

RESIDENTIAL SPACE DIFFERENTIATION OF NANJING METROPOLIS AND ITS DYNAMIC MECHANISM IN 1912 – 1998

ZHU Xi-gang¹, WU Qi-yan², CUI Gong-hao¹

(1. Department of Urban and Resources Science, Nanjing University, Nanjing 210093, P. R. China; 2. Architecture Department, Kunming University of Technology, Kunming 650051, P. R. China)

ABSTRACT: Since 1978, within social geographic pattern of Chinese metropolis, differentiation not only has come to be in social entity, but also by some degree embodied within residential space. Through the study on spatial segregation, the authors implicate these above spatial differentiation from social polarization to residential segregation cause by change in the political economy, in the organization of urban and real estate development (from project-specific to comprehensive development and real estate development) and in the functions and value of urban planning (from a sectional-subordinated to a municipally based control). The imprints of transition on social space are illustrated eight references to the example of Nanjing metropolis. Among the new phenomenal identified here are the six types of residential area according to soci-economic status.

KEY WORDS: residential space differentiation; dynamic mechanism; Nanjing Metropolis

CLC number: K921/927 Document code: A Article ID: 1002-0063(2000)02-0125-06

1 INTRODUCTION

As an ancient capital with a twenty-century history, Nanjing is one of the economic and cultural center of the Changjiang (Yangtze) Delta Area. During 1912 – 1949, it was the capital of the Republic of China, however, after 1949 it experienced the demotion from a national economic, political and cultural center to a regional city and the capital of Jiangsu Province.

The reason why we take Nanjing Metropolis as a valuable case is that it has faced the changes from an outstanding residential segregation (before 1949), then nearly disappearing during 1949 – 1977, to re-differentiation since 1978. These transitions have tightly relation to the changes in national rank and the social system,

even to global economic and technical development. Through researching the distribution, social economic status and demographic properties of different social groups, we hope to find out its dynamic mechanism, which will be helpful to urban social space study of China.

2 THE RESIDENTIAL SPACE DEVELOPMENT OF NANJING METROPOLIS

2.1 Traditional Stage (1912 – 1949)

Nanjing Metropolis had been the capital of the Republic of China for about three decades since 1912. During the span of time, the residential space could be

Received date: 1999-08-10

Foundation item: Supported by the National Natural Science Foundation of China (No. 59838280) and the Resource and Ecological Environment Key Project of the Chinese Academy of Sciences. (KZ952 – J1 – 206).

Biography: ZHU Xi-gang(1956 –), male, a native of Taicang City of Jiangsu Province, is a Ph. D. student of Nanjing University and associate professor. His research interests include urban planning, urban spatial structure, economic development, architectural design etc.

© 1994-2011 China Academic Journal Electronic Publishing House. All rights reserved. <http://www.cnki.net>

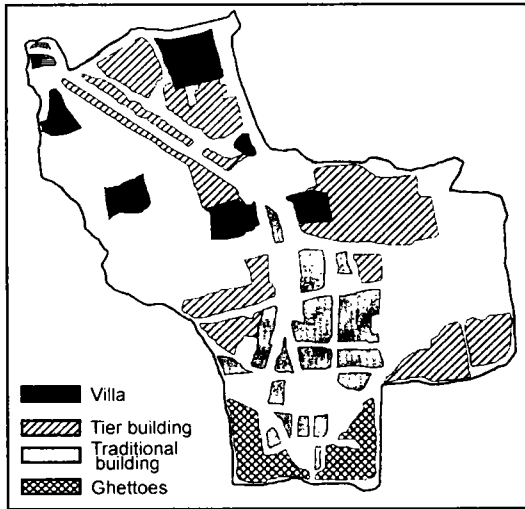


Fig. 1 The social-spatial segregation of Nanjing
in 1912 - 1949

approximately divided into three areas (Fig. 1): 1) Expansive villa residential area: it was located around Ninghai Road, the west of Xuanwumen, Zhongyang Road and around the president's residence in Changjiang Road, among them the former was famous as "the ambassador's residential area". These highly exclusive residences were upper stratum districts composed by nearly 1700 senior officers, ambassadors and senior executives of big companies or commercial banks. 2) The area for middle stratum outside the upper stratum area: around Jiming Temple, Houbiaoying and Hanzhongmen, there were lower buildings, where household composed by common officers, clerks of bank or foreign company. 3) Traditional community area: it was composed by normal urban citizens, which concentrated in the south of city area, for instance, along the Qinhuai River, the south of Xinjiekou etc., moreover, among the traditional communities, there existed great number of ghettos. Therefore, the social distance between the former two areas was greater than the later two, even in landscape^①.

