Square Dancing in the Streets, Xuanhua, China

THESIS

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Abstract

As China is moving towards an aging society and being reshaped through a process of rapid urbanization, the lack of appropriate urban public space and the increasing population density in urban areas is threatening the daily life activities of the nation’s aging people. This thesis examines the phenomenon of Square Dancing practiced largely by the elderly, which has emerged over the past 5 to 10 years in China.

On one hand, the fast urbanization process does speed up the economic growth to a certain degree (according to the Chinese economic development data, the real estate industry alone can increase the GNP by 1.5-2% which means the GNP can go up by 1% if the residential development goes up by 10%); on other hand, this over emphasis on rapid economic development unfortunately contributes to the misappropriation and degradation of appropriate urban public space. Due to excessive emphasis on building urban infrastructures for the sake of industrialization, more and more Chinese cities are experiencing similar problems with regard to lack of appropriate urban public space which are supposed to accommodate various local urban life activities.

The thesis firstly investigates the correlation between the transition of Chinese economic forms and its urbanization process and unfolds square dancing as one
cultural phenomenon that emerged during the Cultural Revolution stage. By analyzing the social and cultural backgrounds of Square dancing and its unique spatial and temporal characteristics, this thesis uncovers the reasons behind its popularity and emphasizes the importance of creating appropriate urban public space for daily life activities. Taking the city of Xuanhua as a study example, the thesis uncovers the spatial requirements of an ideal dancing space and explores the potential of temporarily appropriating street spaces for Square dancing during different times of the day. Finally, it discusses the possibility of creating multi-functional/flexible urban streets accommodating urban life activities in ultra-dense urban centers.

Key words: square dancing; elderly; urban public space; dense city; flexibility; China; found space; loose space
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In terms of social and economic development, the importance of designing appropriate urban public space to purposefully accommodate various kinds of urban life activities has been widely accepted. These theories recognize all types of urban life activity as valuable to the health and lifestyle of urban populations, from street side merchandising to entertainers, children’s games, rituals and celebrations, casual and arranged meetings (Rivlin, 2007). Although some of the activities occur within the sanctioned designed characteristics of public space, others are creative and spontaneous, happening on “found spaces”, places intended for other uses (Rivlin, 2007).

By examining how Xuanhua Square dancers are creatively using “found space” for practicing their daily exercises, this thesis is aimed at uncovering the ideal spatial conditions for Square dancing and using them as means to create multi-functional urban streets which can be temporarily transformed into dancing space during different times of the day.

Problem statement
With the rapid social and economic development of past two decades, China, as a developing country is clearly anxious to achieve quick economic success. Stimulated through fast urbanization, its achievements have been witnessed by the whole world. China successfully completed its development process within less than 30 years compared to most developed countries which take nearly 100 to 200 years (Li, 2002). Admittedly, the fast urbanization process has brought many advantages for local development (e.g., increasing average income of urbanite and catalyzing industrialization process). However, the over emphasis on economic development has also led to less attention on urban public space.

According to the report from the Symposium on Demographic Challenges and Social Cohesion, China's population urbanization rate, which reached 51 percent in 2011, will further climb to nearly 60 percent by 2020). In the past three years urban populations have grown from 172 million in 1978 to 690 million in 2012.

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Figure 1: Chinese urbanization rate, National Bureau of Statistics (NBS), 1949 -2010.

The rapid speed of urbanization has also brought related social-economic problems, including environmental degradation, population overcrowding, resource depletion, along with limited open space and many other conflicts. Urban public space, an important city component, that used to accommodate various types of urban life
activities, is experiencing an extreme lack of attention. All kinds of urban life activities that used to happen on public space are suffering from a lack of appropriate space in the contemporary Chinese city. This thesis looks at Square Dancing as one cultural phenomenon, practiced largely by elderly Chinese, which has emerged within the past five to ten years. As the ongoing process of fast urbanization occurs with less and less attention given to creating appropriate urban public space, the Square Dancers are struggling to find appropriate space to practice their daily exercises.

