The Renewal of Urban Village
— problems and potentials of Hongshan Village, Nanjing

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Pre-words

The reason why I choose "urban village" as my topic is that I have paid attention to the social justice in my bachelor study period. And also, I have seen what a tough life the urban villagers have in person. I can not help to ask myself how much suffering, dirtiness and congestion is behind the flourishing modernization? By own will of my-self, I start to study this topic.

In addition, almost every big city in eastern part of China has already begun the urban village renovation. And Nanjing is a typical metropolitan city in Yangtze Delta area. To study Nanjing's urban village can be used for reference for many other cities.

Even though I have done a lot of preparation before this diploma work, I still feel it difficult and the high pressure as my own studies on "urban village' have advanced.

At last, I wish you would find it interesting to read and get to know Chinese urban village well.

Xu Wang
2013.05.19
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Acknowledgement

There are several important people accompanied me and helped a lot during the whole process.
First of all, I would like to thank my tutor, Mr. Mats Pemer, who as my advisor helped me with the process, diligently read all my drafts, and guided me through the development of my thesis.
In addition I would like to thank Mr. Liu Wei from College of landscape architecture in Nanjing Forestry University for his expertise, enthusiasm and assistance collecting and making data and graphics available to me.
Thanks also give to my friends in Nanjing, Jing Ji, Chenguang Zhang, who helped me to retake more information about the case area.
Personally, I would like to contribute all I have received through my education to my parents, who have always supported me financially and spiritually for my study abroad.
Last but not the least, I must thank all the teachers and professors of the Blekinge Institute of Technology and all the Urban Design classmates who had supported me with continuous encouragement and assistance as well.
Abstract:

The urban villages are not natural villages in common sense. They are the products of rapid urbanization. The existence of urban village is a special phenomenon during the process of urbanization in China, which influences the whole social development and plan of urban environment.

Based on my previous study and knowledge, by investigating the current conditions of “urban villages” in Nanjing City, I introduce the existing problems of the villages and study on the relevant strategies to those problems in a logical way and also try to present the possibilities of potential transformations in the design proposal, in order to achieve the goal that solving the problems in urban village properly and supply possible strategies to coordinate different interest groups' profit, so that develop a harmony neighborhood.

The review of literature helps to outline a framework of the research and prepares knowledge for the further study. Through the analysis of current situation in urban villages, the problems of urban villages in the city is assessed as well as the current need for solutions. The Game Theory is used as a thinking method to indicate and analyze the different actors' behaviors during the renewal process and result in the appearance of three renewal models in China. An urban village named "Hongshan" in Nanjing City is used as a major case to illustrate the issues with urban villages. Based on the above findings, a recommended concept design is proposed and is applied to Hongshan Village in the city of Nanjing. Also, based on former policy study, some specific strategies are recommended to apply to Hongshan Village.

Key words: urban village; urbanization; problems; strategies; renovation; urban design; spatial planning
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1.5.1.4.2 Aim at transients

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1.5.2.2 For developers

1.5.2.3 For villagers

1.5.3 Build low-rent apartments

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Thesis Outline

The thesis consists of two main components:
Part one is the "Theoretical Exploration". It includes a series of introductions. For example, the research background, purpose, research questions. Also, indicates what I have learned from literature review, following with a brief description of the methods I have used in the thesis. Then stoped with relevant policies and strategies study.
Part two is the "Case Study & Design Proposal". It starts with a introduction of renewal background in Nanjing. Then discuss the special situation within the case area, which is Hongshan Village here. A design proposal is presented to show the possible transformation of this village. At last introduce the renewal pattern implemented in the case area and specific strategies.
Overall, part one can be regarded as knowledge preparation phase of part two, while part two can be considered as specific implementation phase of part one.

Figure 1 Thesis framework
Part 1: Theoretical Exploration

1.1 Introduction
1.1.1 Background

Since the China's reform and opening to outside world, the country has entered a period of rapid development of urbanization, which was along with the economic system’s transition and large scale of urban construction. The China's National Bureau of Statistics (CNBS)' latest report shows that in 1978, the urbanization level of China was no more than 18%, but when it came to 2000, this data had suddenly raised to 36.22%. Nowadays, we can still witness the development of this process keep growing. Till the end of 2009, China's urbanization level has grown to 45.88%. In a manner of speaking, urbanization has brought about a deep-reaching shock to China's society, economy, politic, culture and people's daily life.

Figure 1-1 Different provinces' urbanization rates(%) in China (the year of 1990)

From this two figures we can find that rapid urbanization took place all over China between this 16 years. Besides, compared to western China, the eastern regions have a relative higher urbanization rate which reflect a higher economy level. However, the existence of villages in cities is a special phenomenon in urbanization of China, especially appeared in eastern part of China, which influences the development in social and economic respect and the overall plan of urban environment.
1.1.2 Urban Village in China

Rapid economic growth in China leads to a great gathering of migrants in urban area and a continuous urban extension. "Urban authorities prefer to choose farmland surround the city for further urban development rather than the urban areas in order to save financial and administrative cost. As a result, villages on urban - rural fringes have been gradually covered by urban features and turned to urban villages." (Wang 2002)

"The first urban village in China took place during the 1980s. In the meantime, the reform policy of opening to outside world, which was a turning point in the transformation of the planned economy into a market economy, was executed." (Wang 2002) Then, with the development of urbanization, the number of urban villages grew in a steady pace. Since the late 1990s,"urban village" has become an increasingly common phenomenon in China’s urbanization.

Although a lot of researchers have studied on urban village since ten years ago, most of these studies are just focused on fundamental concepts and origins of urban village phenomenon. In recent years, the researchers began to pay attention to the renewal of urban villages. In the mean time, more focus is put by researchers on urban village renewal policies studies. For example, the compensation policies, preferential policy, household registration system, transformation of land property and etc. With the guidance of these series of researches, urban village renovation has been launched all over China.
Figure 1-4 Urban villages in China

source from http://image.baidu.com

1.1.3 Urbanization of Nanjing

"Urbanization, referring to a growth in the proportion of urban land and urban populations is one of the major social changes sweeping the whole world." (Wei 2005) Nanjing is the capital of Jiangsu Province, which has nearly 8 million inhabitants right now. Like many big cities in China, Nanjing has also entered a period of rapid development of urbanization.

And here are some table and figures below fulfilled from recent years' governmental data to show the situation of the change of urban land area and urban population in Nanjing:

Table 1-1 The change of urban land area and urban population in Nanjing

<table>
<thead>
<tr>
<th>Year</th>
<th>Total land area (km²)</th>
<th>Urban land area (km²)</th>
<th>Total population (million)</th>
<th>Urban population (million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>6515.74</td>
<td>76.34</td>
<td>5.1828</td>
<td>2.6149</td>
</tr>
<tr>
<td>1991</td>
<td>6515.74</td>
<td>186.73</td>
<td>5.2982</td>
<td>2.7326</td>
</tr>
<tr>
<td>1992</td>
<td>6597.15</td>
<td>199.15</td>
<td>5.3744</td>
<td>2.8228</td>
</tr>
<tr>
<td>1993</td>
<td>6597.63</td>
<td>242.65</td>
<td>5.5304</td>
<td>3.7188</td>
</tr>
<tr>
<td>1995</td>
<td>6597.63</td>
<td>323.51</td>
<td>5.6328</td>
<td>4.8035</td>
</tr>
<tr>
<td>1997</td>
<td>6597.63</td>
<td>410.47</td>
<td>5.7135</td>
<td>4.9167</td>
</tr>
<tr>
<td>1999</td>
<td>6597.63</td>
<td>484.37</td>
<td>5.8360</td>
<td>5.0123</td>
</tr>
<tr>
<td>2000</td>
<td>6597.63</td>
<td>512.60</td>
<td>5.9580</td>
<td>5.2375</td>
</tr>
</tbody>
</table>

From the table and figures above, I can summary that the decade 1990 — 2000 is the period that has the most significant change during the rapid urbanization process since 1978 until now. The reason might be that economy reform took place in 1978 while the 1980's was the initial decade after socio - economical transition. After ten years of adjustment, the government became familiar with the urban build process, thus rapid and large scale of construction competitions were launched between cities. As the capital of Jiangsu province and the main city in Yangtze Delta, there is no doubt that Nanjing had run ahead of the urbanization.

On one hand, since the reform and opening to outside world, rapid urbanization has become one of the important elements of social transformation in Nanjing. Besides, it has influenced the power source of economic growth in Nanjing as well. "Under the background of transition of economy and society, the urban villages appeared gradually. It has promoted city development to a great extent, while guarding the process, and especially the quality of urban development. However, on the other hand, the significant changes in the rapid urbanization process also reflects the potential threats." (Wei 2005)
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Figure 1-6 Nanjing's urban expansion

source from Yang, J. (2004) *The protection pattern of the ancient Nanjing City*
author edited

1.1.4 Nanjing's Urban villages

As urban sprawl keeps going in Nanjing, large amount of villages around cities have gradually become part of the city. However, some of them still keep the countryside village model in the perspectives of land property and management system.
Nanjing city locates in the subtropical area, and is also a main city in Yangtze Delta. From ancient time, Nanjing is a place with rich soil, appropriate climate, advanced agriculture and high density of population. Result in a formation of large numbers of villages, gradually became rural farmers' gathering place, rural service centre and avocation centre. These urban villages' predecessors show a type of traditional rural settlement morphologically. The farmers of those villages mainly took activity in agriculture and generally had a low level of income. Thus, the main function of those villages was to supply farmers of the inhabitant and gathering place. Meanwhile, the social organization within the villages carried a significant characteristic of traditional Chinese feudal patriarchal system.

Along the extension of urban land use, the agriculture land use such as farmland, orchard and fishponds surround the urban area have gradually taken over by urban land use, and
developed to urban residential and industrial area. Then the urban land and rural land mixed together, lead to urban infrastructures such as water, electricity, gas supply and road structure grow a sprawl towards the rural areas. The industry and commerce have gradually become the main financial resources. More and more villagers started to take part in non-agricultural activities. The living space for villagers became very narrow and gradually decreased to the inner space of those villages. There is only residential settlements completely surrounded by urban built-up area left while almost all farmland have been taken over by the urban land use. The original farmland became urban built-up area and the original farmers do not grow crops any more. However, their household registrations are still of farmer identity which is different from common citizens. Besides, "urban villages" still belong to rural institution. And the lost-land farmers live their lives by either selling the land ownership or rent their houses to the transients. Some of them try to run a industrial factory by himself, but the majority of these factories went broke at last. The public order become worse and worse. Therefore, the conflict between city and urban villages become more and more obvious.(Yang 2004)
"Those urban villages are rural settlements and the original inhabitants are farmers. The villages commonly are inhabited by the poor people and overcrowding environments." (Wei 2005) Thus, they are not harmony with the overall development of the city. The government of Nanjing city has taken measures to start to renew 71 urban villages around the whole city since 2005.

