SENSE
Preservation and Reconstruction:
Potential Ways to Develop Areas around New Large-scale Constructions in the Inner City of Beijing, China.

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Master of Urban Design program 2007
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Potential Ways to Develop Areas around New Large-scale Constructions in the Inner City of Beijing, China.

by

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Dedication

To No. 17 Shibei Hutong -- my forever home
To my parents and grandparents

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Preface

As a Beijing native, I spent almost all my life living in the inner city. I love my hometown. No matter how crowded it may get, no matter how expensive it is to live in, no matter how bad the air quality is in the spring when sand storms come, Beijing in my heart has and always will be always a wonderful and beautiful city.

However, I have to admit that during my lifetime, the city has changed dramatically, sometimes in ways that are very disappointing to me. When I was a little girl, my neighborhood known as Shibei was a typical traditional hutong with beautiful Sihe courtyards on both sides. In the summer, trees spread their branches out and over the courtyards, dropping picturesque shadows on the gray walls. In the winter, the red or carmine color of doors in the snow looked as vivid as the blush on a child's cheeks. Unfortunately, in early 1980's, the courtyard homes on the other side of Shibei hutong were demolished. Even now I can still clearly remember the confusion and fear I had as a little girl from losing her loved and familiar places.

I believe many people who have lived in Beijing have personally experienced the pain of losing their familiar surroundings. When I came to Berkeley in the fall of 2006, one of my strongest desires was to understand ways to help get rid and even prevent this pain. Later during the semester, almost spontaneously, I decided on my thesis topic: sense preservation and reconstruction.

At the beginning, I thought very hard to answer this question: What is Beijing’s sense? At first, I tried to interpret the city’s sense with some of universally
agreed vocabularies such as historical, cultural, or oriental. However, while none of these were necessarily wrong, all of them were too concrete to explain where my love as well as my pain for the city came from. In spring 2007, I returned to Beijing for a field trip. Instead of only investigating the site, I spent a lot of time wandering around in the inner city. The neighborhoods around the palace, especially in the hutongs or courtyards give me plenty of resonance. I suddenly started to understand the city’s sense which brought me strong emotions - most importantly harmony. The harmony present in the traditional city that I could feel is deeply rooted in Chinese history and culture, in Beijing’s urban environment and most importantly in people’s hearts.

However, the harmony I adored since I was a child was broken finally. On April 23rd, 2007, my family moved out of my home courtyard - No.17 Shibei hutong. This place had a history of almost 100 years. It was where my grandparents had been living for 60 years, and was my home for most of my life. The very next day, the house was demolished. The only reason for this was that a new proposed service road for new National Grand Theater required the land. The physical environment that had existed for so long was suddenly gone, as well as the history, culture and the people’s love for this urban harmony.

Thus, this thesis, academically speaking, will seek ways of protecting and recreating the harmonious senses of the inner city of Beijing. On the other hand, emotionally, this work is expected to be a panacea to soothe the pain of losing my beloved home.

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Chapter One: Introduction

I. Sense

1. Traditional Senses

Beijing has been the capital of China for several hundred years. Today, it also serves the country as a significant political, cultural, and economic center. The inner city of Beijing, whose history can be traced up to 700 BC, has been built up, accumulated and developed by various peoples along with almost the whole history of China. The main structure of Inner City we see today is inherited from the last three dynasties of the Yuan, Ming and Qing. It has a wonderful historical continuity which seldom has any other ancient city in this world.

It highly represents the essence of traditional Chinese culture and is widely considered as a symbol of China.

From a universal understanding, the inner city’s senses mostly come from the historical wonders as Forbidden City, Temple of Heaven, Summer Palace, temples, imperial gardens and etc. All these cultural heritages are brilliant pearls, shining over the city and identifying various parts of the city. Moreover, all pieces, being built following the Fengshui theory, contribute to keep the city’s integration, thus together making the city holistically one larger wonder.
As a masterpiece of urban design and study sample, the inner city of Beijing is also widely noted for its symmetrical layout, axes, spatial hierarchy, a clear orientation, and the fine urban fabric, which not only represent the cosmic city’s identity but also shows a sense of balance and congruence.

Senses also come from ordinary things as traditional Sihe courtyards, hutongs, and other urban landscapes. They together form a perfect background for the city’s stunning heritage, and more importantly create a wonderful stage for the local people’s everyday lives – where the most lively senses come from. For a local person as myself, these senses could be described with words as peaceful, vivid, or humanistic.

The wholeness, balance, congruence, peacefulness, vividness and humanism of Beijing, all to some extent, can be included into one word – harmony. Although this could be a controversial choice of words, the word harmony will be chosen in this thesis as a key word for interpreting the essence of traditional sense of the Inner City of Beijing since it is generally the most expressive.
2. New Senses
Since 1980’s, with a series of policy shifts, China has changed dramatically from a undeveloped conservative country to a open and amazingly fast developing nation. These incredible needs make the country a huge market for the whole world. Today, China is much more than a mysterious oriental nation or a politically sensitive one; China is widely considered as a modern country full of opportunities that is playing an increasingly important role on the international stage.

As the capital of the country, Beijing is always on the leading edge of all the rapid changes in recent years. Instead of just keeping its historical quality, Beijing has absorbed a tremendous amount of global features of the contemporary world. Today in Beijing, people from all over the world can easily experience all kinds of modern conveniences as bustling shopping malls, restaurants offering food from every corner of the world, easy communication, multiple entertainment facilities, and a comprehensive transportation system. There is no doubt that Beijing has become a contemporary city with the ability to support people’s modern lives. Thus many more words can be added in the vocabulary for describing the city’s sense, such as modern, international, energetic, welcoming and so on.