Study example and goals
The city of Xuanhua is taken as a research example due to its long development history and its potential of serving as one prototype of a small-sized Chinese city experiencing problems with lack of appropriate urban public space due to over emphasis on industrialization and urbanization. Square dancing’s long cultural history, started to emerge as one popular daily exercise activity for local senior people aged 65 and over during the past five to 10 years. However, as more people began to practice this new type of daily life activity, the dancers are struggling to find enough appropriate open space to practice their exercises. By studying the spatial characteristics of their preferred dancing spots and relative case studies, the thesis examines the current street system and uncovers its potential for being temporarily claimed as a dancing spot during different times of the day and transformed into multi-functional urban public space accommodating various types of urban life activities.
Chapter 2: Background

As one important urban environment that addresses all social, political and economic aspects of urban lives, urban public space has been increasingly acknowledged in the academic literature since the 1960s (Lofland, 1973; Sennett, 1977). Compare to 100 years ago when most of American cities are experiencing dramatic expansion in urban open space; there is not much change in recent urban parks and open space in western countries. This shrinking phenomenon of public space has close implications related to political, economic and technological changes (Rybczynski, 1999).

The “disappearance” of or lack of attention to urban public space during the Chinese urbanization process can serve as one typical example. Due to Chinese government’s avid aspiration on rapid urbanization during Mao’s leadership (1954-1959), unrealistic and unpractical economic plans led to undulations in urbanization for many years. This remained true until Deng Xiaoping introduced the concept of reform and open policy in the third Plenum (Plenary Session) of the 17th Communist Party of China Central Committee in 1978 (Wang, 2011). The transition of the Chinese economic system from a planned economy to socialist market economy greatly freed
the market and enabled the Chinese urbanization process. However, as the speed of urbanization and increasing population density in Chinese cities sped up, the lack of appropriate urban public spaces which might accommodate many types of urban life activities became an issue. Square Dancing, as a cultural phenomenon emerged during the Cultural Evolution stage and now, as one popular daily exercise among Chinese elderly, is facing a severe shortage of activity space.

Chinese economic transition and its urbanization

During the past 60 years, China experienced a dramatic change in both its social and economic development. The urbanization process, at the same time, has also experienced ups and downs which have close relation and correlation with a series of economic and political events.
Starting from the foundation of China in 1949, China basically experienced three stages of economic forms, including planned economy (1949—1978), a transition stage (1978 – 1991), and the socialist market economy (1991—present).

Under the planned economy from 1949 to 1978, the government played a dominant role in resource allocation. Urban planning was simply the continuity and detailed implementation of the national economic plan. During this period, under Mao Zedong and Liu Shaoqi’s leadership, we must recognize that a series of political events beginning with the Great Leap Forward Movement and culminating in the Cultural Revolution greatly influenced the development of the national economy and slowed down the urbanization process. The turning point began in 1978 when Deng raised the concept of reform and open policy in one national conference which completely changed the situation.

The process of urbanization during the same period of time can be roughly divided into five stages, with an undulating stage constituting the first half and a dramatic increase in urbanization characterizing the last 30 years (Wang, 2011).

1. Initial Stage (1949—1957), the first 5 year plan enabled the implementation of many industrial projects. More cities started to emerge as more rural people were brought into cities as a work force.

2. Undulation Stage (1957—1965), the Great Leap Forward movement led to a quick increase in the rate of urbanization within 3 years. However, it is not a consequence due to objective rules of economic development but rather population transition urban political control. Realizing the problem, the government modified economic
development strategy and the rate of urbanization started to decline after 1962.

Figure 3: Chinese urbanization process (Diagram by Chen Tong)

3. Stagnation Stage (1965—1978), the 10 year Culture Revolution (1966—1976) severely influenced the economic development at the national level (reasons are stated in more details in the section of cultural origin of Square Dancing).

4. Progress Stage (1978—1991), benefit from the adoption of reform and open policy, the urbanization made great progress among many places in China.

