

# Urban Regeneration Through Public Space: A Case Study in Squares in Dalian, China

by

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## **Abstract**

Urban regeneration has been accompanying urban development since the earliest human settlement, and was emphasized after the World War Two. Several decades' experience and billions of dollars forced the decision makers to realize the importance of urban image, quality of life, and urban environment, which were recognized as prerequisites and catalysts for the economic development of cities. In this circumstance squares have been involved in urban regeneration projects to create symbol of the city and to provide space for residents, and have been proved to be effective for urban regeneration by many western countries.

Dalian, a coastal city in Northeast China presented to be a successful case in the country in involving the construction of squares in regenerating central city to transform the city from a heavy industrial city to a garden city. In the circumstance of urban beautification movement in China, which began in 1990s and was partly symbolized by the construction of fancy, large, but under-used squares, a study on the success of Dalian is indeed needed.

This study shed light on the major concerns of Dalian government to create squares in central city, the land use issues of squares, the usage on the squares, and the perception of squares by users. Through the application of key-informant interview, questionnaire survey, and onsite observation, the paper concluded that the construction of squares was part of the urban regeneration policies in Dalian, the major concern was to provide local residents with public open space to enjoy public life, and to improve urban environment. The construction of squares was carefully and systematically planned, the location of squares was pertinent to the land use pattern nearby and to the function of each of the three districts in central city, the squares are fully utilized, and are appreciated by both local residents and tourists. The squares were considered as catalyst in urban environment improvement, urban image enhancement, and tourism and economic development from the perspective of government officials, local residents, and tourists. Implication was provided for other cities in China based on the major findings and reviewed literature, future research opportunities were also suggested.

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# Chapter 1

## Introduction

This chapter introduced the research background, the research question, and the framework of the paper, as well as the study area.

### 1.1 Background of Research

Urban regeneration has been an enduring theme in world history, from the very earliest human settlements to modern world metropolises (Barnett, 1986). The concept of urban regeneration was emphasized after the Second World War primarily in western countries, especially in European countries and the United States. Many of the major cities in western countries were destroyed by the war and those cities were confronted with the problems of economic decline, environmental destruction and social dereliction. The improvement of transportation facilities and changing population patterns sharpened the problems of decentralization, and the central city lost competitive advantage over suburban areas. Urban regeneration thus became an important issue on the political agenda to redevelop the central cities.

Since the Second World War, the process of urban regeneration in western countries can be roughly divided into three stages. The first is from the 1950s to 1970s, which was characterized by physical improvement. The second stage is from the 1970s to 1990s, which was characterized by the combination of physical renovation and human behaviour rehabilitation. Although billions of dollars were invested in the first two stages, the promised new era did not come (Rosenthal, 1980; Raco, 2003; Lash and Urry, 1994; Jameson, 2000; Massey, 1995; Hudson, 2000). The third stage starts from 1990s and, in this stage, policy makers and planners realized that urban regeneration should meet the social objectives of the people by improving their quality of life and enhancing the image of the city (Mir, 1986; Raco, 2003; Rhodes, 2000; Stoker, 2000).

Although the details of urban regeneration policies designed to improve the quality of life and to enhance the urban image have varied from nation to nation and city to city, they have one thing in common, that is they involved the use of urban public space in urban planning. Public space is the stage upon which the drama of communal life unfolds, the streets, squares, parks and green spaces are all forms of urban public space. The importance of urban space has been addressed by experts in social science, urban planning and urban design (Cybriwsky, 1999; Darin-Drabkin, 1977; Bacon, 1976; Carr etc. 1992; Jacobs, 1961; Vernez, 1987; Whyte, 1988; Bolitzer and Netusil, 2000; Oktay, 2002; Carr and Lynch, 1968; Ward, 1978; Gehl,

1980; Lynch, 1961) and the roles of urban space in urban regeneration have usually been positive as is shown by the examples of many cities in western countries (Gospodini, 2001; Jeffrey and Pounder, 2000; Latham and Swenarton, 1999; Mir, 1986).

Because of the special political situation of China, the country only began to replan urban construction and reconstruction after the foundation of P. R. China in 1949. Before this, the country was involved in aggression, wars and chaos for more than one century. The development of the city in China has gone through four stages, i.e. expansion (1949-1961), contraction (1962-1965), stagnation (1966-1977), and rapid growth (1978-present) (Lin, 2002). Since 1978, China has experienced rapid development because of the advancement of the 'Open Door' policy, while policies for urban areas have become more comprehensive. It was not until the end of last century that local governments began to consider the importance of urban environment, urban image and quality of life in urban development. In the circumstance of Dalian, the city has been successfully transformed from a heavy industrial city to a garden city and has experienced a dramatically improved urban environment and enhanced urban image in only one decade. In the circumstance of urban beautification movement began in 1990s in China, which was partly symbolized by the construction of huge, fancy, but under-utilized squares (Yu, 2003), the success of Dalian in involving squares in the regeneration of central city has become a worthwhile research topic.

This study will investigate the success of Dalian in regenerating the central city, particularly from the perspective of the creation of public squares and, in doing so, will have implications for other cities in China.

## **1.2 Research Question Statement**

Following on from the background and objective of the study, this thesis will investigate the effects of the construction of public squares in Dalian through answering the following questions:

- Why has the local government of Dalian invested so much on building public squares?
- What are the major effects of the squares on urban development from the perspectives of government officials?
- What is the general situation of the squares of Dalian, in terms of their number, distribution, functions, histories and sizes?
- What land uses occur around squares?
- What is the relationship between squares and changes in the land use pattern of the city?

- What is the use pattern of the squares?
- What is the role that squares play in the daily life of the local residents?
- What is the effect of squares on urban development from the perspective of local residents?
- What is the role of squares on the improvement of destination image in the study area;

### 1.3 Study Area Introduction

The city of Dalian is located on the eastern bank of the Eurasian Continent and the southernmost point of the Liaodong Peninsula in the northeastern part of China, with an area of 12,547 km<sup>2</sup> and a population of 5.5793 million (National Bureau of Statistics of China 2003: available at: [www.stats.gov.cn](http://www.stats.gov.cn)). With the Huanghai Sea on the east and the Bohai Sea on the west, Dalian overlooks the Shandong Peninsula across the sea to the south and borders the great span of the Northeast Plain to the north. The city serves as the marine gateway for northeast China and Inner Mongolia to have access to North China and East China (Figure 1-1).



Figure 1-1 Location of Dalian

Source: <http://www.lib.utexas.edu/maps>

Dalian is now a well-known city in China, not only because of its well-established industry and its role in Northeast China, but also because of its success in its urban development policies and planning. Less than one decade after the initiation of the policies, Dalian has been successfully transformed from a heavy industrial city to a garden city with a balanced industrial structure and a thriving tourism industry.

In 1999 Dalian was nominated as Top Tourists City by China National Tourism Administration because of its pleasant urban environment and in 2001 the city won the ‘Global 500 Roll of Honor for Environmental Achievement’ by United Nation Environment Programme (UNEP) (Dalian Year Book, 2000, 2002). Dalian is noted for its achievements in pollution abatement and it has been nominated as the cleanest city in China for several years continuously. People living in the city benefit a lot from the high environmental quality which has also been a factor in stimulating outside investment.

One aspect of the enhancement of urban environmental quality has been the construction of public squares. It is said that Dalian possesses the most squares of any city in China. The history of urban squares can be traced back to the very beginning of city. In the first urban plan of Dalian, the Russian planners copied the lay out of Paris to create squares in the design of the road system. The squares were planned as transportation foci as well as cultural and entertainment centres of the city. Nowadays, the squares have become the brand of the city, endowing the city with a good reputation to attract tourists and investors and, at the same time, provided the citizens with leisure space.

#### **1.4 Framework of the Thesis**

Given the study objective of the thesis, the whole paper is organized into seven chapters. Following the introduction, Chapter Two will introduce the theoretical background of the study. In Chapter Three the author will introduce the research design and methodology of the thesis. Based on government document review and key-informant interview Chapter Four will provide a brief introduction of the history of urban development plan in Dalian, the major concerns of creating squares and their effect will also be specified. In Chapter Five, the general situation of squares, and land use pattern on and around squares will be explored. Chapter Six will investigate the perception of square user by questionnaire survey, both the residents and tourists will be surveyed. Based on all the research in former chapters Chapter Seven will summarize the research findings, and propose recommendation and future research.

## Chapter 2

### Context

Based on literature review, this chapter summarized the context of the thesis. The definition of urban regeneration, its development process and characteristics of each stage, major concerns and researches on this topic will be addressed in section 2.1. The history and evolution of urban public space, its importance to the development of a city is addressed in section 2.2. In section 2.3, the role of urban public space in urban regeneration is specified with the example of Birmingham in U. K., and Barcelona in Spain. In section 2.4, the author will explore the process and characteristics of urban revitalization in China in different stages.

#### 2.1 Urban Regeneration

Urban regeneration, also called urban revitalization, urban renewal and urban renaissance, is the field of public policy that addresses such urban issues as economic decline, environmental decay, community dereliction, growing unemployment and some social problems caused by these urban issues. In biology, regeneration means the re-growth of lost or injured tissue, or the restoration of a system to its initial state (Merriam-Webster online, 2003). And so it is with urban areas. Regeneration is concerned with the re-growth of economic activity where it has been lost; the restoration of social functions where there has been disfunction, or social inclusion where there has been exclusion; and the restoration of environmental quality or ecological balance where it has been lost. Thus urban regeneration is an aspect of the management and planning of existing urban areas rather than the planning and development of completely new urbanization (Couch, Fraser and Percy, 2003). It requires an integrated vision and action which leads to the resolution of urban problems and which seeks to bring about a lasting improvement in the economic, physical, social and environmental condition of an area that has been subject to change (Roberts, 2000). However, when urban regeneration is mentioned, it usually refers to the revitalization of the central city and its immediate surroundings, which is generally an older and more densely populated urban core surrounded by a metropolitan area of lower density and larger land area (Barnett, 1986).

From the very earliest human settlements to modern world metropolises, urban regeneration is an enduring theme in world history. Cities have been rebuilt in response to the depredations of warring invaders and the destruction from volcanic eruptions, hurricanes and earthquakes. More commonly, the forces of urban decline act less dramatically and over many decades. For example, during the Renaissance the medieval sections of several European cities were re-planned. The clergy or nobility demolished ancient

walls, straightened and widened streets, removed aged buildings and added parks, monuments and aesthetically pleasing visual features. The rebuilding of Rome under a sixteenth-century plan prepared by Pope Sixtus V and his assistant Domenico Fontana is a most notable example (Barnett, 1986). Until the nineteenth century, urban regeneration usually resulted from government intervention. The redesign of a series of narrow London streets into today's Regent Street, which connects Piccadilly Circus to Regent's Park, by royal architect John Nash in the early nineteenth century, and Haussmann's restructuring of central Paris by Napoleon III in the mid-nineteenth century were examples of such interventions (Barnett, 1986; Couch etc, 2003).

At the beginning of last century, the issue of how to make cities livable addressed the problem of horse-drawn traffic and the products of the equine urban population, in much the same way as we now worry about pollution from mechanical transport. The solutions offered at that time were either to leave the city for the idyll of the suburb, or to beautify that which was ugly within the city, bring order to chaos and plan the future. In Europe, the Garden City movement unwittingly played into the hands of the mass house-building industry, which ate up the land released by agricultural decline eventually to produce today's suburbia. In America, the City Beautiful movement created plans to revitalize San Francisco, Chicago, Denver, Cleveland, Indianapolis, Minneapolis, Washington, DC, and other central cities, but failed to build on the consensus established between business and government and fell victim to the ever-growing demands of the automotive manufactures for roads for their vehicles. Whatever was achieved in each case in the first half of the last century merely scratched the surface of urban development and, certainly had less effect than the bombing campaigns of the Second World War (Latham and Swenarton, 1999).

After World War I, many central cities in the advanced industrial nations of Europe, Australia, and New Zealand were confronted with problems of crime and violence, and class and racial segregation. There is little question however that of these places, the U.S.A has suffered the most severe and widespread central city deterioration (Gale, 1984). Abandoned houses and apartments, and demolished neighborhoods could be seen in the central parts of many cities. The improvement of transportation facilities and changing population patterns sharpened the problems and the cities became more and more decentralized, and the suburban areas gained an ever-increasing competitive advantage, especially for middle class residents and investors. Urban revitalization thus became an important issue on the political agenda to attract people, investments and public attention back to the central cities.

Basically, the process of urban revitalization in most European countries and the United States after World War I can be roughly divided into three stages, the first was from 1950s to 1970, the second was from 1970



to 1990 and the third is from 1990 to the present.

The first era of urban regeneration was under way by the 1950s and is generally termed 'urban renewal'. While the details varied from nation to nation and city to city, urban renewal usually involved financing and rules provided by the national government, with program implementation by the municipal and/or state governments (Gale, 1984). Declined cities planned optimistically for a better future, assuming that a physical renovation of the city could erase the existing flaws in urban life. Moreover, urban leaders sought to unite the diverse elements of the city behind programs of physical amelioration, patching over social and political divisions with a booster rhetoric promising a better life for all. But during these years, urban residents began to recognize the sometimes dismal and often disruptive consequences of the government urban renewal programs. These well-meaning schemes to update the central cities and bring them into the mid-twentieth century too frequently produced results that fell far short of expectations. Despite billions of dollars invested in the physical plant of the cities, the promised new era did not arrive (Rosenthal, 1980).

Many believed that the answer was not continued investment solely in physical renewal but new programs of spending for human renewal. Thus the second stage was initiated in the 1970s. Expensive schemes for rehabilitating human behaviour joined those for reconstructing buildings, transportation facilities and the general urban infrastructure. The concept of urban revitalization in the second stage focused more on the people who live in the cities, rather than only on problems of a decaying physical fabric or decaying environment, or on the relationships between economic regeneration on the one hand and social and physical rehabilitation on the other (Rosenthal, 1980).

Put simply, the first two stages of urban revitalization targeted rebuilding the cities in which people work and live, while other issues such as urban environmental qualities, cultural facilities and recreational amenities, and the social objectives of the people, i.e. their quality of life, were not a primary concern in the first two stages of urban reconstruction. The lack of a strong positive "image" began to be regarded as a problem by local authorities in the 1990s and the emphases of urban revitalization thus moved from a "working city" towards a "leisure city", and reconstructing the image of the cities has become an important issue on the political agenda. The heightened significance of place images has occurred as a consequence of changing modes of accumulation (Raco, 2003). There is a growing detachment of urban areas from sites of industrial production and an associated growth in the significance of places as sites of consumption (Lash and Urry, 1994; Jameson, 2000). Characterization of the 'success' or 'failure' of places plays a central role in shaping the patterns of future rounds of investment and disinvestments, thereby perpetuating and exacerbating existing inequalities (Massey, 1995; Hudson, 2000).

In these circumstances, the concept of urban revitalization is no longer only a problem of a decaying physical fabric or decaying environment, or a conflict between economic regeneration on the one hand and social and physical rehabilitation on the other. Revitalization has to meet the social objectives of the people by improving their quality of life and enhancing the image of the city (Mir, 1986). The form and character of regeneration programs is critically dependent on the institutional structures that underpin the formation of revitalization agendas (Raco, 2003), and local governance has been undertaken by a growing range of agencies (alongside local authorities), each with their own agendas, funding and powers (Rhodes, 2000; Stoker, 2000).

Present studies on urban regeneration concentrate on major cities in Europe and North America while there is a relatively small amount of English literature on this topic in the context of Asian countries. The cities that have been studied include Liverpool in U.K. (Couch, 2003a; Couch and Dennemann, 2000), London in U.K. (Baeten, 2001), Milan in Italy (Morandi, 2003), Wallonie in Belgium (Fraser and Marechal, 2003), Birmingham in U.K. (Latham and Swenarton, 1999), Dundee in Scotland (Lloy and McCarthy, 2003), Rotterdam in Holland (Couch, 2003b; McCarthy, 1998), Lisbon in Portugal (Alden and Pires, 1996), New York, Boston, and Philadelphia in the United States (Conniff, Loyd, and Schuyler, 1990), Barcelona in Spain (Mir, 1986), North Rhine-Westphalia in Germany (Kupschewsky, 1986), cities in Israel (Elazar eds., 1992), cities in Canada (Hodge, 1998), and Singapore (Teo and Huang, 1996; Sim, Lum, and Lee, 2002; Dapaah, 1999; Yuen, 1995; Seik, 1996). Most of them have focused on the politics and practice of urban regeneration in the contexts of local and regional socio-economic decline, while Raco (2003) studied the case of Reading, Berkshire in U. K., which is an area of relative socio-economic affluence.

Although there is plethora of studies on the topic of urban regeneration, according to Ball, Harloe, and Martens (1988) and Oxley and Smith (1996), too many studies fail to get beyond description and offer little rigorous social scientific analysis of their findings. Many studies have pointed to the symbolic and political importance of regeneration initiatives, rather than their economic and material significance (Eisenschitz and Gough, 1998; Turok, 1999).

Most of the research on urban regeneration consists of case studies. These reveal a depth and richness of detail and expose similarities and differences of experience and policy and pose questions for future research (Couch et al, 2003). Comparative studies could advance theory and improve urban policy and bring about a unification of policy between places/countries (Breakell, 1975). A reason for the emphasis on case studies is that the programs and practices of regeneration vary significantly in different places, reflecting the unequal distribution of growth, opportunities and place potential. Detailed case studies and comparative

studies could help policy makers adopt different and imaginative strategies of development to suit local circumstances (Raco, 2003). Most of published research consists of qualitative studies using data from secondary sources such as government document and personal observation, supplemented by source such as photography.

Despite the large amount of research on urban regeneration, almost all the researchers were following a paradigm of urban history description, problem statement, policy introduction, effect evaluation, and implication statement, in given cities, and the main methods adopted were observation, photography, and review of government document. The most popular topics in literatures have been economy regeneration, environment improvement, and the rebuilding of urban image. Most of the studies also suggested solutions to social problems and means to enhance the quality of life of the citizens. Policies focused on issues of urban planning, urban design, economy, government intervention, collaboration between public and private sectors, stakeholder benefits, site management, the role of cultural elements, the construction of public open space, etc.

## **2.2 Urban Public Space**

Public space is the stage upon which the drama of communal life unfolds. The streets, squares and parks of a city give form to the ebb and flow of human exchange. These dynamic spaces are an essential counterpart to the more settled places and routines of work and home life, providing the channels for movement, nodes for communication and common grounds for play and relaxation (Carr, Francis, Rivlin, and Stone, 1992).

There were numerous of definition on urban public space and its analogy (Wang, 2002). The definition on open space provided by Metropolitan Open Space Act of London, U. K. in 1877 (cited from Wang, 2002) was probably the foremost one, in which open space was defined as ‘any enclosed or open land’.

Based on former studies, Wang (2002: 3) summarized the definition of public space and open space in the context of urban area provided by different schools, and provided a new definition of urban public space as ‘the space exists among buildings in urban area, it should be accessible to the public. The space should be the place for urban residents to meet and talk with others, and for human being to stay in the natural environment. It is also the symbol of urban image, thus being called as the living room or window of the city. It is multifunctional space in urban area, which could be centre of political, economic, or cultural activities. Urban public space is dynamic, which is essential for the sustainable development of the city’.

Public spaces are formed by at least two different processes. Some have developed naturally through appropriation, by repeated use in a particular way, or by the concentration of people because of an attraction.

Each of these results in a place that accommodates people for specific purposes and it becomes a site that people rely on as a place to meet, relax, protest, or market their wares. This may occur on a street corner, on some steps in front of a building, or on an undeveloped lot in a neighborhood (Carr et al., 1992).

The other form is planned public places, which have different origins, although the function they serve may be similar to unplanned or evolving sites. Planned spaces frequently emerge from the offices of city planners, architects and landscape architects, who may be commissioned by public or private clients. Such open spaces may be the result of the laying out of an urban area – the deliberate or ‘accidental’ consequences of constructing housing, offices or public buildings. A town or neighborhood may be organized around a square, or the space around a monumental building may be planned as a public place with other buildings arranged around, or a space may be the leftover result of setback rules in a zoning ordinance (Carr et al., 1993).

Urban public spaces can be classified according to different criteria. Table 2-1 is the classification of urban public open spaces according to the criteria provided by Wang (2002). Carr et al (1993) also provided a typology of contemporary urban public spaces as shown in Table 2-2.

The importance of public space has been widely recognized, mainly from the perspective of improving quality of life through comfortable environment and abundant public life; enhancing urban image through urban vitality; and impelling economic development through investment which is attracted by good image. The importance of public space in building a pleasant environment for human beings to work, dwell, and relax in was stressed in The Athens Charter in 1943 (The Athens Charter, 1973). Cybriwsky (1999) pointed that a city’s most prominent public spaces are often emblematic of the city itself and reflect whether its citizens relate well to the city to each other. Darin-Drabkin (1977) argued that a good living environment requires public spaces. Prominent architects and urban planners have argued for some time that the quality of a city’s public spaces has much to do with whether a city succeeds or fails as a place to live or do business (Bacon, 1976; Carr et al., 1992; Jacobs, 1961; Vernez, 1987; Whyte, 1988). Carr etc. (1992) stressed the importance of public space in urban life. They indicate that public space can help people to satisfy, to define and protect human rights, and to convey special cultural meanings. A study on Portland, OR, U.S.A in 2000 also showed that property tax revenues to local governments could increase due to the creation of certain types of public open spaces. Homes that are within one-half block of any type of public space are estimated, on average, to experience the largest positive effect on their sale price (Bolitzer and Netusil, 2000). Perhaps the best evidence for the vital importance of public urban spaces is historical. From the times of the earliest cities, there is evidence of a basic human impulse to govern streets and open spaces,

to make them more useful in the necessary and desired activities of the old city and to make them more beautiful and restorative to the citizens of the community (Oktay, 2002).

Table 2-1 Classification of Urban Public Open Space

Criteria	Category	Examples
Natural/ Man-made	Natural	Scenery Site
		Protected Area      Waterfall, mountain, forest, etc. Reserved Area      Forest, wetland, etc
	Manmade	Streets
		Squares Park and greenbelt Indoor spaces
Function	Residence	Community centre, greenbelt, pleasure ground for kids, etc.
	Transportation	City entrance, crossroads, pedestrian street, etc.
	Recreation	Park, amusement park, shopping centre, etc.
	Work	Greenbelt in factory, municipal squares, etc
Land Use Pattern	Residential Use	Public service facilities in a community, outdoor space in a community
	Urban Public Facility Use	Cultural, entertainment, commercial, financial, historical, and municipal facilities that open to the public
	Greenbelt	Public greenbelt, urban park, etc.
		Commercial service centre, cultural and entertainment centre, urban square, urban park, etc. All this service serve all the citizens in the city
Location	Municipal Level	District commercial centre, park, greenbelt, etc. All this serve people live in the district
	District Level	Community centre, outdoor facilities, etc. Those facilities serve people live around them
	Street Level	

Source: based on Wang, 2002

Table 2-2 A Typology of Contemporary Urban Public Spaces

Type	Sub-category
Found/neighborhood spaces	Found spaces/everyday open spaces
Playgrounds	Playground
	Schoolyard
Waterfronts	Waterfronts, harbors, beaches, riverfronts, piers, lakefronts
Atrium/indoor marketplace	Atrium
	Marketplace/downtown shopping centre
Community open spaces	Community garden/park
Squares and plazas	Central square
	Corporate plaza
Greenways and parkways	Interconnected recreational and natural areas
	Public / central park
	Downtown park
Public parks	Commons
	Neighborhood park
	Mini/vest-pocket park
Memorial	
Markets	Farmers' markets
	Pedestrian sidewalks
	Pedestrian mall
Streets	Transit mall
	Traffic restricted streets
	Town trails

Source: based on Carr etc. 1993

Public life in public spaces is desirable for people and good for societies (Carr et al., 1992). Public spaces can offer relief from stresses, providing opportunities for relaxation, entertainment and social contact. People can discover new things and learn from others through public life (Carr and Lynch, 1968; Ward, 1978). According to Gehl (1980), no matter what technical innovations are taking place, human beings have not changed. They still need the casual contact with other human beings that used to be built into daily life. Public spaces can afford opportunities for such casual encounters in the course of daily life that can bind people together and give their lives meaning and power. Public spaces not only can serve daily needs but

also can be places to gather for special occasions. Based on his study in Copenhagen, Gehl (1980) also summarized the relationship between public life and quality of urban public space, as shown in Table 2-3.

Table 2-3 Relationship between Quality of Environment and Public Life

	Quality of Physical Environment	
	Poor	Good
Necessary Activities	○	○
Optional Activities	○	○
Resultant Activities	○	○

Source: Gehl, 1980

Table 2-3 shows the volume of use in relation to the quality of urban open spaces. It reveals that if the spaces have a poor physical environment, people will pass through them as quickly as possible. If the environment is attractive, people will linger and engage in optional activities, like sitting down for a few minutes in a cool place in summer, or in a sheltered, sunny spot in winter, or just slowing down and enjoying life, stopping for a cup of coffee or tea, or looking at a statue or a fountain. The more optional activities there are in a public place, the more likely that there will be what Gehl calls ‘resultant activities’, that is, sociability, people meeting accidentally or striking up a conversation with strangers.

The urban image is the way that a city is perceived, both by the citizens and by those outside. Not only is this image a mental picture held in common by a large number of persons, but it also is used as a way of communicating about the city. Since urban images are based on human perception, they are greatly influenced by sensory elements of the urban form, especially the visual elements (Wagner, 1981). Hillman’s and Whyte’s (1980) study on the use pattern of public spaces in New York City showed that the most attractive element of a city is the people in it and the essence of the city is the communion of citizens at every level and under every circumstance. Lynch’s (1961) study of American cities also recognized the

importance of public space in urban image building.

In all probability, the public square was the first way that humans used urban open space. It is produced by the grouping of houses around an open space. This kind of courtyard frequently came to bear a symbolic value and was therefore chosen as the model for the construction of numerous holy places (Krier, 1979). The square has been widely accepted as being a distinct and unforgettable place (Lynch, 1961) and a psychological parking place within the civic landscape (Zucker, 1959). The square is often the most distinct element of the urban structure. As a clearly delimited place, it is highly imagable and represents a goal for movement (Oktay, 2002). Squares have been involved in human history for hundreds of years and have evolved through three major stages, i.e., Greek Agora and Roma Forum, the Medieval Market Square and the Renaissance Square (Carr et al., 1992). The history can be traced back to the Ancient Greeks and Romans (Mumford, 1961). The acropolis, which was a fortified area containing the temple precinct, served as the nucleus of the early Greek town. But as this civilization developed, the agora – the secular market and meeting place – assumed increasing prominence. Mumford (1961) stresses that the most important functions of the agora were for daily communications and formal and informal assembly. The cities of the Roman Empire were centered on the forum – which combined the functions of the Greek acropolis and agora. In large cities, the forum constituted ‘a whole precinct’, incorporating enclosed, semi-enclosed, and open spaces for commerce, religious congregation, political assembly, athletics and informal meetings (Mumford, 1961).

With the fall of the Roman Empire, people fled from Europe’s cities to defensible spots in the countryside and cities ceased to play significant roles as centres of production and trade between about the fifth and tenth centuries (Mumford, 1961). Then, around the tenth century, the two islands of safety against invaders – the castle and the abbey – increasingly extended their walls to encircle growing settlements. The walled town provided the security necessary for the revival of the marketplace. In the Middle Ages, the cathedral was the central institution in the growing city and the marketplace could often be found in an adjacent space, to take advantage of the constant activity (Girouard, 1985). In addition to market squares, a number of medieval European cities contained civic squares or piazzas adjacent to their town halls (Mumford, 1961). Most of those medieval squares accommodated a wide variety of activities, special events, and great religious fests (Girouard, 1985).