All these new words sound very exciting. However, are they compatible with the city’s original harmony?
II. Loss of Sense: Conflicts and problems

Since the beginning of the People’s Republic, Beijing had encountered a series of tremendous transformations. Especially during the past 20 years, the city has developed at an incredible speed with the rush of the whole country. On one hand, the changing rapidly infused new vigor into the conventional city and brought the city to a contemporary level. On the other hand, larger buildings and wider streets built over the original fine fabric made overscale a common problem which imposed a threatening impact on the original city and its sense.

The worse things happened from the 1990s on. While bringing opportunities, rapid economic development also brought urgent requirements for more land. The traditional neighborhoods became the potential land supply because they were located in good central locations, with low density and were inexpensive to be demolished. Their high cultural and historical values were unfortunately overlooked. As a result, many neighborhoods have been and continue to be demolished. On their original land, many large-scale buildings were built.
The problems of this changing are obvious:
First, the replacing sharply interrupted off the historical continuity. The urban form of the traditional neighborhood didn’t develop on one day. It was a result of hundreds of years of accumulation. Stories of the city in different eras are inseparably integrated with the courtyards, hutongs, trees and all other environmental features. The demolishing of the physical environment also meant the demolishing of their history. Who can tell the past of the place from a giant contemporary building? How sad the original residents must be because they can never again find any hints showing that they once lived at these places?

Secondly, the large-scale buildings themselves don’t represent any identifiable feature of the city. Seldomly any of these kinds of buildings were designed with sufficient thinking about traditional Beijing’s spatial and architectural features thus hardly show any identities related to the city. For instance, the original urban fabric gives a strong sense of orientation. However, this sense is now damaged because usually these giant buildings are either of cuboid shapes, which help maximize the density or disrupt the orientation with some inexplicable statue-like shapes from the architects’ personal tastes.
Thirdly, the large new buildings create great contrasts between themselves and the original fabric. The giant body vs. the small courtyards, the super block vs. the fine hutong system, no trees vs. tree canopy all over the neighborhood...... the ubiquitous contrasts seen now in the inner city has badly broken the city’s wholeness and harmony.

Last but not least, these constructions have become cancers which continue spreading tremendous threats to the surrounding traditional environment. The unbalances they created in the area further stimulated the appetite of increasing the density, thus put the traditional neighborhoods in a danger of becoming the next victims. To some extent, these giant buildings are like dangerous whirlpools, so powerful and overwhelming that hardly any traditional surroundings have the ability to resist the aggression.

All these have inevitably broken the original harmony and caused the loss of the city’s sense. Is there any way for us to protect this precious sense and furthermore rebuilt new harmony over the damage?
III. Current ways for dealing with the problems

Fortunately, more and more people are realizing the value of the original urban environment and started worrying about the loss of sense. The appeal of preservation has become very urgent. Some efforts have been made, mostly focused on the preservation and redevelopment in the traditional neighborhood.

The government of Beijing recently has demarcated more than 30 historic conservation districts, with a total area of which about 45% of the old Beijing city. Many suggestions have been given to preserve the conservation districts. The potential improvement has also been thought about. All these are very valuable in terms of saving the left traditional urban environment and the sense along with.

However, the shortage still exists. First, the demarcations rigidly separated the conservation districts from other parts, instead of considering them as organic elements of the whole city. Thus the conservation districts in some ways became enclosed museums or isolated islands, which are definitely not strong enough to help preserve the city’s wholeness and harmony.

Second, while these policies have helped preserve the conservation districts, they however failed to help areas surround and connect them with one another, which are also playing important roles to
keep the whole city’s sense. The threats for them were never reduced or even were enhanced since they have to take on the pressure once on the conservation districts.

Third, most those policies are focused on the conservation districts themselves but had little thinking about the districts’ peripheral relation. As a result, they didn’t effectively deal with the problems related to the contrasts between traditional fabric and the new large constructions.

Thus, some inventions are needed to preserve the non-conservation district areas and deal with the contrast problems.

**IV. Thesis of Thesis**

Sense preservation and reconstruction as the thesis of this thesis was decided upon the thinking stated above. The aim is to seek for potential ways to help redevelop areas around large-scale new constructions where the old harmony was broken, bridge the gap, make a good transition, improve the urban environment, thus preserving and reconstructing the harmony of the inner city of Beijing.
V. Site Overview

As the topic was decided, a site for the research was needed. The neighborhood where my house used to be became a perfect one. The site is located right in the center of Beijing’s inner city. The urban environment of the west part of the site well represents the traditional sense – harmony. However, this traditional part now is facing the threats from the new National Grand Theatre, which on one hand enhances the site’s vigor while on the other hand overwhelmingly damaged the area’s congruence, further threatening the surrounding traditional neighborhoods and brought a lot of typical problems mentioned above.

In May 2007, in order to build two streets along the National Grand Theater property, more traditional courtyard homes were demolished, including the house I grew up in. Two entire hutongs with a long history were demolished as well. The threats finally made the real damages.

Thus, this thesis will take this site as a sample and examine potential ways to minimize the threats and deal with the problems, while at the meantime, seeking for ways to utilize the opportunities and reconstruct a new harmony over the damage.
Chapter Two: Site Analysis

I. Context

1 Location

The site is located in the center of Inner city of Beijing. It is on the west of the city’s north-south axis, and located on the south side of Changan St - the central east-west axis. It is very close to the world-famous Forbidden City and Tiananmen Square. In Beijing, the land value is highly influenced by the location. Usually the closer it is to the center, the more expensive the land is. Thus, the land value of this site is understandably very high because of its premiere location.
2 Surroundings

a. Historical and Cultural Quality

The environment around the site has an extremely high historical and cultural quality. The Forbidden City, a wonderful historic district, universally taken as a symbol of Beijing or even all of China, is within walking distance from the site. The emperor’s gardens Zhongnanhai, another world heritage on the west of Forbidden City, is adjacent to the north boundary of the site. The red wall of the imperial palace and garden spreads along Chang'an St for almost two miles.