5. Steady Stage (1991—now), with the market economy as the major economic system, Chinese urbanization process is developing at a steady pace

As Lewis Mumford expressed in his theory, the true reasons impacting urbanization were related to its social and economic backgrounds. Hence, it’s necessary to overlap
the two systems in order to uncover their correlation (See figure 4). Generally under
the planned economy, the urbanization process was undulating and did not progress;
the reasons behind that can be contributed to both the conservative characteristics of
planned economy system and the impact of several political events. After 1978, the
freedom of the market greatly increased the urbanization process. The Chinese
urbanization rate slightly increased from 7% to 10% from the foundation of China in
1949 to 1978 when Deng raised the concept of reform and open policy, but was
dramatically lifted to about over 45% in 2008.

Cultural origin of Square dancing

Shortly after the foundation of China, as the Chinese government, lead by Mao
Zedong, was anxious to achieve quick economic growth, in order to achieve this, they
made a series of economic plans that were unrealistic and unpractical (Li & Yang, 2005). This period of time was called the “Great Leap forward Movement.” To a certain degree, urbanization, as it was envisioned during the Great Leap Forward, represents the sense of exaggeration and impracticability. For example, in 1958 the government planned to increase the total production quantity of iron in order to produce five times as much as they had produced the year before. In order to achieve this goal, many peasants were encouraged to give up their farm work and participate in iron production events. This iron was produced in very primitive way. As a result, the products were very low quality and could not be used in most applications. Public dining halls were another interesting social phenomenon that occurred going on during the “Great Leap Forward Movement” stage. People were not allowed to cook individually at home but were all forced to eat together in the so-called public dining hall. However, as more and more peasants were coming from rural areas and in to cities, the public dining hall was under great pressure to accommodate the growing population.

Following the Great Leap Forward, China underwent the Cultural Revolution which lasted for about 10 years. One of the main purposes of the Cultural Revolution was to deal with the educated population who were more likely to have knowledge of the capitalist economy -- which is totally opposite to the planned economy. Different from the Great Leap Forward, during the Cultural Revolution intellectuals were forced to go to rural areas. People holding a “red book” in hand and being educated about loving Chair Mao is a typical situation during that time.
As more and more people were forced into rural areas, the urbanization process was severely slowed. During the same time, as the conflict between lack of food production and government’s desire to create quick economic growth was expanding, tension started to emerge between ordinary people and the government. During this time, dancing (Yangge) started to become a popular activity. It was originated from rural China, particularly in Northern part, as a traditional performance on special celebrations on the agricultural calendar (Holm 1991). Especially during harvest time, Yangge is a popular way for people to entertain themselves and to relieve fatigue.

During Mao’s period, the traditional dance was appropriated and politicized by the Chinese Communist Party as a way to communicate the party’s message (Holm 1991, Hung 2005). Under the planned economy, peasants struggled with extreme requirements on food production. During the period of the planned economy, Yangge became a way to relieve the tense relationship between Socialist Party and the people (See figure 22).

Along with many other forms of arts and expressions, Yangge was banned for a period of time during the Cultural Revolution (1966-1976). But it was during this time that many educated people were forced to go to rural areas where they gradually became familiar with the dance as a form of expression. The major participants of the square dancing now are those who, generationally, experienced the Cultural Revolution.

After the 11th Central Committee of the Communist Party of China, when Deng opened the economy and introduced the concept of reform and open policy, it was the
first time that the planned economy and market economy were not in conflict. Since this point the economy of China has grown exponentially, allowing for an improved lifestyle, increasing longevity, and a more secure period of retirement. Aging people who had experienced the Cultural Revolution in their teens, started to look for new activities in their found leisure time as ways to keep fit. (Chen, 2011)