Figure 1-8 The space distribution characteristics of urban villages in Nanjing
1.1.5 Hongshan Village

Hongshan Village is a common urban village in Xuanwu District of Nanjing. It covers an area of 12 hectares and normally has 217 families, about 821 inhabitants. Because of the extension of Nanjing railway station next to the village, there is no farmland around this area any more. Currently, the main income of those original villagers come from renting their houses. (Nanjing Urban planning Institution, 2011) In 2007, Hongshan village had been put on the renewal list by local government.

Figure 1-9 Hongshan Village

[Image: Hongshan Village image from author]
1.1.6 Aims and research questions

The urban village appeared in the out skirt of city with the urban sprawl. The urbanization of city improved the value of urban village, so that a lot of problems concerning urban villages in construction, establishment and society. Such as low environmental condition, high density of population, bad social discipline and so on. These problems influence the whole urban environment negatively. Therefore, the urban village's renewal is very necessary for now. In this thesis, an urban village named "Hongshan" in Nanjing is chosen as a case to study the urban village renovation.

**Aims** of this thesis:
— Find out the main physical and social problems of Hongshan Village, Nanjing and come up with appropriate solutions to solve these problems. Meanwhile, try to supply possible strategies to coordinate different interest groups' profit, so that develop a harmony neighborhood and make a new outlook of this area.

**Research questions** guiding this thesis are:
— What are the physical and social problems that appear in Hongshan Village? How the problems affect the whole neighborhood?
— What are the relevant policies and strategies specially aimed at urban village renewal in China? Are the current relevant strategies suitable for Hongshan Village's problems? How can the strategies be implemented?
— Is there any physical potential of Hongshan Village to be transformed? How does the redesign plan recommended by author?
1.2 Literature Review

“Cities are the future of the world.” (Eaves 2007) Since rapid urbanization has been developing around the world, I strongly believe that city is playing a more and more important role in the 21st century. According to the economist Joseph Stieglitz (2005), two things will change the world in 21st century — American high - technique industries and urbanization of China. He holds the view that China’s urbanization will lead to a regional economic growth and produce the most valuable economic benefits (Stieglitz 2010).

1.2.1 What is urban village?

The definition of "urban village" has different meaning between developed nations and China. American geographer R . J . Johnston (1971) gives an explanation in his The Dictionary of Human Geography that an urban village is defined as a residential community, in which inhabitants have the same or similar cultural and ethnic identity, often located in the transition area. Another explanation comes from Arthur O'Sullivan, he defines urban village as a sub - center of suburban districts around the modern city (The Urban Economics Dictionary, 2007). Greenbelt Alliance (an American urban planning organization) holds the view that urban village is a place where people achieve a harmonious relationship between nature and people, in working, leisure and everyday social life. All these views refer to the fact that urban villages associated with exclusive high - income inhabitants in developed countries.

On the contrary, in contemporary China, the current situation is the urban villagers are usually farmers, belonging to the lowest income - level class.(Wei 2005) "Urban Village is the product of the process of rapid development of Chinese urbanization"(Yuan 2005). The rapid urbanization appeared in the 1980’s when population immigration was encouraged. Scholars began to notice the phenomenon in the 1990’s. Normally, most Chinese scholars define urban village as " the village located within built - up area, but still accompanying with some natural villages’ features ". However, some deeper explanations have provided by another group of scholars ( Li 2005; Wei 2005; Zhang 2006; Jing 2010 ). They study on this topic from different perspectives, such as economy, sociology, land property and etc. With the help of their work, urban village can be well defined as : urban village is the village used to be traditional one but transformed by the rapid urbanization and industrialization in some economic advanced cities. Farmlands of these villages have been expropriated by local
government for future urban construction. The original residential land and the land prepared for future development by government consists of main land of these villages. Moreover, the communities which still exist on these lands are named as urban village.

Table 1-2 Comparison of urban villages in western and China

<table>
<thead>
<tr>
<th></th>
<th>Definition</th>
<th>Inhabitants</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Countries</td>
<td>a residential community, in which residents have the same or similar cultural and ethnic identity</td>
<td>high-income level</td>
<td>transition zone</td>
</tr>
<tr>
<td>China</td>
<td>the village located within built-up area, but still accompanying with some native villages’ features</td>
<td>used to be farmers, low-income level</td>
<td>normally in the out skirt of the city</td>
</tr>
</tbody>
</table>

author concluded, edited

Table 1-3 Comparison of natural village and urban village in China

<table>
<thead>
<tr>
<th></th>
<th>Main function</th>
<th>Land property</th>
<th>Income from</th>
<th>Population</th>
<th>Administration</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban village</td>
<td>Inhabitation</td>
<td>Collective-owned/state-owned</td>
<td>House renting</td>
<td>Original villagers and transients</td>
<td>Urban districts</td>
<td>Downtown area/ urban-rural fringe</td>
</tr>
<tr>
<td>Natural village</td>
<td>Agriculture</td>
<td>Collective-owned</td>
<td>Agricultural activities</td>
<td>farmers</td>
<td>Rural county</td>
<td>Countryside area</td>
</tr>
</tbody>
</table>

author concluded, edited
1.2.2 The formation mechanism of urban village

1.2.2.1 Urban - rural dual - social system — the internal factor

Urban - rural dual - social system is the internal factor of urban villages' formation. Due to the implementation of the "urban - rural dual - social system" policy, and on the background of saving resource, the government encourages a way of " leave farmland but not leave the village ". With this kind of rural urbanization, more and more rural residential area are taken over by the urban development, in the mean time, these rural area's economic, social and basic facilities construction's development have not truly integrated into the urban development system. They are out of the city's control and do not obey the city's integrated plan, enjoying spontaneity and independence to a great extent. Besides, because of the influence of the traditional mode of production and traditional life-style, these rural residential areas keep a characteristic of rural settlements to a great extent in the perspectives of economy progress, land use, landscaping construction, social organizations and etc. Finally, they turned to a special type of rural settlement — urban village. (Li 2004) Hongshan village is one of these kind of rural settlements.

Although Nanjing is conducting a comprehensive reform on the registered residence system, and the rural populations are enjoying a relatively freedom migration to the urban area than before, but the following reform of social security, health care, education, employment, urban infrastructure and etc have not been fully developed. The urban system and rural system still differs clearly to each other so that it is difficult for the lost - land farmers transit to urban citizens in time and live a permanent life in the city. Even though those people who have already completely lost their farmland receive a steady employment and have a reasonable income in the city, or even they have purchased houses in the city, it is difficult for all of them to change their identity and be absorbed into the city society. Furthermore, they can not share the same rights and receive the variety of public service as the common city inhabitants. That is because the local government concerns that if more villagers turn to urban identity, the outlay of public service will be raised, and it will worsen the governmental financial burden directly. By the influence of current legal provision, it is difficult for villagers turn into citizens. In a manner of speaking, the local government sometimes does not encourage rural population moving towards the city.
1.2.2.2 Urbanization — the external driving force

Urbanization can be taken the form of urban sprawl in terms of spatial aspect. Due to the change of function and need of economy, city often develop in a jump - diffusion model during the rapid urbanization process. The development sometimes jump over some area of the urban - rural zone, spreading towards the out skirts of the city. This has often caused the " urban village " phenomenon directly. The local government usually choose to develop city in this sort of jump - diffusion model, based on the layout of the city's function, the utilizing of land resources, the cost of urbanization and layout of city's transportation.(Zheng 2010)

• Jump - diffusion model: Urban authorities prefer to choose cheap land such as farmland on the out skirt of city for further urban development rather than the urban areas surround the city centre in order to save financial and administrative cost.

After large scale of land expropriations, the original villagers are still stuck in their remaining land, keeping both the traditional farmers' identity and traditional lifestyle, outdated mind. Though they have received the monetary compensation of lost land from government, they can only live on this compensation for a short run. However, in terms of the future, with the governmental compensation used up, the problems of lost - land villagers' survive and employment become more and more obvious. This may enlarge the mental stress and leave a potential threat to the society. According to my research, the employment situation of lost - land villagers is not going well. These people generally concerns about their old - age care, health care and the future career of their children. Meanwhile, because of their subjective reason, they barely find a appropriate job. (Li 2004)
In summary, the situation of lost - land farmers' career is pretty embarrassing that they have neither farmland to grow crops nor steady job to make money. All these issues will definitely prevent the process of rural modernization, urbanization and villagers' citizenization.
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Figure 1-10 The formation process of urban village, taking two localities for example

Natural village

Primary formation of urban village

source: screen print from Google Earth

1.2.3 Positive values of urban villages
1.2.3.1 Necessary requirement of rural urbanization

Urban villages appear passively during the process of urbanization. Nowadays, many cities in China have been involved in the phenomenon of urban villages. The impact of urbanization brings people a change not only on a physical plane but also in ideology and culture. The villagers who live in the area for generations have developed a stable cultural awareness because of the blood relation and regional relations. Therefore, once the urban village renovation is put into practice, it is difficult for the villagers to change their rural cultural awareness. In order to adapt to the urban life style, they need a procedure to accept the urban cultural awareness. The existence of urban villages have supplied villagers a buffer zone to improve their cultural awareness.

After the urbanization of rural area, the villagers in urban villages turned to be urban inhabitants. However, the land acquisition had taken farmers' farmland, but local government did not offer employment opportunity to the lost - land farmers. villagers started to build more houses to rent to the poor and transients for making a living. House rent has become the most important source of livelihood for the original villagers. In a manner of speaking, the existence of urban villages have solved the high pressure of villagers' employment and also given a positive effect on social stability and the entire city's economic development. (Zhang 2006)
1.2.3.2 The impact of transients' gathering and movement

Normally, the transient population settlements appear attached with the growth of urban villages due to the low housing rent. In a short term of city development, the appearance of these kind of area give positive effects. Because the transients move to urban area, they also bring cheap labor power to the city. They made great contributions to the tertiary industry and city's economy. The urban villages supply the transients large numbers of low-rent houses and ensure the enough source of labor force for the city's development. In the mean time, although the living condition in urban villages is quite poor (referring to average living space per person and public service infrastructures), it is more important that it provides more people housing. In addition, urban villages have offered the transients a gathering place to communicate with each other. So that the transients can also learn the skills to live in the urban area, accept urban values and get integrated into urban life style, which has promoted the process of urbanization. (Jiang 2006)

![Figure 1-11 Two typical group of people](source from: Yuan, C. (2005) Science Mosaic, No.6 (Sep 2005):169-172.)

