

## **IMPACT OF LAND TENURE TRANSFORMATION ON PHYSICAL DEVELOPMENT OF DRUM-TOWER MUSLIM DISTRICT, XI'AN, CHINA**

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Xi'an, called Chang'an<sup>1</sup> in ancient time, is a historical ancient capital standing in the orient of the world. It has an urban development history of over 3,100 years and a history of over 1,100 years as national capitals. It is the cradle of the ancient Chinese civilization. During the time of the Han and the Tang Dynasties, Chang'an and Rome as the capitals of two most powerful countries stand abreast in the east and the west of the earth. The population of Chang'an in the Tang Dynasty has reached one million and it was the largest metropolis in the world.

Land tenure is an important and sensitive topic in every society. Payne (1997: 3) defines land tenure as 'the mode by which land is held or owned, or the set of relationships among people concerning the use of land and its product'. Land tenure determines the accessibility to land, the security of land ownership and the transaction procedure of land in a society. In a rapid transformation era, urban land tenure is even more critical.

I selected a block in the Muslim District, Xi'an China, as my case study area. It is a historical area located in the east part of the Muslim District. The size of the block is approximately 1.4 hectares. More than 90% of the residents are the Huis. In this study, a main principle is territorialism for community development. It is my belief that to develop a community or a neighborhood, we have to respect the people living in the place and the culture of the locality.

### **Discussion on Setting of Historic District**

"Setting" is a broad concept. Horizontally, it includes the setting of policy, the setting of culture, the setting of physical environment, etc. Vertically, setting could be

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<sup>1</sup> Chang'an originated in the Han Dynasty and it was completely destroyed in the early of the Sui Dynasty. In A.D. 583, the emperor Suiwen moved the capital from Chang'an city of the Han Dynasty to Daxing city. In A.D. 618, the Tang Dynasty was founded, Tang Gaozong replaced Daxing city with Chang'an city, which means longtime rule and piece.

understood as different layers of setting, the city a historic district rest in, the area lager than a historic district and the historic district itself.

### **Firstly, historic district protection in the scope of macro region**

Xi'an can be called a "natural historical museum" of the Chinese ancient society. There are the world's most intact and grand old city walls and the four big heritage sites of Zhou, Qin, Han, and Tang dynasties covering an area of 108 square kilometers. There are also 2,944 culture relic protection sites collecting 120,000 various cultural relics, many of which are rare treasures not only in China but also in the world.

Presently, Xi'an shaped the urban layout of 'Jiu Gong' pattern (that is to divide a city into nine parts by 3 X3 like the shape of '九'). The old town of Xi'an located in the middle of the 'Jiu Gong'. There are some heritage sites of the Tang Dynasty such as the Cheng Tian Gate, the Han Guang Gate, and two historic districts which embody the Ming and the Qing Dynasties culture. The rich historical and cultural background of Xi'an is the urban setting of Xi'an's heritage sites and historic districts.

### **Secondly, the area larger than the historic district**

This refers to the old town of Xi'an. It has been one important part of the historical and cultural famous city, and the political, economic, and cultural center of Xi'an since the establishment of P.R.China. In the old town, there exist positional axes, symmetrical road network pattern, the foursquare and intact old city wall, the moat system, and the spatial level system composed of streets, lanes and yards. It also contains some historic relics, traditional residential houses, excellent modern buildings, and ancient trees.

### **Thirdly, the historic district itself**

The setting of historic district includes all relative issues in the area. We need to consider not only the tangible objects such as building, environment, infrastructure, but also intangible objects such as territorial identity, local culture,

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land tenure, related regulations, etc. Land tenure is an important part of the setting of policy.

Xi'an Muslim District is situated in the central part of Xi'an, close to the Bell Tower and the Drum Tower. About 60,000 people live in the area, one third of which are the minority Huis<sup>2</sup>. The Huis keep their custom of living around Mosques and have their own dress and language with special feature. There are ten mosques in the area. The biggest one is the Great Mosque, which was listed as the state-level protected heritage for its traditional buildings and religious significance.

Drum-Tower Muslim District is a preservative district in Xi'an due to its historical and cultural values. Land tenure is a complicated issue in the area. The situation of land tenure in the Muslim District has greatly changed over time. With the growth of population, changing family structure and size, changing ownership or users rights, land subdivision happens very often. This has caused many social and physical disturbances in the area.