History of Chinese urban public space and its westernization

The evolution of Chinese urban public space can be roughly divided into five stages (Gaubatz, 1999), including an early stage of traditional urban public space (prior to 618), late stage traditional urban public space (618-1842), trading port and the period of Republican control (1842-1949), the period of planning economy (1949-1978), the period of market economy (1978 to present). Studies of early stage traditional Chinese urban public space (prior to 618) concluded with mainly two characteristics of the traditional Chinese urban form (Gaubatz, 1999; Stockman, 2000). First, the overall layout follows a strict caste system; Second, military defense and social control function powerfully in order to prioritize business and social interaction. When the Tang dynasty began in 618, decentralization of governmental power weakened the control of social structure. Also, business development started to have a larger impact on urban public space. From then on, the cob walls used to isolate different “Fangli” (unit of urban habitat, square/rectangular shape with night curfew rule) and streets were penetrated with holes or even partly destroyed. These more open cities became the birth place of early trading, and public commercial activities started to emerge.
Since then, this new system of urban public space lasted for a long time. Although the function of public space at that time is not clearly defined, it is usually presented as a mix of traffic, business and private ceremony. These undifferentiated land use characteristics are in accord with other pre-industrialization cities and represents a kind of flexible urban fabric, one which sees infrastructural space, like the street network, as inherently flexible based on use and time of day. Thus, many urban life activities predominately depended on the street systems.

With the arrival of industrialization age, streets were widened, and became exclusively used by automobiles. Urban life activities were thus forced to happen off the streets. As a result, in many cities where the process of urbanization has happened at an unprecedented speed, streets were broadened and re-paved to satisfy vehicular circulation. Urban life activities that used to happen on streets were forced to give way. The lack of open public spaces, which were supposed to accommodate urban life activities, started to become a real problem.
Aging Society

In the 1970s, the Chinese government began to put birth control policy into practice. This was particularly true for the Han people who account for over 90 percent of the nation’s total population. In 1979, China’s One Child Policy was written as one of the fundamental national policies. By 2000, the policy had successfully reduced the newborn population by 250 million people. The Chinese demographic dividend period, which means the relative high percentage of working population during this period, as shown in Figure X, is believed to be part of the reasons for China’s fast economic growth. However, after 2012, the percentage of the elderly population is going to increase. At the speed with which the elderly population is currently growing, approximately 25% of the total population will be over 65 in 2050 (See figure 6). Because of this generational shift, it has become of great importance to create urban environments which can provide better activity space for elderly people.
Figure 6: Chinese population structure

Chapter 3: Methodology

The research methodologies employed in this thesis are based on both a qualitative approach and a quantitative approach with more focus on the study of experiential and observational data. Since the city of Xuanhua is the study example of a prototypical small-sized Chinese cities that suffers from lack of appropriate urban public space due to over emphasis on industrialization, all data collection is aimed at uncovering this issues and understanding it from the local users’ perspectives.

The investigation is mainly comprised of two directions, including a study of the current popular square dancing spots in Xuanhua, as well as the behind reasons and a study of the characteristics of dancing people, including their ages and daily life activity patterns.

Site observation is the major qualitative data collection strategy. They are substantiated through photographing and videotaping (See Figure 23.). For quantitative methods, random dancer interview is mainly the means to understand their preference on dancing spots, with regard to both the site conditions and location.

On site observation uncovers the fact that people in Xuanhua are suffering a lack of
appropriate open space. With an average of 1.2 m$^2$ per person, Xuanhua has far less
open space than the standard 9 m$^2$ suggested by the World Health Organization.
Current popular dancing spots can be divided into two types: designated dancing
spots and so-called “found space” (Rivlin, 2007) which means that they were not
originally designed to be public dancing spaces, but have been temporarily
appropriated for exercises.

Interviews were mainly implemented through face to face and one on one contact
during the dancing exercise. Questions were mainly comprised of the following
aspects:

1. Why do they love square dancing as a daily exercise?

2. Why are they utilizing particular spaces? Are there any reasons associated
with the physical characteristics of the site or is it because there are no other
alternatives?

3. What can be done to better improve the site?

Case studies were employed as a qualitative research method. I identified three case
studies, including research on the Square dancing phenomenon in Beijing, Beijing
traffic policy and PARK (ing) DAY project. All findings implemented through both
qualitative method and quantitative method will be talked in more details in next
chapter.
Chapter 4: the City of Xuanhua

Transformation of City Public Space

With more than 1300 years of history and a population of more than 0.3 million, Xuanhua has been widely identified as one of the most important historic cities in Chinese northern history. Over 90 percent of Xuanhua people are Han people and thus the local population structure was significantly impacted by the one child policy. Xuanhua was established in 888, during the Ming Dynasty, mainly due to its critical geographic location for military defense (see figure 24 & 25). It is also an important passageway for Mongolian plateau people entering to the central plain. Located 175 Km to the north of the capital, Beijing, Xuanhua was one of the nine garrisons of the Great Wall during the Ming Dynasty. Since that time, the city walls and gates (see Appendix 6) have experienced several periods of restoration (Yan, 2010). They have become important historical urban infrastructures that both tell stories of local history, and shape local urban public spaces. They are lucky to be kept, and well preserved, to the present. The people of Xuanhua embrace them as part of their urban landscape.