2.2 Planned Economy Stage (1949 - 1977)

The urban residential segregation nearly disappeared, embodying equality idea in urban planning and design and expanding built-up area (XU, 1989; ZHENG *et al.*, 1995). However, residential differen-

tiation still existed within urban area. Although class segregation had disappeared, residential differentiation has still existed and developed in new formation: 1) The history inertia. Even there the class differentiation had not existed, origin residential environments, life quality differentiation would not disappear in long span of time. 2) Under the new social system, former class differentiation substituted with social division of labor.

While the city government developing social production, it also allocated some investment in inner urban residential development. In the south urban area, for instance, along the bank of the Qinhuai River lots of ghettos had been pulled down for improving blue-collar workers' housing condition. During 1953 - 1957 Nanjing invested 51 millions yuan (RMB) in residence, being about 5.15% of the total social investment. Meanwhile, industrial investment was 50.7%; the number of industrial employment position increased eight times, its built-up area also increased 7.3 times. Therefore, the mosaic of urban space was composed by stable suburbs (work-unite residence) where the blue-collar and cadre resided mixedly, and inner city where citizen community resided.

2.3 Market Economy Stage (1978 -)

With the change in society and economy for the past twenty years, urban social space has experienced huge change too. Under the original urban structure, urban land utilization and urban function have changed through re-development of inner city. At the same time, developing real estate market, commercial housing market, personalization of house, service and high-tech industry causes the horizontal urbanization. With this sub-urbanization process, however, suburbs has become the highest polarization area (Fig. 2). Therefore, we have reason to point out that outskirts area is now full of urban social problems, obviously residential segregation and all of all, the fastest transition belt.

2.3.1 Redevelopment of inner city

Since 1978, under the developing urban economy and improving urban function requires, CBD (central business district) come into existence in the area of 1.5 km range of Xinjiekou along south Zhongshan Road. These developments reflect the increasing importance of international and national relations. On the other hand, the rest of old residences in south urban areas are unsuitable for requirement of improving living condition

① Nanjing Planning Bureau. 1929. The Planning of Capital.

and increasing population yet. At last, the result of re-development is as follows. 1) The total population decrease from 1 763 000 in 1990 to 89 000 in 1997. Meanwhile kinds of commercial, office building, and high-level hotel increasingly concentrated in CBD and along main inner highway. 2) With these high building rising, many expansive high-floor residence within CBD substitute for original lower income social group. 3) Because of this invading process, inner residential space also shows obvious spatial segregation.

2.3.2 Expansion of outskirts

While re-developing inner city, outskirts extends outwards quickly for accommodating those out-transport factories and new suburban economic activities. In contrast to 1978, the built-up area extended 55.78 km² in later 12 years, among them 22.8 km² was used for residence^①.

The causes of quick expanding of outskirts are as follows. 1) The population increased from 1 563 600 in 1978 to 2 648 000 in 1996. 2) Residential condition improved steadily, particular in residential area per person. This not only forced many people out of inner city, but also sped up the step of residence development in outskirts. 3) Substituting for inner city factories and Hi-tech zone provided opportunity to out-immigrants, disturbed the original "work-unit" residential space unit in inner city or suburb. Moreover, through providing different employment position from senior executives in foreign companies to blue collar in factories, it has being extended the social differentiation among those employers. Thus, outskirts have been one of the areas with the greatest diversity of social estate, strongest movability and most chances. 4) Developing land market and real estate market made the outskirt an area of highly residential segregation other than inner city.