The great plazas of the Renaissance, carefully planned and formally designed, were a departure from the more organic, naturally evolving public spaces of the Middle Ages. Starting in Livorno, Italy, in the late sixteenth century, main squares began to be constructed as a unity, based on a fully symmetrical design



(Girouard, 1985). Whereas some of these grand central spaces were emblems of civic and religious pride, others are arguably too large and lacking in connections to the surrounding city (Carr et al., 1992). The tradition of designing residential quarters (primarily for the wealthy) around squares blossomed in central London, where over two dozen such spaces were developed between 1630 and 1827 (Mumford, 1961), which formed the base of the squares of today.

Squares have not existed in China for as long a period of time as in western countries (Zhang, 2000). Only in the Song Dynasty (960-1279) were some types of temporary public space introduced, such as a bazaar, temple fair or market square, for people at that time to have public activities. Squares at that time were composed of four types, i.e., religious squares (squares in front of temples), municipal squares (squares in front of town halls), commercial squares (squares in the centre of a town, for goods exchange), and some other minor squares. After that, the construction of squares went through three stages (Yan, 1998). After the Opium War, some of the Chinese cities were invaded and the invaders built some squares in those cities, such as in Dalian, Shanghai, Qingdao, and Harbin. Most of the squares built at that time were similar to those in western countries in that they were built to solve the transportation problems and they were surrounded by some of the major buildings in the city and thus became the centre of the city. They provided space for local people to have a public life. Zhongshan Square in Dalian was one such square.

Squares built after the foundation of People's Republic of China (1949) were very similar to those of the Soviet Union in that they were large squares with hard ground and most of them were located in the central part of the city. The squares were strictly symmetrical and most were built for political purposes, among which Tian'anmen Square in Beijing is the best example.

Since the 1980s, the Chinese central government began to build and rebuild squares, most of which were carefully planned and formally designed. Most of squares in this era were built to be the symbol of the city. They were surrounded with commercial and cultural facilities to provide residents with places for leisure and entertainment activities. Some of the squares in this period were built to commemorate a special individual or subject and they later became tourist attractions.

While most of the studies of squares have focused on design and planning issues, Whyte (1981) studied the use patterns of squares in New York City through a project called 'The Street Life', which was intended to explore the use of public space of NYC. The study took three years and studied 16 plazas, 3 small parks, and a number of other spaces. At that time, direct observation had long been used for the study of people in far-off lands. There was much concern over urban crowding, but most of the research on the issue was done somewhere other than where it supposedly occurred (Whyte, 1981). Whyte and his group were the first to

adopt the method of simple observation to evaluate the use of open space, since ‘I never could find anybody whose job was to go out onto the streets and look at these arcades and plazas to see if anybody was using them. That is evaluating the open spaces’ (Whyte, 1981).

The group mounted time-lapse cameras overlooking the squares and recorded daily patterns, including the users’ activities on the squares, the number of people, the proportional breakdown of gender, their distribution, and so on. They talked to people to find where they came from, where they worked, how frequently they used the place and what they thought of it. Based on these observations, Whyte (1981) concluded that what attracted people most in a city are other people. For most squares, the effective market radius was about three blocks. A good urban square stimulates people into new habits and provides new paths to and from work, and opportunities to pause. The best-used squares are sociable places, with a higher proportion of couples than is found in less-used places, more people in groups, more people meeting people, or exchanging goodbyes. Since people in one place tend to act much like people in another because of the similarity of the basic elements of a city centre – such as high pedestrian volumes and concentration and mixture of activities (Whyte, 1988) – the study results could be generalized to other cities.

### **2.3 Urban Regeneration and Public Space**

It can be said that in the era of globalization, the relationship between urban economy and urban environment, as established through the history of urban forms, is getting reversed: while for centuries the quality of urban environment has been an outcome of the economic growth of cities, nowadays the quality of urban space has become a prerequisite for the economic development of cities. The physical appearance and environmental quality of cities and neighborhoods are highly potent symbols of their prosperity and of the quality of life and confidence of their enterprises and citizens. Physical renewal is usually a necessary if not sufficient condition for successful regeneration. In some circumstances, it may be the main engine of regeneration. In almost all cases, it is an important visible sign of commitment to change and improvement (Jeffrey and Pounder, 2000). Urban space, which has become one of the key factors affecting the competitiveness of a city for new investments and resources within the global urban system, together with the quality of the built environment and urban life (Gospodini, 2001), are important components of the physical stock in urban regeneration (Jeffrey and Pounder, 2000).

The literature reveals that creating public open space has been used as a tool to improve the urban environment, to enhance urban images and to improve the quality of life of urban residents. Public open space construction has become an indispensable part of many of the successful urban regeneration policies

of many cities, yet there has been little research that has focused upon it. Some scholars have studied the Brindleyplace project in Birmingham, U. K., which was advanced in the late 1990s to redevelop Birmingham to attract invest and residents back to the central city (Latham and Swenarton, 1999). The local government of the city formed an expert group, which was composed of urban planners and architects, to establish the master plan for the regeneration project. The plan is comprised of a network of streets and public spaces lined by arcaded buildings, harmonious in materials and massing. Offices, some with cafes and restaurants at ground level, are placed alongside cultural and leisure facilities and the housing is only the width of a canal bridge from the workplace. The new landscaped square of Brindleyplace formed the heart of the UK's largest inner-city mixed-use development. With its dense mix of office buildings, housing, shops, restaurants and cafes, and even an art gallery and theatre, Brindleyplace has been hailed as a model for the city of the future.

The urban policy implemented in Barcelona, Spain in the 1970s also demonstrated the importance of public open space in urban revitalization (Mir, 1986). Between 1950 and 1970, Barcelona was confronted with the problem of high-density development in the existing city, damage to the urban environment, lack of public services and community facilities which caused social damage and dereliction, lack of coordination of building and infrastructure operations, and spatial segregation of new residential district, etc. The local government of Barcelona constituted the General Metropolitan Plan of Barcelona in 1976 to solve these problems. The plan includes policies directed at such issues as the protection and reconstruction of the physical fabric, reusing of marginal or neglected areas, the fostering of economic development, recovering of urban space in central districts and improvement of the quality of urban public open space by provision of squares, parks and gardens. Both of those two cases confirmed the importance of urban public space in urban regeneration.

## **2.4 Urban Regeneration in China**

There was no formally and carefully designed plan for urban development before the foundation of the People's Republic of China in 1949, since China was a semi-feudal and semi-colonial country for more than one hundred years following the Opium War in 1840. After 1949 the new central government advanced a series of policies to rehabilitate the country, which was badly damaged by the Second World War (Yang and Wu, 1999). However, post-war development of Chinese cities has been for a long time shaped by the ideology of the Chinese Community Party, in which industrialization was among the top priorities. In order to achieve this, the nation took several concrete measures. The outcome was that the industrial sector grew

faster than the agricultural sector; the economy grew more quickly than the expansion of urban areas; and heavy industry grew faster than light industry and the housing and real estate sectors. Urban and housing development lagged far behind economic development, compared to the trajectories of developed countries. Lack of investments in urban and housing sectors resulted in inadequate infrastructure, an over-crowded population, poor housing conditions, and a worsening urban environment (Ding, 2003).

Land was neither considered as a commodity nor as an asset for producing economic wealth in the early stages of the Chinese Communist Party's regime. All urban land was state-owned (Yang and Wu, 1996; Zhang, 1997; Zhao, Bao, and Hou, 1998), and it was allocated to the Dan Weis (socioeconomic units) free of charge for an indefinite period and the constitution banned land transactions. The land allocation system produced enormous land-use deficiencies, which manifested in the disconnection of land use and transportation, and the presence of warehouses in central locations (Dowall, 1993; Bertaud and Renaud, 1992; Li, 1999). There was no incentive for businesses to choose sites where their profits could be maximized. The acquisition of a prime site was more or less reflected in the sequence of development, which was a random event that could not be explained by rational behaviour models and which depended upon the political atmosphere prevailing at the time when the application for land was made. It, thus, was not surprising to find warehouses and low-value added sectors in the city centre in many Chinese cities (Ding, 2003).

The land tenure system was first challenged when China adopted its famous 'Open Door' policy in late 1978. The policy not only ended China's decades-long political isolation from the West, but also improved the political and economic environments. Since then, direct foreign investment and the number of joint ventures has increased exponentially (Jiang, Chen, and Issac, 1998). The surge in foreign business challenged the land use tenure system as the demand for access to land increased (Ding, 2003). Therefore, the Chinese central government advanced the land reform policy in 1987, which was characterized by the commodification of land and housing, the recognition of private property rights and the promotion of financial capital markets in the real estate/housing sector (Lai, 1998).

The 'Open Door' policy and the land reform policy had a profound impact on the China's urbanization (Cheng and Masser, 2003). Since 1978, the Chinese urban system has experienced spectacular growth, accompanied by a rapid rise of urbanization levels from about 20% to more than 36% (Zhang and Zhao, 1998). The economy grew by an average of 8.4% percent each year between 1978 and 1992 and it grew at an annual rate of 10 percent in the early 1990s (Ryan and Flavin, 1995: 116). These figures are largely illusionary because they hide problems that have emerged since the economic reforms began: economic

growth is uneven and regional inequalities and polarization are on the rise; population pressure has increased; foreign debt and inflation are high; and environmental degradation is rampant throughout the country (e.g., Cheng, 1990; Croll, 1994; Edmonds, 1994; Reynolds, 1987; Ryan and Flavin, 1995; Smil, 1984, 1993; Smith, 1995; Solinger, 1995; Walker, 1989). Most cities have been characterized by a dominance of industry, similar or repetitive industrial structure among cities even in the same economic region, underdevelopment of urban infrastructure and tertiary industries, and a relatively low degree of production specialization, with little consideration of the comparative advantage of their geographic location and resource endowment (Chang and Kim, 1994). Chinese cities are facing a new development wave, which is the mixture of urban expansion and redevelopment (Cheng and Masser, 2003).

The rapid physical and socio-economic restructuring of Chinese cities have been attracting more and more attention of not only Chinese scholars but international urban researchers as well (e.g. Laurence and Edward, 1981; Kirkby, 1985; Victor, 1985; Chan, 1994; Hsu, 1996; Khakee, 1996; Wu and Yeh, 1997; Yao, 1998; Gaubatz, 1999; Wu, 2000; Zhang, 2000; Xu, 2001). Most of the early studies were the description of nationwide policies and their effect, while in later research case studies were the most frequent method used. GIS was also adopted in some of the latest research (e.g. Cheng and Masser, 2003). Topics addressed included types of urban plans made (Kwok, 1981), urban forms and planning ideology (Lo, 1980; Lo, Pannell, and Welch, 1997), urban development policy (Lo, 1986; Zhang, 2000), design practice and principles of planning (Xie and Gosta, 1991, 1993), land and housing policy (Wu, 2001; Zhang, 2000; Zhang, 1997; Ding, 2003; Weng, 2002; Qu, Heerink, and Want, 1995; Lai, 1998; Chang, 1998; Zax, 1997), urbanization issues (Lin, 2002; Zhang and Zhao, 1998; Chan and Zhao, 2002), and human well-being (Fery and Song, 1997). Cities and regions addressed included Beijing (Leaf, 1995; Chang, 1998; Gaubatz, 1999), Shanghai (Zhang, 2000; Ding, 2003; Han, 2000; Gaubatz, 1999; Wu, 2000; Zhao, et al., 1998), Shenzhen (Zhang, 2000), Hong Kong (Yeh, 1997; Ng, 2002; Adams and Hastings, 2001), Pearl River Delta (Weng, 2002; Victor and Yang, 1997), Shenyang (Lo, Pannell, and Welch, 1997), Guangzhou (Gaubatz, 1999), and Wuhan (Cheng and Masser, 2003).

Despite the large number of studies on Chinese cities and China's urban development, little has been done on urban regeneration, except for some researches on urban regeneration in Hong Kong (e.g., Adams and Hastings, 2001; Ng, 2002; Yeh, 1997). The first slum clearance scheme in Hong Kong was initiated as early as 1884, however, little government intervention in urban renewal occurred until 1960. As a result, environmental and housing conditions deteriorated and many dilapidated buildings remained in existence, despite their often unsanitary and dangerous state (Adams and Hastings, 2001). Although a series of

experimental urban renewal schemes was initiated between 1960 and 1980 to improve environmental conditions, traffic circulation and the provision of community facilities in the older urban areas, little has been achieved through those small-scale strategies (Fong, 1985). By the 1980s, social, economic and physical pressures for urban redevelopment had mounted. Many of the buildings constructed before the 1970s were considered liable to become dangerous as a result of sub-standard construction, with extensive corrosion to reinforced concrete expected as a result of the unauthorized use of sand in the original building work. Comprehensive redevelopment strategies were adopted to renew the city, which was consistent with Hong Kong's traditional philosophy of urban development, i.e., minimal government intervention and maximum private participation (Fong, 1985). The private sectors played an important role in renewing the city especially, in the construction of private residential housing, while the government only played a marginal role in environmental improvement (Ng, 2002).

Away from the internationally renowned skyscrapers and distinctive central waterfront, urban redevelopment in Hong Kong has been mainly restricted to sporadic high-rise projects on small sites (commonly called 'pencil development'). As the continued popularity of such projects throughout older Hong Kong demonstrates, the prime constraint on urban redevelopment is the multiple ownership of the land and buildings that comprise potential redevelopment sites (Adams and Hastings, 2001). Therefore, in 1988, the Land Development Corporation (LDC) was set up to facilitate private-public partnerships in redevelopment. The corporation proposed some programs to redevelop Hong Kong, which was characterized by the construction of business, commercial, retail, residential, and public open space in the central city. In addition to the restructuring of the land use pattern, improvement of the transportation networks, and enhancement of the urban environment, the corporation endowed the city with better quality building design, improved internal servicing arrangement with off-street parking and the provision of some community facilities in its tenure of one decade (Adams and Hastings, 2001).

However, since the private sector was still the main driving factor of urban regeneration, the LDC was always confronted with financial crisis, thus it is not surprising that most of the redevelopment programs selected by the LDC were primarily to secure its own financial future rather than maximize community benefits. No significant urban restructuring was proposed, especially in less commercially attractive locations (Adams and Hastings, 2001). As one of the LDC's early consultancy reports pointed out, 'the extent to which the LDC could achieve any significant improvements in the urban environment would depend on the nature and scale of redevelopment. At the lower end is piecemeal development with comprehensive redevelopment of large areas being at the other end of the spectrum' (Morgan, 1989, cited

from Adams and Hastings, 2001). Therefore, in 1995, the government undertook a review of its urban renewal policy. In 1996 the government issued a policy statement, i.e. Urban Renewal in Hong Kong. Four years after this proposal the Urban Renewal Authority was set up in 2000 to replace the LDC (Ng, 2002).

Since the handover of Hong Kong to China was only conducted in 1997, the process of urban regeneration in Hong Kong and Mainland China, was not the same, although both suffered from the pressure of high density population. The process of urban regeneration in China began in 1950 and the focus at that time was to reconstruct the cities that were damaged by the war, to improve urban infrastructure and to solve the problem of housing. But because of the economic and political situation, the central government put more attention on industrial production and socialist reconstruction. Many Chinese cities were transformed into industrial centres, the government cleaned out old teahouses and pleasure zones, and lined major streets with official monuments, government offices, standardized state-run stores and utilitarian apartment buildings (Kirkby, 1985). This kind of radicalism and utopian revolutionary activities ceased because of the Cultural Revolution (1966-1976), which suspended the development of urban China for more than ten years.

After the adoption of economic reforms in 1978, urban development was characterized by a rapid surge in the number of designated cities as a result of both relaxation of state control over city designation, and the operation of the spontaneous forces of market reforms and globalization (Lin, 2002). The issue of urban renewal was addressed in the City Planning Act, which was enacted by the National People's Congress on 26 December 1989 (Wu, 1998). The renewal policy focused more on land reform and industrial structure adjustment. The central parts of most of the major cities in China, which had accumulated shabby residential facilities and related service facilities, were reconstructed for commercial uses and some of them were changed into Central Business Districts.

The policy of urban regeneration in the 1980s and early 1990s focused more on economic aspects and necessary improvements to the physical environment, while the importance of urban image, the visual environment and quality of life were not recognized by governments of all levels. At the end of twentieth century the radical development left most Chinese cities with a similar urban landscape, scarcity of housing, and an unpleasant urban environment, therefore some cities carried out urban beautification movement, which was very similar to the City Beautiful Movement of U. S. at the beginning of last century. This urban beautification movement was characterized by the construction of large ceremonial squares, symbolic commemorative architecture, large showy parks, luxuriant sculptures and the like (Yu, 2003). The urban beautification movement brought Italian squares, French scenic avenues and American skyscrapers to

Chinese cities, while the traditional buildings, such as Hutong, were demolished and precious relics were damaged and destroyed to give way to featureless squares, theme parks, pedestrian streets, and skyscrapers. The sense of place and local history and culture were erased, and the vitality and character of the cities disappeared. Although large investment went into the movement, the cities became more and more indistinct and featureless, and citizens became spectators of the city rather than participants in it. The urban beautification movement, which is still popular at present, did little to improve urban images and the quality of life, which were two of the major purposes of urban regeneration. Money was wasted and cities looked more and more like each other (Yu, 2003).

The construction of large and fancy squares is a fashionable product of the urban beautification movement in cities of different levels and of different financial status in China. Some of the squares have been carefully designed with largely investments to be the symbol of the city; however, since most of those squares lack of an historical origin and a cultural base, they are a departure from the features and major function of the city, and are often inconsistent with surrounding land uses. As such, they were at odds with the surrounding buildings and were seldom used by either residents or tourists. They have become deserted areas in the city (Yu, 2003).

## **2.5 Summary**

This chapter introduced the evolvement of urban regeneration in western countries, the history of urban public space, the role that urban public space played in urban regeneration, and the process of urban development and urban regeneration in China. Urban regeneration has been in existence since very beginning of human settlement, and city governors have experienced a long period of time and expended a huge amount of money to recognize that urban environment and urban image are two essential factors to regenerate the city, and that government intervention is crucial to redevelop the city reasonably. The case of Barcelona and Birmingham also successfully proved the positive role of carefully and reasonably planned public space to renew the city area.

The history of modern urban development of Chinese cities is not as long as of most western countries, and the same is true of urban regeneration. One of the most significant differences between urban regeneration in China and western countries rests in the institutional issues. The private sector is important participant in constituting urban development policy and the market factors are one of the major driving forces, while in China the top-down planning system prevails throughout the country, and government always plays crucial roles in policy constitution, implementation, monitoring, evaluation, and adjustment.



Thus the keenness and ability of the policy makers are essential if individual cities, as well as the whole country, are to make wise decisions.

Most of the early studies on Chinese cities focused on industrial development and urbanization, while the latest studies addressed the topic of globalization of Chinese cities, especially in mega-cities. Despite the large amount researches on urban China, there is no English literature and very little Chinese literature on urban regeneration in Mainland China. Most of the domestic research consists of general descriptions of national policy or the introduction of foreign experience, and there is no comprehensive research based on primary data. The insufficient research on urban regeneration in China, in part, reflects the difficulty of obtaining reliable data and of investigating the cities firsthand.

## **Chapter 3**

### **Methodology**

This chapter will focus upon the methodology of the thesis. It will describe the design of the research, the selection of the study area, the major assumptions, and the research methods, including means of data collection that were adopted.

#### **3.1 Research Design**

##### **3.1.1 Study Area Selection**

Dalian was selected as the study area for two reasons. First, unlike other cities in China, Dalian is a very young city of only 100 years in longevity. However, the city experienced rapid development, especially after 1993, when the municipal government advanced a new policy to develop the city. In the past ten years, the urban environment of Dalian has been greatly improved, which accelerated the process of constructing an international metropolis and the successful promotion of the city to the public. As the city that possesses the most urban squares in China, the development pattern of Dalian, which is symbolized by the construction of squares, has become a model for other cities in China. Thus it will be beneficial to study Dalian as an example.

The second reason is that the study was funded by the ECOPLAN CHINA project at the University of Waterloo, which focuses on the coastal cities in China. Dalian is one of the participants in this project.

Dalian municipality is comprised of a central city, three districts, three county-level cities and Changhai County. In this study, the central city was selected as the focus of attention for four reasons: 1) according to an inventory of squares in Dalian, 32 squares (54.25% of the total) are located in the central city; 2) most of the squares in other areas were built after 1995, except for Jiangnan Square and Jiefang Square, which were built in 1964 and 1990 respectively. Therefore, the squares in the central city represent a longer history of square development than those elsewhere; 3) most of the publicized squares of Dalian, which are symbols of the city, are located in the central city; and 4) limited time and funding did not allow intensive research to be undertaken throughout the whole municipality.

### **3.1.2 Study Process**

The research was carried out in four stages, preparation, collection of background materials, fieldwork, and data analysis.

The first stage was carried out at the University of Waterloo from February to May 2003. The major tasks in this stage were to narrow down the research topic, read relevant academic materials, design the detailed research process, select appropriate methodologies, design interview question lists and a questionnaire, and apply for ethics review and clearance to the Office of Research Ethics at the University of Waterloo.

The second stage was carried out in Beijing, China, from May to July 2003. In this period, the researcher searched for background information related to the actual situation of Dalian on the Internet and read additional references in Chinese.

The third stage was carried out in Dalian, China, from July to August 2003. Fieldwork was conducted in this stage. In this period, the researcher conducted interviews, surveys, on-site observation in the city, and searched for materials in the local library. The work undertaken in this stage will be described more specifically in the following sections.

The last stage was conducted in Beijing, China, and Waterloo, Canada, from August 2003. The major tasks in this stage were to analyze the data and other materials, and to write the thesis.

### **3.2 Study Assumptions**

Some assumptions were advanced to ensure the preciseness of the research:

- Squares were classified according to their major function while neglecting minor functions
- It is assumed that squares with the same function are similar, despite their difference in location, scale, and history;
- People living in different district of the city are homogeneous, thus the behavior pattern on one square can represent the others;
- There is no difference on the use pattern among weekdays, and no difference between weekends;
- All the information on the size, location, and year of construction are fully based on the materials provided by Dalian Urban Construction Bureau;

### **3.3 Methodology**

#### **3.3.1 Interview**

Interview is one of the four basic types of data collection in qualitative study, which involves unstructured and generally open-ended questions that are few in number and intended to elicit views and opinions from the participants (Creswell, 2003). Since interview can help the researcher to get historical information (Creswell, 2003), ten interviews were conducted in and out Dalian in this study in order to understand the major reasons for and concerns of local government in creating squares, and to gain additional information that could not be found readily in the literature. The interviews conducted in this research were of two types: informal interviews with local residents and key-informant interviews with government officials and some experts. No formal question list was prepared for the informal interviews, while the question list for key-informant was designed with the assistance of the researcher's supervisor and the direction of the Office of Research Ethics at the University of Waterloo.

The formal interview questions were originally designed with different emphases among different respondent groups. Since the interview was conducted orally, there was no information letter. The question list thus can be divided into six parts: 1) general questions to all the respondents, 2) questions to officials in the Land Administration Bureau, 3) questions to officials in the Urban Planning Bureau, 4) questions to officials in the Tourism Administration Bureau, 5) experts and scholars, and 6) tour guides. However, during the interview process, the researcher found that most of the interviewees answered the questions in a comprehensive way and they always answered several questions simultaneously. For this reason, the researcher made some modification of the question list and the final version of the list consists of three parts, i.e. 1) the questions to government officials, including officials in the Urban Construction Bureau, in the Tourism Administration Bureau, and other government departments. This part mainly focuses on the policy perspective; 2) the questions to scholars. This part asked the respondents about their opinions on building so many squares in a city, its consequences and the probable implications for other cities in China; 3) the questions to tour guides, who are, to a considerable extent, brokers between the city and visitors. This part is intended to gain information about the perceptions and behavior patterns of tourists on squares, and the role that squares play in the tourism industry of the city from the perspective of people who work in the front line of the tourism industry. The reasons for the interest in tourists are that they are important users of many squares and, also, because the perceptions of tourists can represent the image of the squares held by people from outside of Dalian. See Appendix □ for a detailed list of questions.

Informal interview was conducted to get to know the original land use pattern before the construction of squares, and what have been replaced by the squares and their peripherals, for there are no ready materials for this information. Most of the interviewees were seniors who have lived in Dalian for more than 15 years. The interviews were conducted in a comfortable environment through casual conversations on squares, however, the interviewees were told at the beginning of the interview the purpose of the study.

Key-informant interview were conducted among people who had backgrounds related to the research topic. Participation in those interviews was voluntary. Prospective respondents were told at the beginning of interviews that they could refuse to answer any questions and that they could stop at any point during the process. However, key-informant interviews also raised a reliability concern, especially among the administrators who were involved in the decision-making process or in the implementation of the policy. It might have been difficult for them to provide their real ideas and thoughts about the situation. Therefore it was essential to provide a comfortable environment in which the interviewees could relax and enjoy the conversation instead of making them feel as if they were being questioned seriously and formally (Creswell, 2003). Moreover, during the interview process, the researcher found from the start that the interviewees did not answer the questions according to the premeditated structure. For these reasons, the researcher purposely encouraged the respondents to tell as much as possible about what they knew and what they felt about the topic, rather than asking the questions in a structured way. The respondents were only interrupted when they talked about something not related to the topic or the researcher wanted to explore a specific topic in greater depth.

Ten key-informant interviews were conducted in Dalian and Beijing between July 2003 and September 2003. Respondents were asked for the major concerns related to the creation of squares, their opinions on them, their views on the role that squares played in the development of the city, and the pros and cons of creating so many squares. The list of interviewees was listed in Appendix □.

### **3.3.2 Observation**

Observation is another type of data collection in qualitative studies, in which the researcher takes fieldnotes on the activities and behavior of individuals at, and the general situation of the research site. Observation is useful for the researcher to get firsthand information of the participants and to record information as it is revealed (Creswell, 2003). There are two main purposes for conducting observations in this study: one is to investigate the land use pattern around squares and their peripheral areas, while the other is to explore the use pattern on the squares by both local residents and tourists. All the observations were conducted on the



largest square in Asia and the square is major tourist attraction of the city that is located on the margin of the study area.

It is assumed that the behaviours of users coincide with the major functions of the squares, so these two squares are expected to be representative of recreational squares, and the behaviour patterns on these two squares can represent both local residents and tourists. Table 3-1 provided a brief introduction to and comparison between Xinghai Square and Zhongshan Square. Figure 3-1 and 3-2 show the situation on both squares.

Similar to Whyte’s study on squares in New York mentioned in Chapter Two, the information recorded on both squares includes who use the squares (i.e. the age, gender of the users, and whether tourists or local residents), how do they use them (i.e. the activities taking place on the squares), and the use density. Here the term ‘use density’ is used to describe the volume of use of squares. The use density on the squares was defined by the adjustment by the researcher. A 10-point scale was adopted to measure it, from 0.5 to 5 (every 0.5 point), in which 0.5 means that there are few people on the square, while 5 means that it is full of people. Figure 3-1 and Figure 3-2 show the use density of 1 and 4.