Starting in 1978, with Chinese economic transformation from planned economy to market economy (Berik, Dong & Summerfield, 2007), more and
more cities were anxious to achieve rapid economic development. Urban renovation as a fast and efficient strategy was widely adopted by an increasing number of mid-size cities. Broadened streets with clean paved surface started to emerge in hundreds of cities in China in order to better serve the rapid pace of industrialization. Xuanhua is prototypical of small sized Chinese cities that have experienced this type of change.

Three city gates are located on the main axis of Xuanhua, which has been historically considered the most important city corridor. This corridor is the center of urban life activities in Xuanhua, particularly during special celebration days (See figure 26). Before 1978, when Deng raised the concept of reform and open policy, Xuanhua was a traditional small Chinese city, where traditional folk houses comprised the majority of the living facilities for local people. For hundreds of years, the three city gates are the tallest city structures in Xuanhua (See figure 27).

However, with the arrival of industrialization, city streets were widened for the convenience of auto-mobiles and blocks of traditional folk houses were replaced by massive high-rise apartment buildings. On one hand, it is undeniable that people are living a better life in terms of their housing facilities. On other hand, with the rapid urbanization process reshaping Xuanhua as a densely populated small city, people are now suffering from lack of open public space. There are only two designated parks in Xuanhua and a cemetery largely used by people for daily exercises. Together they provide 1.2 m$^2$ of public space per person for the people of Xuanhua, much lower than the suggested standard of 9 m$^2$ per person cited as optimal by the World Health
Organization (Vázquez, 2011). Comparing with the capital Beijing which has a average of 11 m² green space per capita and 20 m² and 40 m² respectively for New York City and Washington D. C.. (See figure 7)

![Figure 7: Green space per capita in Xuanhua and other cities in the world](Data Source: http://www.stats.gov.cn/tjsj/ndsj/renkoupucha/2000jiedao/html/J13.htm; Diagram by Chen Tong)

Square Dancing in “Found Space”

In the city of Xuanhua, there are mainly seven types of recreational activity that are widely practiced. These include: street food, night street retail, shuttlecock kicking, roller skating, taiji and square dancing. According to my personal experience and on-site observation, the first five activities function well within non-sanctioned urban space due to their characteristics and relative loose requirements on spatial conditions.
Taiji and Square dancers, however, are having problems finding appropriate space because of their unique requirements on not only the site itself but also its surrounding environment. In particular, Square dancing and Taiji are studied in more details, not only because their major participants are both senior people aged 65 and over, but also because their requirements on space are very different.

Taiji (t'ai chi ch'uan), is a defense oriented martial art that was developed for combat and got transformed as daily exercise activity among elder people.. Because it emphasizes relaxation through slowness of motion, it usually prefers a green space in a quiet place, thus, green parks are seen as the ideal location. There are many versions of stories trying to uncover the origin of Taiji, amongst Chen (Chen-style) is the most widely accepted as the original creator. As a martial art, Taiji had traditionally been held in high esteem within the Chinese martial arts community. However, due to its increasing popularity amongst various segments of the population and shifting emphasis on health rather than self-defense, the fighting effectiveness of the practice in the modern era is debated. The philosophy of Taiji is that, if one uses hardness to resist violent force, then both sides are certain to be injured at least to some degree. Such injury, according to Taiji theory, is a natural consequence of meeting brute force with brute force. Instead, students are taught not to directly fight or resist an incoming force, but to meet it in softness and follow its motion while remaining in physical contact until the incoming force of attack exhausts itself or can be safely redirected.

