CONTEMPORARY DESIGN TYPOLOGY PROVIDED
BY TRADITIONAL CHINESE GARDEN DESIGN PRINCIPLES
ON A SITE IN CHICAGO’S CHINATOWN

A CREATIVE PROJECT
SUBMITTED TO THE GRADUATE SCHOOL
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE
MASTER OF LANDSCAPE ARCHITECTURE

BY
JUE WANG
MALCOLM CAIRNS, COMMITTEE CHAIR

BALL STATE UNIVERSITY
MUNCIE, IN
July 2016
ACKNOWLEDGMENT

Foremost, I would like to express my sincere gratitude to my committee chair Prof. Malcolm Cairns for the support of my study and research, for his patience, motivation, enthusiasm, and immense knowledge. His guidance helped me in all the time of research and writing of this creative project.

Besides my committee chair, I would like to thank the rest of my committee: Prof. Joseph Blalock, Prof. Bo Zhang, for their encouragement, insightful comments, and hard questions.

My sincere thanks also go to Prof. Jody Rosenblatt-Naderi, Prof. Meg Calkins, Prof. Miran Jung Day, Judy Wand, and Marilyn Davis for their inspiration and help in study, work and life.

I would also like to thanks to Barth Hendrickson, Drew Braley, and Bonnie Roy for offering me the summer internship opportunities in their groups and leading me working on diverse, exciting projects.

I thank my fellow in the studio for the stimulating discussions, for the sleepless nights we were working together before deadlines, and for all the fun we have had in the last three years.

Last but not the least, I would like to thank my family: my parents Jun Wang and Bo Gao, for giving birth to me at the first place and supporting me spiritually throughout my life.

ABSTRACT

Over thousands of years of history, the Chinese garden has formed its unique style. For a time, it was well known all over the world. But due to WWII and the Chinese cultural revolution, the Chinese garden declined and kept silent for almost 100 years. It was so long that people nearly forgot about the existence of the Chinese garden. Since Beijing held the 2008 Olympic Games, the country started to construct new buildings and landscapes everywhere, which allowed the Chinese garden to be revitalized and redeveloped in the contemporary era. However, the revitalization is full of challenges.

People praised the newly constructed landscape features while criticizing some of the designs. The intense collision between tradition and modernity causes wide discussion. People sometimes think the designs completely mimic the ancient Chinese garden which is incompatible with modern urban contexts. And some of the designs were partially taken from the typical Chinese garden but don’t seem to fit into the urban textures. Also, there are some successful abstraction and simplified products that people feel express the spirit of traditional Chinese gardens. So in fact, there are no rules or guidelines that tell designers what to abandon and what to preserve, which leads to the confusion of the new design. Generally speaking, the Chinese garden has not found a way to adapt to western settings or modernization.

This creative project will provide a fresh, and contemporary design typology which is adapted to contemporary urban context, that also shares the hybrid design strategy of traditional Chinese garden design principles and modern design principles. Through the research of Chinese garden history, analysis of ancient and contemporary examples, comparison of successful and unsuccessful cases, I seek to create a demonstration site that embraces a culturally-rich urban context. The significance of the project is to stimulate the traditional aesthetics and awake in others the dim memory of the Chinese garden.
| Figure 2.1 Chinese garden paintings | 15 |
| Figure 2.2 three seas | 20 |
| Figure 2.3 bank of China, Hong Kong | 20 |
| Figure 2.4 timeline of Chinese garden history | 21 |
| Figure 2.5 Kongzi | 23 |
| Figure 2.6 Laozi | 23 |
| Figure 2.7 windows in traditional Chinese garden | 45 |
| Figure 2.8 moongate shapes in traditional Chinese garden | 47 |
| Figure 2.9 timeline of Chinese immigration history | 49 |
| Figure 2.10: Chinese population % in U.S. states (Year 2000) | 50 |
| Figure 2.11 population and founded year of Chinatown | 51 |
| Figure 2.12 Summer Palace | 53 |
| Figure 2.13 Seventeen-Arch Bridge | 54 |
| Figure 2.14 the Small Flying Rainbow | 56 |
| Figure 2.15 the Humble Administrator’s Garde | 56 |
| Figure 2.16 the garden plan | 57 |
| Figure 2.17 the park master plan | 58 |
| Figure 2.18 rock and pine | 59 |
| Figure 2.19 suzhou museum | 60 |
| Figure 2.20 moongate garden | 62 |
| Figure 2.21 moongate | 62 |
| Figure 2.22 Temple of Heaven | 63 |
| Figure 3.1 fengshui of hills, buildings and water features | 65 |
| Figure 3.2 two approaches, physically and spiritually | 65 |
| Figure 3.3 the basic framework of Chinese garden | 67 |
| Figure 3.4 the framework of designing a Chinese garden | 66 |
| Figure 3.5 cultural symbol-moongate | 68 |
| Figure 3.6 contemporary strategies | 69 |
| Figure 4.1 Chicago’s Chinatown | 73 |
| Figure 4.2 land use around site | 74 |
| Figure 4.3 connections around site | 75 |
| Figure 4.4 site existing condition | 77 |
| Figure 4.5 site analysis-from south | 79 |
| Figure 4.6 site analysis-from north | 81 |
| Figure 4.7 site analysis-opportunity and constraints | 83 |
| Figure 4.8 goals and objectives | 85 |
| Figure 4.9 master plan | 87 |
| Figure 4.10 site plan and section | 89 |
| Figure 4.11 analysis-fengshui | 90 |
| Figure 4.12 site plan | 92 |
| Figure 4.13 analysis-spatial articulation | 93 |
| Figure 4.14 analysis-spatial framework | 94 |
| Figure 4.15 spatial framework | 96 |
| Figure 4.16 analysis-thematic units | 97 |
| Figure 4.17 analysis-scenic views 1 | 99 |
| Figure 4.18 analysis-scenic views 2 | 98 |
| Figure 4.19 new design framework | 100 |
| Figure 4.20 SCLM | 102 |
| Figure 4.21 planting list | 103 |
| Figure 4.22 entrance plaza | 106 |
| Figure 4.23 lotus pond | 108 |
| Figure 4.24 playground | 110 |
# TABLE OF CONTENTS

Chapter 1. Project background and Introduction  
1.1 Project Statement  
1.2 Questions  
1.3 Parameters  
1.4 Assumption  
1.5 Delimitation  
1.6 Methodology  
1.7 Significance  

Chapter 2. Literature Review  
2.1 Chinese Garden History  
  History of Chinese Garden  
  Ethics and Philosophy of Chinese Garden  
2.2 Chinese Garden Design Principles  
  Composition and Design Principles  
  Construction Guidance and use of Elements  
2.2 Chinatown in United States  
  Chinese immigration in United States  
  Chinatown in United States  
2.3 Case Study  

Chapter 3. Design Framework  
3.1 Two Approaches  
3.2 The Framework  
3.3 Hybrid Design Strategy  

Chapter 4. Design Demonstration  
4.1 Site Background-Chinatown in Chicago, IL  
4.2 Site Inventory and Analysis  
4.3 Goals and Objectives  
4.4 Design  

References
CHAPTER 1 PROJECT INTRODUCTION

1.1 PROJECT STATEMENT

Chinese gardens reveal a high level of artistic achievement in a characteristic style. They have an important position in the history of gardens of the world, for not only did they influence the construction of gardens in many countries of Asia, including Japan, but also, in the late Eighteenth Century, they had a definite effect on garden planning in England and other countries of distant Western Europe. Re-flourishing the artificiality as well as the natural beauty of the Chinese garden and adapting the traditional design principles to a culturally rich urban context is an imperative step.

However, the Chinese garden is not as well known as the Japanese garden today. According to the Encyclopedia Britannica, “Japanese gardens were developed under the influences of the Chinese gardens.” But “it gradually began to develop their own aesthetics based on material and culture. And by the Edo period (1615-1867), Japanese garden had its own distinct appearance” (Michel, Les Jardins, 466-479). Since the end of the Nineteenth Century, the Japanese garden has also adapted to Western settings. However, in the same period, the Chinese garden didn’t adapt to Western settings rather it suffered from wars and revolutions.