1.2.4 Problems statement

Urban village is often described as a cancer of the city's healthy body. It always breeds a series of social and economic problems. Meanwhile, those problems have brought negative impact to the entire city. So that the whole community turn to be morbid.
(1) Problems in city construction
Since the house owners get benefits from renting apartments to the transients, more and more illegal constructions are built within the urban villages to enlarge their profits. The government has to invest heavily in the investment of city construction, keep raising the compensation for land requisition. (Zhang 2006) Therefore, large amount of money wasted and the input cost of land investment increases every year. Those illegal constructions also break the integrity of city’s planning and construction, leading to terrible waste of urban land resource. Due to the block of urban villages, some city's main streets can not be built according to the master plan, some of them even have to change the path to avoid disturbing the urban village. (Zhang 2007)

Figure 1-12 Vehicles meet problem when pass each other in urban village


(2) Problems in population and society
The popularity composition of urban village is generally complicated. There are not only the original villagers but also some transients from rural areas or other developing cities and few citizens who are looking for cheaper rental. The daily mechanism is not perfect here and lack effective management. (Zhang 2007) What's more, the original villagers own their house and have the right to rent it to the poor and transients, so that the original villagers live a relatively richer life. This kind of matter has come to intensify the social injustice. Neighborhood relationship become weak and people in the village often quarrel and fight with each other. What's worse, "pornography" and other crime acts develop in the village. (Zheng 2010)
(3) Problems in environment, health and security
The prevailing image of urban villages in China can be described in four words: dirty, messy, crowded, dark. (Li 2005)
Most buildings are illegal and of terrible conditions in structure, quality, lighting and ventilation. In fact, I really doubt those features can be called "building", simply add rooms with wood or bricks on the top or next to the original building.
According to a Chinese scholar Jiang Leiwen's *Living Conditions of Floating Population in Urban China*, some more problems in this field are: lack of urban infrastructure and public facilities; roads in the village are normally narrow, moist, twisty and not systematic, can not satisfy the needs of parking, fire-fighting and temporary shelter; surface water drainage system is insufficient, leading to water logging frequently; lack of school, kindergarten and hospitals; there is hardly any public gathering place or public green within the villages.

Figure 1-13 Villagers highten the building without permission


1.2.5 Reasons to renew urban villages

So far, most researchers have just focused on the method of urban villages' renovation, very few of them concentrated on why it is necessary to redevelop urban villages. Recently, the reasons why implement a renovation of urban village have been caused more and more attentions in the academic field. There are several reasons to the governmental renewal actions:
First of all, normally in these urban villages, the rent of housing is relatively cheap. Therefore, it attracts the poor and transients who come from the rural areas to make a living in the city. The conditions in urban villages became worse and worse, resulted in a series of social, economic and environmental problems such as crime, drug addiction, alcoholism, and prostitution (Wang 2002). It has brought much pressure towards the social discipline and public security.

In the meantime, most of these areas are under facilitated and with a overcrowded population. In addition, buildings are accidentally arranged, roads are too narrow so that it is difficult for vehicles to pass through. (Li 2005)

Moreover, in terms of the future development of the whole city, the existence of urban villages lead to a waste of the valuable urban land resource. Many urban villages are located in superior areas of the city, but the development of buildings are sub-standard to the surroundings. Taking the most advantages of the land resource is necessary at now. (Zhang 2007)

Last but not the least, Nanjing city will hold the 2nd Youth Olympic Games in 2014. It will not only be a great sporting event but also a chance opening a window towards the whole world to show people a good physical outlook of Nanjing or even China. However, most urban villages in Nanjing maintain plenty of shortages and problems. It is not in harmony with the whole society.

1.2.6 Game Theory

Here I will introduce the theory of the project's renovation — "Game Theory". It is a theory mainly study on conflict against each other and cooperation. Game theoretic concepts apply whenever the actions of several agents are interdependent. Those agents can be individuals, groups, corporations, or any combination of these. The concepts of game theory provide a language to formulate, structure, analyze, and understand strategic scenarios (Xiao 2004).

"There are three categories of games: games of skill; games of chance; and games of strategy" (Kelly 2003).

The games of skill are defined as players who can fully control this game. The games of chance are one player against nature. In reality, the most common and complicated games are the games of strategy which always referred to two or more than two players. As early as in 18th century, people had started to research the "Game theory". And the theory has been developed and improved during the following two centuries. The mathematician John von Neumann and the economist Oskar Morgenstern are the most famous ones that made contribution to this field. Besides, their book which name is
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*Theory of Games and Economic Behavior* is also regarded as a symbol of game theory formulation among various publications and researches (Kelly 2003). As far as I know, game theory has already been widely used in many fields such as economy, sociology, politics, biology, military, urban planning etc.

1.2.7 Renewal models study

After reading some literature about how to renew urban villages, for example, Zhou Yixing’s *The Tendency of Suburbanization of Big Cities in China* and Luo Ji’s *From Family Rental Houses to Low-rent Houses — a research on urban village renewal based on renting*, I found that they all mentioned three typical renewal models and these three models are come up based on the operation of Game Theory.

(1) Government - leading Model
This model's competent authority is the local government, the government is in charge of the renovation from the beginning to the end of the whole process. It is an idea of top-down transformation. And this model usually applies to some advanced cities along the coast or the cities do not have a serious problem of urban village. (Zhou 2007, Luo 2008)

(2) Villagers - Autonomy Model
The villager-autonomy model is managed by the village collective. The local government does nothing but provide some policy support and relevant guidance during the renewal process. In contrast to the government leading model, it is a bottom-up implementation. Nowadays, this model is not very popular in China, it just takes place in some metropolitan cities, such as Shanghai, Beijing. (Zhou 2007, Luo 2008)

(3) Developer - Involving Model
In general, the competent authority of this model is the developer. With the active participation of government and village collective, the developer is individually responsible for the entire investment during the urban village's renewal. (Zhou 2007) But of course, the developer will take the most benefits. This kind of model is popular all over China, especially in some urban villages which have a good location and have the most potential to develop. (Wei 2005)
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Table 1-4 Comparison of three renewal models

<table>
<thead>
<tr>
<th>Models</th>
<th>Government-leading</th>
<th>Villagers-Autonomy</th>
<th>Developer-Involving</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competent authority</td>
<td>Different levels of government</td>
<td>Village collective</td>
<td>Developer individual or developer and village collective cooperation</td>
</tr>
<tr>
<td>Merits</td>
<td>Top-down, Easy to implement and administrate, Protect the poor's benefits</td>
<td>Bottom-up, Highly motivated</td>
<td>Rich experience, Good quality renewal</td>
</tr>
<tr>
<td>Shortages</td>
<td>Government finance stress, Lack of monitoring mechanism</td>
<td>Weak administration, Lack of funding</td>
<td>Disregard villagers' benefits, Lack of social responsibility</td>
</tr>
</tbody>
</table>

(4) Findings
These three models are widely used approaches to run the redevelopment process in existing Chinese urban villages. (Compensatory approach of land expropriation and demolition in Nanjing, 2004)

Generally speaking, the developer - involving model has a closer connection with the market economy rather than the other two models. I believe this model should be most welcome in the future urban village renovation. Although the government does not take part in the urban village renovation directly, its regulatory and supervisory capacity is still highly demanded.

When the local government hunt for a public welfare purpose or market meet difficulty to step in the renewal, the government - leading model will become the most appropriate model to run. Moreover, when the local government does not have the afford capacity to organize the renewal or real estate refuse to invest the urban village for its own interest, the villagers - autonomy model will be the optimal one.
1.2.8 Game Theory applied in urban village renewal

Since the Game Theory provides people with a thinking method to understand and solve the conflicts or competitions in a social problem, this theory has been widely applied in urban village renovation. (Zhao 2005)

Figure 1-14 The Game Theory applied in urban village renewal

- Explanation of the diagram: Normally, there are three stakeholders: Government, Villager and Developer get involved in the game.
  On one hand, if both government and villager do not want to renew the urban village, the renewal project will not be put into practice. If government does not encourage but villager himself has a strong willing to upgrade his living environment, the villager will seek cooperation with developer. In this context, if developer shows no interest to the project, villagers will have to renew the village by themselves. However, if developer
wants to get involved in the renewal, the project will be mainly operated by developer to make full use of developer's techniques and funds. On the other hand, in fact, large numbers of urban village renewal projects are led by local government. If villagers resist the renovation or government does not negotiate with villagers successfully, the renewal project should not take place. If both government and villager want to renew the village, they will also seek coordination with developer. In this context, the developer's attitude seems to be important. If developer shows no interest to the project, government will lead the renovation directly. However, if developer is motivated to participate in the renewal project, government will establish relevant preferential policies to developer, so that developer can handle the project well.

Similar to other sort of renewal programs, urban village renovation is a project that always be encouraged by local government at first. However, due to fact that the large scale of urban village in most cities and the high cost of renovation project, local governments do not have enough ability to afford the renewal fees alone. In general, the local government provides some preferential policies and social and economic welfare. And in this way, the government will support the urban village renovation well.

On the other hand, some of the original villagers are not strongly willing to have their urban village redeveloped. In general, they concern that their livelihood would be more or less changed by the renovation whether the compensation or welfare provided by local government is reasonable enough or not. Therefore, only few original villagers would be actively supporting the urban village's renovation. Furthermore, it is common that the starting point for developers' behavior is always the profit. However, as I stated before, local government does not have enough ability to afford the renewal costs alone, so in most cases, the majority of expenditures are always undertaken by different developers. (Xiao 2004) In the case of Hongshan Village, as far as I know, there are several famous property developers in Nanjing have shown their interest in the Hongshan village's renewal project.

1.2.9 Challenges in renewal

The renewal of urban villages is not only about the physical transformation but also involve economy, social, cultural and policy problems. In detail, urban village renewal faces the following challenges: (Tian 1998)

(1) Profit Distribution
Urban village renewal related to government, developer and villagers' profits. One of the
main challenges is to balance each side’s benefits.

(2) Reasonable Redesign
A series of unreasonable redesign attempts often are made during the renewal. For instance, road grade is too low, building density is too high, little public space, high plot ratio, lack of public service facilities and so on.