Besides the Forbidden City, on the north-south axis there is also Tiananmen Square - the largest urban square in the world, on which are located the Monument to the People’s Heroes, Mausoleum of Mao Zedong and two towers of Zhengyang. Elegant architectures of Grand People's Hall and National Museum lie symmetrically on west and east sides of Tiananmen Square.

All of these historical or cultural elements perfectly show the typical axis and symmetrical layout of Beijing and represent the essence of Chinese city and architecture concepts. They also provide the site a great cultural context.
Historical and cultural environment around the site (photos by author)
b. Functions

Residential

A major function of areas on and around the site is residential. Since these neighborhoods enjoy a history as long as the inner city’s, most of them have traditional patterns, which are basically composed by Sihe Courtyards and Hutongs (mostly spread with east-west direction).

However, on the south of the site, some apartment buildings were built during the first years of the republic on the land where the original city wall had been. The buildings have made a terrible impact on nice urban environment.

Moreover, during the past 20 years, around the site, some newer communities were built over the traditional fabric, with thinking simply about the density or similar economic factors. These communities spot in the traditional neighborhood and break the continuity of the original fabric. As a result, the identifiable senses along with the traditional residential neighborhoods were damaged.

These experiences should always be the lessens for the following developments.
Commercial

The site is close to several crucial commercial areas. Xidan commercial district is on the west within 1 mile from the site. Many shopping centers are serving the people with multiple needs.

Qianmen commercial district located on the southeast is well-known for its traditional shopping qualities. Many gorgeous shops with long histories run traditional business in the district, thus also serving as tourist spots.

A little father on the east lies Wangfujing commercial district, which has a name of Gold Street and is recognized by Chinese people as the number one shopping street in all of China.

Liulichang Street on the south is a traditional curio and art shopping street where most stores have small scale and traditional Chinese architectural styles.

Restaurants and small scale recreation facilities can be found everywhere with a universal Chinese style. The density of them is especially high in the commercial areas.

Nice commercial environments give residents in the site multiple choices for convenient lives. Also it releases the site from intense pressure of being added plenty of commercial functions.
Commercial environment around the site (photos by author)
Offices

As the central part of the capital, the area around the site has office buildings all over.

Zhongnanhai, north of the site, was mentioned above, although originally was an imperial garden and physically could be considered a park, has been used by the government since the republic was set up. Now it serves as Chinese central government’s headquarter. Grand People’s Hall is also used by government offices. So do many other buildings.

Besides the government office buildings, there are also many other office buildings around. Many of them are used by national companies as national power company or banks as Bank of China. Some office buildings are combined with commercial facilities.

With sufficient supply of office space around, there is no evidence showing that office function is need from the site.

Office buildings around the site (photos by author)
Open Spaces

Several squares and parks serve as open spaces around the site. Tiananmen Square is an open space in certain ways serving the whole world. The plaza in front of the Wu Gate of Forbidden City is another significant open space which is always full of people. The Temple of Ancestors and Altar of Land and Grain, two parks originally were imperial temples, are located symmetrically on the both sides of the north-south axis. They are sometimes considered as parts of Forbidden City. Another small belt garden adjacent to Temple of Ancestors was recently built following the historical map. All three parks are all being visited by tourists but also frequently used by local people.

Xidan Cultural Plaza, located in Xidan District, is a multiple indoor-outdoor plaza facilitated with commercial services.

In between Tiananmen Square and Xidan Cultural Plaza, there is no formal open space. People usually use pedestrian, areas in front of buildings or hutongs as open spaces. As a middle point in between the main open spaces, the site should be considered as a compensating resource, thus help improve the larger open spaces system.
Site Analysis

Open spaces and parks around the site (photos by author)
c. Urban Typology

The Forbidden City, Temple of Ancestors, Altar of Land and Grain and Zhongnanhai are typical of the imperial-era places around the site. They are composed of a system of courtyards, or the integration of imperial architectures and natural features. From a symmetrical layout to features following the Fengshui theory, all the characters well represent the Chinese spatial as well as cultural identities.

The traditional neighborhoods around the site share a similar type of urban fabric. The architectures in the neighborhoods are mostly small-scaled Sihe courtyards, which, since ancient times, are the basic units in the urban matrix. The smallest streets – hutongs, usually run in an east-west direction and are connected to larger north-south streets, which carry more public functions and mostly cater to the local people.

Good senses can be found easily in between imperial parts and the surrounding traditional neighborhoods. Although there are differences in many aspects, they share a lot of spatial languages, which help create the wholeness. Elements such as moats, streets, or trees serve as good transition. All these help keep the sense of harmony.

There are also many larger scale contemporary urban features close to the site. Changan St on the north and the Qiansanmen Street on the south are both city scale main streets and have huge dimensions. Buildings along the streets also have a large scale and further intensify the feeling of over scale. The large streets and buildings have created barriers spreading east-west and blocking the north-south connections of the urban environment.
d. On the Conservation Plan

On the Conservation Plan of the Inner City in Master City Plan for Beijing (2004-2020), it can be easily noticed that the site is surrounded by historical heritage sites, preservation units and historic conservation districts.

The site is located in between two of these conservation districts, where the urban fabric and architectural features are very similar to the situation of the site. However, the site itself was not defined as a conservation district. As a result, instead of being a strong tie connecting the two defined conservation districts, the site become a weak point in the chain of continuous traditional urban fabric. Any potential transforming of the site could then break the fabric continuity of the whole inner city.
II. The Site

Site in Aerial Photo (Base image source: Google Map)
1  History

The main structure of Inner City we see today is inherited from the last three dynasties of the Yuan, Ming and Qing, as well as the latter era of Republic of China. The start of the city was from building the Yuan dynasty’s palace – beginning of the Forbidden City. Adjacent to the imperial palace and gardens, the site almost has a history as long as the inner city’s and is saturated with traditional Chinese cultural essence.