We could blame this on wars, but it is more related to the form of the Chinese garden itself. It doesn’t go with the city texture comfortably. Thus, the Chinese garden was kept silent for almost 100 years. It was so long that people nearly forgot about the existence of the Chinese garden. In 2001, Beijing got the chance to hold the 2008 Olympic Games, and since then Chinese landscape architects began to construct new buildings and landscapes across the country. This situation allows the Chinese garden to be revitalized and redeveloped in the contemporary era. However, the revitalization is full of challenges.

The newly constructed landscape features were both praised and criticized. The intense collision between tradition and modernity causes wide discussion. Some people think the designs completely mimic the ancient Chinese garden and that this is incompatible with modern city contexts. And some of the design is partially copied from the typical Chinese garden but doesn’t fit into the urban context. There are also some successful abstractions and simplified products that people feel express the spirit of traditional Chinese gardens. So in fact, there are no rules or guidelines that tell designers what to abandon and what to preserve, and this leads to confusion in the new design. Generally speaking, the Chinese garden has not found a way to adapt to western settings or modernization.

So many scholars and experts have been working hard for the revitalization of the Chinese garden, and a lot of good works have come out of realizing this significant goal. Most of the experts and scholars are accustomed to finding answers from history and old books, including Bianca Maria Rinaldi, as the editor of *The Chinese Garden: Garden Types for Contemporary Landscape Architecture*. She is the first person to write a book that addresses the significance of utilizing traditional wisdom to inspire today’s design. In the book, she not only learns from history but also gives us some valuable and fresh ideas about the potential developing direction for the neo-historical garden:

If the neo-historical garden seems destined for further development, due also to the wider knowledge of the gardens of ancient times that archeology has uncovered, an intriguing development, parallel to but distinct from this revival of historicist taste, is the re-visititation of tradition in contemporary way. It rather suggests that some compositional elements and principles of Chinese garden design are now reconsidered as bearers of modernity, and applied and readapted as such to contemporary landscape design. (118)
As to the method of how to apply the traditional rules into the contemporary urban environment, Rinaldi also said:

The garden respects the traditional rule of a composition in episodes, and integrated explicit references to historical garden without making concession: the language is generally that of the tight abstract geometry characteristic of contemporary projects. Many gardens and open spaces created in the last decades have designs tending toward the geometrical and marked by the repetition of certain elements. These traits indicate the desire to link the new gardens and open spaces with the regularity of the urban context in which they are situated; at the same time, their plans, incisive and essential in their design, clearly speak of a sense of modernity. This decidedly new approach does not exclude tradition, but rather favors new forms of hybridization. (119)

This creative project aims to provide a fresh contemporary design typology which adapts to contemporary urban contexts, and also shares the hybrid design strategy of traditional Chinese garden design principles and contemporary design principles. Bianca pointed out an approach that does not exclude tradition but rather favors new forms of hybridization. As the most essential part, this article will emphasize the research process of the opportunity of hybridization.

1.2 QUESTIONS

Main Question:
How to apply the traditional design principles of Chinese garden into the contemporary landscape circumstance and make the design adapt to modern urban context?

Sub-Question:
• How are traditional design principles used in ancient dynasties?
• How many different types of design performance are used in traditional garden design?
• How to make the traditional rules work in modern urban circumstance?
• How to make the culturally-rich urban context and the fresh contemporary design affect each other?

1.3 PARAMETERS

This project is intended to explore the method for developing a Chinese garden in an urban context. The main outcome of this project is the design typology of a Chinese garden. Exploration of traditional design principles and its adaptation utilization in contemporary landscape architecture is another outcome that could be used for reference by others.

1.4 ASSUMPTIONS

Considering the context and condition of the structures at the site, this project assumes that the structures can be restored and retrofitted to accommodate all proposed site programs. The existing building on the west side of the site is expected to be removed. The site is a private property. This project assumes that the community will embrace this redevelopment and design proposal as a public place where diverse people can come together.

1.5 DELIMITATION

This project has limitations because of time and resources. First, this project advocates for participatory planning but only had limited access to community members for suggestion collection. The reason for this is because the geographical location of the
is far away from Ball State University, and the site inventory was developed during the course of the academic year.

1.6 METHODOLOGY

Case Study: A case study is a key to this project. The research on ancient and contemporary examples, successful and unsuccessful examples, comparison of national and international examples, will all be help with figuring out the best adaption design strategy.

Site Observation: the observation will cover not only the site, but also the surrounding area, including adjacent structure’s appearance, the transportation options and parking, the infrastructure system integrity, landscape architecture performance. All the existing structures and facilities will be potential elements that relate to the redevelopment process.

1.7 SIGNIFICANCE

This project is a continuous exploration of the classical design in the past and aims to find a suitable design strategy for modern cities. The project will provide a fresh contemporary design typology which adapts to contemporary urban contexts, and also shares the hybrid design strategy of traditional Chinese garden design principles and contemporary design principles. The result of the project will help designers find the best adaptive method to hybridize tradition and modernity. This adaptability will not only satisfy people’s demand for culture but also take advantage of tradition to balance the quality and quantity of the dense urban space. Limited and expensive urban land use is always an issue for cities. However, the land use in a Chinese garden is extremely efficient. One of the reasons is that the garden could create unlimited and endless views in a limited space. This satisfies the demand of urban residents, who live in the high-density urban environment and want to have as many green spaces as possible.
CHAPTER 2 LITERATURE REVIEW

The literature review mainly focuses on two parts: the Chinese garden and American-Chinese immigration. In the first section, the literature review reviews the history of China and its relationship to the Chinese garden. Ethics and philosophy and classical design principles are also introduced in this part. Then the paper will examine Chinese-American immigration, including the history of Chinatown. The literature review will provide sufficient evidence to design motivation and guide the following redesign process. Finally, this project will offer a new Chinese garden design philosophy for the contemporary era.

2.1 CHINESE GARDEN HISTORY

The Chinese garden is a landscape garden style that has evolved over 3,000 years. According to Michel Baridon’s description in Les Jardins - paysagistes, jardiners, poétique, the Chinese garden “includes two types of gardens. One is a vast garden for Chinese emperors and members of the imperial family, built for pleasure. The other is more intimate gardens created by scholars, poets, officials, and merchants, made for escape from the outside world” (348). Commonly, these two types of gardens can both be treated as a miniature landscape that interprets the harmony between human beings and nature. Simply speaking, the Chinese garden is a composition of artificiality and naturalness.

![Chinese garden paintings](image)

The representative Chinese gardens are mostly positioned in Jiangnan district in south China, which includes the city of Suzhou, Hangzhou and Yangzhou. Among these cities, Suzhou is outstanding for its achievement in garden design. Records of the 21st Conference of the UNESCO World Heritage Committee, describe the classical Chinese garden design and the gardens of Suzhou:

A typical Chinese garden is enclosed by walls and includes one or more ponds, rock works, trees and flowers, and an assortment of halls and pavilions within the garden, connected by winding paths and zigzag galleries. By moving from structure to structure, visitors can view a series of carefully composed scenes, unrolling like a scroll of landscape paintings.

(par.8)
From the brief summary of the Chinese garden, it’s not hard to identify the indispensable factors that compose a Chinese garden. It’s like unrolling a scroll of landscape paintings. All the elements appearing on the paintings aim to express the flowing feelings of harmony with nature and humanity. However, some people may still wonder why and how the Chinese garden formed its style and stands out in all types of gardens. To answer this question, we must go back to the long history of China. In fact, every composition and element presented in the Chinese garden originated from different dynasties in history.

HISTORY OF CHINESE GARDEN:

The Chinese garden in Old Times

The history of the Chinese garden can be traced back to BC 221. The first Chinese emperor in history Qin built the Qin Dynasty. Before Qin, gardens or parks were mostly built for hunting. During the Qin and Han Dynasty, the purpose of parks and gardens were to collect various creatures and merge the cultural and spiritual idea from society. Spiritual ideas originated from various theories that dominated the country. One of the most well-known philosophy was Confucianism. Daoism was another popular one. Nobody anticipated that in the following thousands of years, Confucianism and Daoism would become the main trends in spiritual expression in gardens.

The end of the Han dynasty led to the dissolution of the empire and general political instability under the Six Dynasty (220-589). And as a reaction to the political change, “paintings of nature, architecture and the art of the garden were pervaded by an aesthetic of detached elegance and simplicity…private gardens were intended to express the Daoist tendency to evade the complexity of daily life” (qtd. in Rinaldi 16).