(3) Compensation for Renewal
At present, the buildings within urban village are owned by the villagers, the ownership of house belongs to village collective or private. Moreover, the house owner get considerable income by renting these houses. So most villagers go against the renewal actions. Government has to pay large amount of fee for compensation. It has already become an serious problem that prevent the renovation. (Jing 2010)

To be more specific, I divide different challenges from the perspectives of different interests groups in the Game Theory:

(1) Government: As I state before, Urban village renovation has already been put into practice since several years ago in China. At first, the local government just want to reduce the negative influence of urban villages during the process of urbanization. Therefore, the local government is usually regarded as the beneficiary in urban village renewal games. On one hand, government has been able to transform the urban villages' land from village collective owned to nation owned land. In this way, the high pressure of lackage of land resource in central urban area has been reduced. Also, it is a good chance to re-image the city by good design and reconstruction to attract investment. On the other hand, nowadays, more and more researchers recommend the local government do not ignore the low-income level inhabitants' living conditions while large scale of reconstruction taking place in the cities. Since the limitation of current renewal system, it is difficult for the lost-land villagers to state their own opinions on the urban village renovation to the relevant government authorities. In this situation, the local government must strengthen the communication with villagers, especially the low-income class and represent their interests. They should also pay more attention to the transients' interests as well as reducing the negative influence on urban development.

(2) Villagers: Obviously, the urban village renewal has hurt some original villagers' interest. Because once renovation implemented, they will have to leave and lose their land and houses. Normally, plenty of compensation are given to the villagers by local government or the developer. However, some of the villagers used to have a impressive income by renting their houses, they do not have a strong will to move out or support the renewal. In their opinion, offering houses to transients to rent is a more sustainable way to make a
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living compared to get a limited compensation at once. In addition, according to a previous researcher's study (Zhang 2007), I found that the main force to be against the urban village among villagers are the elderly and low-educated villagers while most of the renewal supporters are young and relative higher educated persons. The reason might be that it is easier for the young and relative higher educated villagers to find a new job and make another living instead of renting houses. However, because of those elderly and low-educated villagers' low viability, once they left their farmland or houses, it is difficult for them to find another job in the highly competitive society. In another word, how to solve different individual's worry in advance of the challenges that we would face after the renewal.

(3) Developers: Because of the preferential policy introduced by local government and potential profits in urban villages, more and more developers decided to join some renewal projects. However, few of the developers drop out in the middle of renewal process because of some certain reason such as real estate market reason, resource supply reason, cost reason, social reason and etc. However, the local government and the village collective do not have the economic capacity to take over the project. Therefore, the construction of being redeveloped urban village comes to a halt and the urban environment becomes worse again, even appears the slums in some area.

Findings above:
(1) The essentials of urban village renewal is the adjustment of different interest groups. And the game among government, villagers and developers results in three typical renewal models: Government-leading model, Villagers-Autonomy model and Developer-Involving model.

(2) No matter which renewal model will be implemented in the renovation, the villagers' interest should be protected and guaranteed. Because in China, compared to government and developer, villager is a relative weak group in the game. Villagers are always passive in either negotiation or compensation process.

(3) Whether developers will get involved in the renewal project or not depends on the preferential policy that supplied to developers by government and the villagers' desire of cooperation with developers.

(4) Local government has the right to decide which renewal model will be implemented in different urban villages. The chosen option depends on governmental capital capacity and the land value.
1.3 Methodology

(1) By read literature
The materials of this thesis are collected from large numbers of documents and literature. I read different kind of literature, include newspapers, handbooks, research reports and also surfed the Internet to get the basic theory and research background.

(2) By field research
I went to three different urban villages in Nanjing, taking photos, observing the current situations and taking notes of what I saw. In this way, I did some preparation work for the further research.

(3) By case study
After the field research, I choose one of these three urban villages as my case study's material. Furthermore, the deeply study of the case increases the reality and intuition of the research. In addition, the case area is well known by author because its location is very close to Nanjing Forestry University.

(4) By interview
According to the framework of research, I formulated some questions and interviewed several related departments and professionals. Besides, I'm glad to have conversations with several warm-hearted villagers about their attitudes towards renewal project. As I state before, many problems take place within the urban villages. Therefore, renovation of urban villages are forced by the powerful Chinese government for the long term development. But are the villagers willing to accept the renewal? So with the question in mind, I interviewed some people I met in Hongshan Village. Firstly, I met one family in the village. It is a typical family which live their lives by renting houses. The host told me that because of the poor finances of job and the early retirement of his wife, his family can get only about 1000 ¥ salary every month, which belongs to a quite low income level in China. Luckily, in recent 2 years, he has tried his best built a two-floor's house and rent it to six different transients. Thus, the financial situation becomes better and better. "If the government take my house away, how could my family keep a normal daily life?" the host doubt. Later, I met Mr. Liu, a villager of Hongshan village. He has lost his job 3 years ago and does nothing right now, just drink, chat with friends or gamble secretly every day. He showed off himself to me that he has 3 houses on rent right away, bringing him more than 7000 ¥'s income every month. However, when talking about the urban village renovation, he seems to have no offence to it. "I think my current life-style is too boring. It is not bad to start a new life. Besides the compensation of demolition, it is better for
me to be offered a new job by the government."

In my opinion, "grow houses" is as closed and inflexible as small-scale peasant economy. The villagers in Hongshan Village have not blended themselves in the modern urban economy system because of losing their farmland. Although villagers show different attitude towards the urban village renewal, but we insist that individual interest should obedience the nation's overall interest, the renovation is essential at now. Actually, there has been a quite successful progress in persuading the villagers to accept the renovation. However, the government must make reasonable policy to support those villagers and guarantee their benefits.

1.4 Policy Analysis

As I mentioned in the literature review, there are several policies and laws support the urban village renovation in China.

1.4.1 Current relevant policy
1.4.1.1 Urban - rural dual-social system

As known by people, China is a socialist country. Therefore, a special residence registration system exist in society. In the year of 1958, the Chinese government established a series of laws to run this household system. In this way, government were able to control the migration from rural areas to urban areas. It is a barrier that set up by government to prevent the large migrations to city. Every Chinese people was granted into different identities: agricultural or non-agricultural identities. With the development of interaction between city and country, and due to more and more contributions made to the cities from people who has agricultural identities, this barrier of migration seems not to be necessary to exist any longer. Therefore, an institutional reform has been promoted throughout the country since 1990s. The institutional control over the migration of people has been increasingly weakened in more and more areas (Tian 1998). Until now, however, the household registration system reform has been slowed because of high social cost, such as welfare. In a word, this residence system has been weakened but still existing in contemporary China. (Jing 2010)
To change the villagers' agricultural identity to urban identity is one policy that offered to the lost - land villager in the renewal. However, due to the high cost to provide welfare to more potential urban identity people, not every local government can guarantee the implement of this policy. Thus, the urban - rural dual - social system has become a historical barrier for urban villages' renovation.

### 1.4.1.2 Land administration law

There are two land systems introduced by the China's Land Administration Law: country-owned land system and collective-owned land system. They are divided by the law based on the property of lands. Usually, country-owned land refers to the land in urban region while collective-owned land refers to the land in rural region. The village collective owns the land in rural area and divide the land to each villager's family. In another word, the villager family's land is not only their own residential land but also belongs to the village collective. Normally, the country-owned land is allowed to be traded in land market. However, the collective-owned lands and private residential land are forbidden to do it in land market. The reason why it is different is that in collective-owned land system, the owners of the private residential land are only granted the right to use the land for building houses for themselves. Therefore, according to the law, all commercial behaviors towards these kinds of houses or lands are not allowed and are illegal. Only if collective land be transformed to country-owned land then it will be able to be traded.

The transformation of land property usually functioned by governmental land collection program, which requires requisition and compensation paid to villagers. (Zhao 1998)

When the farmers' farmland is expropriated by the government, a transformation of land property will take place, which refers to that the farmland transforms from collective-owned land to country-owned land. Then government can sell the land to a real estate or develop the land by itself. In another words, before the urban village renewal, urban villages' land belongs to village collective. However, after the renewal, the land in urban village can be individual owned or country-owned.
1.4.2 Policies for urban village renewal
1.4.2.1 Renewal compensation policy

The profits of the original villagers will be more or less hurt by the urban village renewal. Due to the residence registration system, many original villagers do not have a permanent residential permission to live in the urban village. This has caused a social justice problem which lead to the villagers' disaffection and continuous social problems. Therefore, what the government did is to grant them urban residence identity as a kind of compensation. In the mean time, as the other representatives of compensation policy, cash, employment opportunity and relevant social welfare such as endowment insurance, unemployment insurance and etc will be offered to the lost - land villagers. In addition, the relevant laws indicate that the developers involved in the renewal project also have obligation and responsibility to give the lost - land farmers physical compensation, they should provide new arranged flats or give compensation fees to farmers at once. (Jing 2010)

1.4.2.2 Land price preferential policy

Sometimes, because of the high building density and plot ratio of some certain urban villages, the capital demand of the renewal project could be very high. However, the local government often does not have the afford capacity to operate the renovation alone, so a market - driven approach is always used by government as the main method. Generally speaking, some preferential policies are usually implemented to encourage and attract developers to take part in the renovation projects. Among those preferential policies, reduce the price of land and expand the plot ratio of the rebuild area are the most important ones.

Normally, local Department of Land Administration sets up a specialized institution to evaluate the price of land in the city. After the evaluation of land and the research of local land market's situation, local Department of Land Administration submits the report to the higher Provincial Department of Land Administration. The Provincial Department of Land Administration has the right to draft the preferential policy and then submits it to the National Department of Land Administration. Once the preferential policy is approved by the national level, it can be applied in the local land market. (Jing 2010)

- Different levels of urban authorities: The Department of Land Administration is the mainly authority to deal with the land issues in China. As the highest level, National Department of Land Administration is responsible for establishing macro-control policies and approving the specific policies. As a middle level, provincial department's job is not
only to draft and deliver some policies but also to report the specific local situation to the central department. City's Department of Land Administration is the authority of specific implementation of land policy. It is its responsibility to collect land and supply land to the land market.

The land preferential policies are usually made by governmental authorities, depending on different background and current situation in different cities. For instance, in Shenzhen City, Guangdong Province, Urban village problem has caused a widely public concern and discussion. Thus, some flexible preferential policies have been implemented in terms of the problem. One of them is that the government has not settled the land price and planning plot ratio. The geographic locations and the quantity of renewed buildings depend on the price and the plot ratio. Besides, in Shijiazhuang City, Hebei Province, government also comes up with different policies due to the geographic location. For example, the land of urban villages within the second-ring road in Shijiazhuang City is free for real estate to develop. Above all, although land preferential policies in different cities are not totally the same, but through implementing these policies, the local government support the urban villages' renewal smoothly. (Cheng 2003)

1.5 Renewal Strategies
1.5.1 Policy guarantee measurements
1.5.1.1 institutional innovation

"Institution is designed by human beings for forcing people to obey the rules and also to systematize the relationship between different people." (Kelly 2003) In Kelly's opinion, institution is a rule of the Game Theory. Meanwhile, organizations in different institution play a role as a agent and lead the institution's reform directly." Urban villages " might completely take in the urbanization at last. It is a process of game on profits between three actors — the local government (let us suppose government can control the developer), village collective and the villagers.