The historical maps show the evolution and the stability of the site’s urban typology.
Comparison of more detailed historical maps and the current aerial photos further demonstrate the historical continuity of the site. Many courtyards and hutongs in the site have amazingly maintained their original features for hundreds of years.
The historical pictures compare the urban fabric of the site before the founding of the republic, and in 1970s. The difference mostly came from the transforming of the street scale outside the site. The fabric in the inner part the site still maintained its traditional style. It is understandable that the site have experienced events and stories for hundreds of years. The old courtyards, hutongs and trees all helped record the history of the city and thus keep giving the sense of time.

Thus the preservation of the physical environment of the traditional neighborhoods is actually the preservation of the previous history and culture, as well as the wonderful senses along with them.
2 Transportation and Street Features

a. City Roads:
Chang’an Street and Qiansanmen Street run respectively north and south of the site. Both are main city roads and have 3 automobile lanes each way as well as one bicycle lane on each side. They both are connected directly to the ring road system.

East of the site is North Xinhua Street while on the west is Dahuitangxi Road. Both are considered branch roads. Residents who drive mostly use these two roads to get on the main roads then to other parts of the city. There are more than 10 bus lines running on the Chang’an Street, at least 8 lines running on the Qiansanmen and two lines running on the North Xinhua Street. All lines have stops on the edges of the site.
Site Analysis

City roads and bus services (photos by author and Asa Prentice)
b. Subways

The Loop line and 1 line of the Beijing subway pass by the site. Although the lines are considerably busy, they are still efficient. Tiananmen West station on 1 line is on the north-eastern corner of the site. Hepingmen station on Loop line is on the southwestern corner of the site. Both lines are connected to other subway lines at transfer stations. Thus it is very easy to travel to the vicinity of the site via subway.
c. Hutongs

There are more than 20 hutongs in the site. Rongxian Hutong on the north and West Jiaoming Xiang on the south are two of the larger hutongs running east-west in the site. Rongxian Hutong ends at the west edge of National Grand Theater property. Automobiles can go both ways on Rongxian Hutong. West Jiaoming Xiang starts from North Xinhua Street, running east till Tiananmen Square. West Jiaoming Xiang is a one way hutong where automobiles can only go from west to east.

The north-south hutongs in Beijing usually act to connect the east-west hutongs, which are smallest alleys serving the basic residential units- Sihe courtyards. They always tend to carry some small commercial functions, for instance, grocery stores, restaurants and so on. Thus they are commonly taken as first-level public places for inner parts of residential neighborhoods. Shibei Hutong and Bingbuwa Hutong are of this typical kind. However, they have been all demolished for building the new roads for the National Grand Theater. As a result, the public functions they carried also disappeared.
Most of other hutongs have a nice scale and serve as mixed-use alleys supporting automobiles, bicycles as well as pedestrians.

The transportation and street system provide the site great accessibility. The public transportation services are so convenient that the dependence on cars is highly reduced. Correspondingly the pressure of providing much parking in such a central location is very much abated. The hutong system is very efficient for the residents because of its compatibility.

Typical hutongs in the site (photos by author and Asa Prentice)
3 Function

Residential: The main land use of the site is residential. Most of buildings are traditional Sihe courtyards. Some recently built residences are large apartment blocks.

Recreation: The land use for National Grand Theater property is defined as recreation. Two pieces of land where several preserved buildings locate are also attributed to the recreation category.

Education: There were two primary schools in the site. Recently they are united to one larger school. There is a middle school in the site, which serves
the residents in and around the area. Besides these, there is also a small technical school on the site.

**Commercial and Office:** There is not much amount of commercial land use in the site. Besides one grocery market on the southwest corner of the site, all commercial functions are dispersed all over the site and combined with the residential functions. The offices in the site mostly belong to the army and the government. Some small offices are also combined with residential houses.

**Hospital:** There is a hospital in the center of the traditional neighborhood. Residents in the neighborhood are able to reach the hospital from every corner in 15 minutes by walking.

The understanding of the site’s current land use helps with making a decision of future functions. The traditional neighborhood and the residential uses support each other mutually and corporately create a nice sense of livable environment. Thus to maintain the major residential land use is a necessary to protect the harmonious sense.

Education and hospital land uses are cooperating with the residential use thus are very reasonable to be kept.

Commercial use is sort of lacking in the site. Although people can always go to the surrounding commercial districts for shopping, some neighborhood scaled commercial services are necessary to enhance the degree of mix-use and help improve the convenience.
4. Building Types

a. Traditional Sihe Courtyards

In the west part of the site the Sihe courtyard type, which is commonly taken as the basic Chinese traditional residential unit, is still well kept. Many courtyards in the site still maintain in very good quality. Their spatial features, their symmetrical layouts, representative of Fengshui theory, and their human scale perfectly convey Chinese cultural essences. Their delicate decorations show high architectural values. Moreover, the Sihe courtyards still healthily serve as stages for the lives of Beijing’s citizens, thus helping the keeping and developing the unique sense of the area.
Therefore, to protect the collection of these traditional courtyards is the most significant way to preserve the precious sense.

Traditional Sihe courtyards and the architectural value (photos by author)
b. National Grand Theater

Extremely opposite to the traditional Sihe courtyards, National Grand Theater has a very contemporary style. The architecture might show some quality of being a nice monumental building. However, it definitely fails to give any good sense in respect to the surrounding urban environment. It broke the traditional urban fabric and even the symmetrical structure of the whole inner city. With a shockingly large shell-like dome covering more than 280,000 square feet, and a height of 150 feet, the architecture can be easily noticed even from a satellite photo taken from an altitude as high as 50 miles.

It has no indication of any traditional Chinese architectural features. The half-sphere shape not only worsens the overwhelming feeling coming from the over scale, but also to some extent offends some natives because the shape is quite similar to the tombs’ in China.

The inner city of Beijing is famous for its strong sense of orientation. However, the glaring half-ball and the water moat around it seriously break this sense and causes bad confusion of the orientation around it. The scale contrast it created also badly damage the original harmonious sense.