The greatest achievement during the Sui dynasty was the Grand Canal, which is an artificial water system connecting Beijing and Hangzhou. The Grand Canal is still used today. It significantly improved the use of water and the quality of life. The Tang dynasty was the golden age of classical gardens. It was a flourishing period in the history of culture as gardens, arts, poetry and painting developed quickly. “The parks of the Tang emperors imitated some features of the gardens of preceding dynasties, thus legitimizing their rule. Like the parks of the Qin and Han, the Tang imperial gardens were huge and contained cast collection of plants, both native and exotic, fruit of institutional practice of sending tributes to the imperial court from the provinces of the kingdom, their transport now being facilitated by the Grand Canal” (qtd. in Rinaldi 18).
As a central element of gardens, water continued to be incorporated in the design. In the late period of Tang, a widespread aesthetic interest in rocks taken out of lakes or rivers, or quarried in the mountains contributed to the coming flourish of rock compositions, which became a specific design element in Chinese gardens. Interest in rocks continued and exploded in the Song dynasty. Genyuan was a vast park created in the period of Northern Song. It is presented as the central scene in the evocation of technical rock composition and famous natural landscape. Huizong Emperor, an energetic collector of rocks, trees and exotic plants, presented his collection in this imperial park. He set up a special office which was called the “flower and rock network” in Suzhou to search and transport rare geological and botanical specimens. All of the collections were transported by ship on the Grand Canal to the capital, to enrich Genyuan’s collection. Additionally, during this period, “the class of scholars emerged as the defining elite of intellectual enlightenment. Literati and high officials were the great creators of gardens in this period, to the degree that the Chinese garden got its imprint as a scholarly icon” (qtd. in Rinaldi 20). The following Yuan dynasty was not a great garden-builder. But the founder Khan, built Dadu, “The Great Capital”, on the site of what is now Beijing. And it was there he began creating what later became part of the so-called Beihai and Jingshan park.

The Ming period was marked by a strong centralization of power in the emperor. Political centralization also found expression in urban construction. The Forbidden City and the Three Seas were built during this period. Ming sovereigns were not great builders of new parks. Private gardens flourished in all the main cities during their domination. Gardens were not the proprietary luxury for intellectuals and officials anymore. South of the Yangtze River, because of the strong economic expansion, rich merchants began to make gardens to beautify their urban residences. It was in this period, the first theoretical work on Chinese garden art appeared, published with the title Yuanye, The Craft of Gardens. Rinaldi comments on this book, “It was a compendium of compositional principles and planning techniques (25).” This practical three-volumes manual, dated 1634, was the work of Ji Cheng.

The Qing Dynasty showed great vivacity in keeping the tradition alive until late Eighteenth Century. In this period, the garden design developed differently in the north and south. The reason can be found in climate. The dry and cold weather in the north limited the range of building materials and gave birth to a solid and sober style. The southern climate is humid and milder, and their gardens were more graceful, open and luminous. Due to the dense population in this period, the private gardens were created with compositional techniques that enabled a great variety of visual effects within the limited space. Rinaldi addressed that “the secret of achieving rich diversity was a series of means to deal with the garden’s visual segmentation by offering a sequence of different view (26)” Qianlong Emperor was a true collector of landscape. He loved the southern gardens, so he made others imitate the west lake in Hangzhou and created the now famous Summer Palace. He also copied the outstanding private gardens in Suzhou, Hangzhou and Yangzhou, set them up in his imperial gardens. The greatest achievement in the Qing dynasty was the refinement of all types of gardens. And under the influence of emperors, the Chinese gardens reached the highest level in history. But unfortunately, in the late Qing, a series of aggressive wars occurred. China, with the Chinese garden, had to face their fate of decline.

**The Chinese garden in Modern Times**

There were two reconstruction works of the Summer Palace during wartime. The imperial gardens over time had become the persistent emblem of the Chinese empire itself. Afterward, “the president of the new Republic settled down in the area of the Three Seas, west of the Forbidden City, where his residence and government offices were placed in the southern part of the park. From that moment, the area was separated from the northern-most lake, Beihai, which together with the surrounding green area was
separated from the northern-most lake, Beihai, which together with the surrounding green area subsequently became a public park. Other imperial parks were transformed into public parks” (qtd. In Rinaldi 32). After the establishment in 1949 of the People’s Republic of China under Mao Zedong, “the few newly created parks and gardens had a mainly utilitarian character and were rigid and monumental design. No longer considered as a cultural patrimony, some historical gardens were destroyed between 1966 and 1976 during the Culture Revolution” (qtd. in Rinaldi 34). It was only around the 1980s that the historical tradition of the gardens began to be appreciated and studied, and was recognized as a powerful contribution to the Chinese culture. The admirable example was the small garden designed for the Bank of China by Architect I. M. Pei. The use of steel and glass on towers is an interpretation of garden rocks and waters, reinterpreting the traditional stylistic elements in entirely new forms. On August 8, 2008, the opening ceremony for the Olympic took place in Beijing, the stadium built for the occasion by Swiss architects Jacques Herzog and Pierre de Meuron, with the participation of Chinese artist and architect Ai Weiwei, was transformed into a global stage for Chinese history and culture.
From the above history timeline, it can be inferred that the Chinese garden kept developing until the Qing Dynasty. From the Qin dynasty to Qing dynasty, the classical Chinese garden completed all its evolution spiritually and physically. Most of the classical design principles were formed during this period and are still used today.

After the Qing dynasty, since the incessant wars, the Chinese garden got almost no progress and development under capitalistic globalization. This situation lasted until 1978, when a revolutionary policy was applied to China and the nation started to look beyond their borders and catch up to other well-developed countries. In 1982, the small garden designed for the Bank of China by Architect I. M. Pei demonstrated a classical Chinese garden that also possessed the ability to adapt to modern urban textures. The reinterpretation of the ancient language was rewritten in entirely new forms. People then realized the power of traditional cultures. It seems like the Chinese garden found opportunity in the contemporary era. However, the approximately 70 years’ cultural lag is not all that easy to overcome. From 1982-2008, Chinese landscape design has been groping for the best way to combine tradition and modernization. From 2000 to 2008, with the influence of Beijing Olympic Games, landscape architecture developed rapidly in China. One of the theories, the so-called Neo-Chinese style, is popular in the fields of architecture, landscape architecture and interior design. Under the guide of the Neo-Chinese, numbers of landscape architecture works sprung out, both characteristically Chinese and non-Chinese.

This is recognized by scholars and others. In fact, the crux of the problem is, what is the best intimate integrated point between the traditional Chinese garden and the contemporary landscape?

**ETHICS AND PHILOSOPHY OF CHINESE GARDEN:**

The philosophical and metaphysical implicit in the Chinese garden is characterized by two doctrines. Confucianism and Daoism. These two philosophical systems were both born in the same period, the Sixteenth Century BC: Kongfuzi, who is known by west as Confucius (551BC-479BC), and Laozi (6th Century BC), a legendary figure, considered as the author of the main Daoist foundational texts. Their philosophy varies with each other but combining well in the Chinese garden. As to their central principles, Rinaldi concluded these two philosophies in “The Chinese Garden” like this:

Confucianism as a group of philosophical doctrines engendered a political ethic rather than a religion. Social relations and obligations were central to its teachings, and the underlying principle was that only in society could an individual reach self-fulfillment. Life’s ultimate purpose was considered in function of the role and activity of the individual. The family, as the original, spontaneous a natural form of association, was taken as a model of society. Confucianism looked at the man working in a definite context, in society and within the family. Daoism, based on the principle of the unity of the cosmos, taught rather that man belonged to a vaster order of things: the purpose of life was to seek harmony with the forces of nature. (13)

According to Patricia Buckley’s description in *Origins of Garden Design*, “Daoism had a powerful influence on the classical garden. After the Han Dynasty, gardens were primarily constructed to escape from the pressures of court life. Government officials who lost their positions chose to pursue the Taoist ideals of liberty from worldly concerns.
These two inspirations were ideally combined in the Chinese garden. Confucianism admires realizing personal achievement in society while Daoism prefers seeking the harmony between nature and humanity. The garden, as part of the family dwelling, is a place for social contact, but as an isolated place it is also meant for meditation, to converse with nature. This double philosophical inspiration, Bianca says, "was apparent in the radical juxtaposition of the conceptions of domestic architecture and of the garden: the former followed a geometric matrix based on symmetry and hierarchical relations among the parts, while the latter remained rather the realm spontaneity and imagination" (14).