According to the relevant literature, a lot of researchers simply regard the local government as the provider of the institutions which have impact on the urban village renovation. But in terms of the formation mechanism of urban village and the practice of urbanization, the government plays a role as the "designer" of the urban village renewal project. In another word, the purpose of the local government is to gain profits for itself, at the same time, it influences the urban village renovation a lot. In fact, there are
different groups of interests subject, for instance, the nation, the local government, the village collective and the individual villager. Only if all these interests groups make concessions of their own benefits during the profit game, or support each other, a win-win for every one can be achieved.

However, in reality, different interests groups are always seeking their own profit regardless the others, and usually they pursue the maximization of individual interest. This situation have brought totally a mess. On one hand, different interests groups are mutual restraint, the problems within the urban villages can not be solved. On the other hand, all these problems have been left to the urban village it self. Although some researchers who mainly study on social problems put out some strategies and suggestions to the urban village renewal, they have ignored how complicated the different relationship and profit connection between the interests groups. And simplified the contradiction between village collective and local government. Therefore, sometimes these sort of "technical support" lack of scientific basis so that can not heal the "wound" of urban villages completely.

In addition, if we look through the macroscopical background, during the process of social change, the physical change is always earlier than the cultural change. The popularity of urban life style is the final presentation of urbanization, (Zheng 2010) not the expansion of urban scope or the increase of urban population. Nowadays, the urban life style has become one important component of social institution. For this reason, neither the construction of modern buildings, the change of villagers' identity nor the adjustment of the collective organizations can represent the achievement of urban renovation. Moreover, the mature of a series of systems such as social security system, land policy system, employment system, education system, enterprise system and urban governance system and the formation of urban community cultural atmosphere are the guarantee of urbanization of urban villages.

1.5.1.2 Management innovation
1.5.1.2.1 Transition of planning idea

The theory and method of Chinese urban planning has been influenced by western modernism urban design theory to a great extent. Therefore, urban planners in the city authorities always hold a completely negative attitude towards the current chaos in the city. And the judgment of "urban village" is overwhelming criticism. It seems that redevelop the urban villages rapidly has already become a significant symbol of the governmental achievement during the process of urbanization. For this reason, when a
urban village renewal project take place, it is usually in a "top - down " pattern, demolish and rebuild large scale of features at the same time. This kind of behavior represents the goals that the government wanna achieve but regardless the humanistic care of individual interests. The simple large scale of construction has not only broken up the physical connections between village features, but also brought the raises of land and house price, so that most original low - income villagers can not be able to come back after the renovation. Some of them therefore lost their source of revenue. At last, except for some commercial enterprise, most interests groups can not really get benefits from the renovation. Jacobs, Jane (1916 - 2006), an urbanist and activist whose writings championed a fresh, community - based approach to city buildings. She made criticism towards the large scale of reconstruction from a economy perspective, holding the view that large scale of reconstruction is inherently wasteful way to achieve urbanization. In the mean time, large scale of reconstruction has created new slums in a much bigger territory. ( Jacobs 1970 )

Mr. Qiu Baoxin, the vice minister of the Ministry of Housing and Urban - Rural Development in China made a conference speech about the topic of " Compactness and Diversity " in 2006. He pointed out that compactness and diversity are the central concepts and vitality of urban sustainable development. And also, it is a significant method to achieve the healthy and harmonious urbanization.

In my opinion, what he stated has paid attention to the future and it should be the basic thought of urban village renewal. We should try to keep the diversity that urban villages equiped and make it real to be one component of city organism. At the same time, strengthen regulation and build the infrastructure so that offer an opportunity to urban villages for their development. It is necessary to make the plan from a overwhelming perspective but give specific solutions to every specific problem. Make sure that the renewal plan should be appropriate for different urban villages, taking the surround economic, social and ecological factors into consideration, avoid just address on the urban village itself.

Furthermore, urban village renovation not only changes the face of city and improves the inhabitant environment, but also involves the field of economy, society matters and etc. Therefore, urban village renovation should be a project that gathering socialists, economists, architects, urban designers and local government's efforts.
1.5.1.2.2 Planning and construction management

The relevant authority in local government should consummate the urban land management system to meet the demand of urbanization progress and land use regulations. (Zhang 2007) In addition, it is necessary to strengthen the land use planning, urban master plan and the plan for every year's land supply. By strengthening the land use approval authority and highlight the importance of urban land use approval authority in making the plan of land use supply and planning management, the new operating land can be controlled. It is an effective way to curb land and house prices, and making a positive impact on the original low-income villagers moving back. For those people who do not have the ability to move back, the planning authority should allocate resources optimally by making appropriate plan which is based on those villagers' employment situation to save the cost of low-income villagers' daily life. For those people who have accepted the arranged flats, more economy compensation and preferential policies should be given. The government should do their best to balance the psychological difference between move-back villagers and move-out villagers.

To make sure the plan of land supply, government should create a series of mechanisms to adapt to the economy factors, such as land purchase mechanism, land acquisition mechanism, land adjustment mechanism, land banking mechanism, land supply mechanism and etc. (Zhang 2007) Also, highlight the future function of different land in different area.

The government firstly collect urban villages' land into the land banking mechanism by overwhelming adjustment of land supply mechanism. Then sell the land or look for cooperation to the developers to meet the demand of city construction and market requirement. This behavior should also based on the plan of land supply. In this way, the government can attract social financial power to join the urban village's renovation and take full advantage of the land resource within the urban village.

For those land that has already been transferred to developers, government should strengthen supervision, impose a high level of vacant land tax to force the developers invest the urban village as soon as possible. In case of the formation of new slums, government has the right to take back the vacant land according to the law. (Cheng 2003, Zheng 2010)
1.5.1.3 Collective asset management

In socialistic China, every village has collective assets. There are three kinds of collective assets in urban villages — permanent assets, liquid assets and invisible assets.

The permanent assets refer to public service facilities and infrastructure, include village's office building, schools, hospitals, roads, public gathering places, factories, equipments and etc. The liquid assets mainly refer to the cash income of village finance, include the profit from renting factories and equipments to individuals, the compensation paid to village councils. The invisible assets are generally referred to land use right. In some urban villages, there is still few land left without expropriated by government. This kind of land is a form of existence of collective assets. (Zhu 2002)

Nowadays, preserve and increase the value of urban village's collective assets has strongly supplied villagers financial support to guarantee their benefits. And it is also an important thought to make innovations on urban village renewal. (Zhang 2007)

Figure 1-15 A collective asset in urban village

Haitian hotel, Jiangdong Village, Nanjing

source from Yang, J. (2004) The protection pattern of the ancient Nanjing City

I have also studied on the method that they preserve and increase the value of urban village's collective assets. In general, " joint stock " mechanism is brought in during the process. Meanwhile, traditional collective economy is reformed and a type of new community " joint stock " economic organization is created. In detail, the first step is to start the verification and evaluation of collective assets. At
the same time, distinguish the ownership of varieties of assets. The second step is to divide the stock rights reasonably to individuals. However, some public welfare institutions such as schools, nursing home and etc are not count in the shares. The third step is to establish rules and regulations, run the community economic organizations. The reform of the joint stock cooperative system can not only solve several problems that caused by renewal activities but also can motivate the progress of community economy. Besides, the development of economy can lay a foundation for the social insurance. (Cheng 2003, Zheng 2010)

1.5.1.4 Improve social security
1.5.1.4.1 Aim at villagers

In the view of social security, create an appropriate social security system that matches urban village's development level is necessary. Due to the traditional urban - rural dual - social system in China, village inhabitants' social security mainly depends on land security, family security and village collective security while urban inhabitants' social security mainly depends on employment security.

Before the start of urban village renovation, although some of the villagers' land keep losing and the income from agriculture is not enough for maintaining the family's daily cost, yet there is very few field left for them to grow basic rations and vegetables. These small scale fields become the last security for surviving. Therefore, when they completely lost their farmland, the lost - land farmers will face an embarrassing situation that there is no social security that takes in charge of their life. In terms of original villagers, the main problem could be: the lost - land villagers are not be able to take part in the urban social security in time. (Xiao 2008)

In some area, after take over the villagers' land, the local government buy out the ownership of the land or give villagers relatively higher compensation at once. Then the lost - land village should make a living by himself, without any subsequent social security. Local government may buy endowment insurance for some certain low - income family in a few advanced area. But most area's lost - land villagers are helpless with their social security. So that lost - land farmers' anti-risk capability is extremely low.

Therefore, an appropriate social security system that matches urban village's development level must be created. In fact, the lost - land farmers have already become urban inhabitants according to the law after government take over their farmland.
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deserve to share the endowment insurance, health care insurance, unemployment insurance and etc equally as the normal urban inhabitants. (Cheng 2003, Zheng 2010)

However, it is difficult to a great extent to create a totally same social security system as the normal urban inhabitants' immediately. In this respect, Shanghai has shown a possible example.
Firstly, in the year of 2005, the government of Shanghai decided to put 70% of the newly increased financial expenditure into the basic livelihood of the people. Secondly, make an adjustment on the proportion of financial expenditure. For instance, reduce the financial expenditure in competitive fields to save money.
Thirdly, land exchanges for insurance. Part of the land expropriation compensation money has been exchanged for lost - land villagers' endowment insurance and health care insurance.
Fourthly, the government has issued special nation bonds and welfare lottery.

1.5.1.4.2 Aim at transients

There are large numbers of transients who attracted by the cheap rent of flats in the urban villages. When the renewal of urban village take place, they have to look for somewhere else for the cheap housing. But sometimes, it is not easy to find a flat either with a reasonable price or convenient transportation. It seems that the transients are not willing to let the urban village renovation take place. Although the transients do not own the land within the village, yet government has taken some measures to comfort this group of people: (Cheng 2003, Xiao 2008, Zheng 2010)
(1) The transients begin to be involved into the endowment insurance, health care insurance and unemployment insurance.
(2) The transients are allowed to take part in a free normal professional training.
(3) Appropriate to increase the financial expenditure of unemployment insurance.
(4) Expand the scope of minimum living standard and also promote the minimum living standard.
(5) Increase the investment on compulsory education.
(6) Increase the investment on pension to the transients.

In the respect of creating a security structure of social justice, there is also several important measures for the government to take:
(1) Establish a specific social security law and a series of relevant regulations to guarantee every social member's basic right.
(2) Make adjustment on labor laws, establish relevant laws and regulation to put it into
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effort.

(3) Transform the duty of government gradually. Government transition takes place from economic-style government to public service-style government.
(4) Make sure the operation of labor inspection, pay more attention to the development of labor inspection groups.
(5) Solve the conflicts that occurs during or after the urban village renovation properly. And prevent the similar matters in a long term.
(6) Create a variety of social organizations and the interest coordinating mechanism which matches the market-oriented economy and modern society.