An ideal Taiji exercise space should embrace the following characteristics:
1. With an emphasis on the concept of “Qi: as invisible energy, the ideal site should
be close to mountain and water, better with a background of stone rocks and trees.
2. Better with a gentle breeze but not a strong wind.
3. Better with enough sunshine. (Urban context with high rise building are not desirable)
4. Tranquility.
5. Open and better in non-paved area.

Figure 8: Taiji exercise spaces in the City of Xuanhua.

Square Dancing is a phenomenon that emerged popularly during the past 5 to 10 years in China and has become increasing popular among the elderly in modern Chinese cities. As discussed earlier, Square Dancing began as a cultural response during the Cultural Revolution and become a popular daily exercise activity for people to make new friends and keep fit (Chen, 2011).
Mapping the current dancing space in the city of Xuanhua (See figure 9), the red hollow and solid circles in the map represent the current popular spots where local people are engaging in dancing activities. It’s necessary to point out that there are only three spots that are designated public space for dancing while other places represented in solid circles are so called “found space” (Rivlin, 2007) which means that they were not originally designed to be dancing space, but are temporally claimed as dancing space due to the site’s ideal spatial and temporal characteristics.

Following the research done by Caroline Chen on dancing in the City of Beijing (2007), I found that most of these preferred dancing spots are paved open spaces that

Figure 9: Square dancing spaces in the City of Xuanhua.
are near supermarkets (See figure 9). The reason for this is that these elderly people usually dance very early in the morning, typically from 5:30 to 9:00, and then they go to the nearby supermarkets to bargain for the best prices on fresh vegetables. Hence, dancing and consumption are related activities for senior people in the morning.

Why do people compete for “found space” rather than dance in the parks which are designated public space? Square Dancing has particular spatial requirements. Because it often utilizes a mobile amplifier, which generates loud music, it’s better to be in sonic environment in order to reduce its impact on surroundings, while parks are usually very quiet and better for people to enjoy the silence. Also, the undulating surface condition and lack of lighting facilities in parks all become obstacles for square dancing.

Through site analysis (See figure 28 & 2), one found space and one designated dancing space were chosen for closer observation. Observation revealed that the ideal criteria for dancing places are uncovered as follows:

1. A Flat, paved area.
2. Overhead lighting for nighttime dancing.
3. A large enough area to accommodate thirty to sixty dancing bodies.
4. Over-head protection from undesirable sunshine
5. A Sonic environment (Southworth, 1969) that is an appropriate distance from residential areas or office buildings.
7. Spatial boundary to help create the sense of place.
8. Close to home (Accessibility) for senior people’s responsibility of taking care of grandchildren and cooking/cleaning homes for their adult children who are busy with working.

9. Visibility for spectators to be visually involved.

With these criteria in mind, the next step for the thesis was to look at case studies and identify appropriate space in Xuanhua that has the potential to be temporarily appropriated or claimed for dancing.
Chapter 5: Case Studies

Square dancing in Beijing, China
Beijing Traffic Policy
PARK(ing) DAY project

The first case study looked at similar square dancing patterns in Beijing. As Caroline Chen uncovers, the same phenomenon is going on in the City of Beijing. Beijing also has a dearth of sanctioned public space that is conducive to square dancing, but in many random ways (e.g. the space under highway and parking lots), Beijing seniors are creatively adopting many “found spaces” associated with urban infrastructures. They provide the shifting, transforming ground that residents are actively manipulating to continue their everyday practice. As square dancing continues to flourish in the urban environment, the dancing activity happening on found and loosened space (urban public space temporarily appropriated by residents to meet their needs) reveals the tension between how the modern city is imagined and constructed, and how the real city is remade and lived in by common people, especially our elderly square dancers.

