries is realized through renovating dilapidated houses and districts, gradually realizing differential rent and then promoting the relocation of residents in central urban areas (Hamnett, 2003). However, in China, it is realized mostly through spatial redevelopment in the form of 'demolishing the old and constructing the new'. Consequently, different from the progressive process of 'invasion-succession' in western countries, stratum relocation by gentrification in China is realized by means of implanting an estate developing project as a whole.

Fourth, different spatial expression. Under the multicultural and multi-racial background of the gentrification process in western countries, it is accompanied by social conflicts and ethnic contradiction; different races and classes live in different districts (or streets) and residential differentiation is obvious at the macro level. However, it is quite different in China. Residential segregation of different classes is well tolerant in space, and especially, the middle-class and upper-class always live in the same community. Even among groups with greatly different socio-economic status, there may be the phenomenon that high-rise buildings welling up rapidly stand among plants and low and dilapidated houses, and the 'core' and the 'edge' mixes together.

## 4.2 Evolution mechanism of gentrification in China

Government is the dominant propellent for the gentrification process in China under the background of urban renewal at present. It even can be considered that 'the first wave' of gentrification in China is a process of 'space production' dominated by the government. Since the reform and opening-up, however, power has been gradually distributed from central government to local administrations. Especially after reforming of the financial system in 1994, the central government has transferred the pressure of economic growth to local governments (Wu, 2008); meanwhile, the separation of financial power provides the latter with enough motivation to manage cities. Reform on the housing system extends to the real estate market and the new space of accumulating capital which has become the main way to solve local financial problems (Wu, 2002).

'Entrepreneurial local state' is forming, due to local governments playing the dual roles of manager and participator in economic production, capital accumulation and urban development (Harvey, 1989; Wu, 2008). As the only owner of urban land, government plays an important role and creates good circumstance in the gentrification process, from coordinating the allocation of land use rights, demolishing houses and relocating residents, clearing land and leasing land, to promoting capital circulation, activating demands and selling houses. However, as the marketing mechanism is improving step by step in China, the dominant role of government will gradually give place to the market in the gentrification process and the government will play a regulatory role only, returning to the position of urban 'night

watchman'.

Hoyt once predicted that the groups with high social status would be the important power to shape urban space (Hoyt, 1939), which comes true in China. Local governments, who hold power and land resources, and real estate enterprises, who control capital, form into 'urban growth coalition' in the course of 'managing city', and cooperate to attract social 'surplus capital' to promote urban renewal, and to provide policy and supply guarantee for gentrification.

The middle and upper classes, with higher social and economic standing, and different preference for housing, constitute the main consumers of gentrified housing. The gap between the rich and the poor is expanded and the former has greater consumption capability. The reform of housing privatization has broken the social spatial principles of the unit system under a planned economy and individuals can freely choose location and type of housing in the real estate market. Under the effects of factors like a western life-style, real estate symbol, capital, family lifecycle, investing and financing habits, and residential culture preference, the advantages are included in the urban center which is popular with families of higher socio-economic status; while, the lower class is driven to the edge of city under the filtering mechanism of housing prices. The previous urban social space has disintegrated by the gentrified reconstruction of urban space and the new residential spatial differentiation that is forming (Fig. 4).

## **5 Conclusions**

The urban architectural environment is the most direct form of expression of capital circulation in space. The redistribution of an urban population lags behind the change of architectural environment and the corresponding change of social space always needs residents' migration and culture deposit over a long period. In this sense, the data of a real estate market and the social attributes of residents together can reflect, and even predict urban socio-spatial structures and evolving trends.

Under the background of land and housing marketization reform in China, urban renewal and gentrification reactivates the law of value of urban spatial rent differential formerly covered by the system of land leasehold and free allocation. Through the displacement and upgrade of urban space function, gentrification realizes

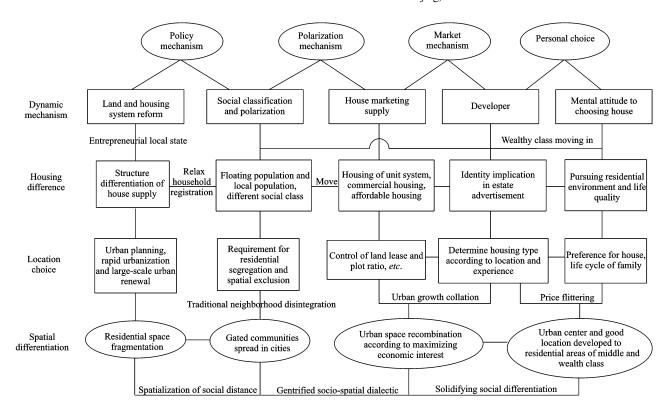


Fig. 4 Social spatial process and evolution mechanism of gentrification

rapid increase of the value of land in urban areas, especially in central districts. It helps to excavate the highest economic interest of urban land, revive, and even reverse the downfall of urban centers, diminish local troubles of public revenue and advance development of the urban landscape. In general, it is a socio-spatial movement benefiting urban development. However, the social problems resulting from it, including the contradiction of demolition compensation, the aggravation of social exclusion and spatial segregation, and the low-income groups being constantly marginalized, are a hindrance to harmonious society, all of which are necessary for the state and scholars to seriously consider.

Urban residential space is reconstructed according to capital strength and residential preference in the urban renewal and gentrification process in Nanjing, for that housing supply represents the tendency of neo-liberalism like price marketization, free trade and property privatization. In the urban center, initial industrial, warehousing and residential lands are redeveloped to service land with higher profits, like land for business, trade, finance, retail and so on, which creates more employment opportunities for the young white-collar. A little residential land retained in central areas and areas with

elegant environment, perfect service and recreational facilities becomes the focus scrambled by real estate investors and is rapidly developed in superior gentrified communities.

After the climax of urban renewal in Nanjing, it is comparatively stable in the downtown environment and landscape of the urban center, and residents begin to settle down in community. The stage of introducing gentrified physical space will transit into that of cultural invasion and succession, and new community culture will replace the previous one, which breaks down the initial social relations and meanwhile forms the group mark of middle-class with the labeling attributes. With the condensation and differentiation of community culture, a new division standard of social space is likely to form in Nanjing, and cultural factors, like residents' consumption habits and life taste, may become the new residential differentiation.

At present, gentrification in China mainly relies on urban renewal dominated by the government. It is essentially nothing but a means of realizing capital appreciation, whether through physical renewal or upgrade of image capital and consuming culture. Under the 'operation' of urban growth coalition or personification capital, the rent differential of the urban center is continuously activated and put into practice: capital appreciation realized through spatial reproduction.

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