Table 3-1 Introduction and Comparison between Xinghai Square and Zhongshan Square

Attributes	Zhongshan Square	Xinghai Square
Location	Zhongshan District, the economic central part of the study area	Shahekou District, the geographically marginal part of the study area
Function	Recreation/leisure space; transportation pivot; tourist attraction; finance centre	Tourists attraction; Convention and exhibition centre
Year of Construction	Period of Russia	1997
Character	The oldest square in Dalian, the building group around it is the heritage of the city	The largest square of Asia,

Source: by the author



Figure 3-2 Zhongshan Square  
Photo: by the author



Figure 3-3 Xinghai Square  
Photo: by the author





Figure 3-4 Use Density of 1  
Photo: by the author, on Zhongshan Square



Figure 3-5 Use Density of 4  
Photo: by the author, on Zhongshan Square

The data obtained were inputted into computer and Excel was adopted to draw graphs to investigate the similarities and difference in the use patterns between the two study sites

### 3.3.3 Survey

#### 3.3.3.1 Questionnaire Design

Two sets of self-administrated questionnaire surveys were conducted on 13<sup>th</sup> and 15<sup>th</sup> July 2003 on Zhongshan Square, and 17<sup>th</sup> and 19<sup>th</sup> July 2003 on Xinghai Square. These were done to investigate the motivations, behaviour patterns, and perception of local residents and tourists (detailed information on the characteristics of Dalian tourists is available in Mi, 2003) on squares, as well as their profiles. The questionnaires were designed under the direction of Prof. Geoffrey Wall and the Office of Research Ethics at the University of Waterloo. The questionnaires were administered in Chinese and both of the two questionnaires can be divided into two parts, i.e., the information letter and the survey content.

The information letter introduced the purpose of the research to the potential respondents and the background as well as the contact information of the researcher. The respondents were also informed in advance that their participation was voluntary, that they could refuse to answer any question, that they could stop whenever they liked, and they could withdraw their answer at anytime. Information on the time required, confidentiality, anonymity, and retention and security of data were also provided to the potential respondents. All the ethics information was provided according to the ethics regulation provided by the University of Waterloo. The information letter for both local residents and tourists are almost the same.

The survey of local residents contains information on the perception of the squares by local residents of Dalian City, their motivations for using the squares and the role that squares play in their daily life, the perceived importance of squares in the development of the city, as well as the demographic and socioeconomic characteristics of respondents.

Typically, a questionnaire can consist of closed-ended questions and open-ended questions. The disadvantage of close-ended question is that they might be relatively unreliable in that they force respondents to think about destination images in accordance with the attributes specified. The advantage of this way is that it is easy to administer, simple to code, and the data are relatively easy to analyze and compare. The advantage of open-ended questions is that they can reduce the likelihood of missing important information to some extent and the disadvantage is that details provided by respondents are variable in detail, statistical analyses of the results are difficult to undertake, and comparative analyses are not facilitated (Jenkins, 1999). Considering the pros and cons of both approaches, a combination of closed and open-ended methods was adopted and alternative open-ended questions to the close-ended questions were used to mitigate the respective weaknesses.

A 5-point ordinal measurement scale was adopted to investigate local residents' motivations to go to squares, their perceived importance of the role that squares play in their daily life, as well as in the development of the city. Those three aspects contain 14, 10 and 13 statements respectively. The respondents were asked to indicate on the 5-point scale the extent to which they either "strongly agree (very important)" (5) or "strongly disagree (not at all important)" (1) with each statement.

Multiple/simple answer questions were adopted to explore local residents' behaviour patterns. Respondents were asked to select one or more answers that most coincide with their situation in the time period of May to September 2003. The reason why this season was specified is that: 1) the field work was expected to be conducted sometime in this period; and 2) Dalian is located in northern China, it has a cold winter, and a windy spring, so most of the outdoor activities occur in this period.

Following the acquisition of information on local residents' perceptions, motivations and behavior patterns, the personal characteristics of respondents were ascertained.. The respondents were asked to select the relevant answer to indicate their age, gender, occupation, educational level, monthly personal income, and length of living in Dalian. The options of answers for these questions, except for the length of living in the city, were taken directly from the China National Tourism Administration without modification. This is essential if a comparative research methodology is to be achieved.

The design of questionnaire for tourists is almost the same as that for local residents, except that besides the profile of the tourists, the questionnaire mainly focused on their purposes for visiting squares, their perceptions of the squares, and the perceived importance of squares as urban attractions.

The questionnaire local residents is shown in Appendix □ and questionnaire for tourists is shown in Appendix □.

### 3.3.3.2 Location Selection

Zhongshan Square and Xinghai Square were selected as study sites considering the research objective, i.e., to investigate the behaviour patterns, motivations, perceptions, and the profiles of local residents and tourists. According to the tourism planning for Dalian City (Tourism Development in the tenth Five-Year-Plan in Dalian, 2001), Xinghai Square is one of the major tourist attractions in Dalian, where the researcher could reach as many tourists as possible. Zhongshan Square, which is located in the central part of the city, is one of the most famous squares in the city and the local government holds public activities, such as open-air concerts, on this square. It is also part of most tourists' itineraries. During the process of on-site observation, the researcher also found that Zhongshan Square is one of the most fully utilized squares in the city,

enabling the researcher to reach many local residents.

### 3.3.3.3 Data Collection

There are two ways to conduct self-administered questionnaires: one is by mail and the other is for an interviewer to ask a respondent to complete a questionnaire. Considering the limited time and funding available, the latter was selected to ensure that the researcher could get the data on time, as well as to ensure the acquisition of a high quality of data and an acceptable response rate. The survey was carried out in two stages, a pre-test followed by the survey of local residents and tourists.

The pre-test was conducted on Zhongshan Square on July 11<sup>th</sup>, 2003. The purpose of this pre-test was to ensure the wording is clear, to test the contents of the questionnaire, and to estimate any difficulties in undertaking the survey. Altogether 10 people were involved in the pre-test. Three problems emerged from the pre-test. First, the original form of questionnaire was a bit long for the respondents for it took them about 10 minutes to finish and they began to express impatience around the seventh minute. Secondly, the respondents were not familiar with the 5-point scale measurement and the researcher had to spend one or two minutes explaining how to complete the survey to each respondent. This also increased the time needed to finish the survey. Thirdly, the researcher found that if the respondents were provided with a free gift, they were more likely to participate in the survey voluntarily.

Adjustments were made to solve these problems. The questionnaire was shortened into its present form. Some statements were deleted while others were modified. The description of the 5-point scale measurement was recomposed and an example was added to ensure that the potential respondents could understand it. Besides this, the question 'Do your parents/son/daughter/spouse often come to the square' was incorporated to get an idea of the extent to which others, in addition to those interviewed, are users of the squares. Then another pre-test was conducted by some of the researcher's friends to ensure that the questionnaire could be finished within 7 minutes, and the 5-point scale questions could be understood. Finally some gifts were bought to encourage participation in the survey.

The second stage is the administration of the survey. A simple random sampling approach was used to select the sample. The target population was local residents and domestic tourists. The survey was conducted during the process of use pattern observation on Zhongshan Square on July 13<sup>th</sup> and 15<sup>th</sup>, 2003, and on Xinghai Square on July 19<sup>th</sup> and 21<sup>st</sup>, 2003. The potential respondents were reached by starting a conversation to eliminate the sense of distance between the researcher and the potential respondents, and to avoid the likelihood of being interrupted. The purpose of the study and the background of the researcher

were briefly introduced to the potential respondents. The questionnaires were distributed among potential respondents and they were asked whether they would like to respond to the questionnaire. The respondents completed the questionnaire themselves although the researcher was available to assist if required. Typically, most of the people on the squares just sit talking or read a newspaper. They tend to concentrate in a number of areas. The researcher distributed questionnaires in these areas to increase the efficiency of making contacts with users of the squares.

Altogether 200 questionnaires were collected during the survey, 150 for local residents, and 50 for tourists. According to Royce and Bruce (1999, p168), thirty cases generally are regarded as minimally adequate for statistical data analysis; hence, the number of completed questionnaires obtained from the survey is sufficient for the statistical analysis presented in Chapter 6.

The answers of the survey were numerically coded and inputted into SPSS. The specific analytical methods that were then employed will be described in Chapter 6.

#### **3.3.4 Other Methods**

Usually, the best study design uses more than one research method, taking advantage of their different strengths (Babbie, 2001:110). In addition to the methodologies mentioned above, this study also adopted other methods, which are listed as follows.

- *Literature Review*: journal articles and books in the field of urban revitalization, urban planning, urban geography, land use, destination image, and recreation/leisure were reviewed to acquire the knowledge of necessary theories and the study paradigm.
- *Review of Former Documents*: some secondary sources, government documents and newspaper reports concerning the development of Dalian were reviewed to get an overview of the process of urban revitalization, especially the construction of squares and their effects on urban land use.
- *Photography*: the landscape on and around squares and their peripherals were recorded using a digital camera to show the land uses of the squares visually.

#### **3.4 Data Source**

The data for the research came from both direct and indirect sources. A direct source is composed of interviews, questionnaire surveys, and on-site observation, while government documents, local yearbooks, local newspapers and websites constitute the indirect sources.

Direct sources and the information that they contained were as follows:

- The information on the land use pattern before the construction of squares and the exact location of some of the squares came from interviews with local residents;
- Part of the policy concerns relating to the creation of squares came from key-informant interview with government officials;
- The exact land use pattern around squares and their peripherals came from on-site observation;
- The use pattern of people on the squares came from on-site observation;
- The motivations, perceptions and behavior patterns of local residents and tourists regarding the squares came from the questionnaire survey

Indirect sources and their information content were as follows:

- The inventory of squares in Dalian came from Chronicle of Urban Development, Dalian, composed by Dalian Urban Construction Bureau;
- Master Plan for Urban Development 1999-2020;
- Dalian Yearbook, 1994-2002;
- Master Plan for Tourism Development in Dalian for the Tenth Five-Year-Plan;
- Some websites (specified in the References)

### **3.5 Summary**

The data for the study came from both direct and indirect sources, and the researcher utilized a combination of study methods to undertake comprehensive research on the squares and their effects in Dalian. In summary, three major methods – interview, on-site observation, and questionnaire survey – and some secondary sources were used to obtain the data for the research, and Excel, SPSS, CorelDRAW, and Photoshop were adopted to conduct the analysis.

## **Chapter 4**

### **Policy of Urban Planning in Dalian**

Dalian City began its history in 1898, when it was occupied by Tsar Russian. After that Dalian experienced periods of Russian governance from 1898 to 1904, Japanese governance from 1905 to 1945, postwar reconstruction from 1945 to 1966, stagnation from 1967 to 1977, reformation from 1978 to 1990, explosion from 1990 and regeneration from 1992 till now. Except the period of stagnation, the governor at each stage constituted formal master plan to guide the development of the city. Based on key-informant interview and review of government document, this chapter will specify the details, which are relevant to the topic, of the urban planning policy, introduce the evolvement of urban plan of the city, and provide a background of the construction of squares. The data for this chapter, if not specified, are drawn from the Master Plan for Urban Development in Dalian (1999-2020), the introduction to the history of urban planning in Dalian, which was gained from the Dalian City Planning and Design Institute, pertinent articles on People's Daily, and the government officials interviewed by the author.

#### **4.1 Urban Planning in History (1898-1990)**

##### **4.1.1 Russian Governance: 1898-1904**

Historically, Dalian was a small fishing village. The Russian government obtained access to the village through aggression in 1898 and the first master plan was completed in September 1899. It was planned to make the village into a seaport and a railway transportation centre of the Far East. In the optimal locations for the port and the city were selected, the city was positioned as a seaport and trade and business centre, the road system of the city was planned and the city was divided into an Administrative Area, a European area and a Chinese area.

Since most of the manuscript of the plan has been lost information of the plan of that time is incomplete. Based on available materials, the highlights of the plan can be listed as follows:

- The port was located where the port facilities are now and the Russian government connected the port with railway station with the intention to build the city into a major transportation centre of Eurasia;
- The plan did not assign land to industrial and storage uses; rather the city was positioned as a trade and business city and a transportation centre;

- The plan paid a lot of attention to the greening of the city. One square kilometer was assigned as green space and this occupied 16% of the total area of the city (6.5 km<sup>2</sup>). The green space was located along trunk roads to beautify the urban environment;
- The plan took much from European cities, especially in the creation of the road system of the city. Since carriages were the major means of transportation, the road system was designed like a spider web. Squares were built at the transportation nodes and central areas, trunk roads were built to connect squares, spur tracks passed through the squares, and roads surrounded the squares. There were altogether 6 squares built at that time, included Zhongshan Square and Youhao Square. Most of the squares were round and buildings surrounded the squares, including a museum, library, town hall, hospital and other public and administrative facilities. These squares became the cultural centre and symbol of the city at that time;
- The urban infrastructure was carefully planned with consideration of power sources and water supply, including a reservoir;
- Elements of urban design were adopted in the plan. The landscape and scenery of the city were considered, buildings were located symmetrically along roads and around squares, and seascape and mountainscape were incorporated to make the city more livable, more comfortable and more beautiful.

From the description of the Russian plan above, it is apparent that the plan was reasonable and successful to some extent in that the port was placed in a good location, the urban infrastructure was reasonably planned and the positioning of the city (port city, trade and business city) was appropriate. The plan gave prominence to the quality of life of citizens in that it planned enough green spaces to make the city comfortable, livable, clean and beautiful, and public open space was created to provide the local residents with enough space to enjoy public life. The plan also combined some elements of urban design, e.g. the construction of squares and the buildings around them, to beautify the visual landscape of the city and to endow the city with culture and life. The Russian plan provided a successful base for the future development of Dalian City.

#### **4.1.2 Japanese Governance: 1904-1944**

The Japanese army occupied Dalian in May 1904 by which time the Russians had finished the construction of most of the port and approximately half of the urban infrastructure. The Japanese occupied Dalian for almost 40 years. During this period they prepared three formal plans, one in 1909, one in 1919 and another in 1937, as well as several informal plans to direct the urban development of the city.



In the first three years of their governance, the first and foremost task for the government was to reconstruct the city that had been destroyed by the Japan-Russian War. Most of the Russian plan was retained to guide the construction of the necessary urban infrastructure and the city was divided into a Military Area, a Japanese Area and a Chinese Area. The sizes, materials and facades of buildings were also strictly regulated.

After 1906, large numbers of immigrant from Japan moved into Dalian, causing land use problems and resulting in the constitution of new plan in 1909. The new plan adopted the earlier plan for the road system while broadening some of the trunk roads. A large factory was incorporated into the new plan and trolley cars were introduced into the city. Squares that had been built in the Russian period were retained but, with the exception of Zhongshan Square, they were changed into transportation squares with trolley cars passing across them.

The continuous inflow of immigrants sharpened the problem of land shortages and the Japanese government introduced supplementary plans in 1910, 1911 and 1913 to solve the problems caused by rapid growth of population. In 1919, it was recognized that the supplementary plans could not address the situation and the government decided to devise a new plan.

The major purpose of the 1919 Plan was to house new immigrants. The city was divided into four functional areas, i.e., residential area, business area, industrial area and multifunctional area. Dalian was one of the earliest cities in the world that introduced functional zoning into urban planning, even earlier than most cities in Japan. Another feature of the 1919 Plan was the design of the road system. In the former plan, the road system was designed in a spider web pattern with squares in the centre because the major transport tool at that time was the carriage. The 1919 Plan maintained the spider web in the east but the road system in the west part of the city was designed into gridiron pattern in response to the increasing number of vehicles. However, the 1919 Plan also planned more than four squares in the west to keep the consistency of the city. In the 1919 Plan, the size, location, materials and façades of buildings were also strictly regulated to provide more public space and a pleasant urban environment. The 1919 Plan formed the rudiments of the present urban structure.

Ten years after the 1919 Plan, Dalian was again confronted with the problem of land shortage caused by proliferating population and the expansion of industry also sharpened the problem. In 1919, the population of Dalian was 1.08 million, while in 1926 the population reached 2.02 million and it was 2.82 million in 1928. Thus the government was forced to introduce a new plan in 1930.

An Urban Planning Committee was formed to make the plan and, before starting, the committee conducted a thorough survey of the population, land use pattern, transportation, architecture and urban infrastructure of the city. A series of terrain maps were also drawn to provide fundamental information for the plan. The 1936 Plan was composed of seven detailed plans, including a road system plan and a zoning plan. Since some of the materials of the 1930 Plan have been lost, there are limitations on what can be reported. However, according to the framework of the plan, it is evident that the committee put emphasis on the construction of the transportation system to mitigate the conflicts among a growing population, developing industry and limited urban infrastructure.

During their forty years, the Japanese government constantly revised urban plans due to the dramatic population growth. Thus, those plans were always reactive and there was a lack of the sense of wholeness in city planning. Most of these plans paid special attention to the construction of the transportation system and urban infrastructure in an attempt to mitigate the conflict between growing population and limited urban resources. Since the plans were conducted in such a reactive way, they failed to look at the city as a whole and did not adequately consider future development needs, resulting in “choke points” for the future expansion and reconstruction of the city. The Japanese plans also planned many factories in the city while, contrary to the Russian plan, the quality of life was rarely addressed in the plans. Most of the squares were planned as transportation squares without space for people to enjoy public life and the plans did not pay much attention to greening and the urban environment of the city. Moreover, the plans neglected the character of Dalian as a seashore city: they did not plan waterfront areas for people to reach the sea and all of the shoreline was occupied by docks and factories. The general structure of Dalian was formed in the period of Japanese governance and, during these forty years, the road system and urban infrastructure were roughly completed. However, many problems were left behind for future urban planners.

#### **4.1.3 Post War Reconstruction: 1945-1966**

In 1945 Japanese Army capitulated unconditionally and Chinese government took over the administration of Dalian. However, because of the political situation (the Civil War from 1945 to 1949, and the Korean War from 1950 to 1953) at that time, only after 1955 did the local government began to constitute new plan to guide the reconstruction of the city. The first formal plan was finished in 1958.

The 1958 Plan focused on industrial development, construction of urban infrastructure and public facilities, and reconstruction of the deteriorated central city. Dalian was positioned as an industrial city with special emphasis on mechanical and chemical industries, and eleven industrial parks and several factories

were planned. Since most of the transportation system had already been completed, the 1958 Plan did not say much on this point, except for the broadening of some trunk roads. Power supply, greening of the city and the construction of medical, cultural, educational and business service facilities were also addressed in the 1958 Plan. The plan also mentioned the issues of building a vacation resort and scenic area in Dalian. This was the first plan to include tourism and recreation issues in the master plan of the city. As for the plan of reconstruction of the central city, the policy focused on slum clearance, construction of high-rises, removing heavily polluting factories, rebuilding urban infrastructure and greening the city.

Because of The Great Leap Forward, the 1958 Plan was somewhat radical and unrealistic. The plan paid much more attention to industrial development than other elements of urban construction, leading to the “blind development” of industrial sectors. Much land was allocated to factories and this slowed down the development of urban infrastructure and other public service facilities, and resulted in other problems which would hinder future development. The plan did not give much attention to issues of urban environment, let alone quality of life. Moreover, the advantage of Dalian as a seashore city was not fully utilized in the plan.

#### **4.1.4 Reformation: 1978-1990**

The Cultural Revolution from 1966 to 1976 resulted in the suspension of the urban development of Dalian for more than ten years. In 1982, a new plan was enacted in response to the new national policy, i.e. the Open Door Policy. The 1982 Plan was composed of twenty-one specific plans, included population planning, industrial development planning, storage site planning, residential area planning, waterfront planning, planning of gardens and greening, tourism and recreation planning, environmental protection, road system design, water supply and drainage planning, communication planning, power supply planning, public service facilities planning, etc.

The 1982 Plan positioned Dalian as an industrial, port, and tourism city. The city was divided into dock area (eastern and northeastern Dalian), heavy industrial area (western and northern Dalian), living area (southern, middle, and northwestern Dalian), culture and educational area (southwestern Dalian), tourism and recreation area (southern Dalian), and light industrial area (southeastern Dalian).

The 1982 Plan clearly defined the layout and functional zoning of the city. The industrial area was to be moved gradually from the central city to the northern part of the city. The plan addressed issues of public services such as cultural and educational facilities, environment protection and medical facilities. The importance of the tourism industry was recognized and the first formal plan for tourism development was constituted. The importance of the sea in the development of the city was also given attention in that the use

of the shoreline changed from simple use by industry to multiple-use by industry, tourism, vacations and recreation. However, there were still limitations in the 1982 Plan in that it paid much more attention to second than tertiary industry, i.e. tourism. Although addressed in the plan, tourism was not emphasized and the plan still focused on the construction and reconstruction of the physical environment while neglected the importance of the visual landscape and quality of life.

#### **4.1.5 Rapid Growth: 1990-1999**

Dalian was assigned as the only coastal “Open City” in Northeastern China in 1984. This endowed the city with new development opportunities and the city became the focus of economic development of Northeastern China. In this circumstance, the 1982 Plan was soon out-of-date and a new plan was needed to guide the development of the city in the new era. The local government of Dalian began to constitute new plan in 1989 and the plan was finished in 1990.

Dalian was still positioned as an industrial, port and tourism city in the 1990 Plan. The plan proposed the following development goal for the city: to develop into an international city in the new century. The plan was composed of four sectors, (1) urban system planning; (2) planning for the waterfront and water area; (3) planning for fresh water supply; and (4) planning for scenic areas. It was different from the former plans in that the 1990 Plan dealt with the whole of the Dalian administrative region, i.e. all of the six districts (Zhongshan, Xigang, Shahekou, Ganjingzi, Lvshunkou and Jinzhou), one county-level\* city (Wafangdian), and three counties (New Jin, Zhuanghe and Changhai) were involved in the plan. Previous plans only focused on the four districts (Zhongshan, Xigang, Shahekou, and Ganjingzi) in the central city. The whole city was divided into three functional areas: the central area, Jinzhou and development area, and Lvshunkou area. According to the plan, the central city should act as the centre of the whole city and tertiary industry should be given special emphasis. Trade, business, finance and high technology were selected as the main industries in this area. Jinzhou and the associated development area were built to mitigate the pressure from a growing population in the central area and they were to be developed into the high-tech industrial centre of the city. Lvshunkou, which is on the boundary of the country, has been historically the national coastal defense frontier. In recent years, this area has become an attractive destination with abundant heritage and nature resources. Thus Lvshunkou area was planned as an area for national coastal defense and as a tourist

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- Cities in China have been classified into three different levels according to their administrative function. Those four categories are county level cities, local level cities, provincial level cities, and municipalities directly under the central government (Beijing, Shanghai, Chongqing, and Tianjin).

attraction.

Considering the study area of the thesis, only the plan for the central city will be specified in this section. The plan for the central city included industrial planning, storage site planning, residential planning, public centre planning, gardens and greening, road system planning and public transportation planning. The 1990 plan indicated that there would be no more large and middle-sized factories built in the central area. Ten industrial parks were planned, among which six were located in the central study area (Zhongshan District, Xigang District, and Shahekou District). The 1990 Plan also addressed the issues of urban infrastructure in a holistic manner and housing was given special emphasis.

In the 1990 Plan, the administrative region of Dalian was clearly defined for the first time. Also, creation of urban centres for public use was clearly addressed in the 1990 Plan for the first time. Altogether seven centres were to be created according to the plan; they were a trade centre, an external affairs service centre, a commercial centre, an agricultural trade centre, a financial centre, a science and technology centre, and an integrated sports centre. Moreover, the 1990 Plan paid much more attention to the greening of the city than any of the other former plans that were constituted after the Russian Plan. The 1990 Plan provided effective and successful guidance for the city to develop in the context of national economical transformation. It was the most comprehensive plan in the history of Dalian.

#### **4.1.6 Summary**

This section introduced the evolution of urban planning in Dalian since the very beginning of the city. In the past one hundred years, more than five plans were prepared by different governments. From the description above, it is apparent that the plans became more and more complicated. The issues that were addressed evolved from relatively simple plans for the transportation system and urban infrastructure to more comprehensive plans for the whole urban system. The planning area also got larger and larger. Earlier plans focused more on the physical environment of the city: the construction of the roads, the power supply, the water supply, the drainage, and other infrastructure. However, with the development of the economy and the growth of population, the planners began to address more complicated issues like urban environmental quality, public service facilities, and so on. The function of the central city changed from being industrial centre to multifunctional centre providing business, financial, trade, commercial, cultural and other services to the public. The importance of tertiary industry, especially the tourism industry, was recognized and became part of the plan. Although, after the 1982 Plan, the government began to relocate the industrial enterprises in the central area, the central city was still positioned as industrial centre.

Central city regeneration has been a constant topic in past plans, especially after the 1958 Plan. However, the regeneration plans before the 1990 Plan focused more on the improvement of urban infrastructure, the development of the secondary industry and the enhancement of urban functions. Issues of the quality of life of residents were also involved in the plans and the major measure has been slum clearance. It was only after the 1990 Plan that the government began to pay attention to horticulture and the greening of the city, environmental protection and development of the waterfront as a recreation and tourism area. The image of the city was not addressed in those plans.

## 4.2 Present Policy

Secondary industry has been the pillar industry in most cities in China for decades. It has been used to develop the cities and to provide the necessary funding through profit earning and taxes. A large number of factories and other enterprises, especially state-owned enterprises, were set up to address fiscal problems and the mayors devoted themselves to the management of those enterprises. This was the situation in Dalian before 1992, when Mr. Bo Xilai was nominated as the mayor of the city. Mayor Bo proposed a brand new concept in Dalian, even in China, to guide the development of the city, i.e. manage the city as a whole and regenerate the city through environmental improvement and urban image enhancement:

*“With the increasingly fierce competition, it is more and more difficult for enterprises to gain market share, thus investment in state-owned enterprise became a great risk for municipal government. However, since a city is also state-owned property to some extent, it is possible to increase fiscal income to regenerate the city through the management of the city as a whole”*

*“Factories and enterprises could be managed by board chairmen or general managers, while the city can only be managed by the mayor. If the mayor paid more attention to managing the enterprises than on managing the city itself, the city is likely to become one with a bad environment and lack of order; this, from the perspective of economics, is the leakage of state-owned property. Therefore the mayor should devote himself to the management of the city itself. Only when the city has a pleasant soft and hard environment, and did the citizens have a comfortable living condition can it be developed in a desired circle and to earn increment.”(Interview with Mr. Bo, cited from People’s Daily, May 14<sup>th</sup>, 2001)*

*“The mayor before Mayor Bo paid special attention to state-owned enterprises for one decade in his tenure; however, most of the enterprises bankrupt, a lot of properties went to waste. Mayor Bo, to the contrary, treated the city as a whole and adopted a series of policies to develop the city in total. The image of the city was enhanced and attracted a lot of outside investment” (Interview with*

*Mr. Wang Weian, by the author, July 7th 2003)*

The highlight of the new policy was to improve the urban environment and attract outside investment through environmental improvement, that is to regenerate the city through transferring the achieved environmental benefits into economic profits. A good urban environment means completed roads, transportation, shopping, accommodation, convention and exhibition facilities, education, culture and sports facilities, green space, squares, and reasonable urban policies and statutes; that is to say, a pleasant natural environment, adequate urban functions and good urban infrastructure. In order to create a pleasant urban environment, the municipal government started a series of policies in addition to the policies to accelerate industrial structure adjustments and to encourage outside investment. The policies to improve the urban physical environment included: (1) Gardening of the city. The government began to rebuild the parks and plan green spaces in the city after 1993 and, by 2000, the greening rate of Dalian had reached 40.5% (Dalian Yearbook, 2001); (2) Relocating the factories in central city. The government began to remove factories from the central city after 1995 and, by the end of year 2000, altogether 105 factories were closed or moved to suburb areas (Dalian Yearbook, 2001); (3) Clearing slums and relocating residents who lived in bad living conditions. Dalian relocated residents with bad living condition since the foundation of P. R. China but, after 1993, the government began to relocate citizens on a large scale and, by the year 2000, about 1 million people had been moved to new houses (People's Daily, May 14<sup>th</sup>, 2000); (4) Redeveloping the waterfront area. Since the beginning of Dalian, the waterfront area had been occupied by industrial enterprises, which prohibited Dalian residents from reaching the sea and also created a lot of pollution. After 1994, the government relocated factories and revitalized the waterfront area through the construction of squares, parks and new real estate developments; and (5) Cleaning up pollution. Between 1992 and 2000, Dalian invested 10 billion RMB (USD1.2 billion) to clear up freshwater pollution, noise pollution, ground water pollution, automobile pollution etc., and Dalian has become the cleanest city in the forty-six key municipalities in China for several years (Vice Director of Dalian Environmental Protection Administration, workshop of China National Tourism Administration and World Tourism Organization joint project, October 26, 2001).