Thus how to reduce the negative impact the giant Grand Theater has brought is an important issue for improve the current broken urban environment.
Site Analysis

Illustrative Plan
(Source: http://www.nationalgrandtheater.com)

Bird’s View
(Source: http://www.nationalgrandtheater.com)

Illustrative Section (Source: http://news.tom.com)

The construction (photo by author)
c. The Shocking Gap

The huge gap between the building types of traditional neighborhood and National Grand Theater is where the most serious disharmony comes from. Thus bridging the gap becomes the most crucial point to reconstruct the harmony and bring back the good senses.
d. Other Building Types

There are also some medium sized architectures spotting in the traditional parts. Largest ones are located in the southeastern part of the site, south of the National Grand Theater property. One of them is an office building owned by a city owned power company. Most of others are apartment buildings serving the employees of that company. Along Changan Street, there are several 3-5 story office buildings owned by the Army.

Most of these building features are neither traditional nor very contemporary and don’t have enough aesthetic feelings. Moreover, they are dispersed on the site randomly and disturb the order of the urban fabric. Thus to reorganize them and redevelop some of them should help to ameliorate the environment.
Site Analysis

3D spatial analysis of the existing conditions
5. Open Spaces

The existing open space is very limited in the site. In the traditional parts, there is no formal open space such as parks or squares. The hutongs are now taken as open spaces. The rarity was decided by people's traditional life style in the past time. Originally local people's typical everyday life mostly happened in the Sihe courtyards, which served as semi-private spaces and was far from the open public area. Nowadays, with the fast development and the changing of people's lifestyles, more and more requests for open spaces are coming.

In the National Grand Theater site,
plenty of open space is provided, which could be considered as good resource to satisfy the need from the neighborhood. However, currently except the north entrance parts, most open spaces were planned as green spaces where the capability to afford people public life is very limited. The water around the architecture occupies a large portion of land and breaks the possible connection between interior and exterior open spaces.

Thus the improvements of the open spaces for both sides could be great opportunities of encouraging the fluent movement and enhancing people’s life quality.
6. Natural Quality

The existing nice natural quality in the traditional parts is mostly brought by the trees. Most trees are cooperated with the Sihe courtyards and Hutongs. They help make nice private outdoor spaces in the courtyard and create pleasant pedestrian environment in the hutongs. During the summer, they serve as nice canopies to help shade the strong sunshine. In the winter, sunlight can easily go through the trees and warm the environment.

The trees always serve as important landscape elements, which, together with the architectures and walls, reflect a unique sense which was described in...
one old saying about the inner city - half of the city are walls while the other half are trees. Trees also help break the simple skyline created by the architecture and make the urban landscape very lively.

Thus existing trees are real wealth of the site and deserve to be well protected and utilized. The tree as a main tool for landscape design should also be well considered.
7. Existing Plan

The site currently has a height limitation of 18 meters. It could serve as a good tool to control any new redevelopment if there is no any ‘special’ buildings as National Grand Theater proposed on the land.

On the current land use map of the Inner city, the land of this site is divided into 15 sections: 4 office sections, 2 residential sections, one commercial section, 3 recreation section, and 6 public green space sections.

However, the function distribution of this plan isn’t convincing at all. The office sections occupy the largest pro-
portion of the land. But from what is learned from the above analysis, there are no hints showing that there is certain demand of office use from the site. The residential land is no more than \( \frac{1}{4} \) of the original area and hardly able to take any responsibility to maintain the unique neighborhood sensed, not to say connect the traditional urban fabric for the large environment. The amount of green space is too much in terms of the land value in such a premiere location.

It is hard to tell the reasons for making this confusing plan. But it is definitely a sign of potential threats for the site. The transforming indicated in this plan could destroy the sense of the site or even the larger environment thoroughly. Thus a design under real understanding of the site and the context is urgently needed.
8. New Roads and Demolished Courtyards

From the beginning of 2007, two roads around National Grand theater property were proposed. The north-south one was proposed on Shi Bei Hutong and Bingbuwa Hutong, ending north at Changan St. and south at Qiansanmen St. The east-west road was proposed on the south of the Grand theater property. Both roads were planned mostly for serving the new theater. In order to build the roads, from May 2007, many traditional courtyards were demolished, including my childhood home. The precious historical and cultural value that accompanied them was also demolished. Many families had to leave their homes and neighborhoods where they had been living for many generations.

Nevertheless, some potential buildable land became available after the demolishing since the roads themselves didn’t really need to occupy all the land. Since these pieces of land are right in between the giant theater and the traditional neighborhood, thus become potential opportunities to make the transition.
IV. S.W.O.T. Conclusion

With the understanding from the analysis above, the S.W.O.T conclusion could be made.

S – Strengths
The premiere location, high cultural quality in and around the site, convenient living environment, good accessibility, great public transportation services, and precious harmony in the traditional neighborhoods can all be distributed into the category of strength.

W – Weakness
The irreversible impact from National Grand Theater, the loss of much of the traditional fabric, and the current lack of effective open spaces are the weaknesses.

O – Opportunity
The people and the activities the theater will bring the potential resource of more open spaces, and the available land for making the transition could be the opportunities to improve the site and bring back the sense.

T – Threat
The pressure of demolishing the traditional neighborhood, the invasion from the National Grand Theater and other large scale buildings to the traditional neighborhood, the possibility of losing the fabric continuity of the larger context, and the push of unconvincing plans. Other potential threats are everywhere.