### **Findings - land tenure transformation process in the case study area**

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The findings are based on a two months fieldwork along with the questionnaire designed and carried out by Xi'an University of Architecture and Technology and my working experiences in recent years. I describe land tenure transformation process in a chronological order by analyzing three aspects of the case study area: family, housing and land tenure since they are linked to each other closely.

In the post revolution period, the case study area had 23 landowners. Both land and houses were privately owned. The property owners could sell, rent or mortgage their land or properties freely. The northern part pertained to some big families who owned big plots; while the southern part were occupied by some small-scale families with small plots. In the big courtyards, the owners were either governmental officials or businessmen. Most of the big courtyards contained traditional houses and had well-organized courtyard structure. In 1956, the activity of socialist transformation of industrialists and capitalists was launched

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<sup>2</sup> The Huis are the descendants of the immigrations from West-Central Asia, Arabia and local Chinese people. They settled around the mosques keeping their own identity. At the same time, the Huis have gradually adjusted themselves to the macro social context.

in the urban areas of China. To the big and rich families in the case study area, local government rented or co-operated with private owners. This was called 'private-public cooperation' (in Chinese: Gong Si He Ying). Part of the plots and houses of these families were redistributed to employees of governmental units or used as working place for governmental units. Since land was just taken as a kind of resources but not a commodity at that time, land had not been taken into serious consideration, especially when people redistribute properties.

From 1966 to 1976, the Culture Revolution penetrated to everywhere in China. Many of the big property owners gave up their rights over their properties. Private land ownership almost disappeared at the end of the 1970s. Many houses and courtyards were destroyed during the Culture Revolution. Overall, the transformation is a long process from the 1956 to the end of the 1970s.

In the end of the 1970s, China started the open policy and the society started to have great change, especially in the urban areas. A dual system – market economy and planned economy - exists in China. In the case study area, we could see very fast transformation - physically, socially and economically. Family structure has been transformed from a joint family to nuclear families. According to the questionnaire carried by Xi'an University of Architecture and Technology in 1999, the case study area is subdivided into 85 plots. Most of the courtyards are low rise and high density in present day. Some of the buildings in the courtyards still keep one or two storeys, but in fact only very few traditional buildings exist now and they are in very bad conditions. The original courtyard structure has almost disappeared.

The fast increasing population has led to frequent land subdivision. Usually a courtyard is inherited by several descendants and one plot is subdivided into several small plots. For example, Mr. An's family has three brothers and two sisters. In 1989, the property was divided into five parts. A new house was constructed in 2001. It is not in harmony with nearby traditional building style at all. Since the subdivided plot was too limited, the yard had no open space or green area.

In 2001, 54 plots (64%) are less than 100 m<sup>2</sup> in the case study area. Usually only one building exists on each plot and no open space. This has led to difficulty for any improvement in the future. We have to think about what will happen if the plot is further subdivided in the future? In fact, it is too small already and could not be further subdivided

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anymore. At the same time, how to divide a plot between the different families is a complicated issue. When people inherit properties from their ancestor, it could happen mainly in the following two ways: 1) Divide property by house or floor area. In the old time people emphasized more on houses than on land. Many cases in the old time were divided by house. 2) Divide property by plot size. With the coming of land reform, people started to recognize the value of land. More and more cases were subdivided by plot in these days.

Today, in the case study area, there are mainly three types of land tenure:

- 1) Private LURs ownership - Property owner holds National Land Use Certificate and leases the state land, but the lease has no time limitation and the LURs could not be transferred freely.
- 2) Public LURs ownership - The public owns the LURs of some plots and is responsible for the maintenance of the properties on the plots.
- 3) Rent - There are three types of rent in the case study area: rent public property for residential usage; rent public property for company or governmental unit; rent private house for business.
- 4)

Overall, the land tenure transformation process in the case study area shows that the social and political environment of a society is a determinative factor in the main transformation of land tenure. In a micro level, family structure, land tenure, land use, housing and built form are closely linked to each other and influencing each other.

### **Impact of land tenure transformation on the physical development of the case study area**

Land tenure transformation has significant impact on the physical development of the case study area. Since the end of 1970s, land subdivision has occurred very often, which leads to land fragmentation. As Bjønness points out, 'The fragmentation of land ownership through inheritance is a threat, which could lead to demolition of the area' (Bjønness, 2000). The impact of fragmentation of land tenure could be categorized into three aspects:

- 1) Build houses without considering adjacent plots - When a house is constructed, the LURs owner seeks to obtain as much floor area as possible. Very often the owner builds the house just along the border of a plot. The consequence is that many houses have no direct sunlight or ventilation. This phenomenon still happens frequently in new housing construction. We could imagine what the area will be if

this trend continues in the future. Will the area be filled up with concrete buildings?