1.5.2 Profit distribution in urban village renewal

The reason why urban village renewal always beset with numerous contradictions is that every stakeholder sets unreasonable expectations while they are disputing for the land resource during the game. They have not make it clear that which is their main interest, which is the reasonable interest. Instead, seeking other stakeholder's interest becomes their own biggest target. This kind of issue is bound to bring a lot of troubles during the urban village renovation. Therefore, on the premise of being aware of different interest groups' own reasonable interest, the urban village renewal can be successfully implemented. (Zhang 2007)

1.5.2.1 For government
Government: new driving force and new space for urban development

The final purpose of urban village renovation is to promote the development of economy, city and society. Besides, urban village renovation must be implemented into the progress of economy, city and society. This matter should be considered firstly by the local government. And urban village renewal can be a driving force for the urbanization and help city to get more space in the urban development. Therefore, local government should regard the progress of economy, city and society as its main interest and reasonable interest target. However, different levels of government did quite wrong for a long time. They hunt for plenty of money and power during the requisition of land and demolition process. This kind of behavior can be judged as unreasonable and undesirable during the urban village renewal.

1.5.2.2 For developers
Developers: appropriate interest distribution
As a kind of commercial activity, there is no doubt that real estate development pursues the maximization of profits. And after the renovation, the real estate price is generally higher than before. This is not mainly caused by the investment activity. In fact, the change of price depend on the perfect geographical location and the potential of rapid increased value. Therefore, this part of interest should belong to the owner of this land before the renewal. The owner can be either urban village collective or individual villager. The developers are forbidden to occupy village collective or village's interest space, they are welcomed to share the average revenue with the other investment projects.

1.5.2.3 For villagers
Villagers: reasonable arrangement and social security in long term

The renovation of urban village has influenced the villagers' vested interest to a great extent. Moreover, the imbalance of rights and the dissymmetry of information lead that village collective and lost - land villagers are disadvantaged after the urban village renewal. All these matters dissatisfied them and make the lost - land villagers lost their original reasonable interest. In fact, the land of Nanjing's urban villages functions social security in recent years, which is not beneficial to neither urban village nor villagers' future development. On the other hand, the renovation of urban village can change the villagers' production and life style, make them leave the villages which lacks public service and basic facilities. In this respect, it is a great opportunity for villagers to enjoy a new life. Therefore, villagers should observe and consider the cost and benefits of the renewal so that they can reduce the cost of moving into the city.

1.5.3 Build low - rent apartments and resettlement houses

In many cities in China, build the low - rent apartments and resettlement houses has been proved as a possible way to liberate the lost - land villagers' worry after the urban village renewal. (Tian 1998, Wei 2005) According to the relevant laws and regulations, some relevant authority should consider the tolerance capacity and the housing demand of both the original villagers and the transients, make sure that the plan and construction of low - rent and resettlement apartments have a bigger priority than any other measures.

There are two plans for building the low - rent apartment and resettlement houses. One is to have the villagers and transients re-housed in the vicinity of the original residential area. The other one is to relocate these apartments to somewhere else which means to build the apartments to a area that in a relatively long distance. Both plans must be put
into practice before the urban village renovation. Especially, the construction of infrastructure such as transportation, water, gas, electricity supply in new residential area should be particularly focused. (Compensatory approach of land expropriation and demolition in Nanjing, 2004)

A new and good living neighborhood is neither a bad choice for the villagers nor the transients. Sometimes, because of the attractive new resettlement apartments, villagers even look forward to move out the urban village.

Figure 1-16 A resettlement community in Hexi new town, Nanjing

source from author
Part 2: Case Study & Design Proposal

2.1 Introduction of the case — Hongshan Village

2.1.1 Background

To make sure the urban village renewal can be put into practice smoothly, the government of Nanjing has classified the urban villages within the ring road into three categories. Category A: The urban villages whose renewal projects have already been implemented or waiting to be implemented. Category B: The urban villages locates within the scope of planned green space. Category C: The middle ground and space on the edge of the city which has been left by the prior construction or development. (Compensatory approach of land expropriation and demolition in Nanjing, 2004)

Table 2-1 Renewal models in Nanjing, based on a government publication:

<table>
<thead>
<tr>
<th>Renewal models</th>
<th>Category A</th>
<th>Category B</th>
<th>Category C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Developer - Involving Model</td>
<td>Government - leading Model</td>
<td>Villagers - Autonomy Model</td>
</tr>
</tbody>
</table>


In addition, in the year of 2007, Hongshan village had been listed on the renewal list by Nanjing government. According to the Zoning Ordinance of Xuanwu District, Nanjing (2006~2010), Hongshan Village belongs to Category A. The village will be redeveloped under the Developer - Involving model.

2.1.2 General Situation

Hongshan Village has a perfect location for being a great camp of transient population. It is closed to both the Central Bus Station and Railway Station of Nanjing.
Most of the villagers in Hongshan Village used to be farmers. They used to live their lives by agriculture activities. However, the extension of Nanjing railway station in 2005 has gradually made the farmland turn to be railway station space. When the original villagers lost their farmland, they do not go in for farming any more, raising their lives by "growing houses" instead. In this way, on one hand they can get more profit from renting more houses, on the other hand, they will get more compensation from the demolition by the government. A villager in Hongshan Village introduced to me that the numbers of houses in the village was twice as much as that of two years ago. Nevertheless, the cost of building new houses is much less than the profit. Because most these buildings are built by the villagers themselves, they do not have special building skills and use high quality materials. Normally, the cost of construction is only between 250 ¥ to 280 ¥ per square meter which will be very easily for the villagers to recoup back by one year's rent.
2.1.3 Main function of surrounding area

Figure 2-2 Main function of surrounding area

information from http://map.baidu.com
author made
The surrounding area of Hongshan Village is separated by the railway into two parts. To the north direction of the railway, there used to be large range of farmland and numbers of natural villages several years ago. During the decade of 2000s, the villages and farmland in northwest part of this region had gradually disappeared and taken over by urban features. One new residential community was built near the river and several old ones were compressed into several individual blocks. Two technique schools moved to this area and one primary school was expanded. Some small industry companies also developed. To the northeast direction of Hongshan Village, There is a small mountain, stamped with forestry and green land. In the foundation of the mountain, government built a forestry zoo. The zoo has become a famous tourist site in Nanjing City. A home of the aged people was also built near the mountain. The retired elders can enjoy a peaceful and silent life here. Another urban village named Shenyang Village locates to the east direction of Hongshan Village. This village is also waiting for being renewed. Between Hongshan Village and Shenyang Village, there is a range of neglected land. most buildings were torn down and the land is contemporary used for storage. Some small factories in the industry area were founded by urban villagers. When they lost their farmland, some of the villagers had not blinded their mind and run a factory to make a living. However, most of these factories are abandoned nowadays. Because the villagers used to be farmers, due to the limitation of education and experience, they lack the skills and capitals to run a factory in a long term. Because the main features of railway station are located in the southern part, so many hotels, hostels, shops and restaurants gathered near the Nanjing Railway Station.

2.2 Special characteristics of Hongshan Village
2.2.1 Best choice for developer's investment

As I state before, Hongshan Village has a perfect location. On one hand, there are train station and bus station nearby, the city centre is not far away from here, only 15 minutes by bus or 10 minutes by metro. On the other hand, the visual connections with the surroundings are also one important reason to attract investment.

Nowadays, more and more people in China have paid attention to the quality of living environment. Usually, a place with enjoyable scenery is often caused the customers' interest and in good sales. From the map above we can tell that Hongshan Village is just between the Red Mountain to the north and the Xuanwu Lake to the south. Perfect location offers people a nice view towards the lake and the famous Purple Mountain to
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the southeast, also shows people the outline of modern buildings in the city centre. Therefore, if a real estate invest this village, it will definitely bring expected outcome.

Figure 2-3 Good visual connections with the surroundings

source from author

Figure 2-4 A view from the site towards south

source from http://image.baidu.com
2.2.2 No farmland left, typical house-rent economy

The Nanjing government expropriated land from Hongshan Village for the railway station's extension. This land acquisition has kept for several years. Till now, there is little farmland left within the village. Basically, no villager in Hongshan Village has been engaged in the agriculture activities recently and some of them are even unemployed. The original villagers opened their mind and "grow house" to make money. In Hongshan Village, house-renting accounted for more than 80 percent of villagers' overall income. The villagers' rental income is quite considerable, ranging from one thousand to ten thousands per month. For the villagers who have not been employed, their main job is to collect rent, take care of their kids and do housework. The original villagers do not have a high expectation of their employment and very few of them have a strong desire to work. On one hand, villagers in Hongshan Village do not have enough confidence to get a job due to the lack of education background, professional skills and experience. On the other hand, they hold the view that it is not necessary for them to work. Because the income from renting house is much enough to support their daily life.

2.2.3 Great proportion of transients

Compared to the other urban villages in Nanjing, Hongshan Village has a particularly large range of transients. Here is a group of data collected by Nanjing Urban planning Institution to make a comparison of different proportions of transients in two urban villages in Nanjing.

Table 2-2 A comparison of Hongshan and Jiangdong Village in transients proportion

<table>
<thead>
<tr>
<th>Name of village</th>
<th>Number of household</th>
<th>Number of original villagers</th>
<th>Number of transients</th>
<th>Transients proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hongshan</td>
<td>217</td>
<td>821</td>
<td>1189</td>
<td>59.15%</td>
</tr>
<tr>
<td>Jiangdong</td>
<td>292</td>
<td>1037</td>
<td>763</td>
<td>42.39%</td>
</tr>
</tbody>
</table>


From the table above, we can easily find that both Hongshan Village and Jiangdong Village have large numbers of transients. However, the transients proportion in Hongshan Village is much higher than the other one.
There are some reasons for so many transients gathering here. As I mentioned before, the traffic condition here is pretty good. The Nanjing railway station is next to the village, attached with a multi-dimensional transportation system, include train, bus and metro. Furthermore, two urban main roads and one urban secondary road surround the village have made the connection to outside area closer. Besides, the rental of house here is reasonable and generally accepted by people who want to work in the city. It has caused more and more transients' attention and decided to gather here.
2.2.4 Transients participate in village's economy

One interesting phenomenon appears in Hongshan Village is that the original villagers build houses and rent to the transients, then some of the transients also run a business with these houses. Some small shops are usually operated by transients, such as fruit shop, supermarket, small restaurant and etc. These sort of shops are generally distributed along both side of the alleys, and usually offer services around the clock, which is convenient for the villagers or passengers from train station.