Moreover, besides the policies introduced above, the most remarkable point of the policy was to create squares. Since 1993, the local government began to construct new squares and reconstruct old ones. By 2002, altogether 49 new squares were built and Dalian became the city with the most squares in China. The major reasons for the construction of squares were to beautify the urban environment, to provide a more comfortable and livable living condition for Dalian residents and to enhance the urban image. Once the squares were built, they became the activity centre for people living nearby, old people exercising, children

playing with their friends, young people talking with their friends, people passing through, sitting down, reading newspapers, doing nothing, etc. The squares have also become scenic elements of the city:

*“In a city, roads are more important than buildings, squares are more important than roads”*  
(Mr. Bo Xilai, cited from People’s Daily, May 14<sup>th</sup> 2000)

*“Since 1993 we proposed a series of policies to redevelop the city, among which the construction of squares was of importance. Many squares were created to improve the living condition of Dalianers, to enhance the image of our city, and to raise the land value to earn more tax from real estate.”* (Interview with Mr. Want Weian, by the author July 7th, 2003)

*“The squares were created to offer leisure space for local residents and to provide a comfortable living condition for the residents. Nowadays, urban area has become the metaphor of poor environment quality, congested transportation and jam-packed living conditions, while squares can solve those problems to certain extent. A well-designed square can attract more people, which will definitely increase business opportunities. Although the role that squares play in economic development is limited, they can indeed improve the living environment of Dalianers and provide a more comfortable and livable city for them.”*

*“Since 1993, a lot of slums were cleared and this left a great amount of vacant spaces. We didn’t build high-rises on all of this space, instead of that, we created some squares. Yes, constructing high-rises can solve the problem of housing, but it can only solve the problem of a limited number of residents at the risk of a deteriorating living environment. It is not advisable, since a square can serve much more residents than the high-rise on the same location.”*(Interview with Mr. Liu Yong, by the author, July 9th, 2003).

*“We built a lot of sculptures on some of the squares, they not only provided spaces for citizens to enjoy life, but also became the highlights of the city. Those squares attracted numerous tourist, and also enhanced the image of our city. Youhao Square, and Xinghai Square are two examples”*  
(Interview with Mr. Wang Jun, by the author, July 11<sup>th</sup>, 2003)

*“Children and seniors benefit the most from the squares, for the squares provide them with a place to have outdoor activities and to make new friends. Most of the squares were fully utilized, especially in the period of SARS. If the citizens like the squares, it is worthwhile for us to construct more, for we government officials should serve the citizens.”* (Interview with Mr. Liu Yong, by the author, July 9th, 2003)

*“Urban construction should be a long-term consideration because once the buildings or the roads or some other facilities are built, they will be kept for a long period of time. If they are ugly or planned unreasonably, they will weaken the whole image of the city and make the people in the city*



*feel uncomfortable. In the past ten years we created a lot of empty spaces through slum clearance and residential displacement, fortunately we didn't create concrete forests, instead of that we built a lot squares. This is wisdom for the squares did beautify the visual landscape of the city, and at the same time they provided a buffer area for the buildings and people around them. It is advisable to combine the elements of urban design in urban development” (Interview with Mr. Zhang, by the author, July 11<sup>th</sup> 2003)*

Besides improvement of the quality of life of Dalian residents, the squares also attracted numerous tourists to the city and became one of the most important attractions of the city. According to Mi (2003), squares have been perceived as the most attractive sites of the city, by both domestic and international tourists. Dalian Tourism Administration promoted five tourist routes with special emphasis and visiting the squares and architecture of Dalian is one of them. Moreover, squares are the essential part of the itinerary of one-day trip in Dalian:

*“The major domestic origin of Dalian visitors is people living in inland China, in congested cities and in small cities. For tourists from inland China, the opportunity of reaching the sea is the highlight, while for tourists from congested cities and small cities the squares are the most attractive sites, for they have never seen so many beautiful open spaces in a city. Actually squares have become one of the typical strong attractions of the tourism industry of Dalian, together with the sea and events. A lot of culture and entertainment activities have been held on squares. Squares are also the centres for events, for example, most activities of the well-known Dalian Fashion Festival are held on squares” (Interview with Mr. Li Jinpin, by the author, July 9<sup>th</sup> 2003).*

*“Tourists enjoy their trip on the squares very much. Beauty and cleanness are the two most usual impressions. Taking photos, walking around, sitting down, talking with their friends or local people are the major activities of tourists on squares. They like the feeling of staying with local people, they feel they are warmly welcomed by the city and the people. Squares provide them with an opportunity to reach local people. Xinghai Square, Zhongshan Square and Youhao Square are the three most attractive ones.” (Interview with a local tour guide, by the author, July 13<sup>th</sup> 2003).*

Lack of funding has prevented a lot of cities from further development, especially in urban infrastructure construction and reconstruction, in industrial enterprises relocation, in slum clearance, in residential displacement, and in the creating of public space and public facilities, while in Dalian, on the other hand, since the attractiveness of the city has been increased, much outside investment has been attracted by pleasant urban environment (Bo, 2000, cited from People's Daily, May 14<sup>th</sup>, 2000). The local government

also adopted some policies to marketize and to commodify the land resource to encourage investment and the development of real estate. Thanks to those policies the fiscal problems for urban construction have solved without difficulty. Moreover, the policy of regenerating the central city has also gained support from the public:

*“In 1992 the disposable income of Dalian was 2.1 billion (RMB, equals to 0.25 billion USD), of which only 800 million (RMB, equals to 96.7 million USD) could be used for urban construction. While in 1999, the disposable income of the city reached 9 billion (RMB, equals to 1.09 billion USD) and about 40% (about 0.44 billion USD) of this could be used to improve the urban environment. All of the extra income came from the increased city holistic value. ”*

*“For example, in the past year, more than ninety industrial enterprises in the central city have been relocated to the suburban area. It is well known that most of those enterprises are close to bankrupt, the facilities and equipment are almost worthless, then how did those factories get enough money to remove themselves? The reason is the increased value of Dalian as a whole, so the value of the land where those factories located has also increased. Actually, the land value of 1999 is five times that of 1994.” (Interview with Mr. Bo Xilai, cited from People’s Daily, May 14<sup>th</sup> 2000)*

*“The Dalianers are willing to cooperate with government to relocate because they can profit from the displacement project. In the past years we have formed an integrated rule to guide displacement projects, all the project are open to the public and the residents could get cash as soon as they leave the place. In the most recent project, the reconstruction of Zhongshan Road (one of the trunk roads of Dalian), the people living there moved away within one week. All the funding for the regeneration project came from the sale of land along the road. Altogether 1.5 billion (RMB, equals to 0.18 billion USD) were used to relocate resident, and the government also earned 0.7 billion (RMB, equals to 0.08 billion USD) from the project.” (Interview with Mr. Fan, by the author, July 9<sup>th</sup> 2003)*

As for the investment for square construction, since there will be no direct economic benefits from the investment on public spaces, most of the investment activities were conducted by the local government. For almost all the squares, one thirds of the investment came from municipal government while the rest was provided by district governments.

We should also see the other side of the coin of course. Since all the changes took place in such a short time, it is inevitable that some problems occurred. Some of the workers in the relocated or closed industrial enterprises lost their jobs, some of the projects were of low quality because of lack of money and time, and

the design and planning of some of those projects are unsatisfactory:

*“My husband is a manager who is responsible for the construction of some of the urban regeneration projects. He told me that most of the projects are jerry-built because of the lack of money. It is a short-term consideration to have so many regeneration projects in only ten years. What’s more, the workers in the construction team cannot be paid on time, although their salary is less than 900 per month (RMB, equals to 108.8 USD) (author: the minimal amount of personal monthly income of Dalian is about 48.4 USD; the costs of living of Dalian is higher than most cities in China, including Beijing and Shanghai).” (Interview with Mrs. Xu, by the author, July 9<sup>th</sup> 2003)*

*“Most of the workers in our factory lost their job because of the relocation of the factory. We don’t have income now. I am now living on my children.” (Interview with a man of around 60, by the author, July 19<sup>th</sup> 2003)*

*“The squares have created an illusion of prosperity; it is a kind of bubble. The squares make Dalian seem like a modern and rich city, but actually it is not as rich as it looks.” (Interview with Mr. Sun, by the author, July 18<sup>th</sup> 2003)*

*“Some of the squares are poorly designed, the scale of some of the squares is not appropriate for people to stay. They didn’t provide enough sitting area for people, the squares are exposed to the sun so that no one would like to stay there at mid-day. It seems that the squares were only built to be the political symbol of the city, rather than to provide public open space for the citizens.” (Interview with Mr. Huang, by the author, September 30<sup>th</sup> 2003)*

Despite all the limitations, in the past ten years, Dalian has changed into a garden city from being a heavy industrial city and gained a good reputation at home and abroad. In 1999, Mr. Bo Xilai was given the Scroll of Honor awarded by the UN Human Settlements Programme (UN-HABITAT); in 2001 Dalian was awarded the ‘Global 500 Roll of Honor for Environmental Achievement’ by the United Nation Environment Programme (UNEP), it was the only city in that year and the first city in China to gain this honour; in 2001 in the ranking of comprehensive competence, Dalian ranked the first as the most reputable city. In 1999 Dalian was nominated as Top Tourist City in China because of the pleasant urban environment (Dalian Yearbook, 2001, 2000).

Dalian is now being called the ‘Northern Hong Kong’ as it has become the business, financial and trade centre of northeastern China. Besides the visible economic and environmental benefits, the improved environment has also raised the pride of the citizens:

*“The improved urban environment has raised the citizenship’s awareness of Dalian. They are*

*willing to maintain the order and the environment of the city voluntarily. They look on themselves as members and owners of the city, and they are proud of our city.” (Interview with Mr. Fan, by the author, July 9<sup>th</sup>, 2003)*

In 1996, the 1990 Plan could not guide the further development of the city any more; therefore, in 1999, a new master plan was constituted. In 2003, the 1999 Plan was supplemented. Dalian was positioned as ‘major central city of Northern China, regional transportation, business, finance, information and tourism centre’. This latest plan was mainly composed of urban system planning, urban land use planning, ecological and environmental protection planning, coastal planning, urban infrastructure planning, tourism development planning, heritage protection planning, and internal and external transportation planning. The plan aimed at expanding the general scope of the economy, increasing the capacity for urban development, enhancing the comprehensive urban functions and creating a better physical urban environment. The concept of the managing city as a whole is still the guideline of the new plan.

Considering the study area of the thesis only, the plan for the central city will be specified in this section. The plan for the central city includes industrial planning, storage site planning, living area planning and design, public centre planning, business and trade facility planning, gardening and greening planning, and public facilities planning. If compared with the 1990 Plan, this latest plan has the following characteristics:

- The industrial area planned in the 1990 Plan was removed to the outskirts of the city and a new high-tech industrial park was planned in central city;
- The latest planning for the living area paid more attention to the quality and structure of the residences than the 1990 Plan.; elements of urban design were incorporated in the planning for residential communities;
- The planning for the public centres is more comprehensive than in the 1990 Plan. Different levels of public centres were created, and public centres include a technology and information centre, sports centre, science and education centre, tourism and vacation centre, financial centre, business centre and commercial centre:
- Planning for business and trade facilities was added in the latest plan;
- Planning for the public facilities is more comprehensive than the 1990 Plan;
- The central city was positioned as the centre of the ‘macro Dalian’ (the whole administrative region of Dalian, including all the districts, counties, and county level cities);
- Six industries were developed with special emphasis. Those industries are finance, business and trade,

information, conventions and exhibitions, tourism, and the high-tech industry.

Since the urban infrastructure of central Dalian has been relatively well furnished, the new plan focused more on the industrial structural adjustment, urban physical environment beautification and optimizing comprehensive urban functions. It is too early to evaluate the consequences of this plan.

### **4.3 Conclusion**

Based on the review of government document and key-informant interviews, this chapter analyzed the evolvement of urban development and urban regeneration policies. In its history of more than one century, several plans were constituted in Dalian. With the 1958 Plan the local government began to pay attention to the regeneration of the central city, and from 1992 the government began to adopt a series of policies to regenerate the city on a large scale. Table 4-1 shows the difference among different urban plans.

Government played a crucial role in the development, as well as the regeneration, of the city. In addition to the policies designed to accelerate economic development and to improve industrial structure, the quality of urban physical environment, urban image, and quality of life have also been considered by the local government. The highlight of the urban regeneration policy has been to accelerate the development of the city through the improvement of urban environment. The government invested greatly in the mitigation of the pollution in the city, the reconstruction the waterfront area and in horticulture and the greening of the city. The industrial enterprises in the central city were removed and replaced with parks, green spaces and squares. All of the polices were aimed at providing a pleasant public space for the people living in or visiting the city.

Squares have been part of the development of Dalian since the very beginning of the city. They record the history and embody the culture of the city. They are a main element of the lay out and the road system of the city. In the Russian time, squares were constructed as the transportation, cultural and entertainment centres of the city. From the period of Japanese governance to 1992, the squares were only utilized as transportation centres. Since 1992, the local government has constructed additional squares as important public spaces to regenerate the central city. Altogether, 49 squares were built in the city between 1992 and 2002.

According to the key-informant interviews, the major reasons for creating squares were to enhance the image of the city and to provide enough space for the citizens to enjoy public life. Most of the squares are fully utilized and the citizens enjoy the activities on squares very much. Squares have also become a selling point of the tourism industry of Dalian. Despite minor limitations of the squares, they are successful in providing public open space for the citizens, enhancing the image of the city and increasing the pride of the

local residents in their city.

Table 4-1 Comparison among Urban Plans of Dalian City

	Russian	Japan	Post War	Reformation	Explosion	Present
Positioning	Port, trade and business	Industrial	Industrial	Industrial, port, and tourism	Industrial, port, and tourism	Transportation centre, business, finance, information and tourism
Waterfront	Port	Dock and industry	Dock and industry	Dock, industry, vacation resort	Dock, industrial, vacation resort, tourism attraction	Dock, industrial, vacation resort, tourism attraction, recreation
Greening	Highly	No	No	Slightly	Highly	Highly
Environmental Protection	No	No	No	Yes	Yes	Yes
Tourism	No	No	No	Yes	Yes	Yes
Industry	Yes	Yes	No	No	No	Yes
Square	Administrative area	Industrial area	Industrial area	Multifunctional area	Multifunctional area	Multifunctional area
Public Service	No	No	No	Yes	Yes	Yes

Source: by the author

## Chapter 5

### Land Use Pattern of Squares in Dalian

This chapter will focus on the squares in Dalian from the perspective of land use based on onsite observation. An inventory of the squares in Dalian, their distribution, area, history, and functions will be described in this chapter. Changes in land use patterns around squares, changes in the functions of squares, the roles that the squares have played in the development of the city, and the use patterns of the squares will also be explored in this chapter.

#### 5.1 Squares in Dalian

##### 5.1.1 Squares Fact

The first square, Zhongshan Square, was built in the Russian period and, since then, the number of squares in Dalian City had increased to 59 by 2003, of which 32 (i.e. 54.25%) are located in the central city. An inventory of the squares in the central city is shown in Table 5-1 below. In order to get a more clear and comprehensive knowledge of the squares, the squares were divided into three categories according to their area, i.e., (1) smaller than 5000m<sup>2</sup> (S, small-sized), (2) 5000-10000 m<sup>2</sup> (M, middle-sized), and (3) larger than 10000 m<sup>2</sup> (L, large-sized). As shown in Table 5-1 below, 43.75% of the squares are large-sized, 37.5% are middle-sized, and 18.75% are small-sized.

Table 5-1 Inventory of Squares in the Central City of Dalian by 2003

Region	Square	Built	Rebuilt	Area (m <sup>2</sup> )	Scale
Zhongshan	Zhongshan	Russia	1996	22680	L
□Totally 14□	Gangwan	1995	1999	5700	M
	Youhao	Russia	1996	1400	S
	Sanba	1952	1992	2700	S
	Erqi	1952	1997	1467	S
	Xiwang (Hope)	1995		10000	L
	Minzhu (Democracy)	Japan	1997	8540	M
	South Shengli Bridge	1997		1372	S
	Shidai (Times)	1999		24600	L
	Huale	1999		22600	L



	Haijun (Navy)	2000		69000	L
	Shengli (Victor)	1997		5000	M
	Hudiao	1998		40000	L
	Xiuyue	2000		6300	M
	Xianglujiao	2001		5300	M
	Community				
	Renmin (People)	1924	1995	71000	L
Xigang	Lijiaoqiaoxia	1995		38000	L
(Totally 7)	Dongbei Road	1997		14500	L
	Olympic	1999		61285	L
	Lotus	2000		14388	L
	Bayi Road	2002		2300	S
	Tianhe	2001		7000	M
	Heishijiao	2002		5300	M
	Wusi	1954	1997	8231	M
	Wuyi	1953	1998	7795	M
Shahekou	Jiefang	Japan	1997	6400	M
(Totally 11)	Malan	1995		794	S
	Shengxin	2000		8501	M
	Jiche	2000		7400	M
	Xinan	1999		12000	L
	Station Sq.	Japan	1994	10300	L
	Xinghai	1997		1700000	L

Source: Chronicle of Urban Development, Dalian, in process

According to their function, the squares in the central city of Dalian can be divided to the following categories:

- Municipal Square (M): refers to the squares that are located around the political centre of the city. This kind of square usually can provide a place of communication between the municipal government and citizens;
- Transportation Square (T): refers to the squares that are located near the airport, railway station or dock, or the squares at the crossing of several roads.
- Commemorative Square (C): refers to the squares that were built to recognize some memorable

historical events or personalities;

- Commercial Square (Co): refers to the squares that were surrounded by shopping malls or other kind of commercial facilities, and act as the buffer area for surrounding buildings;
- Recreation/Tourism Square (R): refers to the squares that act as a tourist attraction and provide informal recreation space;
- Evacuated/Green Space (E): refers to the squares that are located in front of buildings, some of these squares are covered with lawns, and are inaccessible to the public

Actually, since some of the squares are multifunctional, they have been classified according to their major function. Their secondary functions are put in the brackets in Table 5-2 which is a classification of the squares in central Dalian. As shown in Table 5-2, of the 32 squares in the central city, 15 (46.9%) are transportation squares, 13 (40.6%) are recreation/tourism squares, 4 (12.5%) are commemorative squares, 5 (15.6%) are restricted green space, 2 (6.3%) are commercial squares and 1 (3.1%) is a municipal square. Since some of the squares are multifunctional, the sum of the proportion exceeds 100%. The proportional breakdown of the major classification of squares in the central city is shown in Figure 5-1.

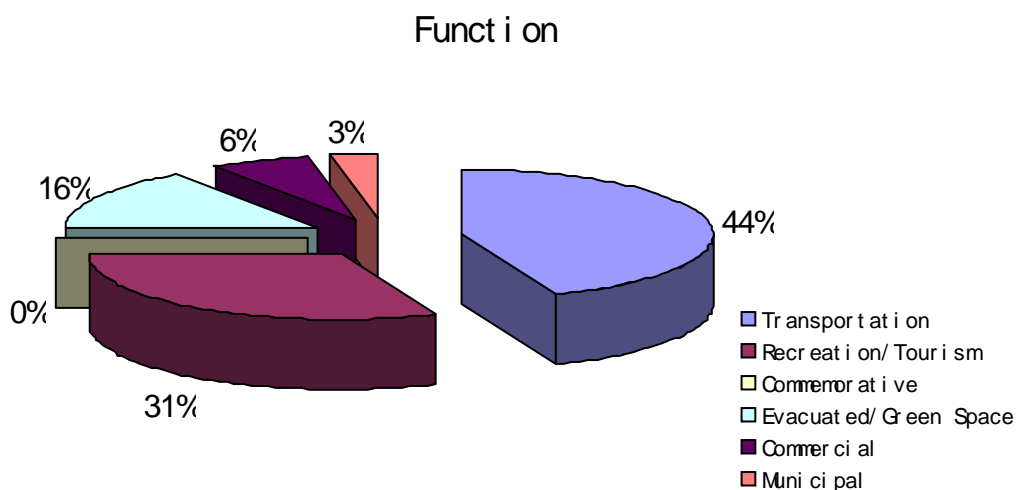


Figure 5-1 Proportional Breakdown of Function of Squares in Dalian

Table 5-2 Classification of Squares in the Central City

Square	Category	Square	Category
Zhongshan	R (T)	Renmin (People)	M (R)
Gangwan	T (C)	Lijiaoqiaoxia	T
Youhao	T (C)	Dongbei Road	T
Sanba	T	Olympic	Co
Erqi	T	Lotus	R
Minzhu (Democracy)	T (R)	Bayi Road	T
South Shengli Bridge	R	Tianhe	E
Shidai (Times)	R	Heishijiao	T
Huale	R	Wusi	T (R)
Haijun (Navy)	R (C)	Wuyi	E
Shengli (Victor)	Co	Malan	T
Hudiao	R	Shengxin	E
Xiuyue	R	Jiche	E
Xianglujiao Community	R	Station Sq.	T
Xiwang	E	Jiefang	T
Xinghai	R (C)	Xi'nan	T

Source: by the author

### 5.1.2 Time Evolution of Square Construction

The number of newly built squares in each year, as well as their scales, are shown in Figures 5-2 and 5-3. The years before 1993 have been divided into two: (1) prior to the foundation of P. R. China in 1949, and (2) 1949-1992. The reason that the year 1992 is specified as a divide between the two periods is because a new development strategy was advanced in that year, as mentioned in Chapter Four. As indicated in that chapter, in 1992, Mr. Bo Xilai became the Mayor of Dalian and he established some new development policies in which environmental improvement was the most important strategy.

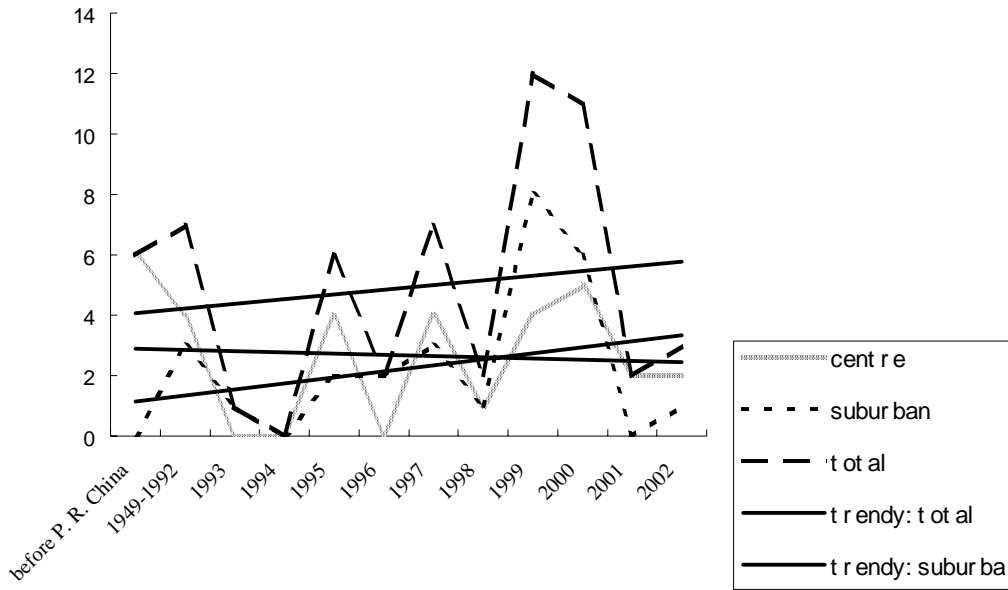


Figure 5-2 Number of Squares Built according to Years

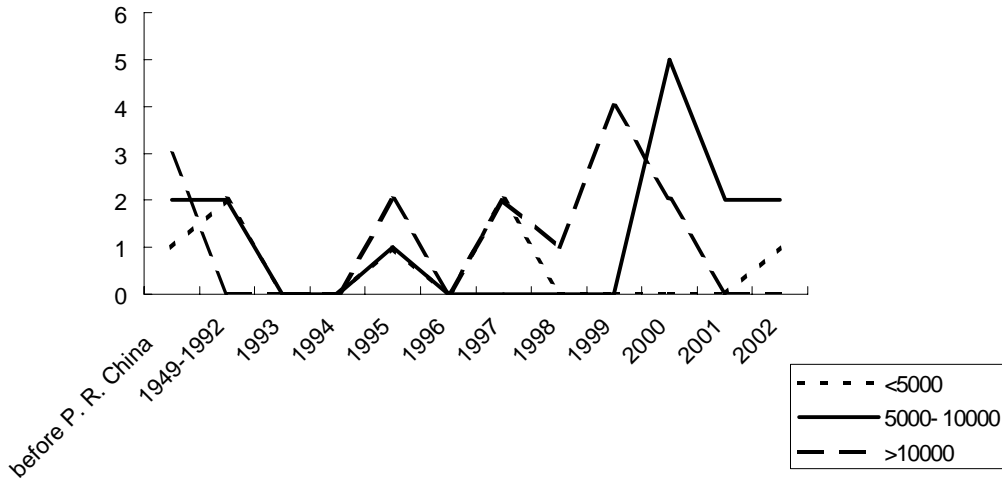


Figure 5-3 Scale of Squares according to Year

Figure 5-2 reveals that more than two-thirds of the squares in the central city were built after 1993. There is no significant difference in the number of newly built squares in the central city between the two periods, however, if the squares in suburban area are also taken into consideration, Figure 5-2 shows clearly that the number of newly-built squares in both the suburban area and the whole city have increased steadily with time. The rate of increase (the slope of the trend lines in Figure 5-2) for the squares in the central city is

more gently than that of the suburban area.

With respect to the sizes of newly-built squares, Figure 5-3 reveals that over time there has been: (1) a decrease in the sizes of small-sized squares, (2) increases for middle-sized squares, and (3) stability in the sizes of large squares.

As for the function of the squares, there are also some trends in development. Most of the squares built before 1997 were transportation squares (except Zhongshan Square, which had other functions in addition to transportation), only after 1997 did the municipal government begin to build squares of other functions, especially recreation/tourism.

### **5.1.3 Spatial Character of Squares**

The distribution of the squares in the central city according to the time of construction and their scale is shown in Figure 5-4. Their scales are marked by circles of different sizes and the year of construction is indicated by different colours. From Figure 5-4 it can be seen that most of the squares were built near the trunk roads of the city and they extend on both side of the trunk roads. All of the squares built before the year 1997 were on or near the trunk roads while, from 1997, the squares began to be extended to both sides of the roads. This is probably because before 1997, most of the newly-built squares were transportation squares, and squares built at that time were located in places that have become the nodes in urban transportation. Figure 5-4 also reveals that most of the small-sized squares are distributed in Zhongshan District (5 out of 7), most of the middle-sized squares are distributed in Shahekou District (7 out of 11), whilst the large-sized squares are distributed equally in the Districts in the study area.

The distribution of the squares in the central city according to their functions and sizes is shown in Figure 5-5. Their sizes are indicated by circles of different sizes and their functions are marked by different colours. The multifunctional squares are marked by circles of two colours, with the major functions having the bigger share of the coloured area. According to Figure 5-5, most of the squares in Zhongshan District are transportation or recreation/tourism squares (5 out of 14, and 7 out of 14 respectively), while most of the squares in Shahekou District are restricted green spaces (4 out of 11, and 6 out of 11 respectively). In fact, all but one of the latter are found in Shahekou District (4 out of 5). In contrast, the majority of the recreation/tourism squares are in Zhongshan District (7 out of 10). Figure 5-5 also reveals that most of the large-sized squares are recreation/tourism squares and most of the small-sized squares are transportation squares.