3 RESIDENTIAL SPACE DIFFERENTIATION OF NANJING METROPOLIS

3.1 Social Differentiation of Residential Space

In general, social strata are developing in social process in sociological view; however, here based on time-space relation we would think that social entity (social groups and their relation) exists in time-space relation. Therefore, whether and how social differentia-

tion process come to be will depend on the time-space relation among social groups. Under this thought, through the field study on 201 small districts of sold residences and old residence past 1992, Nanjing is divided into six types of residential area (Fig. 2). The results show that there should be six strata of social-spatial groups: 1) The top stratum residents in suburb expansive villas. 2) Upper stratum in multi-floor residence in east suburb or high-floor residences in CBD. 3) Middle upper stratum in multi-floor residences in Nanjing proper or near suburb. 4) Middle stratum in lower price commercial house in suburb or Nanjing proper. 5) Blue collar in suburb or inner city old communities, and 6) rural immigrants in suburb farmers' house or ghettos.

According to above spatial differentiation frame, we investigate Top Legend Villa, Muxuyuan and Nanhu residences. At last, we find out four main factors influencing above six social-spatial groups are: 1) career difference; 2) income and property difference; 3) education difference and 4) population density and family structure, which are similar to the study on Guangzhou in the 1990's (XU, 1989; ZHENG *et al.*, 1994). Among the six strata, top and upper strata is distinguishing in income, middle upper stratum in career and education level, and middle stratum in education. However, the later two strata are only distinguishing in residential density.

3.2 Residential Differentiation Since 1978

3.2.1 Spatial distribution of social-spatial groups

(1) Villa residence

The traditional villa residence is located in Ninghai Road now. Before 1949 it was a mansion area for high officials and noble lords of the Republic of China, and after 1949 it was taken over by city municipality as the residences for senior officers of Jiangsu Province and military command.

However, after 1990 there come to be some new villa residences in Zhongshan Park, Fugui Mountain and Muxuyuan in east suburb. These new villas are located nearby Hu – Ning (Shanghai – Nanjing) Expressway or main highway, only half-hour's driving to CBD. Since each villa cost 600 000 – 2 000 000 yuan (RMB), only top stratum can afford its cost, this kind of residence is out of question except 5.1% of top income social group, of which 57% possess household property

② Nanjing Planning Bureau, 1990. The urban planning of Nanjing.

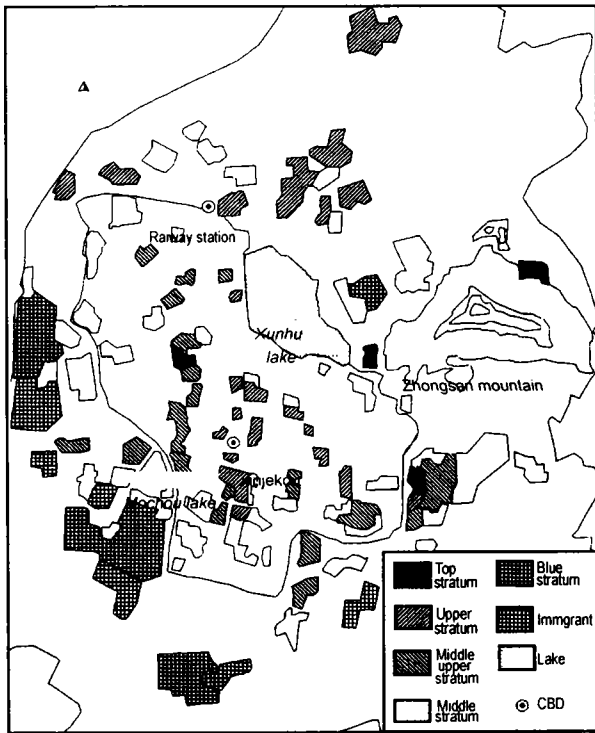


Fig. 2 The social-spatial segregation of Nanjing in 1978 – 1998

over 2 000 000 yuan.

So, the top stratum of Nanjing is composed by: 1) senior officers of government or military command; 2) a few of professors as master of some big companies, senior executives of big national or international or personal corporations.

(2) Upper residence

This kind of residences is located around CBD, among which 87.9% is distributed within 3 km around Xinjiekou, 24.2% within 1 km. In addition, a few of them is located in Yueyia Lake and west side of Zhongshan Mountain.

Because most of those residences are located in central area, each house will cost 450 000 – 600 000 yuan. Their house owner's income is about 5000 – 10 000 yuan per month and their property some of 500 000 – 1 000 000 yuan.

Since the average age of these above social-groups is over 50, most of their households belong to extended family, nearly 87.4% living with their old parents, which showing stronger family value.