China had an assimilative attitude to religion, "Confucianism was joined through Daoism and Buddhism to a mystical appreciation of nature as expressed in garden design…The private gardens attached to urban dwellings were created by officials with the purpose of finding moments of calm and contemplative appreciation of nature without distancing themselves from their duties toward their families and the state" (Rinaldi, 14).

We can infer from the above analysis that Confucianism controls the geometric formation in the garden design while the Daoism is responsible for the imagination and recreation of the natural atmosphere. This is not hard to see from some typical Chinese garden examples. The organization of the space and the utilizing of the series sequences, on the one hand, creates a well-organized space for living, and on the other hand, gives others the feeling of endless imagination. Personally, I think this double philosophical inspiration is the heart and soul of a Chinese garden. For this project, it is a significant part of the Chinese garden design that should never be abandoned.

2.2 CHINESE GARDEN DESIGN PRINCIPLES

COMPOSITIONS AND DESIGN PRINCIPLES:

As to the Chinese garden, it seems like there are no rules and principles. But in fact, under the beautiful natural appearance, it is an elaborate arrangement—even a small piece of stone is carefully put in place. If you look through most of the books that describe the Chinese garden, you will find people like to seek answers through history. The most widely used textbook in China is the *History of Chinese Classical Garden*, by Weiquan Zhou. The book is rarely translated into other languages, so it is inaccessible for those who do not read Chinese. However, the coverage and the range of this book could be respected as the most successful. It includes the history, abundant case studies, and summary of design styles in each period of history within 700 pages. Rather than directly telling the design principles of the Chinese garden, Zhou generally summarized the characteristics of the Chinese garden at the beginning of the book, retelling how the Chinese garden originated from nature, and exceeds nature. It merges the beauty of architecture and landscape comfortably. It creates imagery and poetic illusion and provides people a mental space for relaxing (13-20). This brief summary indeed covers most of the compositions that appeared in the Chinese garden.

*The Traditional Gardens of Suzhou* written by Dunzhen Liu is a book that specifically focuses on the design of Southern Chinese gardens. In this book, the author takes a large part to introduce design principles. Liu Dunzhen divided his book into several aspects, from plan to space, views to depth and layers. And also, the commonly seen elements in Chinese garden: water, rocks, buildings, plants.

Yigang Peng, who wrote *Analysis of Classical Chinese Garden* in 1986, provided the very detailed exploration of the methods used in Chinese garden design. This book is so far the only one book that overall analyzed Chinese garden with detailed hand graphics.
mainly concentrated on analyzing the methods used in garden design in a visible way. With an abundant collection of case studies, it provides readers an integrated and visible theory system. This book starts with the comparison of eastern and western design difference, then goes through the origination of spiritual expression, and follows with the size of the gardens, and 14 methods that are used in garden design, additionally with an analysis of elements.

Rinaldi gives us a very good explanation of the complicated principles that are used in Chinese garden design in The Chinese Garden: garden types for contemporary landscape architecture. In her opinion, physically and spiritually, the framework that makes it a Chinese garden include: fengshui, painting and poetry, spatial articulation, spatial framework, episodes, and scenic views. She named them “composition and effects”. Through reviewing the long history of Chinese garden, Rinaldi summarized her understanding of Chinese gardens briefly and logically, which I think covers most of the characteristics of Chinese garden. For the following explanations of compositions and design principles, I will follow her idea.

**Bianca Maria Rinaldi, The Chinese Garden: Garden Types for Contemporary Landscape Architecture**

Rinaldi gives us a very good explanation of the complicated principles that are used in Chinese garden design in The Chinese Garden: garden types for contemporary landscape architecture. In her opinion, physically and spiritually, the framework that makes it a Chinese garden include: fengshui, painting and poetry, spatial articulation, spatial framework, episodes, and scenic views. She named them “composition and effects”. Through reviewing the long history of Chinese garden, Rinaldi summarized her understanding of Chinese gardens briefly and logically, which I think covers most of the characteristics of Chinese garden. For the following explanations of compositions and design principles, I will follow her idea.

**Composition A: Fengshui**

Patricia Buckley emphasized that “Fengshui (or wind-and-water, or geomancy) also played a large role in the form a garden would take” (*Origins of Gardens*, 2011). Bianca also stressed that in the Chinese Garden, the general design principles such as what is the appropriate position for the building is strongly influenced by Fengshui” (47). Fengshui was originated in ancient China to explain natural phenomena and even existence itself. It is an ensemble of the rules of geomancy and guides the general distribution of the primary elements. Some basic rules are still obeyed in design today according to Rinaldi, and this is treated as one of the most important principles used in Chinese garden design:

The basic rule is that the building much be oriented toward the south, but their positioning in relation to topography is also of vital importance: sites considered particularly fortunate are those in flat areas, open to the south but protected from the unfortunate winds of the north by hills and mountains, and surrounded by low elevation on the other sides. The terrain must be dry, but crossed by a winding stream flowing preferably form north-west toward southeast. (47)

This rule actually is commonly known by Chinese, it’s like a default rule for constructing architecture and landscape. Fengshui is mysterious for most people, but it is also a science dependent on the weather. So as this applies to the project, the wind frequency and direction of the wind in Chicago should be considered.

**Composition A: Fengshui**

When you take a tour of a classical Chinese garden, you will always find a zigzag bridge when you cross a large area of water feature. People maybe don’t understand why the bridge is designed in such a way. Here we must explain two words that are usually mentioned in Fengshui-Qi and Sha. In The Chinese Garden, Rinaldi gives us a very good explanation:
Qi: the currents of auspicious, which flow as directed by natural morphology, are considered capable of influencing the fortunes of individuals and therefore, it is necessary to find the correct location and orientation for all of the earthly places, for life and beyond. Whether it is a city, a house or a tomb, all human structures must be situated in harmony with the earth’s breathing, taking advantage of the beneficial influences and avoiding the negatives ones. Sha: the currents of inauspicious. It is believed that the Sha ran in straight direction. When it was not possible to avoid creating areas whose position entailed the flow of unfavorable influences, their defects were mitigated by a series of devices. That’s why the walls, groups of rocks or trees arranged in garden and in irregular manner. (47)

When Fengshui is applied to design, no matter to a site or the planning of a city, this basic rule is the key. For example, the Jingshan, which was positioned in the center of Jingshan Park, was designed to protect the forbidden city from the evil influence from the north. In the same way, the Yangshan mountain designed in the Beijing Olympic Park also aims to protect the southern side of the park and, by extension, the whole metropolis. On another scale, a garden is an important annex to a residence, and thanks to its components of water, rocks, hills and trees, it is able to correct any defect of the site and improve its fortunate potential.

Planners or designers were able to contribute to the positive flows, “once they were collected, would not be dispersed: thus the gardens always had perimeter walls and presented internal decisions as well-walls pierced by narrow doorways-whose task was to conserve the positive vital spirits generated by the passage of the qi. Similarly, pools of water were considered the point where the qi’s beneficial energies accumulated, and this was one of the reasons why they were given a central position in the garden” (Rinaldi, 49).

Principles used in Fengshui

To a certain extent, we can see that fengshui itself is a principle that guides the site selection, site layout as well as site design. Apart from the above mentioned functions like avoiding Sha and strengthening Qi in the design, the existence of Qi creates plentiful varieties in the Chinese garden. Take the paths as an example; in fengshui, it rejects as unlucky, thus zigzag paths are favorable in gardens as it blocks negative influxes. But this prescription, unchangingly acknowledged in garden design as a sequence of scenes hidden from each other (Rinaldi, 46).
Composition B: Painting and Poetry

The Confucian principles required that its followers study paintings, poetry and calligraphy. By the late Tang dynasty, the stylistic principles of landscape paintings had found authoritative expression. The concept of retreat into the natural world became a major thematic focus of arts. Arts combined to affect the characteristic of the Chinese garden.