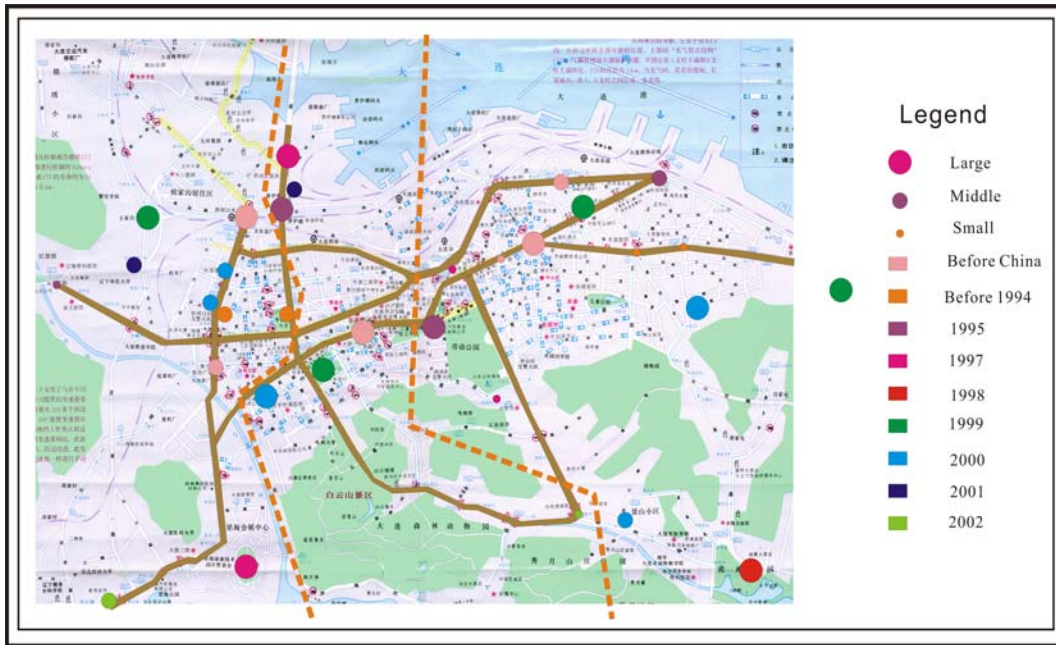


Figure 5-4 Distribution of Squares according to Time and Scale

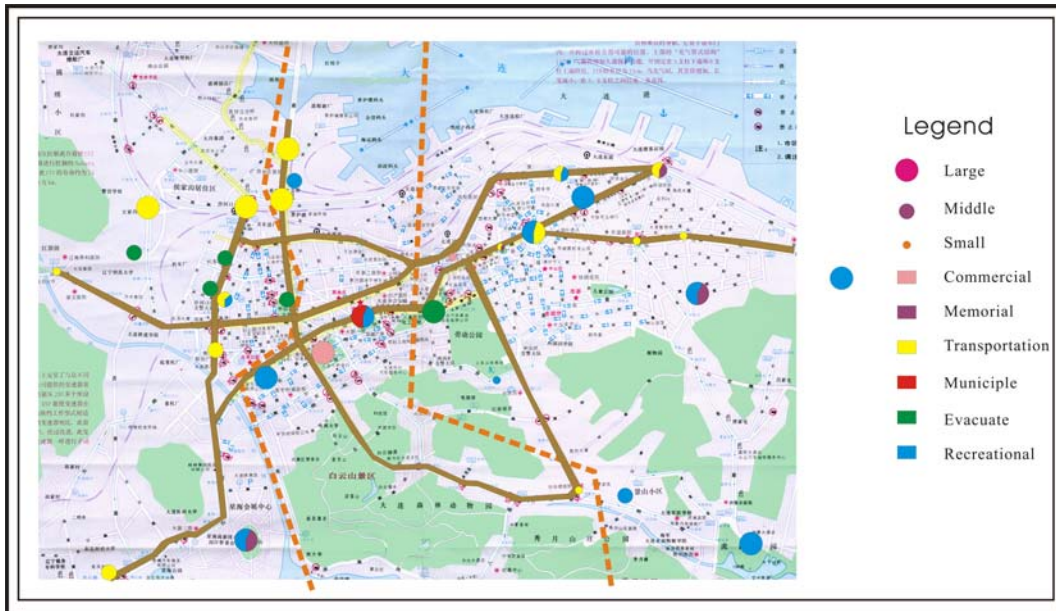


Figure 5-5 Distribution of Squares according to Function and Scale

The distribution of the squares in the central city according to their functions did not happen by chance. It can be explained if we take into account the functions of different districts in the development of the whole city. According to the Master Plan for Urban Development of Dalian City (1999-2020), six industrial sectors were identified as being the pillars of the urban economy. Those sectors are finance, business and trade,

information technology (IT), convention and exhibition, tourism, and high-tech industry. The sectors of finance, business, and tourism were especially emphasized in Zhongshan District, while information technology and the convention industry were developed with emphasis in Shahekou District, although this district also included tourism, business and trade. Xigang District is the political centre of the city where the municipal government is located. The layout of the functions in these three districts partially influences the distribution of the squares and vice versa. The interaction between these two factors suggest that: (1) the recreation/tourism squares in Zhongshan District constitute tourists attractions and places for local recreation on the one hand and contribute to the creation of a pleasant investment environment on the other hand; (2) transportation squares and restricted green space in Shahekou District expedited transportation, which is essential for the IT industry; (3) Xinghai Square, in Shahekou District, has become the main incubator for the convention industry and is where the convention centre of the city is located; and (4) Renmin Sq., in Xigang District, is without doubt the political centre of the city with the Municipal Government, Municipal Court and Municipal Police Bureau around it.

## **5.2 Land Use**

### **5.2.1 Land Use Change**

Public squares have been widely acknowledged as an essential feature in an urban plan to provide local residents with space for relaxation, communication, entertainment, and other activities. Some of the squares are also important foci of urban transportation as transportation nodes, while others can work as the bond among buildings to integrate them. Sometimes the squares can be a secondary centre of the city and similar businesses or organizations are assembled together for convenience and better communication.

The squares in Dalian were not born as they are at present; it took a long time for the present pattern to be formed. It has taken since the very beginning of the city, as mentioned above, although the last ten years have witnessed more rapid development. The construction and development of the city gave birth to a lot of new squares and endowed existing squares with new functions. The present use pattern and former land use on and around the squares were recorded and Table 5-3 reveals land use change in the squares in the central city of Dalian. The data source for present land use came from on-site observation and documents, while the data for former land uses mainly came from formal interviews with government officials and informal interview with local residents, for there are no readily available documents on these topics.

Table 5-3 Square Related Land Use Change

Square	Present Land Use	Former Land Use
Gangwan	Transportation square near the port of the city with a commemorative sculpture	Slum
Xiwang (Hope)	Evacuate square in front of a business mansion with inaccessible green space	Factory (brewhouse)
South Shengli Bridge	Recreation space	Road
Shidai (Times)	Recreation space	Slum, unfinished construction
Huale	Recreation space	Unemployed land near industrial estate and slums
Haijun (Navy)	Recreation space	Factory (petrification factory) and slum
Shengli (Victor)	Commercial centre	Parking slots
Hudiao	Tourism attraction	Unemployed land
Xiuyue	Recreation space	Residence houses
Xianglujiao Community	Recreation space	Unknown
Lijiaoqiaoxia	Transportation pivot	Road
Dongbei Road	Transportation pivot	Unknown
Olympic	Commercial centre, the sports and leisure centre of the city	Sports ground
Lotus	Recreation space	Unknown
Bayi Road	Transportation pivot	Unknown
Tianhe	Evacuate square near a primary school and a factory	Unknown
Heishijiao	Transportation pivot	Unknown
Malan	Transportation pivot	Road
Shengxin	Evacuate square in front of a mall	Unknown
Jiche	Evacuate square in front of a business mansion	Unknown
Xinan	Transportation pivot	Unknown
Xinghai	Tourism attraction, recreation square,	Garbage dump



	the convention, exhibition, and tourism centre of the city	
Youhao	Transportation pivot with a commemorative sculpture, the cultural and entertainment centre of the city, tourism attraction	Transportation pivot
Zhongshan	Recreation space at the crossing of 10 roads (streets), tourism attraction, financial centre of Dalian	Transportation pivot
Sanba	Transportation at the crossing of six roads (streets)	Transportation pivot
Erqi	Transportation at the crossing of five roads (streets)	Transportation pivot
Minzhu (Democracy)	Transportation square at the crossing of six roads (streets) with green space for recreation	Transportation pivot
Renmin (People)	Municipal square with green space for recreation, the political centre of the city, tourism attraction	Municipal square
Wusi	Transportation pivot with green space for recreation	Transportation pivot
Wuyi	Evacuate square in front of a building with inaccessible green space	Industrial estate (mechanical industry)
Jiefang Station Sq.	Transportation pivot Transportation square in front of railway station	Transportation pivot Transportation square in front of railway station

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Source: By the author

Although the information on prior land use is incomplete, according to Table 5-3, the changing pattern of land use on and around the squares can be roughly divided into three categories. The first is the reconstruction of existing roads, i.e., greening and widening. This is the situation for almost all the recently built transportation squares. The purpose of the reconstruction is to resolve transportation problem and to beautify the environment simultaneously.

The second category is to remove existing buildings, including factories and old and shabby houses.

According to the Master Plan for Urban Development of Dalian City (1999-2020), no large or medium-sized factories would be built in the central city and the factories, especially polluting factories, were to be removed gradually. Actually, the local government began to remove factories from 1995 and, by the year 2000, 105 factories were removed to the suburban area and 3 million m<sup>2</sup> of land was vacated as mentioned in Chapter Four. New residential communities, commercial buildings, public buildings, and some squares were built on the vacated land, as well as high tech industrial parks. Typically, the construction of commercial or public buildings, such as commercial mansions, schools, malls, and the like, were often accompanied by the construction of restricted green spaces to provide an evacuated space to address security concerns or a pleasant environment. This is the case with Xiwang Square, Wuyi Square and other restricted green spaces. Recreation squares often accompanied the construction of residential communities to provide the residents with a pleasant environment for exercise, relaxation, entertainment, and communication. Haijun Square is a typical example of this situation.

The third category is that the land use pattern on and around the square remains unchanged but with new functions added. The best example is Zhongshan Square, which has changed from a transportation node to a recreation square, tourism attraction, and financial centre of the city.

### **5.2.2 Land Use Around Squares**

In order to get a more detailed knowledge on the exact land use pattern around the squares, 12 squares were selected as cases according to the criteria described in Chapter Three. Onsite observation was conducted to record the exact uses of the buildings around the squares and along the roads near or that pass through the squares, as well as the names of the roads. Table 5-4 shows the functions, sizes, years of construction, and location of the selected squares.

As shown in Table 5-4, the character of the case squares is roughly consistent with the characteristics of the population of squares, i.e. the character of all the squares in the central city, from the perspectives of sizes, locations, and functions. Thus, the selected squares can be considered to be representative of all the squares in the study area.

According to the result of on-site observations, the land use patterns around the selected squares were divided into 5 categories:

➤ Financial Use (F): refers to land used by financial institutions like bank, security and insurance company;

- Business Use (B): refers to land used by shopping mall, business mansion, stores, hotels, travel agency, inn, Dalian Convention and Exhibition Centre;
- Recreational Use (R): refers to land used by restaurant, café, cinema, bookstore, teahouse, theater, KTV, park, disco, museum, stadium, playground;
- Residence Use (Re): refers to the land used for resident;
- Community Service Use (C): refers to the land used by community service facilities such as groceries, barbershop;
- Municipal/Public Facilities (M): refers to the land used by municipal or public facilities such as municipal government, city court, city policy bureau, military department, city broadcast bureau, post office, railway station, revenue bureau, Dalian Harbour Policy Station, hospital;
- Others (O): including construction site, small factory, billboard;

Table 5-4 Inventory of Case Squares

Square	Function	Scale	Built	Location
Youhao	T (C)	1	Russia	Zhongshan District
Zhongshan	R (T)	3	Russia	Zhongshan District
Gangwan	T (C)	2	1995	Zhongshan District
Haijun	R	3	2000	Zhongshan District
Shidai	R	3	1999	Zhongshan District
Minzhu	T	2	Japan	Zhongshan District
Renmin	M (R)	3	1924	Xigang District
Olympic	Co	3	1999	Xigang District
Xinghai	R (C)	3	1997	Shahekou District
Malan	T	1	1995	Shahekou District
Wusi	T (R)	2	1954	Shahekou District
Wuyi	E	2	1953	Shahekou District

Source: by the author

The land use patterns of those sample squares are shown in Table 5-5, and the details of land use are shown in Appendix □

Table 5-5 Land Use Pattern Around Sample Squares

Square	Region	Land Use Pattern
	Around the square	B, F, R
Youhao	Youhao Rd.	B, R, M, F
	Yide St.	B (one five-stars hotel), F, Re
	Zhongshan Rd.	R, F, B, C
	Puzhao St.	B, O, R
	Xiangqian St.	R, O
Renmin	Around the square	M
	Around the square	F, R, B (a three-stars hotel), M
	Renmin Rd.	F, B (a four-stars hotel), R
	Zhongshan Rd.	R, F, B, C
	Luxun Rd.	B, R, M
	Yan'an Rd.	B, F
Zhongshan	Shanghai Rd.	O, B
	Minkang St.	R, F
	Minsheng St.	B, F, O
	Qiyi St.	R, F, B, M
	Jiefang St.	R
	Yuguang St.	Re, B
	Malan	Around the square
Wuyi	Around the square	M, R, B, Re
	Around the square	F, B, R, C
Wusi	Chengyi St.	R, F, Re
	Changsheng St.	Re, B
	Youzheng St.	M, Re
Shidai	Around the square	B (two fine-stars hotels and one four-stars hotel), F
Minzhu	Around the square	B (one four-stars hotel), R, Re, C, M
	Changjiang Rd.	B (one two-stars hotel), M, R, Re, C
	Dongping St.	C, R, B
	Wendong St.	Re
	Fada St.	Re
	Mingze St.	B, F, Re

	Shiji St.	R, B, Re, C
	Qiyi St.	Re, C
	Minyi St.	C, Re
	Around the square	O, R, F, B
	Changjiang Rd.	B, M, O
	East Changjiang	Re, B
Gangwan	Rd.	
	Renmin Rd.	R, B (one three-stars hotel)
	Wuwu Rd.	R, B
	Gangwan St.	B (one four-stars hotel), R
Xinghai	Around the square	B, Re, R, O
Haijun	Around the square	M, Re
Olympic	Around the square	R, B, Re

---

Source: by the author

#### 5.2.2.1 Youhao Square

This square is located at the crossing of five roads in Zhongshan District, the roads passing by are Youhao Road, Zhongshan Road, Puzhao St., Yide St., and Xiangqian St. Youhao Square is a transportation square and commemorative square. The sculpture in the middle has become a symbol of the city to some extent. This square is also included in some itineraries as a tourist attraction.

#### 5.2.2.2 Renmin Square

This square is a rectangular square in Xigang District with Zhongshan Rd. passing through. With the municipal government, city court, and city policy bureau around it, the square is undoubtedly the municipal centre of Dalian. The grass and fountain on the square also offer the local residents a pleasant place for recreation, and an important attraction for tourists.

#### 5.2.2.3 Zhongshan Square

This square is located at the crossing of ten roads in Zhongshan District, the roads passing through are Renmin Road, Zhongshan Road, Luxun Rd., Yan'an Rd., Shanghai Rd., Minkang St., Minsheng St., Qiyi St., Jiefang St, and Yuguang St. As well as being a transportation pivot, Zhongshan Square also provides the local residents with space for daily recreation, and some special activities, such as open-air concerts.

Surrounded by older western-style architecture, this square has become an important attraction for tourists.

#### 5.2.2.4 Malan Square

This square is a round transportation square on Huanghe Rd. in Shahekou District. Roads nearby are South Malan St., North Malan St., East Hongqi St. and Malanzi St. The square is a transportation centre.

#### 5.2.2.5 Wuyi Square

This square is located in front of Dalian Broadcasting Centre on Dongbei Rd, Shahekou District. It is a restricted green space.

#### 5.2.2.6 Wusi Square

Wusi Square is a round transportation square with four roads passing through it. With a lawn and fountain, the square also provides a place for recreation and leisure use for the people living nearby. The roads passing through are Fushun St., Changsheng St., Youzheng St. and Chengyi St.

#### 5.2.2.7 Shidai Square

Shidai Square is a rectangular recreation square in front of the Furama Hotel (5 stars) to the northwest of Renmin Rd. The roads nearby include Renmin Rd., Tianjin St. and Shiji St.

#### 5.2.2.8 Minzhu Square

This is a round transportation square at the crossing of eight roads or streets in Zhongshan District. The green space inside also provides a space for recreation and leisure activity. The roads/streets passing through are Changjiang Rd., Dongping St., Wendong St., Fada St., Mingze St., Shiji St., Qiyi St. and Minyi St.

#### 5.2.2.9 Gangwan Square

This square is a round transportation square at the crossing of five roads and one bridge in Zhongshan District near Dalian Harbour. The sculpture in the middle expresses a warm welcome to visitors from outside Dalian. This square is included in the itinerary of some travel agencies. The roads around the square include Changjiang Rd., East Changjiang Rd., Renmin Rd., Wuwu Rd. and Gangwan St.

#### 5.2.2.10 Xinghai Square

Xinghai Square is the convention and exhibition centre of Dalian. The square is located near the seashore in Shahekou District. As the largest square in Asia, together with the sculptures on the square, Xinghai Square has become a major tourist attraction. The land values around the square are probably the highest in Dalian at more than ten thousand RMB (about 1209.2 USD) per m<sup>2</sup> and it is safe to conclude that the people that live here are of the highest income group of the city

#### 5.2.2.11 Haijun (Navy) Square

Haijun Square is a rectangular square in Zhongshan District with Chunde St. passing through it. The square is the third one in the world to be named after the Navy. The other two are in the U S and U.K. There are sculptures and fountains on the square to represent the theme of the square, i.e. the respect to the forces. Most of the residential communities around the square have been built in recent years. The square provides a communication space for the people living around it.

#### 5.2.2.12 Olympic Square

Olympic Square is a commercial square in Xigang District. With a playground, a stadium and some stores for sports commodities, the square has become the sports and recreation centre of the city.

At least three conclusions can be drawn from the observation of land use patterns around the selected squares. Firstly, the most frequently appearing land uses around the squares are financial and business institutions. All of the three five-star hotels of Dalian City are located near squares. And almost all the city-level branches of major state banks are distributed around or near squares. There are altogether 26 bank branches of different levels near the selected squares.

The second conclusion is that the squares have become activity centres at different levels, from the civic to the community levels. The land use intensity decreases from the square to its peripheral areas, i.e. from public use to more personal uses. The most frequent land uses around a higher-level centre are financial organizations or public services such as government, education institutions, and shopping centres. These squares have provided communication space for social and economic activities for the whole city and its citizens. Some of the squares have also become attractions on the tourist map. In contrast, the lower-level centres are most frequently surrounded by residential uses and community service facilities, which are convenient to the residents living nearby.

The third conclusion is that recreation/tourism squares are better used than other types of squares, since

most of the land use around this type of squares was public facilities that serve the city rather than a community, while transportation squares were of the least fully used. Most of the land uses around transportation squares are old houses, community groceries, and small restaurants. These shabby buildings degrade the environment and have discouraged further development from being undertaken around the squares. Typically, the transportation squares are transportation nodes of different levels in the city. The convenience and accessibility of the transportation linkages should bring more development opportunities for the squares than what they appear to have.

### **5.2.3 Summary**

The exploration of land use resulted in the following conclusions:

- A majority of the squares are transportation squares, followed by recreation/tourism squares.
- There is a correlation between time and the numbers, sizes and functions of squares built, i.e. after 1993, the number of squares constructed increased along with time, the most of the squares built after 1993 were small-sized squares, and more recreation/tourism squares were built, especially after 1997;
- The construction of the squares occurred along the trunk roads and extended to both sides of the roads, especially after 1997;
- Most of the recreation/tourism squares are located in Zhongshan District, while most of the restricted green spaces are located in Shahekou District. The transportation nodes are distributed equally among the three districts in the city centre.
- The distribution of the squares according to their functions is consistent with the function of each of the three districts.
- The major land use pattern around the squares includes financial organizations, business and trade organizations and residential communities.
- Squares serve as social service centres of different levels and the higher the level, the more persons they serve.
- Recreational squares are used more efficiently than other types since most of the recreation/tourism squares are higher level centres which are surrounded by public service facilities, financial, business, and commercial institutions



### 5.3 Use Pattern

As mentioned in Chapter Three, onsite observation was conducted to investigate the use pattern of the squares. The intention of the observation is to answer the following questions: (1) what is the use density of the square, (2) what is the composition of users, from the perspective of age and gender, and (3) what are the major activities at different periods of time. Two squares were selected as study areas, one is Zhongshan Square, and the other is Xinghai Square.

The observation was conducted on July 13<sup>th</sup> (Sunday, sunny) and July 15<sup>th</sup> (Tuesday, sunny) on Zhongshan Sq., and July 17<sup>th</sup> (Thursday, cloudy) and July 19<sup>th</sup> (Saturday, foggy) on Xinghai Sq., from 6:00am to 10:00pm, continuously. The use density, characteristics of users (their age, and whether they are tourists or local residents), and their major activities were recorded every hour. Sunday and Saturday represent use patterns of weekends, and Tuesday and Thursday represent weekdays.

#### 5.3.1 Zhongshan Square

Zhongshan Sq., which is located at the crossing of several streets in Zhongshan District in the central city, is the financial centre of Dalian. The square was first designed to be transportation square in the Russian period and was changed to a leisure square in the late 1990s. With green space, activity space, and some sound facilities, the square has become a place for local residents to enjoy outdoor activities. Often in the weekends, the square will act as a band shell or music bowl, which makes the square a place for residents to get together, to relax, and to enjoy music. Built in the Russia period, the buildings around the square are all western styled architecture, which makes the square an important sight for tourists. The results of observation are shown in Tables 5-6 and 5-7.

Table 5-6 Use Pattern of Zhongshan Sq.

July 13<sup>th</sup>, 2003, Sunday, Sunny

Time	Use Density	Character	Activity
6:00	3	Local residents Older adults and retirements	Exercise, talking
7:00	4	Local residents Much more older adults and retirements than middle age and younger adults	Exercise, talking, play with pigeons, sit
8:00	2.5	Local residents	Sit, read newspaper, talking,

		More middle age and younger adults than older adults and retirements	play with pigeons, some companies have promotion on the square
9:00	2.5	Local residents Tourists, round 10 people More middle age and younger adults, some young parents with their children	Sit, read newspaper, talking, play with pigeons, company promotion Tourists stayed for about 20 minutes
10:00	2	Local residents Young parents, children, peddlers	Sit, talking, read newspaper, play games, company promotion
11:00	1.5	Local residents Tourists, round 10 people Young parents, children	Sit, play game, company promotion Tourists stayed for less than 10 minutes
12:00	1	Local residents Tourists, round 10 people Young parents, children	Sit, play game Tourists stayed for about 15 minutes
13:00	1	Local residents More younger adults, some middle ages	Sit, talking
14:00	1.5	Local residents More younger adults, some middle ages	Talking, sit There is foreign language corner on Zhongshan Sq. on every weekends
15:00	2	Local residents More younger adults, some middle ages	Most of the people on the squares are for the foreign language corner
16:00	3	Local residents More younger adults, some middle ages	Most of the people on the squares are for the foreign language corner Sit, kick shuttlecock
17:00	3.5	Local residents	Most of the people on the

		More younger adults, some middle ages	squares are for the foreign language corner Sit, kick shuttlecock
18:00	4	Local residents No difference in age groups Package tourists of about 20 persons, and some individual tourists	Foreign language corner Sit, talking, kick shuttlecock, play badminton, play cards Tourists stayed for around 10 minutes There will be an outdoor concert in the middle of the square. They have this kind of activity about once a month
19:00	4.5	Local residents No difference in age groups	Foreign language corner Sit, talking, kick shuttlecock, play badminton, take pictures, play cards
20:00	5	Local residents No difference in age groups	Sit, talking, kick shuttlecock, play badminton, date The concert finished at about half past 8
21:00	4.5	Local residents No difference in age groups	Sit, talking, kick shuttlecock, play badminton, date
22:00	4	Local residents No difference in age groups	Sit, talking, kick shuttlecock, play badminton, date

Source: By the author

Table 5-7 Use Pattern of Zhongshan Sq.

July 15<sup>th</sup>, 2003, Tuesday, Sunny

Time	Use Density	Character	Activity
6:00	3	Local residents Older adults and retirements	Exercise, talking
7:00	3.5	Local residents Much more older adults and	Exercise, talking, play with pigeons, sit

		retirements than middle age and younger adults	
8:00	1	Local residents More older adults and retirements than other age groups	Sit, talking
9:00	0.5	Local residents More middle ages and younger adults than other age groups, children	Sit, talking, read newspaper, play games
10:00	0.5	Local residents More middle ages and younger adults than other age groups, children	Sit, talking, read newspaper, play games
11:00	1	Local residents More middle ages and younger adults than other age groups, children	Play with children, play cards, talking
12:00	1	Local residents More middle ages and younger adults than other age groups, children	Play cares, talking
13:00	0.5	Local residents More middle ages and younger adults than other age groups, children	Play cares, talking
14:00	0.5	Local residents More middle ages and younger adults than other age groups, children	Play cares, talking
15:00	0.5	Local residents More middle ages and younger adults than other age groups, children	Play cares, talking

16:00	1.5	Local residents More middle ages and younger adults than other age groups, children	Play cards, talking, kick shuttlecock, date
17:00	2	Local residents More middle ages and younger adults than other age groups, children	Play cards, talking, kick shuttlecock, date
18:00	3	Local residents More middle ages and younger adults than other age groups, children	Play cards, talking, kick shuttlecock, date
19:00	4	Local residents People in all age groups	Play cards, talking, kick shuttlecock, date, play with children
20:00	4.5	Local residents People in all age groups	Talking, kick shuttlecock, date, play with children, play badminton
21:00	4	Local residents People in all age groups	Talking, kick shuttlecock, date, play badminton
22:00	3.5	Local residents People in all age groups	Talking, kick shuttlecock, date, play badminton

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Source: By the author

The changes in use density at different times for weekdays and weekends are shown in Figure 5-6. From the tables and figure concerning the use pattern of Zhongshan Square, it can be found that 6:00-7:00, and 18:00-21:00 are the most preferred periods of time for people to be on the square, for both weekdays and weekends. As for the composition of user on the square, in the early morning (6:00 and 7:00), older adults and retirees are more prominent than other age groups, in the evening (after 19:00) age groups are more evenly distributed, while in the day time, an overwhelming majority of the users are middle aged and younger adults, especially young men. The major activities on the squares are talking with others, exercising, or just sitting.

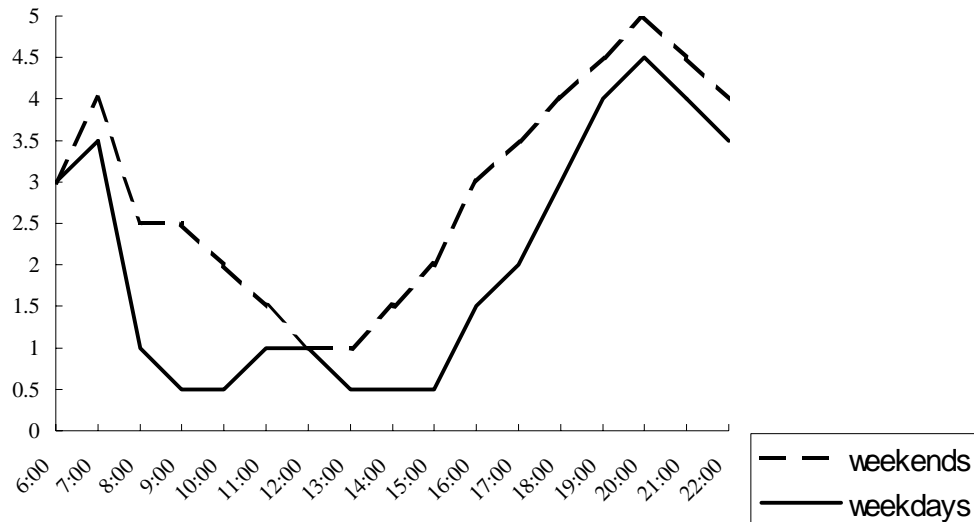


Figure 5-5 Use Pattern of Zhongshan Sq.