The design proposal in the latter chapter will be focused on the issues about how to utilize the strengths of the site, overcome or reduce the weakness, take the opportunity to improve the site’s urban quality, protect the site from the further threats, and preserve and reconstruct the harmonious senses.
Chapter Three: Case Study

I. Renovation of Traditional Neighborhood

Yandaixiejie Renovation, Beijing, China

Yandaixiejie is a traditional Hutong in the Inner City of Beijing. It is very close to the bell tower and the Houhai Lake. Before the renovation, the neighborhood had faded seriously because of being over used and the lack of necessary remedy for years. The renovation very much improved the urban environment and infused more vigor while keeping the tra-
The ways for the renovation include preserving the historical court-yards, enhancing the architectural quality, demolishing improper structures, renewing the facades, and so on. Most of these methods could be applied to improving the traditional parts in the thesis site.

Looking west from Yandaixiejie (photos by author)

The neighborhood before and after the renovation
(Source: Architecture Research & Design Institute, Tsinghua University, Beijing, China)
II. Redevelopment in Traditional Neighborhood

Ju’er Hutong Redevelopment, Beijing, China

Ju’er Hutong is also in the Inner City. In this redevelopment project, Professor Liangyong Wu from Tsinghua University (Beijing, China) presented a new building typology which is similar to traditional courtyards. With the idea of organic renewal and the courtyard system, the project preserved the traditional urban fabric and the senses along with it.
The courtyards serve perfectly for the local people’s traditional everyday communication. The new building typology raised the density by allowing more up to five floors.

The terraced architectural style visually abated the scale contrast, thus the relation between the redevelopment and the traditional neighborhood become more harmonious.
III. Transition

1. Shanghai Xintiandi, Shanghai, China

Shanghai Xintiandi project is famous for its ideas of combining historic elements with modern construction. The north block of the site features rehabilitated historic courtyard homes serving as small retail stores while the south block was designed in a contemporary style. Although the architectural scale transition is still not ideal, the open spaces help connect buildings of different scales and create the harmony in some extent.

Model pictures and master plan (source: http://casestudies.uli.org/)
The new uses of the historical buildings help extend their lives, thus preserve the precious historical value, which attract many people and correspondingly make the site very vivid.

The architectures with traditional scale limit the visual impact from the surrounding high-rise buildings. Nice open spaces and structures between old and new also help creating the transition.
2. Ningbo Laowaitan, Ningbo, Zhejiang Province, China

Laowaitan is a recently restored area in Ningbo, Zhejiang Province, China. It sits at the junction of the city’s three rivers. Many historical buildings in the site were preserved in different ways. Thus a nice representation of the place’s evolution was made. Similar with Shanghai Xintiandi, by combining the contemporary use with the historical structures, the project also attracted many people thus infuse the place much vigor.

Site model pictures (photos by Jia Zhang)
The transition was made by the new architectures with certain traditional elements. The materials help people distinguish the difference thus make the evolution visible.

The buildings on the boundaries are more contemporary while still indicating traditional symbols. The invention works well for making the architectural transition.

The courtyard style well represents the historical sense of the place. The open space combined with the preservation nicely organized the environment around.
Chapter Four: Proposal

I. Goals

As the thesis title was stated, the ultimate goal of this proposal is to create well-being urban environment in the site, thus preserving and reconstructing the inner city’s typical harmonious senses. The substantial goals include:

1. Preserve the precious harmonious neighborhood senses by well keeping and improving the nice traditional urban environment.

2. Reduce the bad influence from National Grand Theater, create a necessary sense of orientation, and make a better connection between its interior and outdoor public spaces.

3. Bridge the gap between National Grand Theater and the traditional neighborhood, make a good environment and function transition, thus reconstructing the harmony.

4. Improve the whole open space and pedestrian system, create convenient accessibility, and guide the movement.

5. Guide the future redevelopment, prevent potential threats by giving constructive suggestions looking both at larger picture and the focused area.
II. Master Plan

1. Main Structure

The site is divided into three categories: Sense Preservation, Sense Reconstruction and Future Redevelopment.

All existing traditional neighborhood areas are in the Sense Preservation category, for which the strategies will be focused on preserving the unique well-being senses.

The two new roads and the land available around them, as well as the National Grand theater property are put in the category of Sense Reconstruction, for which the ways to recon-
struct the broken relation and harmony will be considered.

The area along Changan St and the area at southeast of the site, where some medium scaled buildings are located, are distributed in Future Redevelopment category, for which constructive suggestions will be given to allow the reasonable development while preventing the potential threats.
2. Sense Preservation

Preservation here doesn’t mean to protect the tradition neighborhood statically and rigidly. What this proposal is trying to approach is a dynamic and sustainable preservation, which means while preserving the precious value of the existing environment, to seek for reasonable and beneficial changing corporative with the original nice senses. The considerations are mainly on four aspects: function, courtyards, hutongs, and open spaces.

a. Function and Density

The physical urban environment and the senses along with it are tightly connected with people’s lives and activities. In order to preserve the unique senses of the traditional neighborhood, keeping people’s typical lives and activities in the area is necessary. Thus mainly maintaining the low-density residential function of the preservation part is a prerequisite.

However, with the low density, the traditional neighborhood is always facing the threats of being redeveloped to get more economic profits. The perseverance of conserving the precious urban senses is always needed since once the senses are demolished, the damage will be irreversible. The high value of the unique traditional urban senses carrying hundreds of years’ history deserve some loss of the current profits.

Although the loss of density profits is necessary to preserve the precious sense, some ways to compensate the economic bonus could be considered. The traditional cultural value could be used to generate some economic profits. For instance, the old courtyard-style hotels, the Hutong touristy routes, the traditional fam-
ily-style restaurants, small retails and so on. All these on one hand have no conflicts with the main function and density requirement, on the other hand could be great interests of the site and potentially bring the economic benefits.

b. Architecture

Sihe courtyards are the basic units composing the whole urban environments as well as the senses of order, congruence and harmony. Many courtyards in the site still stay in very good quality and keep the high architectural quality.

However, some courtyards are declining along the time or because of being over used. Thus some remedy or replacing should be considered. The remedy is actually economically feasible since a well maintained traditional courtyard in the inner city is very rare and welcome. The replacing is more risky however sometimes is necessary.