Figure 2-6 Shops operated by transients in Hongshan Village

This phenomenon is not common in all urban villages in Nanjing. Because of the special location of Hongshan Village, the train station and bus station brings stream of people, who is potential customers. To meet the market demand, these shops took place.
2.2.5 Relative simple land use

Table 2-3 Current situation of Hongshan Village's land use

<table>
<thead>
<tr>
<th>Type of land use</th>
<th>Area (ha)</th>
<th>Proportion (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Village collective land</td>
<td>5.16</td>
<td>100</td>
</tr>
<tr>
<td>Residential land</td>
<td>4.17</td>
<td>80.8</td>
</tr>
<tr>
<td>Industrial land</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Agricultural land</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Green land</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Commercial land</td>
<td>0.65</td>
<td>12.5</td>
</tr>
<tr>
<td>Public facility land</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Others</td>
<td>0.34</td>
<td>6.7</td>
</tr>
</tbody>
</table>


Hongshan Village has formulated for several years. As a mature urban village, Hongshan Village's land use seems to be very simple. The outskirt of the residential area used to be farmland. When local government gradually expropriated all the farmland, there is only part of original land owned by the village collective. To make a living, villagers took advantages of every space to build houses for renting. Therefore, there is no doubt that residential land takes the most. In addition, there are some commercial area along the street, facing the train station. Furthermore, "other land" can be conclude as neglected land, storage land and garbage land.

Figure 2-7 Sketch map of losing farmland
2.2.6 Buildings

Since the main features in current Hongshan Village are variety of buildings, it is necessary to research and analyse a bit towards the buildings within the village. And it will also be helpful for the further design.

Figure 2-8 Building style
Unlike a natural village, Hongshan Village's building style is diverse because of its history factor. There are three main building style existing in Hongshan Village — Traditional style, modern style and temporary houses.

According to the description of a villager here, I conclude the appearance of three different kind of buildings as three process.  
Process one — The density of buildings was not as high as today ten years ago, some traditional countryside style houses stood beside the large scale of farmland at that time.  
Process two — When Nanjing government expropriated the farmland for the railway station's extension in 2005, people who used to live outside the village core area started to move into the core area and built some relative modern style building for their own living.  
Process three — The lost land farmers opened their mind and tried to "grow houses" instead of growing crops to make money. However, because of their capital investment was limited and lack of professional building skills, the new houses they built are of poor quality and most of these buildings looks like makeshift houses.  
Nowadays, this three kind of building styles have mixed standing in this field. This situation has caused the designer's deep thought and a bit challenge of how to uniform the building style during the renewal process.
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Figure 2-9 Building quality
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After the investigation and interview in the village, I find a strange phenomenon that the elder the building is, the relative better quality it is. On the contrary, the newer the building is, the lower quality it is.

The buildings are arranged accidentally within the village due to the constructions in different period and lack of building space. The old buildings were generally built between 1970s ~ 1980s by Hongshan Village collective. The construction of these buildings was unified planned and operated by professional construction team. Therefore, the quality of these buildings can be guaranteed and still good nowadays. When the lost land farmer around the village moved into the village core area in 2005, they built buildings by themselves for their own living. Because of time constrains and lack of skill, these buildings were built roughly and of relative bad quality. Almost at the same time, all the lost land farmers started to "grow houses". On one hand they can make money by renting these houses. On the other hand, they have foreseen that the more houses they have, the more compensation fee will be paid to them. Mainly to save cost, these buildings were built with cheap materials and operated by the framers directly, of poor quality of course. Overall, there are more relative good quality buildings in the east part than the west.
2.2.7 Conclude problems

Table 2-4 Investigation table of situation in Hongshan Village

<table>
<thead>
<tr>
<th>Items</th>
<th>Degree</th>
<th>Situation in Hongshan Village</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental condition</td>
<td>Very good</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Good</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Common</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bad</td>
<td>√</td>
</tr>
<tr>
<td>Building quality</td>
<td>All good</td>
<td></td>
</tr>
<tr>
<td></td>
<td>All common</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Partly good</td>
<td>√</td>
</tr>
<tr>
<td></td>
<td>All bad</td>
<td></td>
</tr>
<tr>
<td>Infrastructure</td>
<td>Very good</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Good</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bad</td>
<td></td>
</tr>
<tr>
<td></td>
<td>None</td>
<td>√</td>
</tr>
<tr>
<td>Population density</td>
<td>High</td>
<td>√</td>
</tr>
<tr>
<td></td>
<td>Common</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Social discipline</td>
<td>Good</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Common</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bad</td>
<td>√</td>
</tr>
</tbody>
</table>

Based on the previous study and by observing and investigating Hongshan Village, like the majority of urban villages in Nanjing, the main problems are: the incredible high density and low quality of buildings, crowded population, lack of infrastructure and gathering place, the poor quality of the overall environment. In addition, crime, drug addiction, alcoholism, and prostitution are also challenging the social discipline and public security here. Due to close to the Nanjing train station, the village shows the first impression of the city. As the World Youth Olympic Games in 2014 approaches, the renovation is on the corner.
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Figure 2-10 Some problems in Hongshan Village

1. Small distance between buildings
2. Lazy life-style
3. Terrible living environment
4. Crowded population

source from author
2.3 Design concept

As I mentioned in the background phase, Developer - Involving Model has been decided to apply to Hongshan Village's renovation by Nanjing government. Once the policy was established, the cooperation of different interest groups would be followed. That is also the Game Theory begins to apply.

Above all, a reasonable and appropriate new design is significantly need before the renewal. In another word, the first thing to do before renovation is to redesign the village.
Some ideas:
1. The area locates super close to the train station, which has enormous flow of people. The new area should be designed mainly for the passengers, so that they can have rest and get food while waiting for the train.
2. "People-oriented" concept. Unlike the other urban villages in Nanjing, Hongshan Village will have a great difference in land value before and after the renewal project due to its positional factor. Original villagers or transients will not have the capacity to rehouse in this area. Moreover, because of large amount of passengers pass by and too close to the railway (may bring noise), it is not appropriate to settle a residential community here. However, it could be possible to settle some residence apartments on the upper floors of the building.
3. Due to the high density and accidentally arranged buildings, there are hundreds of small alleys inside the village. Each of them is short, narrow and unreasonable, should not be kept. However, the main internal road connects the east and west part well. I intend to keep it and make it as a pedestrian street.
4. After investigating the building quality in the village, the buildings in the west are of poor quality, should be demolished while the buildings in the east are of relative good quality, some of them should be preserved. In addition, the relative good quality buildings in the east has a traditional Chinese quadrangle dwellings mechanism, which is good to formulate a unified building style.

5. Some squares will be designed to add the public gathering place, attached with more public green.

6. Settle mixed used buildings facing the road and train station. The mixed used buildings have shops or cafes on the ground floor and residence or offices on upper floors.

7. To avoid the negative impact of railway, the entertainment or commercial buildings can be situated on the side near railway instead of residence.
2.4 Design proposal

Based on the design concepts I mentioned before, I come up with a new proposal of this area. From the process of my work, the physical transformation can be witnessed.

Figure 2-14 Working process
The Renewal of Urban Village
— problems and potentials of Hongshan Village, Nanjing

Figure 2-15 Final plan

author made
The Renewal of Urban Village
— problems and potentials of Hongshan Village, Nanjing

Figure 2-16 Bird view

Overall view

View from west

View from east

author made
The Renewal of Urban Village
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Figure 2-18 Perspective in west
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2.5 Design evaluation

In my design proposal, I divided the new plan into west and east two parts. East part's buildings are preserved traditional old buildings while buildings in the west are rebuilt modern buildings with an antique style. The two parts connect with each other by a pedestrian street and a main square.

Rebuild and preservation mixed
Figure 2-19 Rebuilt area and preserved area

The "Demolition - Rebuild" approach is widely used in Nanjing's urban village renewal project. However, I do not encourage this approach totally applied to Hongshan Village renovation. Because on one hand, demolish all buildings costs a lot of labor power and funds. On the other hand, it is not necessary here. As I introduced in the analysis phase, most buildings in west part of this village are of very low quality and there are large range of temporary houses among them. Demolish the buildings in the west can refresh this area and it is not a big project compared to other urban villages' in Nanjing. Therefore, the buildings in the west are worth to be demolished and rebuilt. In contrast, buildings in the east has a traditional Chinese
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quadrangle dwellings mechanism. I have made full use of this mechanism to renew these buildings instead of demolition - rebuild. To summary, I intend to use a way mixed with preservation and demolition to implement the renovation. Since these building are of traditional Chinese style and west part’s modern buildings are consulted the east, the whole area's building style can be unified.

New functions
Figure 2-20 Function

The new area has cleared its role definition as serve the train station, which has at least 50000 passengers per day (data from Fu 2012). Since it is convenient for passengers to access to the ground floor of the buildings, this area gets a great opportunity to provide passengers commercial activities, recreation, food and rest place. The shops are encouraged to open 24 hours per day.
The commercial and residential mixed building supply shopping area on the ground floor, the upper floors are residential apartments which refers to the serviced apartment. Because after renovation, this land's value will raise by several folds, housing price will also raise, the apartments are for high - income people to enjoy a high quality living environment.
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The supermarket is an individual building to bring convenience to passengers pass by. It sells not only common goods but also some souvenirs and speciality of Nanjing. The commercial and office mixed buildings provide shopping area on the ground floor while the upper floors are available for companies or governmental agencies to rent for offices. There is a possibility that these offices could be used by Nanjing train station. Since the railway station's extension in 2005, extra staff have been employed, but still lack of office space. It's a possible way to reduce the problem here.

The antique style restaurants and hotels have been proved as a possible way to reuse the old buildings in some cities. But this has not been popular so far because of lack of preserved old buildings. The well designed restaurants and hotels are predicted to attract customers by people's curiosity and interest.

Figure 2-21 Antique style restaurants and hotels in Beijing

The space in this new area is mainly divided into two categories — Squares in rebuild area and courtyards in preserved area. They are connected by the main pedestrian street which is also the landscape axis of this area.

The squares are open and semi-open space which can be regarded as the main activity place and gather place in this area. It provides people benches, drinking water facilities, public green and landscape and etc.

However, the courtyards are enclosure space which are formulated by the surrounding of preserved buildings. Moreover, this is the characteristic of traditional quadrangle dwellings in China. The space are created a private atmosphere for people to enjoy privacy and silence in the city.
Connections
Figure 2-23 New alleys connections to outside

After renew this area, the alley structure become simple and clear. As an area with small scale but high density of walkable passengers, cars are not recommended to pass through this area. So that people will enjoy freedom walking and safety feelings when they spend time here. A main pedestrian street go through this area from east to west. Based on this main pedestrian street, some branch alleys spread towards the outside and make every space available to reach.