The most significant difference between weekdays and weekends is the use density. It is obvious from the figure that except for 6:00 and 12:00, the use density of weekends is larger than that of weekdays, especially in the early afternoon. There is no significant difference in the composition of users between weekdays and weekends, except that in the early afternoon of weekends, most of the users are young parents with their children, while on weekdays, the users seem to be unemployed people.

### 5.3.2 Xinghai Square

Xinghai Square is located in Shahekou District, which is in the west part of Dalian. As the largest square in Asia, Xinghua Square has become a major attraction to tourists. The square itself and the sculptures on it have become a symbol of Dalian. The results of observation are shown in Tables 5-8 and 5-9.

Table 5-8 Use Pattern of Xinghai Sq.

July 17<sup>th</sup>, Thursday, Cloudy

Time	Use Density	Character	Activity
6:00	1	Local Residents Older adults and retirements	Exercise
7:00	0.5	Local Residents Older adults, retirements, and middle age	Sit, talking, walk Tourists' activities, such as take pictures, ride bicycles,

		Individual tourists	etc.
8:00	1	Tourists	Tourists activities
		Little local residents	
9:00	1.5	Tourists	Tourists activities
		Little local residents	
10:00	3	Tourists	Tourists activities
		Little local residents	
11:00	4.5	Tourists	Tourists activities
		Little local residents	
12:00	4.5	Tourists	Tourists activities
		Little local residents	
13:00	4.5	Tourists	Tourists activities
		Little local residents	
14:00	4.5	Tourists	Tourists activities
		Little local residents	
15:00	4.5	Tourists	Tourists activities
		Little local residents	
16:00	4	Tourists	Tourists activities
		Little local residents	
17:00	3	Less tourists and more local residents	Tourists activities Sit, talking
18:00	3	More local residents and less tourists	Sit, talking, walk Tourists activities
19:00	3.5	Local residents	Sit, talking, walk, date
20:00	3.5	Local residents	Sit, talking, walk, date
21:00	3	Local residents	Sit, talking, walk, date
22:00	2.5	Local residents	Sit, talking, walk, date

Source: By the author

Table 5-9 Use Pattern of Xinghai Sq

July 19<sup>th</sup> Saturday, Foggy

Time	Use Density	Character	Activity
6:00	1.5	Local Residents	Exercise

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		Older adults and retirements	
7:00	1.5	Local Residents	Sit, talking, walk
		Older adults, retirements, and middle age	Tourists' activities
		Individual tourists	
8:00	2	Tourists	Tourists activities
		Little local residents	
9:00	3	Tourists	Tourists activities
		Little local residents	
10:00	4	Tourists	Tourists activities
		Little local residents	
11:00	4.5	Tourists	Tourists activities
		Little local residents	
12:00	4.5	Tourists	Tourists activities
		Little local residents	
13:00	4.5	Tourists	Tourists activities
		Little local residents	
14:00	4.5	Tourists	Tourists activities
		Little local residents	
15:00	4.5	Tourists	Tourists activities
		Little local residents	
16:00	4	Less tourists and more local residents	Tourists activities Sit, talking
17:00	3	More local residents, but still less than tourists	Sit, talking, walk Tourists activities
18:00	3.5	More local residents than tourists	Sit, talking, walk Tourists activities
19:00	4	Local residents Individual tourists	Sit, talking, walk, date There is music fountain begin at 19:00 in weekends.
20:00	4	Local residents Individual tourists	Sit, talking, walk, date Enjoy music fountain
21:00	3.5	Local residents	Sit, talking, walk, date

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		Individual tourists	Enjoy music fountain
22:00	3	Local residents	Sit, talking, walk, date
		Individual tourists	Enjoy music fountain

Source: By the author

The changes of use density at different times for weekdays and weekends are shown in Figure 5-7. From the tables and figure we can find that the major activities on the square are touristic activities, such as taking pictures. The most preferred period of time on both weekdays and weekends tends to be 10:00 to 15:00, followed by 19:00 to 21:00. As for the composition of users on the square, in the early morning (6:00 and 7:00), the users on the square are older local residents; in the evening, users are local residents of all ages and there are also some individual tourists. In the daytime, the square tends to be occupied by tourists.

There is no significant difference in activities and the composition of users between weekday and weekends, except that in the evening of weekends, most users can enjoy the musical fountain. There is slight difference in the use density between weekdays and weekends: the use density between 6:00-11:00 and after 18:00 on weekends is a little higher than that of weekdays, while in the period of 11:00-15:00 the use density is the same for both weekdays and weekends, resulting from the fact that most users in this period are tourists.

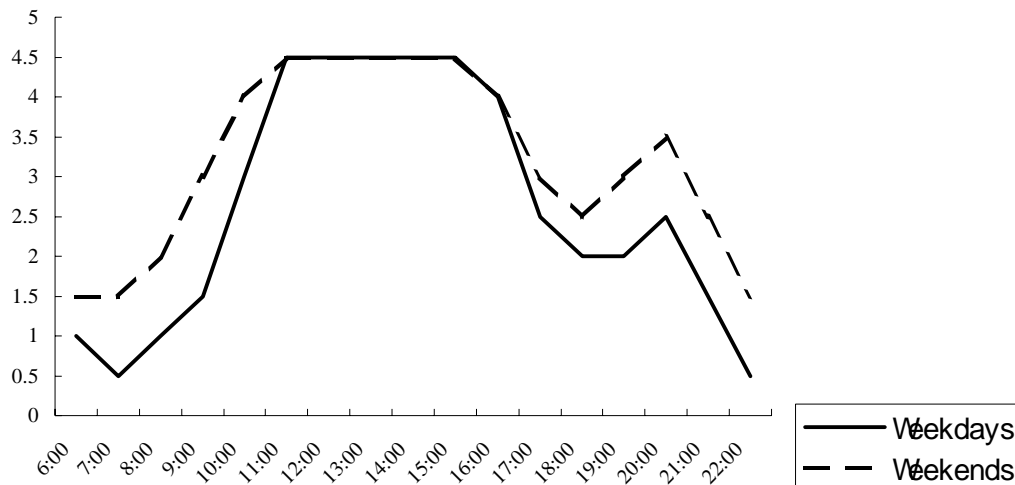


Figure 5-6 Use Pattern of Xinghai Sq.

The use density on Xinghai Square is lower early in the morning and much lower in the evening, when compared with Zhongshan Square. A reasonable explanation could rest in (1) there are fewer local residents living around Xinghai Square than around Zhongshan Square, (2) people living near Xinghai Square are of

the highest income level in Dalian City (they will be shown later in this thesis to have a much lower frequency of square visiting than people of a low income level) (3) Xinghai Square was originally designed as a square for tourists and there is not much provision for residents to sit down or enjoy sports activities such as kicking shuttlecock or playing badminton and the square is too large to give people the sense of togetherness. Put simply, Xinghai Square is not as comfortable as Zhongshan Square as a place for people to interact and communicate with each other.

### **5.3.3 Summary**

Findings from onsite observation of use pattern on squares are listed as follows:

- Both of the squares are well used, from the perspective of use density and the activities that occur on them.
- The use patterns of Xinghai Square, which represent the squares that are mainly used by tourists, and Zhongshan Square, which represents the squares mainly used by local residents, are totally different, especially in use density. Time has more obvious influence on the use density of Zhongshan Square than on Xinghai Square.
- The major users of Zhongshan Square are local residents while Xinghai Square is mainly used by tourists.
- Both squares have two crests on the use density graph: for Zhongshan Square the crests occur between 6:00-8:00 and 18:00-22:00, while for Xinghai Square the crests are between 11:00-15:00 and 17:00-21:00.
- The squares provide local residents with a place to organize social activities, such as a foreign language corner, or a place to have entertainment activities, such as outdoor concerts and the musical fountain.
- The squares provided stopping points for local residents and the major activities on squares include relaxation, exercise, passing through, interaction and communication, and entertainment.

### **5.4 Conclusion**

Based on onsite observation, this chapter explored the evolution of squares from the perspective of scale, number of squares built, and function, squares related land use change, and land use pattern on and around squares. From the descriptions, it is safe to draw the conclusions that more squares were built after 1993 and most of them are recreation/tourism squares, that the distribution of squares according to their function are coincident with the function of each of the three districts, that the squares have become centres of the city

and land use intensity decreases as one moves away from the centre to the peripheries of the squares; and that both Zhongshan Sq. and Xinghai Sq. were well utilized. The differences of use pattern between weekdays and weekends, and among different period of time were also explored in this chapter.

## **Chapter 6**

### **User Perceptions of Squares of Dalian**

This chapter will focus mainly on the perceptions of the users of squares. It is based upon a questionnaire that was administered in selected squares (See Appendix □ for questionnaire of local residents and Appendix □ for questionnaire of tourists). The major activities of local residents on squares, the importance of squares in their daily life, the role that the squares play in the development of the city from the perspective of local residents, and the motivations, behavioral patterns, impressions on the squares as a tourist attraction and the perceived importance of urban squares in the tourism development of the city will be addressed in this chapter.

#### **6.1 Perception of Local Residents**

##### **6.1.1 Analysis Methods**

Data were drawn from the onsite survey conducted from July 13<sup>th</sup> 2003 to July 21<sup>st</sup> 2003 on Zhongshan Square and Xinghai Square in Dalian. As mentioned in Chapter Three, the survey gathered information on the perceptions of the squares held by local residents of Dalian City, their motivations for using the squares and the roles that squares played in their daily life, the perceived importance of squares in the development of the city, as well as the demographic and socioeconomic profile of respondents. The total number of interviews conducted was 150, of which 146 (97.3%) could be used in the research.

Before the analysis of the data, a t-test was conducted to compare data for Xinghai Square and Zhongshan Square. The demographic and socioeconomic characteristics of samples were compared, and the results show that there is no significant difference between those two data sets (Table 6-1). Thus it is justifiable to combine these two data sets to conduct the following analysis.

The reporting of the questionnaire results will be carried out in three stages. The first stage will be to present the profile of the respondents. Simple descriptive analysis was adopted to determine the demographic and socioeconomic characteristics of the respondents. In the second stage, the behavioural pattern of local residents will be explored, such as the frequency of visiting squares, general length of stay on the squares, etc. An examination of the relationships between local residents' motivations to go to squares and age and gender will also be provided. The final stage is to analyze the perceptions of respondents of the roles that the squares play in their daily life, as well as in the development of Dalian City.

The relationships between perceptions and age and gender will also be examined in this stage.

Table 6-1 T-test: Difference Between Zhongshan Sq., and Xinghai Sq.

	DF	t-value	Sig. (2-tailed)	95% Confidence Interval of the Difference	
				Lower	Upper
Your gender	143	-0.35	.972	-.181	.175
Your age	144	2.647	.009	.325	1.025
Your job	143	-0.861	.391	-1.398	.549
Your education level	144	0.885	.378	-.180	.473
Your income	144	-1.931	.055	-1.728	.020

Source: by the author

In the second stage, since some of the questions were open-ended, the answers were divided into different groups for easy coding. The answer to the question “How frequently did you usually visit squares in one week between May and September?” was divided into 5 groups: (1) seldom, (2) 1-3 times, (3) 4-6 times, (4) everyday, and (5) not sure. As for the answer to the question “Generally how long do you stay on the squares?”, based on the result of on-site observation on the squares, six time groups were determined: (1) not sure, (2) less than 1 hour, (3) 1-2 hours, (4) 2-3 hours, (5) 3-4 hours, and (6) more than 4 hours. The reason why those six groups were specified is that, according to the descriptive analysis of the length of stay, very few respondents would stay on squares for more than four hours, while some would stay on squares for one, two or three hours. After investigating the descriptive characteristics of the behavioural pattern, Chi-square tests were used to explore whether there are significant differences among different age groups, and between males and females.

The third stage is similar with the second one. After the exploration of the descriptive characteristics of motivation and perception, Chi-square tests were also adopted to investigate the relationships between motivations and perceptions, and different age and gender groups. It would be possible to examine possible differences in association with other socioeconomic variables. However, this is not done in this document.

Since the sample size is not big enough, the expected value in some cells is smaller than 5, which invalidates the use of a Chi-square test. Therefore the age variable was recoded to ensure the validity of the analysis. The group of under 16 and 16-29 were merged, and the group of 45-59 and above 60 were also merged, thus creating three age groups: 16-29, 30-44, and above 45.

## 6.1.2 Respondents' Profile

### 6.1.2.1 Demographic

A descriptive summary of the demographic characteristics of the sample is shown in Table 6-2. There are slightly more females (52.7%) than males (47.3%) in the sample, although the differences is not statistically significant. People aged 16-29 (58.2%) constitute the largest part of the sample, followed by 30-44 (19.9%). Almost two-fifths (39.7%) of the respondents have lived in Dalian for more than 20 years, followed by 0-5 years (24%) and 5-10 years (17.8%). Thus, the data suggest that the majority of users of squares are fairly young adults who have lived in Dalian for most of their lives.

Table 6-2 Demographical Characteristics of Local Residents (n=146)

Characteristic Category	N	Percentage (%)
Gender		
Female	77	52.7
Male	69	47.3
Age Group		
Adolescent (under 16)	5	3.4
Younger Adult (16-29)	85	58.2
Middle Age (30-44)	29	19.9
Older Adult (45-59)	12	8.2
Retirement (60 or above)	14	9.6
Length of Residence in Dalian		
0 to 5 years	35	24.0
5-10 years	26	17.8
10-15 years	13	8.9
15-20 years	14	9.6
20 years or more	58	39.7

### 6.1.2.2 Socioeconomic

The socioeconomic characteristics of respondents are shown in Table 6-3 below. The results show that students (20.5%) and business people (17.8%) compose the largest groups in the sample but the users of squares are quite diverse with respect to employment. Actually, during the process of conducting the survey, the author found that many respondents were unemployed but, for personal reasons, they were reluctant to

classify themselves as unemployed. Table 6-3 also shows that for the educational level, 43.2% of the respondents had at least some university education, followed by senior or special secondary school (36.3%). Thus, the respondents were a well-educated group. As for the monthly personal income, 1000RMB (121US\$) or below and 1000-1999RMB (121-242US\$) constitute the majority of the sample, which occupied 33.6% and 23.3% respectively, although almost one-third of respondents did not answer this question.

Table 6-3 Socioeconomic Characteristics of Local Residents (n=146)

Characteristic Category	N	Percentage (%)
<b>Occupation</b>		
Government Official	3	2.1
Industry Manager	17	11.6
Teacher or Engineer	11	7.5
Business	26	17.8
Worker	13	8.9
Military or Police	1	0.7
Retired	13	8.9
Student	30	20.5
Unemployment	7	4.8
Others	24	16.4
<b>Educational Level</b>		
Institutional of high education or above	63	43.2
Senior or special secondary schools	53	36.3
Junior high school	20	13.7
Elementary school	8	5.5
Illiterate	2	1.4
<b>Monthly Personal Income</b>		
1000RMB or below	49	33.6
1000-1999 RMB	34	23.3
2000-2999 RMB	8	5.5
3000-4999 RMB	5	3.4
5000-9999 RMB	3	2.1
10000 RMB or above	3	2.1
Not sure or Refused	44	30.1

Source: by the author

### 6.1.3 Behavioural pattern

The behavioural patterns of the local residents investigated in the survey include: (1) their frequency of visiting squares, (2) length of stay on the squares, and (3) their preferred time to visit the squares between May and September. Respondents were also asked whether their relatives often visit squares. The results are shown in Table 6-4.

As shown in Table 6-4, a relatively large proportion of the respondents (37.7%) go to squares irregularly, 32.9% of the local residents go to squares 1-3 times in one week, followed by every day (18.5%). Table 6-3 also indicates that most of the respondents stay on the squares for 1-2 hours (31.5%), followed by 2-3 hours (23.3%). Respondents' preference of time to go to squares is distributed widely across different times in the day. As shown in Table 6-3, the largest groups of respondents go to squares between 5:00-8:00pm (42.5%) and before 8:00am (29.5%), followed by 2:00-5:00pm (21.9%) and 8:00-11:00pm (19.9%). Thus, the most welcomed two periods of time are 5:00-8:00pm, and before 8:00am, while the least preferred time periods are after 11:00pm, and 12:00-2:00pm. This is probably because that after 11:00pm is too late for all the people, and from May to September, the temperature at 12:00-2:00pm is too warm to stay outside, while temperatures between 5:00-8:00pm and before 8:00am tend to be the most comfortable for outdoor activities. As for the behavioural patterns of respondents' relatives, when asked "whether your parents/children/spouse often go to squares", more than half of the respondents answered yes (57.5%).

The relationships between frequency of visiting and length of stay, and monthly personal income, educational level, age group, and sex, are explored by the application of Chi-square tests. The results are shown in Table 6-5 which reveals that, there is no significant difference between behavioural patterns and demographic and socioeconomic characteristics of local residents, except for frequency of visiting and age.



Table 6-4 Local Residents' Behavioural Pattern

Behavioral pattern	Frequency	Percent (%)
Frequency of visiting		
Seldom	1	0.7
1-3 times	48	32.9
4-6 times	15	10.3
Everyday	27	18.5
Not sure	55	37.7
Length of Stay		
Not sure	2	1.4
Less than 1 hours	27	18.5
1-2 hours	46	31.5
2-3 hours	34	23.3
3-4 hours	8	5.5
More than 4 hours	5	3.4
Preference of Visiting Time		
Before 8 am	43	29.5
8 to 12 am	22	15.1
12 am to 2 pm	3	2.1
2 to 5 pm	32	21.9
5 to 8 pm	62	42.5
8 to 11 pm	29	19.9
After 11 pm	2	1.4
Relative's Preference		
Yes	84	57.5
No	27	18.5
Not sure	33	22.6

Source: By the author

Table 6-5 Chi-Square: Behavioural Pattern  
( $\alpha=0.01$ )

Behavioral Pattern	Characteristics	DF	Critical $\chi^2$	$\chi^2$	Sig.
Frequency of visiting	Gender	2	5.99	0.57	0.752
	Age	4	9.49	29.2	0.000
Length of stay	Gender	3	7.82	6.3	0.96
	Age	6	12.59	3.6	0.725

Source: by the author

## 6.1.4 Motivations and Perceptions

### 6.1.4.1 Motivations

The descriptive analysis of the motivations of local residents to go to squares is shown in Table 6-6 below. The items were listed according to the order of the mean value, the smaller the mean, the more important the motivation. If the mean value is bigger than 3, it means that the motivation is not so important for the respondent. Table 6-6 reveals that the most important motivation for local residents to visit square is to relax (mean = 1.88), and for fresh air (mean = 1.89), while the motivations of 'date with boyfriend or girlfriend', 'make friends', 'escape from home', and 'do nothing' are not so important with mean values bigger than 3. Table 6-6 also shows that most of the respondents come to the square for physical reasons, such as to exercise, walk, for outdoor activities, or for social reasons such as to make friends, talk with friends, etc. It seems that the squares have provided the local residents with place to get outdoors and to enjoy public life.

Chi-square analysis was adopted here to investigate the difference of motivation among different age groups and between males and females. The results are shown in Table 6-7 below. There is no significant difference between motivation and gender, and no significant difference between age groups and most motivations, except for 'walk' and 'outdoor activities'. To walk and to have outdoor activities are much more important for respondents of above 45 (mean is 1.48 for to walk, and 1.63 for to have outdoor activities) than for other two age groups (mean for under 29 is 2.49 and 2.71 respectively, and 2.62 and 2.55 respectively for 30-44).

Table 6-6 Descriptive Analysis of Motivation

	Minimum	Maximum	Mean
Relax	1	4	1.88
Fresh air	1	5	1.89
Exercise	1	4	2.06
Walk	1	5	2.33
Talk with friends	1	5	2.38
Outdoor activities	1	4	2.48
View city scenery	1	5	2.48
Entertainment	1	5	2.49
Get information	1	5	2.78
Play with my child	1	5	2.99
Date with boyfriend or girlfriend	1	5	3.02
Make friends	1	5	3.04
Escape from home	1	5	3.07
Do nothing	1	5	3.16

Source: by the author

Table 6-7 Chi-square: Motivation  
( $\alpha=0.01$ )

Motivation	Characteristics	DF	Critical $\chi^2$	$\chi^2$	Sig.
Relax	Gender	3	7.815	2.992	0.393
	Age	6	12.592	16.228	0.013
Fresh air	Gender	4	9.488	7.261	0.123
	Age	8	15.507	9.339	0.315
Exercise	Gender	3	7.815	7.759	0.051
	Age	6	12.592	18.117	0.006
Walk	Gender	4	9.488	14.233	0.007
	Age	8	15.507	43.178	0.000
Talk with friends	Gender	4	9.488	2.812	0.590
	Age	8	15.507	21.540	0.006
Outdoor activities	Gender	3	7.815	6.314	0.097
	Age	6	12.592	32.177	0.000
View city scenery	Gender	4	9.488	5.045	0.283
	Age	8	15.507	15.553	0.049
Entertainment	Gender	4	9.488	9.686	0.046
	Age	8	15.507	11.042	0.199
Get information	Gender	4	9.488	3.519	0.475
	Age	8	15.507	7.734	0.460
Play with my child	Gender	4	9.488	7.518	0.111
	Age	8	15.507	18.736	0.016
Date with boyfriend or girlfriend	Gender	4	9.488	4.490	0.344
	Age	8	15.507	16.052	0.042
Make friends	Gender	4	9.488	5.551	0.235
	Age	8	15.507	17.327	0.027
Escape from home	Gender	4	9.488	0.980	0.913
	Age	8	15.507	16.233	0.039
Do nothing	Gender	4	9.488	7.378	0.117
	Age	8	15.507	9.553	0.298

Source: by the author

#### 6.1.4.2 Perceptions of the Importance of Squares in Daily Life

The descriptive analysis of the perceived importance of squares in the daily life of local residents is shown in Table 6-8 below. The items are listed according to their mean value: the smaller the mean, the stronger the agreement was with the statement. As mentioned in Chapter Three, the question was on a 5-point scale, therefore if the mean value is smaller than 3, it means that the respondents think that the role that is described by the statement is important for them, while if the mean value is bigger than 3, it means that the respondents disagree with the statement.

As shown in Table 6-8, the strongest perceptions of local residents are ‘provide place for me to conduct outdoor activities’ (mean = 1.81), and ‘make me happy’ (mean = 1.84). There are no negative perceptions since the mean value of the negatively worded statements are all bigger than 3. It is evident that the squares are perceived as important elements in the daily life of Dalian residents in providing them with space to have physical activities as well as social ones.

Table 6-8 Descriptive Analysis of Perceived Importance of Squares in Daily Life

	Minimum	Maximum	Mean
Provide place for me to conduct outdoor activities	1	4	1.81
Make me happy	1	5	1.84
Provide place for me to relax	1	5	2.14
Improved my communication with relatives and friends	1	5	2.31
Has become an important part in my daily life	1	4	2.39
Provide more opportunity for me to make friends	1	5	2.66
Provide more opportunity for me to get information	1	5	2.69
Has nothing to do with my daily life	1	5	3.03
Tourists have great impact on my daily life	1	5	3.70
Squares have negative impact on my daily life	1	5	3.75

Source: by the author

Chi-square analysis was applied to investigate the difference of perception on the role of squares in daily life among different age groups and between males and females. The results are shown in Table 6-9. No significant differences were found between perceived importance of squares in their daily life and gender, and between age groups and most perceived importance, except for ‘has become an important part in my daily life’. Squares are more important for people of 45 or above (mean = 1.67) than for younger people (mean is 2.69 for people under 29 and 2.14 for people of 30-44).

Table 6-9 Chi-Square: Importance in Daily Life  
( $\alpha=0.01$ )

Importance in Daily Life	Characteristics	DF	Critical $\chi^2$	$\chi^2$	Sig.
Provide place for me to conduct outdoor activities	Gender	3	7.815	1.901	0.593
	Age	6	12.592	13.709	0.033
Make me happy	Gender	4	9.488	5.674	0.225
	Age	8	15.507	9.338	0.315
Improved my communication with relatives and friends	Gender	4	9.488	3.986	0.408
	Age	8	15.507	24.387	0.002
Provide more opportunity for me to make friends	Gender	4	9.488	1.368	0.850
	Age	8	15.507	9.694	0.287
Has nothing to do with my daily life	Gender	4	9.488	2.173	0.704
	Age	8	15.507	14.030	0.081
Provide more opportunity for me to get information	Gender	4	9.488	3.901	0.420
	Age	8	15.507	12.098	0.147
Has become an important part in my daily life	Gender	3	7.815	1.709	0.635
	Age	6	12.592	36.785	0.000
Provide place for me to relax	Gender	4	9.488	2.946	0.567
	Age	8	15.507	14.872	0.062
Tourists have great impact on my daily life	Gender	4	9.488	2.010	0.734
	Age	8	15.507	5.406	0.713
Squares have negative impact on my daily life	Gender	4	9.488	6.792	0.147
	Age	8	15.507	22.430	0.004

Source: by the author

#### 6.1.4.3 Perceptions of the Contribution of Squares to Urban Development

The descriptive analysis of the perceived importance of squares in the development of Dalian is shown in Table 6-10 below. The items were listed according to their mean value and the smaller the mean, the stronger the agreement was. If the mean value is smaller than 3, it means that the respondents think that the role that was described by the statement is important for them, while if the mean value is bigger than 3, it means that the respondents disagree with the statement. It is evident from Table 6-10 that squares have been perceived as being a catalyst for the development of Dalian, especially in the aspects of urban environment, urban image, and tourism development. No negative perception was shown by the respondents.

Chi-square analysis was applied to investigate the difference of perception on the role of squares in urban development among different age groups and between males and females. The results are shown in Table 6-11 which reveals that there is no significant difference in either age or gender groups, most respondents sharing the same opinion on the role that squares play in the development of the city.