- 2) Limitation of small plots - When a plot is subdivided into several pieces, the LURs owner of each plot has to build a house within his limit. Usually the plot size is too limited to consider environmental friendly housing design. It leads to poor environment and fragmentation of the area. For example, the Feng family owned a big courtyard before 1977, but it is divided into three parts today. The front yard and the back yard were sold out and the Feng family owns the middle yard. The structure of the back yard was totally changed. It is dark and narrow. Only the middle yard keeps the original courtyard structure. The houses in the other yards were totally changed to modern style but in bad condition today.
- 3) Narrow passway - The LURs ownership of the plot for passway is complex. In some cases, it belongs to one family within a big courtyard. In other cases, the ownership is obscure. When people rebuild their houses, very often they do not care the quality of passway, which has led to narrow dark passway in the case study area.
- 4) The dangerous of commercialization - In many cases, due to high price for historic district preservation, many historic areas are commercialised. But in the case study area, people pray every day in the mosques. Their living is very closely linked with the environment, so it is very important to maintain the residential function.

In the case study area, when people acquire the right to use a piece of land, they usually build houses according to what they want. The self-help housing construction could satisfy local people's need, but it also leads to the ignorance of environment. Land tenure also has close impact on environmental conditions. The environment of the streets in the case study area is deteriorating. Since the land for the streets is publicly owned, there exists the phenomenon of 'nibbling' on public space. The narrow streets become even narrower. On the Bei Yuan Men Street and the Xi Yang Shi Street, bikes, man-drawn carts, motorcycles and automobiles pass on the same narrow way, which often leads to traffic jam. The conjunction of the streets has increased the difficulties for the government to install infrastructure.

### **Discussion - Rethinking about land tenure system in the case study area**

The land tenure transformation process in China shows that political or economic reform has led to the change of land tenure system. Land tenure could not be separated from the political regime of the society. Land tenure

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transformation from one type to another is a long and gradual process. In China, it took 26 years (1956-1982) for the transformation from private land tenure to state land ownership. Although there are still many questions and problems in the present land tenure system, regarding the main issue of equity in access to land and housing, I think it is of importance to maintain general state ownership in China to avoid a situation with increasing land speculation and an uncontrolled land market.

Through the study, I find that there are some deficiencies in the present land tenure system. I summarize my understanding about urban land tenure in the case study area in the following four aspects:

*1) LURs - What kind of rights?*

In the case study area, people have the right to use their land, but what are the specifications of the rights? In present day, people pay very low fee for the use of land. If one wants to sell his property including his LURs, how should the price of LURs be set? Does the LURs owner have the right to determine the price? To what degree can people change the use of a piece of land? All these are the questions should be answered in the definition of LURs.

*2) Land lease period*

In the case study area, land lease has no time limitation. The Swedish experience shows that 'the leasehold system as a land use planning instrument has not lived up to expectations. For example, it has proved to be difficult to coordinate the expiry of the leasehold period with the urban redevelopment plans' (Huque, 1987: 88). Of course, it does not mean the leasehold is wrong. It reminds land policy makers to consider the mode of leasehold thoroughly in order to set appropriate policies.

*3) Uncontrolled land subdivision*

The case study shows that frequent and unregulated land subdivision is a main problem for community development and the quality of the overall built and natural environment. In the case study area, the LURs could be inherited by the descendants of a family. Women have equal inheritance rights to men. In present day, there are no legal regulations about this kind of land subdivision. The consequence is fragment action of land tenure, which has influenced housing and the area's environmental conditions and will lead to difficulties for future development.

*4) Security of urban land tenure*

The Muslim District is located in the central part of Xi'an, which means land value in the district is very high. Many of

its surrounding areas have been commercialized in recent years. Although the area is designated as a historical district in Xi'an Master Plan (2004-2020), there is still a potential threat to the district for future urban development.

Overall, there are still a lot of lessons to be learnt although the land reform in China has been quite successful till now. In the case study area, to regulate land subdivision, the minimum size of a plot could be set legally, but the minimum size might not just be a rigid number. For the other issues such as LURs, administratively allocated land and land lease period, it is the responsibility of different levels of governments to set appropriate policies according to substantial intensive studies. But the changing should respect the existing model and improve on it.