With right ways, the reasonable density raising can be considered. The invention of Ju’er Hutong mentioned in case study chapter could be applied to the replacing.
The experience could also be used on the land where the density is already higher.

Both remedy and replacing should follow the principal of making the changes visible and reversible in order to show the evolution and to reduce the risk of making permanent mistakes.

c. **Hutongs**

Hutongs are shaped by courtyards, thus their preservation is along with the courtyards. Some more improvements could be considered about while preserving. For instance, space along the north of the architectures can be used to abate the parking pressure; south of the architectures can be uses for planting because of the nice sunlight resource; the current solid road surface can be changed to permeable surface and cooperating with bioswales to help collect the water.
d. Open Spaces

The existing open space system is mostly built up by hutongs. People use hutongs for many activities as chat, play Chinese chess, walk their dogs and so on. Children also play in the hutongs. The multiple functions of hutong work together very well in this narrow and linear space. This intriguing typology is worth to be preserved because of its sense of identity.

However the lack of formal open spaces is apparent. Limited by the land availability, the possibility to provide more open spaces in the neighborhood is very low. The potential improvements could be thought of include opening some courtyards with public functions or suggesting coming remedy or replacing bring some open spaces.
3. Sense Reconstruction

a. Partitions

According to the characters of the different parts, the areas in this Reconstruction category is divided into three partitions:

- **Transition partition 1**: The new north-south road over original Shibeii Hutong and Bingbuwa hutong and the available lands along it.

- **Transition partition 2**: The new east-west road on south of National Grand Theater property, plus the available lands on the south side.

- **National Grand Theater partition**: Within the National Grand Theater property, mostly the land on the west and south of the architecture and the water poor.

General ideas for these partitions are given in this Master Plan part considering the big picture of the whole site. More detailed ideas will be given in the latter Detailed Design part, since this reconstruction category is where the most inventions can be made.
b. Transition partition 1

The main aim of designing this partition is to build good transitions between the traditional fabric and the National Grand Theater. Buildings with medium scales are proposed on the available lands along the new road. The building scale thinking can be illustrated by the diagram (fig. xx). Under the height limitation of 18 meters, the choices could be made from between maintaining the traditional courtyard scale and building cube style boxes to fully use the limitation.

However, the two polar choices are not suggested since neither of them help bridge the huge scale gap. The previous one can hardly help shade the overwhelming influence from the giant new building, while the latter one makes new contrast between the new building themselves and the traditional courtyards. Thus a step-up style becomes a reasonable way to best solve the problem and make the architecture transition.

Commercial, recreation, touristy functions are added to the building in order to attract potential people resources brought by National Grand Theater, thus generate the economic profits and make the area more active.
A shift of the new road’s center line toward National Grand Theater is proposed. By doing this, the pedestrian along the new buildings is widened to 25 feet, which forms an transition belt between small hutong space and large space around the theater. The dimension is easy for planting double lined street trees, which help create a soft visual shade between the two sides and serve as nice transition too. More intersections of hutongs and the pedestrian help increase the accessibility from inner traditional parts to the public area and also better represent the traditional street pattern and the sensed with it. Existing trees are mostly preserved in the courtyards proposed in the architecture.
c. **Transition partition 2**

This partition is adjacent to the land where buildings with higher density and large scale are. Also the partition is on the north of the other residential parts thus has no sunlight shading problems. Therefore larger buildings as high as 12 stories are proposed to generate higher density. The buildings can also help block the overwhelming views from the giant theater. From the other side, looking south from the theater’s main entrance, the buildings also form a vivid background for the theater.
d. National Grand Theater Partition

Structures are added to break the strong and monotone view from the giant architecture, help divide the open space into smaller parts thus increase the sense of human scale and variety and help reconstruct the sense of orientation.

The multi-functional open spaces compensate the lack in the traditional neighborhoods. The interior open space of the theater is also included in the whole system, which supports fluent movements and creates nice connections between sides of the super block.
4. Future Redevelopment Suggestions

Although the main attitude of preserving the neighborhood should be always insisted on, some potential future redevelopment may happen in or close to the traditional fabric. The southeast area of the site and the area along Changan St are the two most possible changing parts. To avoid potential threats from the transforming and guide the redevelopment, some constructive suggestions are needed.

a. Southeast Area

As stated in the analysis chapter, the buildings in this area have a larger scale with few traditional features. However it is unrealistic to replace the area with the ideal urban type. Some constructive suggestions for the future include:

1. Propose a north-south axis from the theater to the south.

2. Make an opening on the existing office building to allow north-south pedestrian movements and give possibilities to allow the axis to be extended to the traditional neighborhoods south of the site.

3. Replace the small apartment buildings around the two apartment towers with another new tower, which could provide more housing units and help enhance the symmetrical feeling from the axis.
4. Replace the two 5-story apartment buildings on the north of West Jiaominxiang with one apartment building combo, which could give more units and shape a better courtyard.
b. Area Along Changan St

Along Changan Street, most buildings are built with a large scale. Thus the pressure of redeveloping the area is understandable. However, since the site is right opposite Zhongnanhai where the central government is located, the possible building scale is limited. An acceptable scale of 5 stories is represented by the office buildings owned by the army. This scale is actually not that harmful to the inner traditional neighborhood. Some suggestions could help make the environment more harmonious:

1. Propose a north-south path towards the gate of Zhongnanhai, which is a wonderful imperial-era architectural piece. The path is connected with the north end of a hutong in the traditional neighborhood.