Table 6-10 Descriptive Analysis of Perceived Importance of Squares in Urban Development

Importance in Urban Development	Minimum	Maximum	Mean
Improve urban environment of Dalian	1	4	1.52
Improved lively	1	4	1.61
Improved vitality	1	5	1.66
Urban image has been improved	1	4	1.66
Formed square culture in Dalian	1	4	1.72
Improved the tourism development of the city	1	4	1.74
Has become a symbol of Dalian	1	5	1.75
Improved the economic development of the city	1	4	2.14
The government should build more squares	1	5	2.40
Has nothing to do with the development of the city	1	5	3.70
The construction of squares is political activity, is useless	1	5	3.93
Waste of money	1	5	3.96
Waste of land resource	1	5	3.99

Source: by the author

Table 6-11 Chi-Square: Importance in Daily Life  
( $\alpha=0.01$ )

Importance in Urban Development	Characteristics	DF	Critical $\chi^2$	$\chi^2$	Sig.
Improve urban environment of Dalian	Gender	3	12.592	3.700	0.296
	Age	6	9.488	15.325	0.018
Improved lively	Gender	3	12.592	2.209	0.530
	Age	6	9.488	7.430	0.283
Improved vitality	Gender	4	15.507	11.346	0.023
	Age	8	9.488	8.004	0.433
Urban image has been improved	Gender	3	12.592	0.526	0.913
	Age	6	9.488	5.662	0.462
Formed square culture in Dalian	Gender	3	12.592	2.612	0.455
	Age	6	9.488	8.577	0.199
Improved the tourism development of the city	Gender	3	12.592	0.657	0.883
	Age	6	9.488	6.183	0.403
Has become a symbol of Dalian	Gender	4	15.507	6.440	0.169
	Age	8	9.488	17.783	0.023
Improved the economic development of the city	Gender	3	12.592	9.662	0.022
	Age	6	9.488	12.651	0.049
The government should build more squares	Gender	4	15.507	2.477	0.649
	Age	8	9.488	17.846	0.022
Has nothing to do with the development of the city	Gender	4	15.507	3.697	0.449
	Age	8	9.488	12.098	0.147
The construction of squares is political activity, is useless	Gender	4	15.507	6.296	0.178
	Age	8	9.488	4.581	0.801
Waste of money	Gender	4	15.507	5.134	0.274
	Age	8	9.488	12.995	0.112
Waste of land resource	Gender	4	15.507	4.017	0.404
	Age	8	9.488	19.722	0.011

Source: by the author

### 6.1.5 Summary

Major findings from the questionnaire survey of local residents can be listed as follows:



- The sample is approximately evenly distributed by gender, and is well-educated, relatively young, and of moderate income;
- Most of the respondents go to squares at least once a week, the most preferred length of stay on the squares is 1-2 hours, and the most preferred periods of time are before 8:00am and 5:00-8:00pm. The on-site observation also found in Chapter Five that the periods before 8:00am and after dinner (18:00-22:00 on Zhongshan Sq., and 17:00-21:00 on Xinghai Sq.) are the most preferred time period for users. The results of the questionnaire survey and on-site observation are consistent;
- The most important two motivations for local residents are relaxing and having fresh air, while the least frequent motivations were dating with boyfriend/girlfriend, making friends, escaping from home, and doing nothing. There is no significant difference between motivation and gender. Age has a slight effect on respondents' motivations to 'have a walk' and 'have outdoor activities';
- Almost all the respondents consider squares to be important in their daily life. The importance of squares in daily life is slightly sensitive to the age of user for there is a significant difference between age group and the statement 'has become an important part in my daily life', the squares are more important in older people's life than in younger people's, while there is no significant difference between age and other statements, and no significant difference between importance in daily life and gender;
- Almost all the respondents agree that the construction of squares has improved the development of Dalian, to some extent. They agree that the construction of squares is a success in that it has improved the development of the city, from the perspective of urban environment and urban image. The construction of squares is also considered to be a catalyst for the economic and tourism development of the city. All the respondents consider that the construction of squares is necessary for the city, and they agree that the government should build more squares if necessary. There is no significant difference in importance of urban development and either age or gender.

## **6.2 Perceptions of Tourists**

### **6.2.1 Methods of Analysis**

Data on tourists to Dalian were drawn from the on-site survey conducted from July 13<sup>th</sup> 2003 to July 21<sup>st</sup> 2003 on Xinghai Square. As mentioned in Chapter Three, the survey gathered information on tourists' purposes for visiting squares, their perceptions of the squares, the importance of squares as urban attractions, as well as the demographic and socioeconomic profiles of respondents. The survey on tourists is a

supplement to the survey on local residents. Fifty usable samples were collected during the survey.

The analysis of the questionnaire data was carried out in three stages. The first stage is to conduct the analysis of the profile of the respondents. Simple descriptive analysis will be adopted to find out the demographic and socioeconomic characteristics of tourists. For the second stage, the behavioural pattern of tourists will be explored, such as their motivations, how long they stay, etc. The final stage is to analyze the perceived importance of squares as urban attractions in Dalian, and tourists' impressions of the squares. Descriptive analysis was used in this stage.

In the second stage, since some of the questions were open-ended, the answers needed to be divided into different groups to facilitate the analysis. The answer to the question of "How long will you stay on the squares?" was divided into 4 categories, based on the result of participation observation on the squares. They are: (1) less than 1hour, (2) 1-2 hours, (3) 2-3 hours, and (4) more than 3 hours.

### **6.2.2 Respondents' Profiles**

The descriptive summary of the sample is shown in Table 6-12. There are more females (52%) than males (48%) in the sample, although the difference is not significant. People aged 16-29 (48%) and 30-44 (46%) constitute the largest part of the sample, followed by older adults (6%). There are no adolescent or retirees in the sample. Students (28%) and entrepreneurs (22%) together composed half of the total, followed by business people (18%) and engineers (12%). For the educational level, Table 6-12 shows that 66% of the respondents are university or above, followed by senior or special secondary school (28%) and the lowest educational level in the sample is junior school (6%). Thus the sample is well-educated. As for the monthly personal income, 1000RMB (121US\$) or below, 1000-1999RMB (121-242US\$), and 2000-2999RMB (242US\$-363US\$) constitute the majority of the sample, which occupied 32%, 22%, and 20% respectively.

Table 6-12 Profiles of Tourists (n=50)

Category of Characteristics	N	Percentage (%)
<b>Gender</b>		
Female	26	52.0
Male	24	48.0
<b>Age</b>		
Younger Adult (16-29)	24	48.0
Middle Age (30-44)	23	46.0
Older Adult (45-59)	3	6.0
<b>Occupation</b>		
Government Official	2	4.0
Industry Manager	11	22.0
Teacher or Engineer	6	12.0
Business	9	18.0
Worker		
Military or Police	1	2.0
Retired	1	2.0
Student	14	28.0
Unemployment	2	4.0
Others	4	8.0
<b>Educational Level</b>		
Institutional of high education or above	33	66.0
Senior or special secondary schools	14	28.0
Junior high school	3	6.0
<b>Monthly Personal Income (RMB, 1USD = 8.27 RMB)</b>		
1000RMB or below	16	32.0
1000-1999 RMB	11	22.0
2000-2999 RMB	10	20.0
3000-4999 RMB	2	4.0
5000-9999 RMB	7	14.0
10000 RMB or above	1	2.0
Not sure or Refused	3	6.0

Source: by the author

### 6.2.3 Behavioural pattern

The behavioural pattern of tourists investigated in the survey includes (1) whether this is the first time to visit the square, (2) how long they plan to stay on the square, (3) whether they would like to visit the square again in the future, and (4) why they came to visit the square. The results are shown in Table 6-13.

As shown in Table 6-13, 64% of the respondents visited the squares to experience the well-known “square culture” in Dalian: the squares in Dalian are famous throughout the country and have become characteristic of the city. Almost two-thirds (64%) of the respondents are new comers to Xinghai Square and 90% of them expressed the wish of visiting again in the future. The most preferred length of stay on the square is 1-2 hours (34%), followed by less than 1 hour (32%).

Table 6-13 Behavioral pattern of Tourists (n=50)

Behavioral pattern	N	Percentage
Why did you visit this square?		
Part of package trip	4	8.0
A special trip to experience square culture of Dalian	32	64.0
Pass by	7	14.0
Others	7	14.0
Is this your first trip to this square?		
Yes	32	64.0
No	18	36.0
Are you going to visit again in the future?		
Yes	45	90.0
No	4	8.0
How long are you going to stay here?		
Less than 1 hour	16	32.0
1-2 hours	17	34.0
2-3 hours	5	10.0
More than 3 hours	7	14.0

Source: by the author

### 6.2.4 Squares as Tourists Attraction in Dalian

The survey provided information on tourists’ impressions on the tourism attractions in Dalian. Respondents

were asked to indicate the degree of impression on each item. Table 6-14 shows the mean of the degree. The items were listed according to the value of their means, the smaller the mean, the stronger the impression. From the table we can see that urban environment, urban planning, urban vitality, and urban prosperity tend to be the strongest impressions of tourists. Squares were also recognized as important attractions of the city, with the rank of 5. This result demonstrates that the whole city has been considered as a tourism product and, the city has been accepted as being clean, romantic, lively, and modern by tourists.

Table 6-14 Impression on the Tourists Attractions of Dalian

Attractions	N	Minimum	Maximum	Mean
Urban Environment	50	1	3	1.48
Urban Planning	50	1	4	1.74
Urban Vitality	50	1	3	1.76
Urban Prosperity	49	1	3	1.8
Square	48	1	5	1.83
Seashore	49	1	3	1.84
Manmade Attractions	48	1	4	1.9
Western Styled Architecture	50	1	3	1.96
Fashion Show	49	1	5	2.12
Policewomen	49	1	5	2.16
Trolley Car	49	1	5	2.2
Seafood	50	1	3	2.2
Football	49	1	5	2.27

Source: by the author

### 6.2.5 Impressions of the Squares

Table 6-15 shows tourists' impressions of the squares. In the survey, the respondents were asked to indicate the extent to which they agree with the statements, which describe the role that the squares play in the development of the city. The statements are listed in order of their means. It is evident from the table that the respondents hold a positive attitude toward the squares of Dalian. The role of improving urban environment and urban image has been accepted as the most profound impression of tourists.

Table 6-15 Tourists' Impression on the Squares of Dalian

Impressions	Minimum	Maximum	Mean
Improved urban environment effectively	1	2	1.44
Clean	1	3	1.44
Improved urban image	1	3	1.6
Make the city look more lifeful	1	5	1.66
Make the city look more vital	1	3	1.67
Has become a symbol of the city	1	4	1.74
Square culture of the city is worthy of the name	1	3	1.80
A characteristic attraction in Dalian	1	4	1.88
The living room of the city	1	4	1.94
Not a waste of land resource	1	4	2.02
Not a waste of money	1	5	2.12
The construction of square is not necessary	1	5	2.24
The government should build more squares	1	5	2.50

Source: by the author

### 6.2.6 Summary

According to the study by Mi (2003), Dalian was perceived by tourists as a 'coastal city with a good environment', and squares were one of the most positive images perceived by both international and domestic tourists. The questionnaire survey in Dalian strengthened this conclusion. Major findings can be listed as follows:

- The sample is evenly divided by sex, well educated, and young.
- As a supplement to the survey on local residents, the survey on tourists revealed that the squares have become a welcomed tourist attraction, and most of the respondents expressed the wish of visiting again.
- Dalian City has become an integrated tourism product, which is the original intention of the municipal government. From the perspective of tourists, the most impressive tourism product was the city itself, such as the physical environment of the city, the modernity of the city, and the vitality of the city.
- Tourists hold a positive attitude toward squares. The squares have been considered as the catalyst for the development of the city, whether from the perspective of physical environment, or the perspective of

social environment.

### **6.3 Conclusion**

Based on the questionnaire survey conducted in Dalian, this chapter investigated the motivations, behavioural pattern, and demographic and socioeconomic profiles of local residents and tourists. The role that the squares played in the daily life of local residents, the perceived importance of squares in the development of the city, and impression of squares as tourism attraction were also explored in this chapter. Evidence proved that the squares are compelling and provide important opportunities for Dalian residents to interact with their environment in individual and spontaneous ways. They all perceived squares as an indispensable part of their daily life. The squares and people on them also contribute to the vitality of the city, which is attractive to tourists. Squares are perceived as impressive tourism attraction for tourists, and they all consider them as catalysts for the tourism development of the city. Both the local residents and tourists considered that the squares are of great importance to the urban environment and urban image of the city.

As mentioned in Chapter Four, the major reasons for creating squares in the central city were to provide public space for people living and visiting Dalian, to enhance the urban image, and to improve the urban environment. The results of the questionnaire surveys show that the construction of squares has been successful in that they are appreciated by users, and the purposes for their construction have been realized.

## Chapter 7

### Conclusion

This chapter first summarized the major findings of the study and then the contributions of the study are discussed. Future research opportunities are then presented.

#### 7.1 Major Findings

Dalian, a coastal city in northeast China, became famous throughout China for its successful and dramatic transformation from a city dependent on heavy industry city into a garden city with a more balanced industrial structure. This transformation took place in the short span of approximately one decade. Dalian has also earned a good reputation internationally for its pleasant urban environment and the city received a place on the 'Global 500 Roll of Honor for Environmental Achievement', which was awarded by UNEP in 2001. The development pattern of the whole administrative region of Dalian and the regeneration of the central area have been introduced to and copied by many other cities in China. Despite this, little research has been undertaken to explore and document the success of Dalian, as mentioned in Chapter Two. Thus, this study was proposed to investigate the process of urban regeneration in the city, from the perspective of the construction of public squares, which has been a particularly prominent element that has been used repeatedly in the regeneration of the city.

A questionnaire survey, on-site observation, key-informant interviews and photography were used to collect primary data and government documents, newspapers and local yearbooks were examples of secondary data that were incorporated into the research. Based on the research questions, the study was divided into three stages: (1) analyze the evolution of urban development policy since the very beginning of the city to explore the major concerns of local government for creating squares in central city, and to get to know the effects of squares on urban development from the perspective of government officials; (2) investigate the land use issues pertaining to squares to grasp the general situation of the squares of Dalian, to get to know the land use pattern and land use change around the squares; and (3) explore user perceptions from the perspectives of local residents and tourists to explore the effects of squares on daily life of residents, on tourism development, on the improvement of destination image and urban environment, and urban development.

In answering the research questions proposed in Chapter 1, the major findings of the research are listed as



follows:

- Why has the local government of Dalian invested so much on building public squares?
- What are the major effects of the squares on urban development from the perspectives of government officials?

As in all other cities in China, Dalian has a top-down urban planning system and the government plays a crucial role in decision making, policy development and implementation. Although the issue of urban regeneration was mentioned as early as in the 1958 Plan, urban development policies mainly focused on developing second industry before 1992 and on constructing urban infrastructure. However, in 1992, the city began to apply a new concept, in which the importance of the urban environment was highly regarded: the development of the whole municipality and regeneration of the central city. In addition to the policies of pollution abatement, horticulture and greening of the city, the creation of squares was also involved to offer public space for use by people living in and visiting Dalian, and to provide buffer areas for adjacent buildings. In addition to the obligatory policy of factory relocation and slum clearance to vacate space for greening and squares, the local government also used market factors to encourage the development of real estate and to attract foreign investment. Ten years' of development of the city demonstrate that the policy has been appropriate for the situation of Dalian. The use of public squares in the regeneration of the city is also advisable from the perspective of government officials in that they are seen to be major contributors to be the rebuilding of the city and its image, they provided space for people to have outdoor activities and to interact and communicate with others, and they are supported by local residents.

- What is the general situation of the squares of Dalian, in terms of their number, distribution, functions, histories and sizes?
- What land uses occur around squares?
- What is the relationship between squares and changes in the land use pattern of the city?

Squares have been a major element of the layout and the transportation system of the city since its foundation in the late 19<sup>th</sup> century. They record the evolution and development of the city, as well as the culture of the city. Since 1993, squares have been used as major element to regenerate the central city and, by 2003, altogether 22 squares (68.8% of all the squares in the central city) had been built in the central city. The construction of squares was systematically planned in that it happened along the trunk roads before 1997 and was extended to both sides of the roads after 1997. Most of the squares built between 1993 and 1997 were transportation squares while squares built after 1997 were recreation/tourism squares. At the

early stage of the regeneration it was imperative for the city to solve the problem of transportation and to improve the urban infrastructure. After 1997, the major concerns were the beautification of the city and the improvement of the quality of life of people living there. The construction of squares was carefully planned. This can be seen in the fact that the distribution of squares according to their functions is consistent with the function of each of the three city districts. This did not happen by chance for the squares were planned to be different kind of centres in the districts in which they were located. Zhongshan Square, which is the financial centre of the city, is a good example: it is located in Zhongshan District, which was planned as the financial centre of the city. In addition to squares that were planned as the civic centres, lands around the squares of lower level centres were also utilized. On-site observation revealed that most of the land around squares is in public use and the intensity of land use decreases with distance from the squares. Recreation/tourism squares, which were planned to provide places for residents to participate in public life and for tourists to enjoy the city, are more used than other types of squares: most of the land use around recreation/tourism squares is of higher level public facilities such as banks, post office and shopping malls.

- What is the use pattern of the squares?
- What is the role that squares play in the daily life of the local residents?
- What is the effect of squares on urban development from the perspective of local residents;?
- What is the role of squares on the improvement of destination image in the study area;

Squares were not built only as the decorations of the city, they should be appreciated and used by the people. The importance of squares in urban public life has been addressed by many scholars as mentioned in Chapter Two. Whyte's research on squares in New York in 1981 demonstrated that people on the squares were symbols of urban prosperity and urban vitality, making the city more attractive. On-site observations and a questionnaire survey were conducted to determine the usage of the squares, the behavioral patterns and the perceptions of local residents and tourists concerning squares. The resulting data showed that, at least in the two studied squares, they were utilized on both weekdays and weekends throughout the day. People took a rest, sat down, read newspapers, talked with each other and relaxed on the squares. Although the behavior pattern on the squares is slightly different among different age groups or income groups, most of the respondents admitted that squares have become an important part in their daily life and they agreed that squares are also an essential component of an improved urban environment and enhance the urban image. Tourists felt comfortable with squares. They perceived the squares as being the symbol and characteristic tourist attraction of Dalian city. Squares were also considered as being catalyst for urban

development from the perspective of tourists. Since most of the users appreciate the squares, we can say that the construction of squares on a large scale has been a successful policy and the original purpose for constructing squares has been achieved.

The effectiveness of squares in regenerating central Dalian has been shown from the perspectives of government officials, land use adjacent to the squares, and the perceptions of users. With appropriate government intervention and market participation, the development of squares in Dalian not only improved the urban environment and urban image, but also created commercial opportunities. As well as spending money on the relocation of factories, slum clearance, and the construction of squares for recreation, Dalian government gained profits from the construction of squares, through enhanced land values and taxes on properties adjacent to the squares as revealed by interview with government officials. As part of urban regeneration policy, the construction of squares provided a comfortable environment for local people. The squares have become the brand of Dalian, which is perceived as the city of squares by many tourists, thus contributing to tourism development. The pleasant urban environment and reputed urban image has also attracted more and more investment and, consequently, improved the economic development of the city. With considerate planning, the squares have become the public activity centres of the city. The lands around squares have all been utilized. The squares also, in part, contributed to the increase of land value of the city, as revealed by interviews with government staffs. Although it is hard to estimate the exact contribution of squares in urban regeneration, it is safe to draw the conclusion that the squares have contributed positively to the development of the city.

## **7.2 Implications and Contribution**

Research on urban China lags behind that on cities in western countries. As mentioned in Chapter Two, there is limited literature on the topic of urban regeneration in Mainland China and most present research is focused on mega-cities such as Beijing, Shanghai and Guangzhou. This study contributes to the growing body of literature on urban China by providing a study on the topic of urban regeneration, which is seldom seen in the English literature on China, and by introducing the successful experience of Dalian, which is not one of the biggest cities in the country. Another contribution of the study is in the application of field research to collect primary data, and the application of both quantitative and qualitative methods to conduct analyses in the study. Most previous research in China has applied descriptive methods using secondary data. Thus, this study is unique in the context of Chinese cities in the research methods that have been applied. Moreover, the research provides a systematic study of the role in urban regeneration of public space in

general and squares in particular, which is also unique.

The case study is the most frequently used approach employed in urban studies because it presents the situation, the policy context and implementation of the case city, and analyzes the reason for its success or failure, in order that other cities might learn from the experience. Dalian is undoubtedly a successful example of regenerating the central city, partly with the help of public squares, to which other cities in China can refer, especially in the era of the urban beautification movement which began at the end of last century in China, as mentioned in Chapter Two.

Although the necessity of regenerating the central urban area of cities has not been viewed as being urgent in China as in western cities, some of the Chinese cities have already suffered from the problem of urban dereliction and the radical redevelopment of second industry, especially heavy industry. From the foundation of the country, the urban environment has been seriously degraded and, since most cities developed with a special emphasis on second industry, the image and features of the cities have also been greatly weakened. The experiences of western countries in regenerating their central cities during the past decades suggest that a pleasant urban environment and a strong image is essential for prosperity. The case of Dalian also shows the importance of the recognition of the urban environment and urban image. If a city pays as much attention to the urban environment as to industrial development in the early stages of urban regeneration, then it is possible to achieve what Dalian has achieved under the direction of a purposeful, reasonable and careful plan.

The market is playing a more and more important role in urban land use in China, especially after the land reform in 1987, but government intervention is still crucial. Almost all of the urban regenerating projects in western countries were proposed and implemented by government. The limitation of the Land Development Corporation of Hong Kong in urban renewal also demonstrates the importance of appropriate government intervention. It is crucial that the government knows what the city needs and how they can improve the city. Sound government intervention and appropriate market participation is important for a city to develop successfully.

The importance of urban public space in urban regeneration has been proved by many western cities, as well as by Dalian. The construction of public space in the central area is not a waste of money or land resources, it can generate more commercial opportunities and has become a productive strategy for both government and land users. However, it is essential that creation of squares should be well considered. Only careful planning can ensure the reasonable and efficient use of the squares and avoid the waste of land resources, which are precious in an urban area. The functions of the squares should be consistent with the

land uses surround them and should respect and reflect the history and culture of the location. The squares should be accessible to as many people as possible. Moreover, not all cities are suitable for the construction of so many squares in the central city. Urban construction should respect the history and culture of the city; therefore the squares should not be built without full consideration of their historical and cultural foundations.

The squares of Dalian are best viewed as part of a broader environmental strategy which succeeded in upgrading the environmental quality and restructuring the economy of the city in less than a decade. With strong leadership, it was possible to diversify the economy, improve the environment and change the image of Dalian in a relatively short period of time. The squares were an important part of this but not the whole story. The Dalian case illustrates that economic growth and enhanced environmental quality are not necessarily incompatible and, in fact, can feed of each other. This is perhaps the most important lesson for other cities rather than the simple proliferation of public squares.

### **7.3 Research Limitations and Future Research**

Because of the lack of time and funds, there are some limitations to this study. The first limitation is that the researcher only selected 12 out of 32 squares in central city to observe the land use pattern; the second is that the observation of usage and the questionnaire survey were only conducted in summer (patterns of use are likely to be different at other times of the year); the third is that the observation of land use patterns around squares were only conducted on two squares; the fourth is that the researcher only conducted 150 questionnaires for local residents, and 50 for tourists, which made more detailed study on the difference of motivation and perception among age groups and between both genders impossible; and the fifth is that the perception of non-users was not included in the survey (this has implications for perceptions of the squares and views of the success of squares as a development strategy for users may be expected to have more positive views than non-users).

For future research, the study of other squares and in other seasons could eliminate the limitations of the study and contribute to a fuller understanding of the situation of Dalian. More questionnaires could be conducted to investigate the differences of motivation, behavioural patterns, perceptions among different age groups and between males and females. The non-users should be also approached through household surveys to investigate their perceptions on the construction and use of squares. Moreover, comparative studies could be conducted to compare Dalian with other cities to make the study of public squares more complete.

## Appendix A

### Interviewee and Question List for Interview (ORE 10962)

Table Appendix □ List of Interviewees

Name	Department	Date
Mr. Wang Weian	Zhongshan District Government, Vice Director	July 7
Mr. Liu Yong	Zhongshan District Construction Bureau, Director General	July 9
Mr. Wang Jun	Shahekou District Construction Bureau, Director General	July 11
Mr. Li Jinping	Dalian Tourism Administration, Vice Director General	July 9
Mr. Fan	Dalian Urban Construction Bureau, Director	July 9
Mr. Zhang	Dalian Urban Construction Bureau, Engineer	July 11
Mrs. Xu	Dalian Urban Construction Bureau, Staff	July 9
Mr. Sun Maolong	Dalian Urban Planning and Design Institution, Architect	July 18
A Local Tour Guide	China International Tourism Service, Dalian Division	July 13
Mr. Huang Guoping	Graduate School of Design, Harvard University, DDes Candidate	Sep. 2

#### Questions to Government Officials:

- What was the original purpose of the municipal government to build so many squares when it stipulated the master plan for the city, do you think whether the purpose has been fully fulfilled?
- Do you think whether the construction of squares is kind of waste of land resource and money, considering the conflict between increasing population and lack of accommodation?
- How do you think about the influence of the construction of squares on the land use pattern surround the squares, what kind of influence do the squares have on the land value;
- How did the squares influence the urban development of Dalian in your mind?
- The construction of square will inevitably lead to the relocation of residents, how did the government resettle those residents, and how do the residents think about the relocation, do you think it is necessary to relocate a local community to give the way to the construction of a square?
- As far as you know, how do the local residents in Dalian think of the squares, what kind of role does square play in their daily life?

- Do you think the squares in Dalian were fully utilized?
- Where did the investment come from, how about the return rate of the investment?
- What did the government do to make the squares more attractive to both tourists and local residents
- What is (are) the major tourism product(s) of Dalian's tourism?
- Are squares the major attractions in the itinerary of most of the travel agents?
- How did the construction of squares influence the development of tourism in Dalian?

#### **Questions to Expert/scholars:**

- How do you think about the so-called square culture in Dalian?
- The success of Dalian in improving urban environment through the construction of squares and other kinds of public open space has brought a booming in square construction in China, how do you think of this phenomenon

#### **Questions to Tour Guides**

- Do you think whether the squares can be the representative of city image of Dalian?
- Are squares the major attractions in the itinerary of most of the travel agents?
- Typically what will the tourists do on the square?
- How do the tourists appraise the squares in Dalian?

## Appendix B

### Questionnaire for Local Residents(ORE 10962)

Date		Location		Weather	
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Dear Sir or Madam:

This study, Urban Revitalization Through Public Space: A Case Study of Squares in Dalian, is conducted by Mimi Li, a Master’s student in the Department of Geography at the University of Waterloo, Waterloo, Canada, under the supervision of Professor Geoffrey Wall. The project is funded by the ECOPLAN CHINA project of the Canadian International Development Agency. I now want to get some information on local residents’ perception on Dalian’s squares. All participation is voluntary and anonymous. It will take you 5-7 minutes to finish the following questions. The questionnaire has been reviewed by the Office of Research Ethics and Grants of University of Waterloo to ensure that it has no ethics problem. I assure you that this data will be confidential and only for my personal research, and the data will be destroyed once I finish the research. Please tick one or more choices in each question. If you have any further question of problem, please contact me or Susan Sykes, the director of Office of Research Ethics and Grant of University of Waterloo, by the following email. Thank you for your cooperation.

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**For the following three questions, please circle the rating that you think is appropriate. For example, if you go to squares mainly for exercise, please tick below very important**

*Example:*

	Very important				Not at all important
Exercise					

1. Spare time on squares provides a chance to reach many different goals. How important is it to you to reach each of these goals in your spare time on squares.