Painters represented dramatic aspects of the Chinese landscape, mountains and hills, deep gorges, mist-filled valleys, river and waterfalls, and secluded places in which retreating from the chaos of dynastic disintegration and of the period of disunion which followed. These works were composed on paper and then pasted on canvas which could be several meters long, and hang vertically on the wall, or horizontally, to form a handscroll. The same spirit progression through a multiple-faced landscape inspires the Chinese garden. Rinaldi says:

As the handscrolls are never spread out and viewed entirely, the green architecture is planned never to be viewed as a whole. Unrolling a scroll is like following a story: by analogy, a person who experiences a garden enjoys a sequence of scenes which similarly make up a spatial narration, as they are related to each other. Also the tradition of giving poetical names to some elements, a pavilion or sections of the garden, enhances the percentage of literary passages offer an interpretation of the green space, revealing the owner’s intentions in a play of cultured citations between manmade landscape and literary tradition. (51-52)

In other words, we can say that the Chinese garden is a transformation of the handscrolls of landscape paintings. Then it is not hard to explain why you cannot see everything at one time when you wander in a classical Chinese garden. Additionally, the poetry or the words that are cited to reveal the intention of the design is a very typical method that is used in Chinese garden. It greatly helped to express the owner’s ambitions to society or the favors to nature.

Principles used in Poetry and Paintings

When poetry is reflected in design principles, giving a poetic name to a specific scenery or quoting poems and sentences from literary references is ordinarily seen in garden designs.

When painting is reflected in design principles, there are so many ways to express it. In order to create the endless feelings of beautiful scenery and bring the effects of paintings, “borrowed views” is one of the most commonly used principles. To expand the effect of the endless feelings, like handscrolls, “depth of the field” and “spatial layers” are another two principles that are frequently used in design. According to the analysis of Yigang Peng, there are a lot of principles have the same influence on creating the successive scenery, for instance, the “changes of ups and downs, depths and layers, conceal and reveal, guide and hint... etc.” (Yigang Peng, 1986, Analysis of Traditional Chinese garden).
Composition C: Spatial Articulation

The use of spatial articulation is a compositional technique specific to the Chinese garden. “...the construction of a narrative through episodes, through scenic views juxtaposed so as to draw the visitor into a visual experience” (Rinaldi, 44). The impact of this strategy can be appreciated from Beijing. On Nov. 1, 1743, Jesuit Jean-Denis Attiret explained “since nothing has a relation with our way of building and with architecture… Only the eyes can grasp the true conception”. In the garden that is described by Attiret, “there was no grand line dominating the perceptions of the garden; the seemed rather a sequence of disparate spaces and scenes. In the absence of space that constructed with vanishing point, a series of aesthetic discovery will appear in front of eyes: elevation, screens, pavilions and paths twisting… “

The Chinese garden is a place of mental space. Rinaldi pointed out that this spiritual expression “originated in a compositional mechanism” (45). It is no wonder that when moving along the winding walks, the visitors feels increasingly immersed in the composition and forgetful of what lies outside the garden’s perimeter. As to how this compositional mechanism shapes what it looks like today, Rinaldi explains that it was originated from two traditions: Fengshui and Micro landscapes. Fengshui indicates the “general practical rules of the position of volumes and voids and the conformation of paths” while the collection of micro landscapes is “a composition organized in episodes, with strong similarities to the pattern of landscape paintings” (45). Because of this, these two sources merged in Chinese garden design, making it difficult to determine what motivates the spatial arrangement. A very typical example that Bianca pointed out is the path. In Fengshui, it rejects as unlucky, thus zigzag paths are favorable in gardens as they block negative influxes. But this prescription is unchangingly acknowledged in garden design as a sequence of scenes hidden from each other (46).

Simply speaking, the composition of the Chinese garden is based on the foundation of micro landscape and Fengshui. Considering the effects that the composition brings to garden, spatial arrangement is complex and confusing. But the result is that visitors would truly feel the Chinese garden is a mental space.

Principles that used in Spatial Articulation

Microlandscape is the main context of Chinese garden, while Fengshui guides how each item is positioned and oriented. These two resources help the designer decide where to set a wall to avoid the Sha, and where to plant a tree to create a natural scenery. Apparently, most people can see that buildings, rocks and mountains, water features, and plants are the commonly seen elements in a Chinese garden. But the fact is, the existence of these elements are to serve Fengshui and micro landscapes. On the one hand, they frame the space, on the other hand, these elements connecte characterized spaces together. Thus, people always forget about the spatial articulation and just wander in the small piece of land.
Composition D: Spatial Framework

Based on Chen Congzhou’s *On Chinese Garden*, which was published in 1984, he classified the Chinese garden into two categories, “those intended for ‘in-position viewing’ and those intended for ‘in-motion viewing’, the former means that there are more visual points of interest to appreciate from fixed angles, while the latter demands a longer “touring” vista (Chen, part 1, p1). And in Rinaldi’s opinion, the first category concerns small gardens, links the appreciation of them to a stationary view gained by stopping movement, and this requires specific vantage points- a pavilion, a terrace- from which it is possible to view a green space. In the more extensive gardens or parks of the second type, visitors are led along a promenade which enables them to appreciate the great variety in composition. “the object of the composition of a Chinese garden is the modulation of perception in a visual narration presupposing movement through its different parts at different paces, required or suggested by the formation of the spaces” (53). As to the specific organization of spaces, Bianca states like this:

The organizational pattern of spatial articulation in a Chinese garden is hidden from the visitor and consists of a hierarchy of places and points. Each garden contains a certain number of spaces, each endowed with a specific characterization. Which is called thematic units. All units have a varying number of scenic views, each of which in turn concerns a portion of the unit’s area and is made up of a defined viewing cone and the jing, the view enjoyed. The organization into thematic units and scenic views produces the typical Chinese garden plan in its succession and in its different landscapes, adjacent to but hidden from one another. (53)

Rinaldi also addresses that, “the garden unfolds according to a predetermined itinerary for visitors, one that leads them through the thematic units or pause them at the various viewing zones to enjoy. Thus, the path defines the sequence of narration”. The main walkway may offer alternative routes, temporarily running alongside or intersecting the main path. All walkways twist continually, with variations in gradient and paving, which, along with the succession of spaces and views, contributes to the sense of surprise and discovery. The winding of the paths serves to multiply the viewing cones, offering a nonlinear progression from one thematic unit to the next (53-54).

Principles that used in Spatial Framework

If we summarize the above explanation about the spatial framework of Chinese garden, it’s like an arrangement of the objects that arrays from large to small. Every garden is composed with characterized spaces, and each space is given a theme to express its spiritual significance. And in each of the thematic unit, there are a bunch of “jing” or scenic views waiting for visitors to discover. Through the connection of the paths, people view the scenery in the motion of a specific position. Most scholars explained this as the “Spatial Sequence”. “See and to Be Seen” is used to describe the in motion views and in-position view, and depend on this, designers decide the location of every element before the garden are constructed. These two principles can be found in Yigang Peng’s book with detailed hand graphics and analysis.
Composition E: Thematic Units

The general articulation of the garden is based on dividing its space into separate episodes or thematic units. As the basic components of the garden’s design, sometimes, they are like rooms delimited by walls; at other times, the units are less defined spaces with permeable and porous perimeters, like the reflecting pools and big rock formations. According to Rinaldi’s define to the thematic units, she pointed out that thematic units can be adjacent to each other or overlapped, or they have filter zones. “Filter zones are also sometimes placed to mediate the units’ relation with the different residential areas or with the external perimeter of the property. For the most part they constitute a connective tissue in which the thematic units’ float” (55). This subdivision of the garden’s surface into thematic units creates “a sort of visual tension for the visitor, along with a sense of expectation, heightened by the ways in which the various unit area revealed one by one” (55).

So, how to make the separated units successively connect? It is based on the design of filter zones. Usually, the filter zones are made of walls or rocky areas, covered walkways or wooded groves. Rinaldi says, “the idea of separation can be perceived in the entrance of the garden, which is often narrow, never direct or particularly convenient” (56). By creating physical and visual separation between the thematic units, these elements constitute larger or smaller moments of suspension and pause, as a prelude to the next thematic unit” (56). The succession of thematic units lends the garden a kind of geographic dimension.