The second case study examines the Beijing traffic policy. Due to the fast economic
growth and the increasing number of residents, Beijing now suffers from massive traffic congestion. In 2009, the net increase of vehicles reached 515,000 in the city, close to the 580,000 total vehicle populations in Hong Kong, China. The government of Beijing estimated that the vehicle population exceeded 4.7 million in 2010, with an average daily gain of about 2,000 vehicles. (Data source: Low Carbon Green Growth Roadmap for Asia and the Pacific: Case Study - Beijing, China’s traffic policy) As Beijing is suffering from an increasingly severe problem of traffic congestion, the government has implemented a number of strategies intended to limit the numbers of cars that are using the streets every day. To that end, the odd-even license plate system was created. It functions by identifying different dates in a week when vehicles will be allowed to be in use. Vehicles with even license plate numbers are allowed to utilize the street on certain days, while others are restricted to those vehicles with odd numbered license plates. This strategy helped to alleviate traffic congestion to a certain degree.

I take Beijing’s traffic policy not only as an example illustrating the lack of open space in China now, but also as a strategy for deliberately controlling public space that we typically think of as possessing a singular function, the street.

The last case study is the PARK(ing) Day project which is an annual event that enables people to rethink the way streets are used and to re-imagine the possibilities of the urban landscape. On PARK(ing) Day people use mobile, easily manipulated, tools to temporarily claim a parking spot and transform it into a desirable public
space for human uses. Although this is usually nothing more than a small installation project, the idea of temporarily using street space provides many more possibilities.

Learning from these case studies, in an ultra-dense city like Xuanhua -- where people lack appropriate urban public space for their daily life activities -- a reasonable proposal may be to find a way to temporarily reassign street space for public use. The idea is to transform the existing massive urban street system into multi-functional spaces that are flexible in terms of their users at different times of the day. During rush hour, streets may function in their routine ways; but during times when dancers prefer doing square dancing; they may be temporarily transformed into activity spaces.
that are exclusive to dancers. Just like the Parking day project, small mobile, manageable installation tools can be used to claim space.
Chapter 6: Proposal for Xuanhua Square dancers

To decide which streets are the best ones to start with, the criteria for identification needs to be associated with the following aspects including: street accessibility (close to senior people reside dense community), adjacency to supermarkets (fresh vegetables), distance to existing popular square dancing spots and transferability of streets (in terms of the number of lanes and the traffic condition during rush hours). The first step in this process is to look at population distribution within the city of Xuanhua. As shown in the figure 11, different colors represent different neighborhoods, and darker areas represent more densely populated areas. Generally, the southeast area of Xuanhua is more densely populated compared to the northwest area.

Senior people, in general, match the proportion of total residents in each of the neighborhood. Though there is not specific data on the senior population it is clear that the southeast area has the most senior people. It’s interesting to point out that the Million Willow Park newly built in 2008, doesn’t provide much convenience to senior
people with regard to accessibility. Clearly, the government is trying to bring people there by public transportation, creating the a bus line, highlighted here in blue.

Figure 11: population distribution in Xuanhua (Diagram by Chen Tong)
Figure 12: Senior population distribution in Xuanhua (Diagram by Chen Tong);


In particular, the study of current popular square dancing spots shown in the following diagram (figure 13) delineates both the service area of current popular dancing spots and its adjacent supermarkets. The radius for all circles is a half a mile walking distance. The overlapped areas become the ideal living areas for senior people because they can easily get to both dancing and shopping supermarkets within desirable walking distance.
Figure 13: Popular square dancing spots and less convenient area for elderly (Diagram by Chen Tong)

However, the highlighted dark area becomes the place where elderly people do not enjoy much convenience for dancing. If the strategy is to identify certain streets for square dancing, the streets within this area become a reasonable start (See figure 13). In order to be more rigorous about the calculation, a further study of how much space one individual dancer needs and how much space a dancing group needs was conducted. This study was later applied to the search for appropriate streets. The planned strategy reserves at least one car lane for traffic on both sides, and keeps at least two car lanes to be transformed into dancing space during appropriate times. With this strategy in mind, an ideal street needs to be at least 6 car lanes wide (See figure 14).
The streets highlighted in light purple become the ideal streets for transformation into dancing spots because they are within the service area of adjacent supermarkets, particularly that area highlighted in white which is within the “less convenience area” (See figure 15). If at least half of all the streets highlighted in light purple and white were transformed into dancing space, they, together, provide an average of 8.8 m² dancing space for every senior person living in the surrounding neighborhoods. To decide which side of the streets should be prioritized to be claimed as dancing spots, a study on the traffic flow pattern in the morning is necessary. During morning rush hour almost 50,000 people who work in the local Steel and Iron Company will
move towards the south side of Xuanhua. This suggests that for the streets heading north or south, the east side of the street should be prioritized as dancing spots.