The redesign of Hongshan Village is only a small part of the whole renewal process and aims to raise the land value and solve some physical problems such as improve the environment, building rearrangement and increase more public space and facilities.
2.6 Renewal scheme of Hongshan Village

The official explanation of choosing "Developer - Involving Model" in Hongshan Village is that due to the perfect location of this village, the land value is predicted to have a great improvement. Through the operation of land market, the market value and social influence such as urban landscape, living environment can be promoted, so that the most value of Hongshan Village's redevelopment can be achieved.

The renewal process of Hongshan Village is concluded as follows:
Firstly, Nanjing government collect Hongshan Village's land by expropriation or recycling. In this way, local government has gathered land from decentralized land users. Then some primary land development will be put into practice such as demolition and land leveling. After that, according to the urban master plan and the demand of urban economic development, put land on the market systematically in the way of calling for bids, auction and hanging out shingle. When the land developer get the property in this land, it can start to organize the construction power and redevelop the village based on the redesign planning. Normally, the village's renovation will not be regarded as totally completed until the developer and government get revenue from the new "Hongshan Village".

- Land recycling: According to the law, every land in China has a limited time using. Generally speaking, the life span of industrial land use is 50 years while residential land use is 70 years and commercial land use is 40 years. When the time is up, government has the right to recycle the land and put it into land market again.

- Call for bids: Government hangs out the trade terms in certain range, invites limited numbers of developers to take part in the tender and chooses the land user in accordance with documented procedures.

- Hang out shingle: It is an important supplement of "calling for bids". Government hangs out the trade terms to the public, receives offers from different participants and keeps renewing the price. Finally, the highest bidder within the stipulated time will become the land user.

Nowadays, Hongshan Village's renewal has just started. And Nanjing government is in the process of holding negotiations with the villagers on the compensation method. If both sides reach an agreement, some demolition and land leveling will take place.
Due to the perfect location of Hongshan village, the land value is predicted to have a great improvement, original villagers or transients will not have the capacity to re-house in this area. It seems that villagers get no benefit from the renovation.

Will villagers benefit from the renewal? The answer is yes. When villagers “grow houses” at the first place, their purpose was to get more compensation fee in the future renewal project. Because according to the relevant laws, the more houses they have, the more compensation fee they will get from demolition. In a manner of speaking, some of them had predicted their village’s renewal and waited for being compensated.

Secondly, the villagers will be grant urban residence identity as a kind of compensation. Moreover, the new apartment that government compensate to villagers are of much better quality and environment. So that original villagers can start a new but much higher quality of life.

In addition, various of compensation options will be offered to villagers such as employment opportunity and relevant social welfare to compensate villagers in a long term.
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Figure 2-24 The renewal process of Hongshan Village

1. Government collect urban village's land
2. Compensations for lost - land villagers
3. Building's demolition and land leveling
4. Put land on the market
   - Call for bids
   - Auction
   - Hang out shingle
5. Real estate redevelop the land
6. Redeveloped land revenue
7. Urban village renewal completed

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2.7 Additional strategies to Hongshan Village

Because Hongshan Village's renewal is a complicated project that involves different aspects, some necessary measures should be put into practice. Based on the former "Renewal strategies" phase, I have thought about the specific situation in Hongshan Village from the perspective of Nanjing government, and recommend strategies for the Hongshan Village's renovation.

(1) Unified construction, implement step by step
The Hongshan Village renewal project must be guided by Nanjing urban planning requirements and be unified construction by the developer in order to avoid the decentralized construction. Meanwhile, due to the construction of new resettlement for villagers and implementation of other social welfare, Hongshan Village's renewal can not be completed at once. According to the plan which made before the renovation, the renewal project should move forward step by step.

(2) Remove the obstacle of land ownership
According to the Land Administration law, the land in Hongshan Village used to belong to village collective. When a renewal happens here, the land property transit from village "collective - owned" to "state - owned". Because as I stated in "Policy analysis" phase, only if collective land be transformed to country - owned land then it will be able to be traded to developers in land market. Therefore, when Nanjing government collect the land in Hongshan Village, the property of land and houses should be classified clearly as "stated - owned". So that there is no barrier left to prevent these land put into the land market.

(3) An exchange of monetary compensation and property right
As I state before, generally speaking, there are two kinds of compensation methods: Compensation in money and compensation in kind. On one hand, considering the massive redevelopment of urban villages in Nanjing, the capital funds of government is limited. So that not every "lost - land" villager in Hongshan Village can get enough compensation fee at once. On the other hand, after the interview in this village, most villagers tend to get some compensation in kind, such as resettled houses and arranged employment.
Above all, the most appropriate method to compensate Hongshan Village's villagers seems to be that a combination of monetary compensation and property right's exchange. Reasonable compensation fee should be paid to villagers. At the same time, build resettlement apartments in somewhere else for villagers and low - rent apartments
for transients. The villagers who used to have land property in Hongshan Village should not need to pay for the new property of the resettled apartments. In addition, according to the current compensation policy, some other compensation options could be offered to villagers such as employment opportunity and relevant social welfare.

(4) Set up a renewal project fund to serve the construction of public facility's
Lack of public infrastructure is one typical problem that appears in Hongshan Village. And bring the public facility's construction to completion is one of urban village renewal's goal. However, because of capital shortage and some corruption in governmental authority, the continuous public facility's construction can not completely be put into practice in most projects. In this situation, I recommend Nanjing government to set up a special project fund. The fund mainly comes from the revenue of renovation and be used specially to perfect the public facilities around the Hongshan Village.

(5) Set up a supervision mechanism
Nanjing government still has the responsibility to supervise the renewal project after the developer get the development right of Hongshan Village's land. A supervisory agency should be set up to supervise the operation of funds and renewal process. Also, coordinate different departments of authorities involved in the project in order to make sure the Hongshan Village renewal develops smoothly.
Conclusion

The urban village phenomenon can be described as: urban growth consumes land previously cultivated by villagers in a collective organization of land-use and ownership. The transformation of agricultural land into construction sites changes the livelihood of the villagers. Urban village villagers start to "grow houses" for renting instead of grow crops. When a renewal project takes place in the village, they are normally not compensated for this value change in the western capitalist way: selling land for profit. Instead they are offered compensation alternatively in kind (apartments), in urban employment, in personal urban residential rights or in expanded building rights on the remaining property (the built-up village quarters) and in social security such as endowment insurance, health care insurance, unemployment insurance and etc. The decision on which compensation method shall be given is made by the local government, depending on the specific situation in the city and in interplay with stakeholders such as developers and the villagers. The need for upgraded infrastructure is often neglected, unless a property developer seizes the entire village for transformation. During the transformation from natural village to urban village, the villagers' livelihood changes from subsistence farming to service-work in overcrowded houses with bad sanitary conditions. The key to make the social conditions better in these urban villages lies in adequate compensation schemes and better organization of the transformation.

The urban village renewal should meet the demand of city's overall collaborative development. And its fundamental purpose is that through adjustment of land property, population identity, economy, society, environment, planning, construction, regulations and etc to implement the transition from rural area to urban area, from villagers to citizens. Urban village renewal is a complicated and systematic project which involves different aspects and at a certain difficult level.

In this thesis, I focus on the theoretical study and analysis of the urban village renovation. The main contribution of this paper can be concluded as follows: First of all, I have summarized the different researchers' literature sources systematically and indicated the development of urban villages in China, include some descriptions of urban villages' definition, formation and positive values. Moreover, the problems in urban villages is assessed as well as the current need for solutions. Secondly, I have introduced the Game Theory to analyse the different interest groups' behavior in urban village renovation. Since the application of Game Theory, three typical renewal models are widely used in China nowadays. I have also made comparison of these renewal models and stated each model's characteristic.
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Thirdly, the current relevant policies and strategies are introduced and analysed to indicate the urban village renewal is a complicated project which involves various of aspects and face a lot of challenges. Fourthly, based on the study above, an urban village in Nanjing city was chose as the major case to analyse and go through a specific renewal model. In addition, my personal thoughts and proposal were implemented in this case study to achieve the potential transformation.
Discussion and Recommendation

Since the opening to outside world, the social economy and urbanization level has kept developing in China. However, cities has commonly met "urban village" problem, which is stamped with a significant Chinese characteristic during the rapid urbanization. There is no doubt that "urban village" has turned to be one inconvenient component of Chinese urbanization. It is a social cost that we must pay for the urbanization and also reflect the structure, face and characteristics of future Chinese cities. Therefore, the urban village phenomenon must cause our concern and attention as soon as possible.

However, nowadays, Chinese government has a serious shortage of "running after the profit". By redevelop the land which is in a good regional condition, government seek the most value brought from the land. In addition, from the perspective of economic development and governmental record of achievements, government consider more nation's interest rather than the villager's personal interest. The compensation standard is lowered as much as possible by the urban village renovation organizers and this behavior has harmed the villagers' interest to a great extent. In the mean time, when the land value increases due to the urban village renovation, both the original villagers and transients can not afford the houses price and cost of daily life, they have no choice but to move away. In another word, the urban village renewal project has become a tool to banish the low - income class from urban area.

As a student, I can do nothing to the policy, yet I have the right to give a fair evaluation on the "urban village" phenomenon and present it to people. The villagers in urban villages have made great sacrifices to the entire city's development, local government has the responsibility and duty to compensate lost - land villagers' property damage in justice. The compensation standard and compensation fees should be settled based on the social justice principle. Any administrative means should not be used to compel the villagers to accept the urban village renewal. In my opinion," people - oriented " awareness should be the pre-condition of urban village renovation.
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Figure i Thesis framework
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Figure 1-2 Different provinces' urbanization rates(%) in China (the year of 2006)

Figure 1-3 Urban villages' formation

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Source: Available from http://image.baidu.com/i?ct=503316480&z=&tn=baiduimagedetail&word=%E5%9F%8E%E4%B8%AD%E6%9D%91&ie=utf-8&in=14071&cl=&lm=&st=&pn=238&rn=1&di=62452836100&ln=1997&fr=&fm=&fmq=1367071942315_R&ic=&s=&se=&sme=0&tab=&width=&height=&face=&is=&istype=&jit=#pn238&-1&di62452836100&objURLhttp%3A%2F%2Fhiphotos.baidu.com%2F11252536%2Fpic%2Fitem%2F8dbdc61a9d16fddfdd1e1f5ab48f8c5495ee7be3.jpg&fromURLippr_z2C%24qAzdH3FAzdH3Fptjkw_z%26e3Bkwt17_z%26e3Bv54AzedH3FrAzeH3F80cacb0880&W999&H671&T10447&S308&TPjpg [Assessed on 7th August, 2013]

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Author edited

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Table 1-2 Comparison of urban villages in western and China
Source: Author concluded, edited

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