(3) Middle upper residence

This kind of residence always adjoin above two

residences, for instance, Huju Road outside CBD. Among those new-built residence about 88.3% is located in built-up area. Because of lack of effective transport tool, and vile living and education condition, those households prefer to inner city life than suburban. Most of them are 30 – 45 years old, only 21.7% over 45; and 50% family has middle school children.

They are common government officers, high-income teachers, broker, storekeeper and general executives of corporations, whose income is about 2000 – 5000 yuan per month.

(4) Middle stratum residence

The social income of this group is about 2000 yuan per month. Since they can not afford the expensively commercial house, their house resources mainly come from: 1) government subsidized commercial house; 2) the compensation house of redeveloping inner city. Because of the huge number of this stratum, their residences are distributed in the entire near suburb and outside of built-up area. For instance, the population of Nanhu residence increased from 80 000 in 1985 to 2000 000 in 1996. When Nanjing began to redevelop the Qinhuai River, Shuiximen old residence and ghettos in the middle 1980's, their household has been relocated in Nanhu, south Rehe Road, Heyan Road etc., which are the main part of middle stratum concentrated area since then. Moreover, after 1990 there come to be other new middle residences, such as Heimoying new district on the east of railway station, Zhongbaocun, Yuhua new district, and Xinglong etc.

(5) Urban poor and rural immigrant residence

Because of lower income, urban poor are impossible to afford the outlay of most house, even with government subsidy, at last what they can do is just setting in public house of "work-unit". Therefore, low residential area is usual, till now it is no more than 8.9 m² per person. For the later, abandoned farmer house and ghettos are always their settlements.

3.2.2 The feature of space differentiation

There are two areas in urban region showing stronger social-spatial differentiation: outskirts and city central area. Although top and upper strata concentrate in the east suburb, there still have lots of rural immigrants in building area near the former. On the other hand, the central areas are also composed of two social groups—the local urban poor and the invading upper stratum.

The lower income residences show strongly so-

cial-spatial relation. For instance, within Nanhu, Yuhua and Zhongbaocun, urban poor and rural immigrant always concentrates in suburb and outer city area.

Expansion of built-up area reinforces the social geographic differentiation of Nanjing: the south and west of the city are settled by lower income citizens, while the east is settled by top, upper and middle upper strata. Meanwhile, redeveloping inner city will quicken clearing urban poor residence. As a result of sub-urbanization, residential differentiation would more obvious in the future.

4 THE DYNAMIC ANALYSIS OF RESIDENTIAL SPACE DIFFERENTIATION

Since reformation in 1978, residential differentiation is an unquestionable fact. Moreover, this obvious space differentiation will develop further social differentiation. We think that Chinese urban residential differentiation process is affected by the decisive factor—urban political economy transition, based on the causality of society and space.

Many researchers have paid much attention to this field recently. Prof. GU Chao-lin held that the dynamic factors causing social differentiation are the transition of urban function, foreign direct investment and immigrant since 1990 (GU *et al.*, 1997). However, we think that it should extend to 1) the political economic reformation since 1978; 2) the globalization economy and international labor allocation since the 1980's; 3) economic structure transformation under information technology reformation. So, when we analysis urban residential differentiation of Nanjing, we concentrate in these four factors: 1) the relation between central and local government; 2) organization of urban and residential development; 3) investment resource transformation and 4) urban planning idea and methodology.

4.1 Social Polarization and Residential Differentiation

During 1949 - 1977, the investment of urban development all relied on allocating of central government. Central government balanced state economic and urban developing. Under central government's control, investment was allocated and profits were turned over along the vertical hierarchy from the state via supervision departments to state enterprises. These municipalities were unable to organize municipalities-wide

housing construction; also, residents were unable to select their settlement locations in a city. Throughout, the state enterprises, as the self-contained basic units in the planned economy have been responsible for welfare and housing provision. It has been illustrated that the homogenous distribution of social strata and the non-existence of separation between workplace and residence were in fact by-products of specific mode of socialist production and reproduction, which was mainly achieved through the state work-unit system. For instance, state enterprises can decide how and how much investment can be allocated to economic production, and how much to living infrastructure; in contrast, local government can only accept it positively. Therefore, during this planned economic stage, the structure of urban social geography is caused by how state enterprises organized urban economic basement and space.