The size of the thematic units is variable and arranged with irregular frequency. For instance, “open areas like those of bodies of water, among more introverted area like the paved courts or narrow winding passageways between walls and rock formations” (Rinaldi, 57). The effect is “a sort of irregular pulsation, a systolic rhythm of opposing spatial qualities like narrow and wide, offering restriction and release, enclosure and openness” (Rinaldi, 57). Liu called this effect as “Contrast and Balance” in Suzhou Classical gardens. Through the irregular change frequency of zone size, visitors will perceive and predict the upcoming scenery. As Yigang Peng listed “guide and imply” as a principle used in the Chinese garden, we could infer this could be used in filter zone design.

The most wonderful thing when you are wandering in a Chinese garden is that you will never generate the feeling of fragmentation even though the garden is subdivided into multiplication of sensations. In fact, this success of general harmony, on the one hand, should belong to the using of filter zone; on the other hand, belongs to the repeated use of elements. Rinaldi says, “each space contains elements which in fact may be found in successive thematic units, in a different arrangement, order or hierarchy. The repetition of these elements makes for a play of flashbacks and fore flashes which maintain a feeling of the overall unity of the garden” (60).

Principles used in Thematic Units

The using of thematic units is the most wonderful part of a Chinese garden. The successive pictorial principles perhaps from traditional handscroll painting, “which recounted stories and places in different episodes on a single scroll, that engendered this way of articulating gardens” (Rinaldi, 55). We can infer from the above explanation that, Chinese gardens are constituted with thematic units and filter zones. For the former, the principles that often used are “spatial sequence”, “spatial contrast”. For the latter, the commonly used principles would be “guide and imply”, “block and reveal”.

36
Composition F: Scenic Views

The sequence of thematic units ensures the dynamic enjoyment of the garden. The other aspect of this enjoyment comes from pauses and scenic views. As Rinaldi says, "there are static pictures conceived to attract the eye and awaken different sensation. Each thematic view may provide a single scenic view or many of them" (62). This point is also mentioned in *The Classical Chinese Garden* by Liu Dunzhen, "views have to be linked carefully to create the illusion of a series of pictures unfolded before the viewer. Main views are often situated around the halls which were the main buildings in gardens. They often face the water and use the technique of ‘looking at mountains across water’". What Liu described is one of the methods that used to realize the scenic views.

An essential principle that needs to be noticed when planning scenic views is the definition of the area from which to enjoy it. Rinaldi claims that "these viewing areas offer the full perception of the proposed scene, and they are, for this reason, always easily identifiable...Paths that designed to encourage slowing or stopping at particular scenes. The play of reflection and cross-references can turn to be a scenic view appreciable from another spot" (64).

So, what elements are used to identify and characterize the scenic views? The character of a specific scene can originate in a complex composition or be given by simple elements. Bianca concluded, some scenic views refer to well-known paintings or landscape, or include literary references, or bear poetical names. "A visit to any garden entails reading inscriptions and name plaques in the elegant Chinese self-expressive calligraphy on stone, wood or paper, placed on walls and pavilions" (Rinaldi, 63). The consequence of these inscriptions and plaques engender visitors into emotional responses through observing and imaging.

Principles that used in Scenic Views

Depth of field

Scenic views, as a part of the handscrolls, their composition is deeply affected by traditional paintings. As traditional Chinese painting techniques, "depth of field" is stressed as a tool to expand the sense of space, which helps increase the visible scenery quantities on the limited canvas. Rinaldi says, "it enhances visual perception, depth of field and framing the alternate scenic views with different depths of field keep perception ever seen" (63). For various depths of field, the compositional principles vary. Rinaldi claims that scenes with a short depth of field "emphasize the subject close to the observer." Usually, the observation of rocks and stones are set close to visitors. As the background of the views is limited, a wall is given as neutral treatment so as to offset the principle subject of the scene. (63) but when the scene comes to a medium or long depth of field, the principle used is different:

The composition takes advantage of the positioning of various elements at increasing distances from the observer. This is the "principles of three depths", a pictorial convention of Chinese landscape painting. It consists in configuring the foreground, the middle ground and the background of each single scene according to a sequence of planes, increasing the sense of depth and thereby influencing the perception of the space of the whole. (64)

It is easy to find space layers in a Chinese garden. Liu calls this principle "depth of layers," which is similar to the depth of field. But Liu's descriptions to layers is more precise, "Depth and layer are a technique used to create the illusion of space in a restricted area involve twisting layouts, lattice screens which both block and reveal, and a gradual revelation of the whole" (119).
The common method to help create layers is screening with walls, doors, windows. Usually, these elements are designed with beautiful details and function as the decoration features. The description of decoration features is very detailed in Yuanye. Ji Cheng used a whole chapter to introduce them. Other devices like branches of trees, groups of rocks, doorways, window frames, and latticework in windows or in walls, Bianca states that, “these screens offer protection from the sun, filter the light and control its intensity. With the functional and decorative purpose, altering the perception of the real quality and extension of the scene glimpsed beyond the screen” (66). These are also introduced in *The Traditional Gardens of Suzhou*, Liu introduced them with collected graphics of various formation of windows, walls, doorways… (129-136).

**Borrowed Scenery**

The construction of the long depth of field can adopt the compositional technique called jiejing: “borrowed scenery.” This means “bringing into the scenic view what lies beyond the garden walls, framing portions of the outside landscape near and far, as a chain of hills or a high pagoda…The garden, thus linked with the beyond, seems in this way to become boundless” (Rinaldi, 64) Liu believes that borrowed views are important features of traditional gardens, the examples he cited all prove that the “borrowed scenery” expanded the area of the limited space (119).

As to the function of this principle, Rinaldi explains, “the percentage of the borrowed scenery represents a moment of interruption of the enclosure inside which the garden composition unwinds… the borrowed scenery creates an instant of exception, breaking the perimeter wall by using a feature which physically does not belong to the context of the garden” (64). This is different with the borrowed views of English landscape.

With the same opinion but holding with the different perspectives, Ji Cheng addressed in the craft of garden that “there are no fixed rules for designing gardens but there are certain principles in making use of natural scenery. The essential thing is to keep in mind all the four seasons” (119-120). In here, making use of natural scenery equals to what we mentioned above, borrowed scenery. Ji Cheng made examples to describe what four seasonal scenery look like. At the end, he stressed that “making use of natural scenery is the most vital part of garden design…there are various aspects such as using scenery in the distance, near at hand…But the attraction of natural objects, both the form perceptible to the eye and the essence which touches the heart, must be fully imagined in your mind before you put pen to paper, and only then do you have a possibility of expressing it completely” (121). We can see from these sentences that Ji Cheng considered making use of natural scenery a significant procedure in garden design. Borrowing scenery actually is a valuable issue that could dig deeper.

It is not hard to find out the relationship between these six compositions. They related with each other by some connections. This can be treated as a basic framework that helps design a classical Chinese garden. But how to organize these compositions in a new order and adapt it to contemporary landscape design? The answer perhaps goes with the site situation.
CONSTRUCTION GUIDANCE AND ELEMENTS:

It is a different story to tell when it comes to construction. Depend on the site situation, the design varies. There is one book that is very useful when it applies to a particular site. It is a guidance to all designers who are interested in the Chinese garden.

Ji Cheng, The Craft of Gardens

Yuanye, translated as The Craft of Gardens, is a 1631 work on garden design by Ji Cheng of the late Ming Dynasty. It is the first surviving and the first general manual about traditional Chinese garden. In the Perspectives of Michel Conan, she admitted in the book of On Garden Histories that are “among the great masterpieces of garden literature” (218). As a master designer of the age, Bianca also says, “Ji suggested diverse general solutions to garden plans about sites, proposed a big repertory of elements to use in composing the garden’s various” (25).

Ji Cheng’s manual filled three volumes. The first section includes general principles, such as evaluation of the site, general composition and garden architectures. The second volume deals with balustrades. The third volumes are dedicated to doors and windows, pavements and external walls, and includes a study on how to create artificial mountains, as well as on the choice of stones. The last chapter of the third volume focuses on how to compose the various scenes and their sequence inside the garden.