## **Recommendations**

The aim of the study is to achieve an improved living condition for a community, so my recommendation is based on the case study area. This is also in accordance with my principle in the study, to respect the territory, the people and the culture in a locality. I recommend a project proposal based on the following four aspects:

1) *Public space* – first of all, the original street scale should be maintained and the identity of each street should be kept. Secondly, open space should be increased. Thirdly, the streets in the case study area should be controlled as pedestrian streets. Bikes and tricycles are allowed but automobiles should be permitted only in certain hours of a day. Fourthly, traditional atmosphere of the streets should be kept or restored. It could be the traditional style of street pavement, low-rise street houses and the traditional design of streetlights, etc.

2) *Housing* - a set of regulations is imperative to guide the housing development. An intensive investigation and an integrated plan are imperative to ensure that a project goes on in a correct direction. Meanwhile, some basic principles should be held in the improving process. a) Respect the Hui people's custom and religious belief in planning and architectural design. b) Retain traditional building style and courtyard structure and protect the integrity of overall historical atmosphere. c) Adjust the usage of land to get a bigger housing capacity. d) Consider family-based business in planning efforts. e) Apply multiple methods in preservation and renewal to avoid massive eviction. f) Improve environment and install infrastructure by public agencies.

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3) *Courtyard structure* - Courtyard structure is a traditional way for Chinese housing. However, the main building form has transformed to parallel pattern and point pattern. Wu (1994) advocates the recovery of traditional culture in a famous project called 'Juer Hutong' in Beijing. The successful implementation of the project shows that modernization does not have to sacrifice the historical value of houses. With architects' careful design, traditional organic housing structure could be preserved and modern life standard could be achieved (Wu, 1994).

4) *Integrated plan* - A possible solution to stop the unregulated land subdivision is to make integrated plan for each courtyard before land subdivision. The plan should be made according to the particular situation of each courtyard and should not be uniform. The following quota should be set in the plan: FAR (Floor Area Ratio); GCR (Ground Area Ratio); minimum green area ratio; minimum distance of building line to courtyard boundary; maximum building height and minimum size of a plot in land subdivision of the courtyard; allow for mixed land use, but housing needs and income opportunities for local residents should be given preference.

The implementation of the project proposal requires the close cooperation of local residents, professionals and government officials. Then what should we do and what could we do as urban planners?

The practitioner in planning field is to deal with the reality, which is unique, uncertain and full of conflicting values. Planners work with many interest groups in planning processes. They have to play multiple roles at different times within the same process. Effective planning requires planners to be deliberative in planning practice. Healey (1997) proposes an inclusionary approach for strategy making, in which collaborative social learning processes are the ways to produce knowledge and understanding. The inclusionary approach emphasizes the importance of local knowledge as well as scientific and technical knowledge. It involves interactive conversation between stakeholders, professionals and politicians, through which participants can learn from each other about both facts and values.

In the other hand, to increase cooperation between different governmental agencies and sectors is very important to the efficacy of planning. Christensen(1999) suggests cooperation between intergovernmental agencies under the complex and uncertain circumstances. People working in multiple agencies in the same sector have many common characteristics such as similar technologies,

common goals, interdependent relations, and common professional backgrounds. The similarity and common interests enable the agencies to cooperate through mutual adjustment. Their cooperation could be in vertical or horizontal dimension. The functional specialization united different agencies in one sector vertically. The common territory is the base for their cooperation in horizontal dimension.

### **Conclusion**

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The protection and improvement of Xi'an Drum-Tower Muslim District has to be taken step by step. Plans should be made according to each different courtyard. Since the area has a lot of cultural relics, low building lines and traditional street pattern are still preserved; it is of high protection value. Local government should make integrated plan for the area and make clear protection measures legally. Due to the speciality of historic district and the situation of China, land tenure in historic district should not be taken into market operation.

## References

### Abstract

The paper is based on a case study in Xi'an Drum-Tower Muslim District. With historical transformation, the growth of population, changing family structure and size, changing ownership or users rights, land subdivision happens very often. This has caused many social and physical disturbances in the area. This paper emphasizes on the impact of land tenure transformation on changing physical development in the area. The objective is to find out land tenure transformation process and its influence on the physical development in the Drum-Tower Muslim District, Xi'an, China. Certainly, research findings should not be the end. The development aim is to discover problems and to generate new ideas to achieve better development and improved livelihood.

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