2. Use courtyard type to arrange the building layout in order to create senses congruent with the traditional ones and also protect the existing trees. The stepping-down massing style can help create good relations with the traditional courtyard scale.
5. Master Plan Summary

With most traditional parts being preserved, the site will be well keeping with the typical Beijing historical senses. The transitional architectures, added structures to the National Grand Theater, and the future redevelopment will act together to protect the preserved parts, abate the overwhelming impact of new development, enhance the sense of orientation, and thus improve the urban environment.
The hutong open space preservation can help maintain local people’s typical life style. The coming more open spaces with multiple scales can satisfy needs of people’s contemporary lives. All the open spaces are integrated in a system encouraging fluent movement and various activities. Thus the wholeness and vivid senses are improved.
III. Detailed Design - Sense Reconstruction

As mentioned above, the detailed design part will be focused on Sense Reconstruction. The three partitions will be treated differently to approach the goal of bridging the gap, making pleasant transition and thus recreating the harmonious sense.

For the two transition partitions, several sections will be discussed, as well as the corresponding building types. For the National Grand Theater partition, three suggestions for main improvement areas will be given.
1. Transition Partition 1

a. Sections

**Typical Section**

Most available lands in Transition Partition 1 have a typical depth of 60 feet. The proposal suggests the architecture be shorter than 4 stories and with a massing stepping down towards the traditional urban fabric. The pedestrian area on the west side of the street has a width of 25 feet and is divided to two parts, 16 feet close to the architecture as main pedestrian and 9 feet for tree line and small retail structures. Another tree line is designed along with street parking. Two tree lines and the retail structures also serve as complements to the architecture to make the transition.

Transition Partition 1 typical section

Transition Partition 1 roof plan of a land with typical depth
Rongxian Hutong Corner Section

The largest land in this partition, which has a width of 130 feet, locates at the northeast of the intersection of Rongxian Hutong and the new road. The stepping-down architecture style is still suggested here; the highest part of these buildings is allowed to be 5 stories. A courtyard is proposed to protect the existing trees. A larger open space is provided for the public use and also is connected to the open spaces in the theater property.
b. Building Types

The use of the building is a mix of retail, residential and parking. For buildings with typical scale, the ground level is suggested to be retail space with a height of 15 feet. For the larger building, two levels are provided for the retail or public use. Although driving is not suggested in terms of the surrounding good public transportation services, a small amount of parking is proposed at the back of houses. Courtyards and roof gardens are commonly suggested to provide people nice living and public environment.
2. Transition Part 2

a. Section

In this partition along the sidewalk on north, more street parking is proposed to satisfy needs from the coming residents. On south of these buildings, a back alley and medium scaled courtyards with existing trees are suggested as services for the residents.

b. Building Type

The ground level of the buildings is allocated for retail or public uses while all other levels above serve for residential use. Underground parking is proposed to satisfy the potential needs.
3. National Grand Theater Improvements

Three glass towers are added to the theater shell. They are all on top of underground interior spaces and can serve as emergency exits. A bridge is also added to connect the towers and the outside open spaces. People can enjoy the street views of the other side on the bridge.

These added structures not only help break the overwhelming visual impact from the giant building but also enhance the senses of orientation. The integration of interior and outdoor open spaces can provide people nicer experiences of moving fluidly and enjoying the intriguing views.
In the southwest part of the theater property, instead of accepting the current plan with most open space covered by green, a plaza is proposed. The plaza is adjacent to the surrounding residential neighborhood and has very good accessibility.

Different from the main entrance plaza’s public use for all people, this smaller plaza mostly serves to the neighborhoods as an open space for people’s everyday life. It should be a place where people can walk after dinner, children can play and senior people can do exercise.

A crescent-shaped shelter is added on the plaza for people to rest in or to help break the winter winds.
On the south of the theater, a subsiding plaza is proposed. The plaza is combined with the exits of the theater, thus also helping to organize the theater’s interior and outdoor open spaces.

This place could also be used as an outdoor theater. An overhead structure is added to shape the space and also enhances the senses of orientation. It acts as another visual focus on the extension of the proposed axis in southern future redevelopment site, thus helping to make the axis more perceivable.
IV. Perspective Renderings

Vision 1: Looking north from the roof top of the new proposed apartment building in transition partition 2.
Vision 2: Looking south from the roof top of the proposed building in the very north of transition partition 1
Vision 3: Walking on the proposed pedestrian along new north-south road
Vision 4: Looking east from a hutong
Vision 5: Driving towards the National Grand Theater on Rongxian Hutong
Vision 6: Walking north towards National Grand Theater on the proposed axis of Southeast future redevelopment
Chapter Five: Conclusion

Sense about a city, although hard to be physically described, is perceived by us, human-beings, also the creator of these urban environments, for almost all of our history. Beijing, especially its inner city, as a wonderful historical and cultural city, an s universally appreciated for its unique urban environment and its harmonious senses. However, the fast development of the whole country inevitably brought huge impact upon the city. The harmony was continuously damaged by the demolishing of the traditional urban environment and the constructing of new large-scale buildings.

With the appreciation of the city’s original senses and the regrets of losing them, this thesis set the aim of preserving and reconstructing the harmony in the areas around new large-scale constructions.

The chosen site around the giant new architecture of National Grand Theater had most of the typical problems. The analysis of the site focused on understanding the site’s strengths, weaknesses, and opportunities as well as the coming threats to it. Several precedents were studied to understand applicable ways of dealing with these issues.

Goals for the projects were then made according to the analysis: preserve the existing traditional
urban environment, ameliorate the environment in National Grand Theater property, make a transition between old and new; improve the open space system, and prevent the potential threats by guiding the future redevelopments.

The proposal sought for approaching the goals from two levels: a master plan and a detailed plan. In the master plan, the site was divided into three categories: Sense preservation, Sense reconstruction and Future redevelopment. Correlative ideas were given to each category. The detailed plan focused on developing the ideas for the Sense reconstruction category. Three partitions were made in this area according to their features. Multiple ideas were given to reach the goals of reconstructing the broken harmony.

These visions made at the last conveyed beautiful wishes to the site as well as the similar areas in the inner city. Harmony, as the city’s identifiable sense, should always be taken as a treasure, well kept and developed.
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