Situation

As to the evaluation of the site, Ji Cheng divided different situations in laying the foundation site, in Chicago’s Chinatown, the first thing should consider the situation. For an urban site, Cheng says, “inner-city sites are not intrinsically suitable for gardens. If you construct a garden there, it must be in a place as secluded and out of the way as possible.” (The Craft of Garden, 46). When this comes to the foundation site,

Layout

In Ji Cheng’s idea, the layout of a garden is decided by the sitting of the principle buildings. Buildings, as one of the main elements in the Chinese garden, it helps guide visitors walk from one building to another one. “The primary consideration is the view, and it is better if the buildings can face south... Once you picked a site for the main buildings, you can use the remaining space for the construction of pavilions and terraces.” (Ji Cheng, 54) Thus, the whole plan of a garden is designed based on the main buildings. Even though, a Chinese garden is not controlled by the building like French gardens, with a strict axis or symmetrical geometry pattern. All the arrangements of buildings and elements seem randomly sitting there but controlled by the consideration of views.

Buildings

In this chapter, Ji mentioned rules for setting different buildings. There are six different types of buildings are commonly seen in a Chinese garden. For those frequently seen structures, like the Great Hall, towers, pavilions and covered walkways, Ji gives very detailed explanations.

The standard layout for the great hall was either five or three spans, three and a half is also acceptable... The sitting of the tower, according to convention, should be behind the great hall. Why not build it in the midst of hills and waters so that it can be described as being both stories and three stories? From below, looking up, it is a high tower; from halfway up the hill it will resemble a one-story house, but if you ‘ascend another story’ you will really be able to ‘see for a thousand miles’... A shady gazebo among the flowers, a quiet pavilion on the edge of the water-these are quintessence of garden design. But why should gazebos only be built among flowers, or
pavilions only beside water? What about bamboo groves around a spring, hill-tops with a fine view, slopes thickly covered with jade bamboo, or cliffs with gnarled and dark-green pine? (58-63)

Covered walkways, is a feature that functions both like buildings and paths. Ji explained before laying the foundations of it, first make sure you reserve enough space around it. * It may ascend halfway up a mountain or go right down to the water’s edge, following the rise and fall, the twisting and turning of the ground, stopping and starting, curving and bending in a natural way. No garden should lack this particular feature” (The Craft of Gardens, 63).

Except introducing the rules and principles for sitting buildings, Ji Cheng also analyzed the structures of different types of buildings with detailed graphics.

**Non-Structural Features**

The introduction of non-structure features includes screen doors, dust supports, windows, shutters, and Balustrades. Among which, windows are one of the main features that often used in modern design. “In ancient times, most windows were the shape of water-caltrop flowers, in a square opening. Later, people simplified them to a willow-leaf shape, and this is what became commonly known as a ‘never-ending window’”(Ji Cheng, 78). Similarly, Liu Dunzhen addressed the windows in The Traditional Gardens of Suzhou that, “Brick frame ‘flower’ windows are used on the gable end walls of buildings and are related to moon gates and ‘leaking’ openings used in corridors and walls outside in the garden”(Liu, 129). The aim is to frame a view and to screen without hiding. As Liu stressed, the function of the windows is not only for decoration. It creates depths of layers and ‘leaking’ scenery from other view direction. The figures below is some typical examples of the windows from Chinese garden.

Figure 2.7 windows in traditional Chinese garden
Structural Features

In this chapter, Ji introduced doorways, walls, and paving. Doorways are simply understood as moongate in the contemporary design. Ji drew many different shapes of doorways including moongate in the book. Doorways are created to enhance a more elegant space. Walls, as one of the indispensable elements of landscape architecture, its particular form varies depends on functions. In contemporary design, it can be designed with abundant forms. The whitewashed wall is a kind of wall that commonly seen in the Chinese garden.

Other Elements

It is well-known that the elements that composed a Chinese garden include mountains, water, garden paths, architecture, and plants. But this project is focused on the design principles and hybrid strategies.

The construction guidance and the elements come after the compositions and principles. Once you decided to build a Chinese garden, and you also want to make sure it is a characteristically Chinese garden, the designer must obey its design principles. Then, the guidance would guide you where and how to set things up.

Figure 2.8 moongate shapes in traditional Chinese garden
2.3 CHINATOWN IN UNITED STATES

HISTORY OF CHINESE IMMIGRATION IN UNITED STATES:

According to *Chinese Immigration and the Chinese in the United States*, compiled by Waverly B. Lowell, the Chinese immigrants history is as follows:

1850 gold rush, at that time, the Qing Dynasty almost went to its end. Under the suffering of the inner war and the invasive war, the first early immigrations joined the United States and became citizens. A large number of poor from Guangdong immigrated to American and helped with building the railroad. Most of the immigration lived in Chinatown and spoke Cantonese. Before 1943, under the effect of Emancipation Proclamation and Chinese Exclusive Act, the migrations tended to decline.

From 1952-1965, the easing policy of United States immigration law led to the second immigration wave. Most of the immigrations were scholars and experts. Until 1977, the immigrations were allowed to settle down finally. These Chinese preferred to live in the suburban area, which was far away from Chinatown. They spoke Mandarin.

The third wave of immigration: Most of the immigration came from Fujian Province, including illegal immigrations. This group of Chinese was mainly distributed in handicraft industry. They worked very hard for paying the loan and supplying the family.

Since the late 1990s, a large group of Chinese-American returned to China. The migration included some students who graduated from University and were disappointed with the work environment. One of the main reasons was the ethnic discrimination. After 2000, the economy and employment turning worse and worse, most people chose back to China.

Significant timeline of immigration history is as follows:

If we compare immigration history timeline with Chinese garden history timeline, it’s easy to find out that from 1840s to 1980s, China suffered its darkest period in history, during which there is almost no development of gardens. We can conclude from the Chinese immigration history that, immigrants included a large quantity of labors from Guangdong, Fujian and a few scholars from other areas of China. Their influence on the spread of Chinese culture is evident. However, among these labors, there were rarely few experts understand what is Chinese architecture. According to the article of Chinatowns in United States, most of the buildings and structures we see today in Chinatown were built at that time (Wikipedia). This could explain why there is always a memorial archway at the entrance of every Chinatown, which rarely see in today’s China.
CHINATOWN IN UNITED STATES:

“Chinatown in the United States have historically been located in the ‘big cities’ such as New York City, San Francisco, Boston, Los Angeles, and Chicago and existed initially as enclaves that ease the transition into the American culture” (Wikipedia). The earliest Chinatowns were built as a community of Chinese immigration. Today, Chinatowns are becoming visitor centers rather than serving as the ethnic enclaves they once were.

According to the United States Census data of 2010, the cities with the five highest Chinese American populations, are listed in figure 2.11. The earliest founded Chinatown is in New York City, established in 1848, which was right after the Opium War. The other four cities, all built around the 1930s, before the second immigration wave, rarely any experts or scholars know about Chinese architecture. For Chicago’s Chinatown, “with no Chinese-born architects in Chicago at the time, Norse architects Christian S. Michaelsen and Sigurd A. Rognstad, who were born in Chicago, were asked to design the new building in spring 1926” (“Our Building”, 2008). There is a big difference between a Chinese-born architect and a Chicago-born designer. Their understanding of Chinese culture would affect the fate of architecture style in Chinatown.

As time passed, American Chinatown have become places for cultural identification and heritage. “Chinese-American will come for Chinese groceries, Chinese food, and Chinese publications. For the larger community, it is a tourist attraction. It served as an introduction to the Chinese culture and cuisine to other residents of the city” (History, Chicago-Chinatown). But, if the existing buildings cannot represent China anymore, can Chinatown still be a cultural identification? We could probably not demolish the existing buildings and build new ones, after all, they have values. Can a Chinese garden help with the cultural identification?

<table>
<thead>
<tr>
<th>CITY</th>
<th>POPULATION (2010)</th>
<th>FOUNDED YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York City</td>
<td>486,463</td>
<td>1848</td>
</tr>
<tr>
<td>San Francisco</td>
<td>172,181</td>
<td>1930s</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>66,782</td>
<td>1930s</td>
</tr>
<tr>
<td>San Jose</td>
<td>63,434</td>
<td>1930s</td>
</tr>
<tr>
<td>Chicago</td>
<td>43,228</td>
<td>1920s, built new town in 1980s</td>
</tr>
</tbody>
</table>
2.4 CASE STUDY

The case study investigation is focused on classical Chinese gardens and contemporary Chinese gardens. These gardens are distributed in China and United States. Through the study of ancient gardens and modern gardens, comparing the design strategy that gardens used, summarizing the suitable design principles that would work in urban texture.