Figure 15: Streets with at least 6 car lanes overlapping with supermarkets service area (Diagram by Chen Tong)
Figure 16: General traffic flow pattern in the morning of Xuanhua (Diagram by Chen Tong)
Above is a rendering showing rush hours in the morning, square dancers claim two of the tree lanes on one side for dancing exercise. Two car lanes together with the sidewalk provide enough space for a group of exercisers. They use temporary elements like plastic traffic cones and flags to temporarily claim space, although the space still looks like spatially weak, because the boundaries are not defined clearly by vertical elements.
During non-rush hours, the streets can be reduced to two lanes, one in each direction, and the whole other side can be claimed as dancing space (See figure 17).
Figure 19: Vignette #3, dancing in the evening (Rendering by Chen Tong)

During the evening when there is no preferred traffic direction, only two car lanes are left for traffic and the other car lanes are transformed into dancing space. Net lighting can be used to increase the sense of enclosure, allowing for a more legible urban space.
Chapter 7: Conclusion

(Limitations and future study)

The study attempted to engage in a topic about creating appropriate urban public spaces that are associated with people’s daily life activities. The time frame of this master thesis is a limiting factor (7 months). In order to fully understand the origins of Square dancing as a cultural phenomenon, more studies efforts and time need to be involved. Besides, the study example of Xuanhua can be understood as one prototype of Chinese small-size cities that suffers from lack of appropriate urban public space due to over emphasis on industrialization. It has its unique cultural and social background which creates inapplicability for other urban scenarios.

The strategy identified for Xuanhua Square dancers are applicable to certain degree; however, appropriating street space by using plastic traffic cone and flags may lead to spatially weak space which could generate problem of safety. For future studies, it’s practical to question for how do we create more spatially legible and safe dancing spots for square dancers. From plastic cone to flags, maybe we should rethink about the profile of Jersey barrier as a way to create more permanent, spatially legible and resting function associated facilities (See figure 21).
All in all, resilient and adaptable, square dancing continues to flourish in the Chinese urban environment (Chen, 2011). It is time that planners and designers recognize the importance of learning from these dancing lovers. It is of great importance for us to understand that strategies for creating transitional spaces may be more appropriate for rapidly developing, ultra-dense, cities than more traditional static, single purpose, spaces and infrastructures.

Besides, the flexible urban public space in the long run, provides thoughts and solutions to transform urban streets, which are currently exclusively used by automobiles, to more flexible space that can accommodate other possible forms of urban life activity. When the phenomenon of square dancing fades away some time in
the future, use flexibility in urban streets will continue to provide alternative public space for ultra-dense urban environments.

Figure 21: from temporal to permanent/spatially legible. (Diagram by Chen Tong)
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Figure 22. Square dancing (Yangge) during Cultural Revolution

(Photo source: http://chenmodemaque.blog.163.com/blog/static/16389212920129113253514/)
Figure 23. Square dancing in the morning in Xuanhua

(Photo by Chen Tong)
Figure 24. Crucial geographic location of Xuanhua (Diagram by Chen Tong)

(Data source: http://mappery.com/map-of/Great-Wall-of-China-Map)
Figure 25. Site plan of Xuanhua in Qing Dynasty (1644-1912)

(Plan source: http://rosavepo.blog.sohu.com/144628841.html/宣化县志)
Figure 26. Street of Changan in Tang Dynasty

(Photo source: http://www.bdlrl.com/ship/_private/20_ca/02-gdca/dsx.html)
Figure 27. City gates located in the central city corridor

(Photo source: http://rosavepo.blog.sohu.com/144628841.html)
Figure 28. Dancing activity site analysis one, designated public space

(Diagram by Chen Tong)
Figure 29. Dancing activity site analysis two, found space

(Diagram by Chen Tong)