Under this political economy system, because of the restriction by "work-unit", there exist social differentiation but without spatial result, which composed by officer or cadre, intellectual and blue collar. Although there still has some of differentiation within single "work-unit", in urban space scale, its result is only a huge bee-hive-like homogenous social-spatial system.

However, since 1978 this social-spatial system has been changed steadily.

4.2 Transition of Urban Economy

Since 1978 the decisive investment structure has been turned from state-project investment to multi-investment system, which reinforces local decision-making power. For instance, state budgetary appropriation was 76.4 per cent of the total social investment in 1978, but decreased to 3.1 per cent in 1995 (Fig. 3). With the development of multi-economic system, private enterprise owners turn on. However, for the history inertial, the former house provision system has still impacted on residential space, which can explicate the fail of only introducing "housing commercialization" in the 1980's to develop new social-spatial system.

Before the 1990's, the reformation of political economy still could not ensure the spatial result of social differentiation, however it changed decisive factors of soci-spatial organization. With the enlargement of the local decision-making power and development of multi-economy, particularly, the foreign companies' interference, the "work-unit system" has been broken

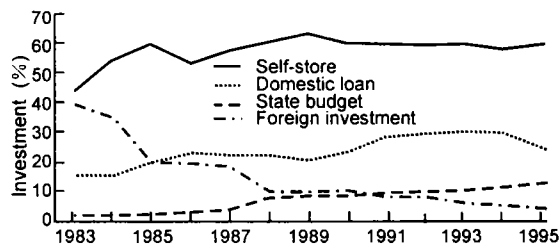


Fig. 3 The component of investment in China since 1983

down, which mixed residence and industrial factory since 1949.

4.3 Urban Planning System

With the reinforcing of local decision-making power, the original "equality" guidance of planning ideology has changed, which results in transition of land utilization and urban function. In order to attract more foreign investment and accept more domestic loans, municipalities have had to weak planning restriction. Therefore, a lot of traditional houses in old city proper has been pulled down, while great number of industry zone or so-call "Hi-Tech Zone" has risen in suburb. Moreover, with the pursuit of profit of developers and builders, dozens of villas appeared in outer city area and suburb. As a result, much more city residents had to migrate outsider. Of course, the high-income people may have the chance to select location in the whole city, while the poor have to be settled in peripheral area.

4.4 Real Estate Market and Housing Privatization

Political economic transition causes differentiation in income; planning ideology transformation provides necessary basement for social geographic differentiation, but only real estate market and housing privatization can make the reality of social polarization into residential differentiation be sure.

During the field investigation of Meihu residence,

about 61% of owners are due to investment, and 35% of residents are only for investment, that is to say, about 70 households can still reside in "work-unit" house. So, only by developing real estate and lease market and canceling "work-unit" warfare housing policy, the spatialization of social polarization can be realized.

5 CONCLUSIONS AND FORECAST

According to field investigation, Nanjing now has shown some of residential spatial differentiation: 1) most of middle or upper residences are located in CBD area and east suburb; 2) poor residences concentrate in south urban area and west suburb. Those differentiations come from the spatialization of social polarization. Before 1978, urban social geography was composed of homogeneous "work-unit" residences. After 1978, political economic transition, planning ideology transformation, and real estate market and housing privatization make the social polarization be shown in residential differentiation.

In view of these phenomena of residential differentiation of Nanjing and the planning of residence in near future, we think: 1) east suburb still is the upper residence sector area; 2) the steadily invading of middle upper stratum and upper stratum will substitute for urban poor residence; 3) east suburb will be settled by low and middle income people, but it might turn worse for the close relation of low income and rural immigrant would frustrate the middle income people of settling in.

REFERENCES

- GU Chao-lin *et al.*, 1997. Social polarization and segregation phenomenon in Beijing[J]. *Acta Geographica Sinica*, 52(2): 386 - 393. (in Chinese)
- XU Xue-qiang, 1989. A factorial ecological study of social spatial structure in Guangzhou[J]. *Acta Geographica Sinica*, 44(4): 385 - 396. (in Chinese)
- ZHENG Jing *et al.*, 1995. The factorial ecological re-study of social spatial structure in Guangzhou[J]. *Geographical Research*, 14(2): 16 - 25. (in Chinese)