	Very important				Not at all important
Relax					
Walk					
Outdoor activities					
Exercise					
Talking with friends					
For fresh air					
Have fun					
Making friends					
Doing nothing					
Getting information					
Escape from home					
Date					
View city scene					
Play with my child					
Other (please specify)					

2. How do you think the importance of squares in your daily life

	Strongly Agree				Strongly Disagree
Providing more opportunity for me to communicate with friend and relatives					
Providing space for me to get outdoor					
Having become an indispensable part in my daily life					
Tourists attracted by squares have negative impact on my daily life					
Providing me more opportunity to get to know some new friends					
Providing me some opportunity to get information					
The squares have nothing to do with me					
Providing me a place to be relaxed					
The establishment of the squares disturbed my daily life					
The squares always make me happy					
Other (please specify)					

3. How do you think the importance of squares for the development of Dalian City

	Strongly Agree				Strongly Disagree
Improve the overall environment of the city					
Waste of land resource					
Make Dalian more vital					
Have formed the so-called square culture					
Enhanced the image of the city					
Have nothing to do with the development of the city					
The municipal government should pay more effort on building more squares					
The construction of squares is more for political purpose, its useless					
Waste of money					
Improved economic development of the city					
Improved tourism development of the city					
Making Dalian more lifeful					
Other (Please specify)					

4. From May to September, what is the frequency for you to visit the squares

- A. Seldom      B. One time      C. Two times      D. Three times  
 E. Four times      F. Five times      G. Six times      H. Everyday      I. Not sure

5. From May to September, in a typical week, how many hours do you spend on the square:

\_\_\_\_\_Hours

6. Typically when will you go to the squares, in May to September?

- A. Before 8 o'clock      B. 8-12am      C. 12-2pm      D. 2-5pm  
 E. 5-8pm      F. 8-11pm      G. After 11pm

7. Do your parents/son/daughter/spouse often come to the square?

- A. Yes      B. No

8. Your gender:

- A. Male      B. Female

9. Your age:

- A. 16 and below      B. 16□29      C. 30□44  
 D. 45□59      E. 60 and above

10. Your occupation is:

- A  Government official      B  Industry manager    C  Teacher or engineer  
D  Business    E  Worker      F  Military or police    G  Retired      H  Student  
I  Unemployment      J  Other (Please specify) \_\_\_\_\_

11. Your education level is:

- A  Institutions of higher education or above    B  Senior or special secondary schools  
C  Junior high schools      D  Elementary school    E  Illiterate

12. Your monthly household income is (RMB, 1USD equals to 8.27 RMB):

- A  below 1000    B  1000—1999    C  2000—2999  
D  3000—4999    E  5000—9999    F  10000 and above    G. Not sure or refuse

13. How long have you been living in Dalian

- A  0-5 years      B  5 to ten years      C  10-15 years  
D  15 to 20 years      E  more than 20 years

Thank you very much!

## Appendix C

### Questionnaire for Tourists (ORE 10962)

Date		Location		Weather	
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Dear Sir or Madam:

This study, Urban Revitalization Through Public Space: A Case Study of Squares in Dalian, is conducted by Mimi Li, a Master's student in the Department of Geography at the University of Waterloo, Waterloo, Canada, under the supervision of Professor Geoffrey Wall. The project is funded by the ECOPLAN CHINA project of the Canadian International Development Agency. I now want to get some information on tourists' perception on Dalian's squares. All participation is voluntary and anonymous. It will take you about 5 minutes to finish the following questions. The questionnaire has been reviewed by the Office of Research Ethics and Grants of University of Waterloo to ensure that it has no ethics problem. I assure you that this data will be confidential and only for my personal research, and the data will be destroyed once I finish the research. Please tick one or more choices in each question. If you have any further question of problem, please contact me or Susan Sykes, the director of Office of Research Ethics and Grant of University of Waterloo, by the following email. Thank you for your cooperation.

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6. Which of the following impressed you most:

	Very Impressive				No Impression
Square Culture					
Women Ranger					
Trolley Car					
Fashion Festival					
Seashore, sand beach and other natural tourist attraction					
Soccer					
Urban planning					
Western styled architecture					
Sea food					
The whole urban environment					
The vitality of the city					
The prosperity of the city					
Theme parks and other man made tourist attractions					
Other activity/attraction that impressed you (please specify)					

7. Your gender:

- A. Male            B. Female

8. Your age:

- A. 16 and below            B. 16□29 ages            C. 30□44 ages  
D. 45□59 ages            E. 60 and above

9. Your occupation is:

- A□Government official            B□Industry manager    C□Teacher or engineer  
D□Business    E□Worker            F□Military or police    G□Retired    H□Student  
I□ Unemployment            J□Others

10. Your education level is:

- A. Institutions of higher education or above    B□Senior or special secondary schools  
C□ Junior high schools            D□Elementary school    E□Illiterate

11. Your monthly household income is (RMB, 1USD equals to 8.27 RMB):

- A□below 1000    B□1000—1999    C□2000□2999  
D□3000□4999    E□5000□9999    F□10000 and above  
G□Not sure or refused

## Appendix D

### Detailed Land Use Around the Observed Squares

Square	Region	Land Use Pattern
Youhao	Around the square	Restaurant, café, teahouse, bookstore, Ocean Mansion, Shenzhen Development Bank, Youhao Cinema, Jinbu Cinema.
	Youhao Rd.	New World shopping mall, Dalian Daily, three business mansion, bookstore, hospital, travel agency, print and copy store, restaurants, China Construction Bank, groceries.
	Yide St.	Gloria Plaza Hotel (5 stars), Dalian Commercial Bank, COFCO Plaza, shabby residents houses
	Zhongshan Rd.	Wanheng Cinema, Hengyuan Security, People's Bank of China, Dalian Branch, Holy Travel Agency, Haircut, store for Panasonic photograph equipment, store for Canon electronic equipment, store for painting and calligraphy, teahouse, Dalian Commercial Bank, two photo shops, billboards, Dalian Commercial Bank, Jinzuo shopping mall, restaurant, drugstore.
	Puzhao St.	Business mansion, building site, cafe
	Xiangqian St.	Small restaurants, building site
Renmin	Around the square	Municipal government, city court, city police station, kindergarten
Zhongshan	Around the square	China Industry and Commercial Bank, Dalian Post Office, Bank of China Zhongshan Branch, Liaoning Foreign Trade Bureau, People's Club, Citic Industrial Bank, Dalian Branch, China Industry and Commercial Bank Dalian Branch, Dalian Hotel (3 stars)

Renmin Rd.	China Merchandize Bank, China Development Bank, China Life Insurance, Dalian International Hotel (4 stars), restaurant, Friendship shopping mall, Bank of East Asia, China Transportation Bank, Datong Security
Zhongshan Rd.	Go to Youhao Sq., the same pattern with Youhao Sq.
Luxun Rd.	Film development, copy and print stores, newspaper office, several eateries, teahouse, hospital, café
Yan'an Rd.	Baojia Mansion (business mansion), Bank of China, China Construction Bank
Shanghai Rd.	Building site, telecommunication office
Minkang St.	2 KTVs, China Construction Bank, several nosheries
Minsheng St.	Four groceries, China Transportation Bank, EverBright Bank, building site, Bank of China
Qiyi St.	Several restaurants, Bank of China, store for tobacco, military department
Jiefang St.	Bar, restaurant
Yuguang St.	Residence house, Wanheng Business Mansion
Malan	Buildings around the square include Dalian Commercial Bank, two drugstores, several eateries, several small factories, newly built residence community, shabby residence houses, Haiquan Hotel (3 star), China Industry and Commercial Bank, and China Construction Bank.
Wuyi	The buildings around the squares include Dalian Broadcast, Zhongshan Park, supermarket, and residence community.
Wusi	Around the square
	China Construction Bank, store for copy and print, several eateries, barber shop, Hongxing Cinema, several groceries, China Industry and Commercial Bank, shopping mall
Chengyi St.	Hongxing restaurant, Guotai Security, residence community
Changsheng St.	Residence community, business mansion
Youzheng St.	Post office, residence community
Shidai	Buildings around the square include Furama Hotel, Citic



		Industrial Bank, Shangri-La Hotel, China Life Insurance Company, Fuyuan Business Hotel (4 stars), New Friendship shopping mall, café
Minzhu	Around the square	Dalian Metal and Coal Imp. & Exp. Company, Korean restaurant, Dalian Ship Group, shabby houses for barber, copy and print; teahouse, Liwan Hotel (4 stars), Dalian East Railway Station, restaurant
	Changjiang Rd.	Groceries, Zhongchuan Hotel (2 star), hospital, revenue, restaurant, shabby residence houses, poolroom
	Dongping St.	Bathroom, restaurant, several eateries, several groceries, small travel agency
	Wendong St.	Shabby residence houses
	Fada St.	Shabby houses
	Mingze St.	Groceries, Bank of China, a bankrupt hotel, shabby houses
	Shiji St.	Restaurant, China Marine Group, shabby residence houses, groceries, Wanlong Hotel
	Qiyi St.	Shabby residence houses, play ground, haircut, bathroom
	Minyi St.	Groceries, eateries, restaurant, residence houses
Gangwan	Around the square	Billboard, two restaurants, China Industry and Commercial Bank, shopping market, business mansion
	Changjiang Rd.	Business mansion, Dalian Harbor Policy Station, building site
	East Changjiang Rd.	Shabby houses, newly built residence apartment, inn
	Renmin Rd.	Restaurant, Haizhou Hotel, Xuyuan Hotel (3 star), old business mansion
	Wuwu Rd.	Disco, grocery, inn
	Gangwan St.	Groceries, inn, eateries, Haijing Hotel (4 star), several restaurants
Xinghai		The land use pattern around the square include Dalian Convention and Exhibition Center, Xinghai Park, Shell Museum, Xinghaiguobao (a high grade residence

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	apartment), several high-class restaurants, and some building sites.
Haijun	The major land use pattern around the square is the city hall, as well as some residence communities.
Olympic	The major land use pattern on the square is commercial use with shopping mall, supermarket, and some nosheries. The land use around the square include gymnasium, play ground, stores for sports commodities, some groceries, and residence community.

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## Bibliography

- Adams, D., and Hastings, E. M., 2001, Urban Renewal in Hong Kong: Transition from Development Corporation to Renewal Authority, *Land Use Policy*, 18: 245-258
- Alden, J., and Pires, A. D. R., 1996, Lisbon: Strategic Planning for a Capital City, *Cities* 13(1): 25-36
- Babbie, E., 2001, *The Practice of Social Research*, 9<sup>th</sup> edition, Belmont: Wadsworth Thomson Learning
- Bacon, E., 1976, *Design of Cities*, New York: Penguin Books
- Baeten, G., 2000, From Community Planning to Partnership Planning: Urban Regeneration and Shifting Power Geometries on the South Bank, London, *GeoJournal* 51: 293-300
- Ball, M., Harloe, M., and Martens, M., 1988, *Housing and Social Changes in Europe and the USA*, London: Routledge
- Barnett, J., 1986, *The Elusive City*, New York: Harper and Row
- Bertaud, A., and Renaud, B., 1992, *Cities Without Land Markets*. World Bank Discussion Paper No. 227, Washington DC: World Bank
- Bolitzer, B., and Netusil, N. R., 2000, The Impact of Open Spaces on Property Values in Portland, Oregon, *Journal of Environmental Management*, 59: 185-193
- Breakell, M. J., (eds.) 1975, *Problems of Comparative Planning*, Department of Town Planning, Oxford Polytechnic
- Carr, S., and Lynch, K., 1968, Where Learning Happens. *Daedalus* 97:4
- Carr, S., Francis, M., Rivlin, L. g., and Stone, A. M., 1992, *Public Space*, Cambridge: Cambridge University Press
- Chan, K. W., 1994, *Cities with Invisible Wall: Reinterpreting Urbanization in Post-1949 China*. Hong Kong: Oxford University Press
- Chan, R. C. K., and Zhao, X. B., 2002, The Relationship Between Administrative Hierarchy and City Size Development in China, *Geojournal*, 56: 97-112
- Chang, S. D., and Kim, W. B., 1994, The Economic Performance and Regional Systems of China's Cities, *Review of Urban and Regional Development Studies* 6: 58-77
- Chang, S., 1998, Beijing: Perspectives on Preservation, Environment, and Development, *Cities*, 15(1): 13-25

- Cheng, C. U., 1990, *Behind the Tiananmen Massacre: Social, Political, and Economic Ferment in China*, Boulder: Westview Press
- Cheng, J., and Masser, I., 2003, *Urban Growth Pattern Modeling: A Case Study of Wuhan City, PR China*, *Landscape and Urban Planning*, 62: 199-217
- Congres Internationaux d'Architecture Moderne (CIAM), 1973, *The Athens Charter*, translation by Anthony Eardley, New York, Grossman Publishers
- Conniff, G., Loyd B., and Schuyler D., 1990, *The Rough Road to Renaissance: Urban Revitalization in America, 1940-1985*, Baltimore: The Johns Hopkins University Press
- Couch, C., 2003a, *Urban Regeneration in Liverpool*, in Couch, C., Fraser, C., and Percy, S., eds., 2003, *Urban Regeneration in Europe*, Oxford: Blackwell Publishing, pp: 34-55
- Couch, C., 2003b, *Rotterdam: Structural Change and the Port*, in Couch, C., Fraser, C., and Percy, S., eds., 2003, *Urban Regeneration in Europe*, Oxford: Blackwell Publishing, pp: 109-125
- Couch, C., and Dennemann, A., 2000, *Urban Regeneration and Sustainable Development in Britain: the Example of the Liverpool Ropewalks Partnership*, *Cities* 17(2): 137-147
- Couch, C., Fraser, C., and Percy, S., (eds.), 2003, *Urban Regeneration in Europe*, Oxford: Blackwell Publishing.
- Creswell, J. W., 2003, *Research Design: Qualitative, Quantitative, and Mixed Methods Approach*, Thousand Oaks: SAGE Publications
- Croll, E., 1994, *From Heaven to Earth: Images and Experiences of Developmng in China*, New York: Routledge
- Cybriwsky, R., 1999, *Changing Patterns of Urban Public Space: Observations and Assessments from the Tokyo and New York Metropolitan Area*, *Cities*, 16(4): 223-231
- Dalian City Planning and Design Institute, 1999, *Master Urban Plan for Dalian (1999-2020)*
- Dalian Tourism Administration Bureau, 2002, *The Tenth Five-Year-Plan for Tourism Development in Dalian*
- Dalian Urban Construction Bureau, 2003, *Chronicle of Urban Development, Dalian*, in process
- Dalian Year Book, 2000,
- Dalian Year Book, 2002,

- Dapaah, K. A., 1999, Utilization of Urban Residential Land: A Case Study of Singapore, *Cities*, 16(2): 93-101
- Darin-Drabkin, H., 1977, *Land Policy and Urban Growth*, Oxford: Pergamon Press
- Ding, C., 2003, Land Policy Reform in China: Assessment and Prospects, *Land Use Policy*, 20: 109-120
- Dowall, D. E., 1993, Establishing Urban Land Market in the People's Republic of China. *Journal of the American Planning Association*, 12: 182-192
- Edmonds, R. L., 1994, *Patterns of China's Lost Harmony: A Survey of the Country's Environmental Degradation and Protection*, New York: Routledge
- Eisenschitz, A., and Gough, J., 1998, Theorizing the State in Local Economic Governance, *Regional Studies* 21: 759-768
- Elazar, D. J. (ed), 1992, *Urban Revitalization: Israel's Project Renewal and Other Experiences*, Lanham: University Press of America, Inc.
- Fery, R. S., and Song, F., 1997, Human Well-Being in Chinese Cities, *Social Indicators Research*, 42: 77-101
- Fong, P. K. W., 1985, Issues in Urban Development: the Land Development Corporation, *Built Environment*, 11: 283-293
- Fraser, C., and Marechal, L., 2003, Belgium: The Case of Wallonie, in Couch, C., Fraser, C., and Percy, S., eds, 2003, *Urban Regeneration in Europe*, Oxford: Blackwell Publishing, pp: 126-134
- Gale, D. E., 1984, *Neighbourhood Revitalization and the Post-industrial City: A Multinational Perspective*. Lexington: Lexington Books
- Gaubatz, P., 1999, China's Urban Transformation: Patterns and Process of Morphological Change in Beijing, Shanghai and Guangzhou, *Urban Studies*, 36(9): 1495-1521
- Gehl, J., 1980, *Livet Mettem Husene*, Arketektens Forlag, Copenhagen, Denmark, translation by Jo Koch 1987, NY: Van Nostrand Reinhold
- Girouard, M., 1985, *Cities and People*, New Haven: Yale University Press
- Gospodini, A., 2001, Urban Waterfront Redevelopment in Greek Cities: A Framework for Redesigning Space, *Cities*, 18(5): 285-295
- Han, S., 2000, Shanghai between State and Market in Urban Transformation, *Urban Studies*, 37(11): 2091-2112

- Hillman, J., Whyte, W. H., and Erickson, A., 1980, *The City as Dwelling: Walking, Sitting, Shaping*, Irving: The University of Dallas
- Hsu, M., 1996, China's Urban Development: A Case Study of Luoyang and Guiyang, *Urban Studies*, 33(6): 895-910
- Hudson, R., 2000, *Production, Places and Environment – Changing Perspectives in Economic Geography*, London: Prentice Hall
- Jacobs, J., 1961, *The Death and Life of Great American Cities*, New York: Random House
- Jameson, F., 2000, *The Jameson Reader*. Oxford: Blackwell
- Jeffrey, P., and Pounder, J., 2000, Physical and Environmental Aspects, in Robers, P., and Sykes, H., eds., *Urban Regeneration: A Handbook*, London: SAGE, pp86-108
- Jenkins, O. H., 1999, Understanding and Measuring Tourist Destination Images, *International Journal of Tourism Research*, 1: 1-15
- Jiang, D., Chen, J., and Isaac, D., 1998, The Effect of Foreign Investment on the Real Estate Industry in China, *Urban Studies*, 35(11), 2101-2110
- Khakee, A., 1996, Urban Planning in China and Sweden in a Comparative Perspective. *Progress in Planning*, 46(2): 91-140
- Kirkby, R. J. R., 1985, *Urbanization in China: Town and Country in a Developing Economy, 1949-2000 AD*, New York: Columbia University Press
- Krier, R., 1979, *Urban Space*, New York: Rizzoli International Publications Inc.
- Kupchevsky, T., 1986, Successful West German Urban Revitalization Experience, in Christopher K. Howes, ed, 1986, *Innovations in Urban Revitalization, Papers Presented to the World Congress on Land Policy*, London: Lincoln Institute of Land Policy, pp 37-46
- Kwok, R. Y. W., 1981, Trends of Urban Planning and Development in China, in *Urban Development in Modern China*, Ma, L. J. C., and Hanten, E. W., eds., pp194-220, Boulder: Westview Press
- Lai, O. K., 1998, Governance and the Housing Question in a Transitional Economy, the Political Economy of Housing Policy in China Reconsidered, *Habitat International*, 22(3): 231-243
- Lash, S., and Urry, J., 1994, *Economies of Signs and Space*. London: Sage
- Latham, L., and Swenarton, M., (eds.), 1999, *Brindleplace: a Model for Urban Regeneration*, London: Right Angle Publishing Ltd.

- Laurence, J. C. M., and Edward, W. H., 1981, *Urban Development in Modern China*, Boulder: Westview Press
- Leaf, M., 1995, Inner City Redevelopment in China: Implications for the City of Beijing, *Cities* 12(3): 149-162
- Li, L. H., 1999, *Urban Land Reform in China*, New York: St. Martin's Press
- Lin, G. C. S., 2002, The Growth and Structural Change of Chinese Cities: A Contextual and Geographic Analysis, *Cities*, 19(5): 299-316
- Lloyd, G., and McCarthy, J., 2003, Dundee: A City Discovering Inclusion and Regeneration, in Couch, C., Fraser, C., and Percy, S., eds, 2003, *Urban Regeneration in Europe*, Oxford: Blackwell Publishing, pp: 56-68
- Lo, C. P., 1980, Shaping Socialist Chinese Cities – A Model of Form and Land Use, in China: Urbanization and National Development, Leung, C. K., and Ginsburg, N., eds., pp130-155, Research Paper No. 196, Department of Geography, University of Chicago, Chicago
- Lo, C. P., 1986, Socialist Ideology and Urban Strategies in China, *Urban Geography*, 8(5): 440-458
- Lo, C. P., Pannell C. W., and Welch, R., 1997, Land Use Changes and City Planning in Shenyang and Canton, *Geographical Review*, 67(3): 268-283
- Lynch, K., 1961, *The Image of the City*, Cambridge: MIT Press
- Massey, D., 1995, *Spatial Division of Labor*, 2nd ed. London: Macmillan
- McCarthy, J., 1998, Reconstruction, Regeneration and Re-Imaging, *Cities* 15(5): 337-344
- Mi, X., 2003, Possible Gaps between the Destination Image Projected by Governments and that Perceived by Tourists: the Case of Dalian, China, Master's Thesis in University of Waterloo, Supervisor: Dr. Geoffrey Wall
- Mir, E. R., 1986, Urban Revitalization in Barcelona, in Christopher K. Howes, ed, 1986, *Innovations in Urban Revitalization*, Papers Presented to the World Congress on Land Policy, London: Lincoln Institute of Land Policy, pp17-30
- Morandi, C., 2003, Milan: The Bovisa District, in Couch, C., Fraser, C., and Percy, S., eds, 2003, *Urban Regeneration in Europe*, Oxford: Blackwell Publishing, pp: 135-148
- Mumfor, L., 1961, *The City in History: Its Origins, Its Transforming*, New York: Harcourt Brace and World

- Ng, M. K., 2002, Property-Led Urban Renewal in Hong Kong: Any Place for the Community? *Sustainable Development*, 10: 140-146
- Oktay, D., 2002, The Quest for Urban Identity in the Changing Context of the City, *Cities*, 19(4): 261-271
- Oxley, M., and Smith, J., 1996, *Housing Policy and Rented Housing in Europe*, London: E. & F. N. Spon
- People's Daily, May 14<sup>th</sup>, 2000
- Qu, F., Heerink N., and Want, W., 1995, Land Administration Reform in China: Its Impact on Land Allocation and Economic Development, *Land Use Policy*, 12(3): 193-203
- Raco, M., 2003, Assessing the Discourses and Practices of Urban Regeneration in a Growing Region, *Geoforum*, 34: 37-55
- Reynolds, B. L., 1987, Trade, Employment, and Inequality in Postreform China, *Journal of Comparative Economics*, 11: 479-489
- Rhodes, R., 2000, Foreword, in Stoker, G. (ed.), *The New Politics of British Local Governance*, Basingstoke: Macmillan, pp1-2
- Roberts, P., 2000, The Evolution, Definition and Purpose of Urban Regeneration, in Roberts, P., and Sykes, H., eds., *Urban Regeneration: A Handbook*, London: SAGE, pp9-36
- Rosenthal, D. B., 1980, Introduction, in Rosenthal, D. B., ed, *Urban Revitalization*, London: SAGE Publication Ltd, pp 9-26
- Royce, S., and Bruce, C. S., 1999, *Approaches to Social Research*, 3<sup>rd</sup> edition, New York: Oxford University Press
- Ryan, M., and Flavin, C., 1995, Facing China's Limits, in Brown, L. E., ed. *State of the World, 1995*, New York: W. W. Norton, pp113-131
- Seik, F. T., 1996, Urban Environmental Policy – The Use of Regulatory and Economic Instruments in Singapore, *Habitat International*, 20(1): 5-22
- Sim, L. L., Lum, S. K., and Lee, L. C. M., 2002, Property Rights, Collective Sales and Government Intervention: Averting A Tragedy of the Anticommons, *Habitat International*, 26: 457-470
- Smil, V., 1984, *The Bad Earth: Environmental Degradation in China*, London: Zed Press
- Smil, V., 1993, *China's Environmental Crisis: An Inquiry Into the Limits of National Development*, Armonk: M. E. Sharpe



- Smith, R., 1995, Getting Rich Is Glorious, *The Ecologist*, 25: 14-15
- Solinger, D. J., 1995, China's Urban Transients in the Transition from Socialism and the Collapse of the Communist 'Urban Public Goods Regime', *Comparative Politics*, 27: 127-146
- Stoker, G., (ed.), 2000, *The New Politics of British Local Governance*, Basingstoke: Macmillan
- Teo, P., and Huang, S., 1996, A Sense of Place in Public Housing: A Case Study of Pasir Ris, Singapore, *Habitat International*, 20(2): 307-325
- Turok, I., 1999, Localization or Mainstream Bending in Urban Regeneration? European Experience, *Local Economy*, 72-87
- Vernez, M. A., (eds), 1987, *Public Streets for Public Use*, New York: Van Nostrand Reinhold
- Victor, F. S. S., 1985, *Chinese Cities: The Growth of the Metropolis Since 1949*: London: Oxford University Press
- Wagner, S. K., 1981, *Creating Your City's Image*, Washington: National League of Cities
- Walker, K. R., 1989, 40 Years on: Provincial Contrasts in China's Rural Economic Development, *China Quarterly*, 119: 448-480
- Wang, P., 2002, *Systematic Construction of Urban Public Space*, Nanjing: Southeast University Press (in Chinese)
- Ward, C., 1978, *The Child in the City*, New York: Pantheon Books
- Weng, Q., 2002, Land Use Change Analysis in the Zhujiang Delta of China Using Satellite Remote Sensing, GIS and Stochastic Modeling, *Journal of Environmental Management*, 64: 273-284
- Whyte, W. H., 1981, *The Social Life of Small Urban Spaces* (3rd edition), Ann Arbor: Edwards Brothers
- Whyte, W. H., 1988, *City: Rediscovering the Centre*, New York: Anchor Books
- Wu, F., 1998, The Transformation of the Urban Planning System in China from a Centrally-Planned to Transitional Economy, *Progress in Planning*, 51: 165-252
- Wu, F., 2000, The Global and Local Dimension of Place-making: Rethinking Shanghai as a World City, *Urban Studies*, 37(8): 1359-1377
- Wu, F., 2001, China's Recent Urban Development in the Process of Land and Housing Marketisation and Economic Globalization, *Habitat International*, 25: 273-289
- Wu, F., and Yeh, A. G., 1997, Changing Spatial Distribution and Determinants of Land Development in

- Chinese Cities in the Transition from a Central Planned Economy to a Socialist Market Economy: A Case Study of Guangzhou. *Urban Studies*, 34(11): 1851-1879
- Xie, Y. C., and Costa, F. J., 1991, Urban Design Practice in Socialist China, *Third World Planning Review*, 13: 277-296
- Xie, Y. C., and Costa, F. J., 1993, Urban Planning in Socialist China: Theory and Practice, *Cities*, 10: 103-112
- Xu, J., 2001, The Changing Role of Land-use Planning in the Land Development Process in Chinese Cities: The Case of Guangzhou, *Third World Planning*, 23(3): 229-248
- Yan, J., 1998, Study on Urban Recreational Square, thesis of Master of Science, Nanjing Forestry University, supervisor, Prof. Xu Dalu (in Chinese)
- Yang, C., and Wu, C., 1996, Ten-Year Reform of Land Use System in China, Beijing: Zhong Guo Da Di Publisher, (in Chinese)
- Yang, J., and Wu, M., 1999, Modern Urban Renewal, Nanjing: Southeast University Press (in Chinese)
- Yao, S., 1998, Spatial Expansion of Metropolis in China, Hefei: China Science & Technology University Press (in Chinese)
- Yeh, A., G., 1997, Economic Restructuring and Land Use Planning in Hong Kong, *Land use Policy*, 14(1): 25-39
- Yu, K., 2003, An Approach of City Beautiful, Beijing: China Architecture and Building Press
- Yuen, B., 1995, Public Housing-Led Recreation Development in Singapore, *Habitat International*, 19(3): 239-252
- Zax, J., 1997, Latent Demand for Urban Housing in the People's Republic of China, *Journal of Urban Economics*, 42: 377-401
- Zhang, L., and Zhao, X. B., 1998, Re-examining China's Urban Concept and Level of Urbanization, *The China Quarterly*, 154, 330-381, reprinted in *Population Index* 64(4), 1999
- Zhang, T., 2000, Land Market Forces and Government's Role in Sprawl: The Case of China, *Cities*, 17(2): 123-135
- Zhang, X. Q., 1997, Urban Land Reform in China, *Land Use Policy*, 14(3): 187-199
- Zhang, Z., 2000, The Culture of Urban Square, thesis of Master of Architect, Harbin University of Civil Engineering and Architecture, supervisor Prof. Guo Enzhang (in Chinese)

Zhao, M., Bao, G., and Hou, L., 1998, Land Use System Reform and Urban and Rural Development, Shanghai: Tongji Press, (in Chinese)

Zucker, P., 1959, Town and Square, London: Oxford University Press

Merriam-Webster Online, m-w.com

National Bureau of Statistics of China 2003, [www.stats.gov.cn](http://www.stats.gov.cn)

<http://www.lib.utexas.edu/maps>