Case 1. Summer Palace: Beijing, China
Case 2. Garden of Humble Administrator: Suzhou, China
Case 3. Beijing Olympic Forest Park: Beijing, China
Case 4. Suzhou Museum: Suzhou, China
Case 5. Moongate Garden: Washington, D.C. United States

SUMMER PALACE: BEIJING, CHINA:

[Land use type] Public Park
[Location] Beijing, China
[Team] Emperor
[Date Completed] first built in 1750, destroyed in 1860 and restored in 1886
[Size and major space] Longevity Hill is about 200 feet high the central Kunming Lake, covering 540 acres
[Brief description] Summer Palace, different with private gardens, is the best preserved imperial garden in the world. This garden covers an expanse of 2.9 square kilometers, three-quarter of which is water. Summer Palace had been through pre-Qing dynasty, Qing dynasty, and Post-Qing dynasty. UNESCO included the Summer Place on its World Heritage List in 1998 and declared it “a masterpiece of Chinese landscape garden design.”
[Significance] The model shown in this case study reveals the most typical and classical design in the Chinese garden. Summer Palace outlines the philosophy and practice of Chinese garden design, and itself is an excellent expression of the creative garden design, uniting the works of humankind and nature in a harmonious composition. No matter from the concept to the layout, the Summer Place, is an excellent masterpiece.

[Design Concept] Travel China Guide introduced Summer Palace. The design of Summer Palace dates back to Qing-Dynasty. Qianlong Emperor liked the Jiangnan private gardens so much and tried to construct the same views as West Lake of Hangzhou. The layout of the Kunming Lake is almost the same as West Lake. The Longevity Hill is the most attractive spots in the garden. The paths beside the lake would lead visitors to shady trees or roofed breezeway.

[Context] It is described by Travel China Guide that, "Longevity Hill rises beside the lake, marked with grand halls and temples and wonderfully decorated gates. People can climb the hill to the Buddhist Temple and overlook the entire area. The path near the water area goes across bridges to an area of gardens, mounds, and winding paths. The ‘Suzhou Market Street’ recreates traditional riverside markets. The Garden of Virtue and Harmony is a recreation complex, with theater designed" (Beijing Summer Palace: the Largest Royal Park in China).
GARDEN OF HUMBLE ADMINISTRATOR: SUZHOU, CHINA:

[Significance] According to UNESCO, the garden “lends insight into how ancient Chinese harmonized conceptions of aestheticism in a culture of reclusion within an urban living environment. Garden designers adapted techniques to simulate nature artfully by skillfully adapting and utilizing only the physical space available to them”.

[Land use type] Private garden
[Location] Suzhou, China
[Designer] Scholar
[Size] 12.85 acres
[Date completed] Varies, 11th-19th century

[Brief description] The Humble Administrator’s Garden is a renowned Chinese garden in Suzhou. The Garden is the largest garden in Suzhou and is considered by some to be the finest garden in all of the southern China. It was built in 1509 during the Ming Dynasty (1368-1644), and formulated upon the old relics of a residence and a Taoist temple.

[Design concept] The garden was initially a private garden of a former government servant who was frustrated in his official career, so he named the garden to express he is such a humble person.

[Context] The garden consists of Eastern, Central and Western sections. The Eastern Section is designed with hills, grass, forests, winding streams, and three buildings. The Central Section, with one-third of its area covered by water, which lines with abundant trees and buildings. The main building in the Western Section is a hall that is divided into two by a screen, with a pool nearby.
BEIJING OLYMPIC FOREST PARK: BEIJING, CHINA:

[Context] Beijing Olympic Forest Park provides a variety of spaces for urban residents and visitors. It includes Mount Yangshan, man-made lake, various biology land types, demonstration education area, paths, playgrounds and sports fields. The design combines traditional Chinese landscape arts and design principles that emphasize the harmony between humanity and nature. The modern ecological techniques were widely employed in the park to address goals of net zero sustainable system.

[Significance] Even though this project achieves significant success in stormwater treatment and ecological protection. However, in the perspective of the Renaissance of Chinese landscape, this park tried hard and found a way. The combination of high technology and typical design strategies is a successful attempt in today. One of the most valuable opinions need to be pointed out is that the respect to Fengshui as well as the standard design principles make this vast park characterized by Chinese taste. Some of the methods that the large park utilized to inform the “personality” of China is fresh and new (Landscape Performance Series, 2012).

[Land use type] Park/Nature preserve/Wetland creation/restoration
[Location] Beijing, China
[Team] Beijing Tsinghua Urban Planning & Design Institute
[Size] 1,680 acres
[Date completed] 2008
[Brief description] Beijing Olympic Forest Park is designed for the 2008 Olympic Games. Its long-term goal is to design a sustainable and multi-functional public park. The design mixes traditional Chinese landscape arts with biological techniques to create a green urban center. 2009 Professional Awards Jury commented that this project will “transform Beijing as Central Park did New York City.”
SUZHOU MUSEUM: SUZHOU, CHINA:

[Land use type] Art museum
[Location] Suzhou, China
[Designer] I. M. Pei architect with Pei Partnership Architects
[Size] Whole area: 15,000-sq. meter
[Date completed] October 6, 2006

[Brief description] The new Suzhou Museum is located in the northeast of Suzhou. It adjoins the landmarked Zhong Wang Fu, a complex of 19th-century historical structures. The museum has a display area of 2,200 square meters.

[Design concept] There is a height limitations for the museum—“no more than 20 feet adjacent to the existing buildings” (Architectural Record RSS). And to respect the Suzhou coloration, designers suggested using the white and gray color to serve as a background. “The architect placed a walled garden with a void at the museum’s core and the garden’s emphasis lay in the simplicity of water, rocks, and sky—more akin to the Taoist philosophy” (Architectural Record RSS).

[Context] The design of the museum, according to the website of Pei Partnership Architects, “it started the rich vocabulary of Suzhou’s traditional architecture, with its whitewashed plaster walls, dark gray clay tile roofs, and intricate garden structure. But these essential elements have been reinterpreted and synthesized into a new language and order”. The design of the new Museum Garden is based on the new design trends and themes.

[Significance] “Mr. Pei sought to remain faithful to China’s tradition of courtyards and gardens. The design concept that merging the East and the West was a successful mix of culture and landscape” (Barboza, 2006). Pei’s design inspires hundreds and thousands of designers in China in the exploration of the future development of classical Chinese style architecture and landscape. The abstraction of typical Chinese garden elements, use of colors and material, the scientific dispose of landform and water level are all that we should learn. It also tells us clearly the enormous potential of classical Chinese gardens.
MOONGATE GARDEN: WASHINGTON, D.C. UNITED STATES:

[Context] The garden contains a central Victorian embroidery parterre, wrought-iron fencing and two thematic garden rooms that serve as links to the gallery below. The rooms include fountains, pink granite architecture and African, Asian and Near Eastern aesthetic design elements.

[Significance] In the aspect of mimic Chinese landscape, it is not a very successful example. But it introduced many traditional Chinese elements.

[Conclusion] The application of the moon gate in moongate garden is not a successful example. As a typical element in Chinese Garden, the moon gate is always used to separate space from one to another. When people step through the moongate, they feel like walk into another world. The moon shape is also a frame to form frame view, which is very common in Chinese garden design. But in the case of moongate garden, the use of the moongate seems like is just picking several elements from Chinese garden and try to make them fit into the “Temple of Heaven”. This phenomenon is very common in both eastern and western design. Without understanding the real principles of design, people tend to copy or take elements of a design to reveal culture. In the perspective of respecting truth, the garden is something like Chinese garden, but can never be called Chinese garden.

Conclusion

From the above five case studies, comparing the traditional and contemporary examples, we can find out that two types of interpretation are common in the contemporary design: Interpretation of traditional elements and replacement of traditional elements. The interpretation includes a Cultural symbol, color, story, poetry, painting, spatial articulation, and scenic views. The replacement of elements includes replacement of materials and colors.
CHAPTER 3 DESIGN FRAMEWORK

TWO APPROACHES

From the literature review, we can see that the composition A to F builds the foundation of a Chinese garden, and the design principles help tell the story of paintings and poetry. The spirit contained in paintings and poetry are deeply influenced by Confucianism and Daoism. That is to say, spiritually, paintings and poetry are the core of Chinese garden. All design principles are developed based on them. This also means, paintings and poetry are the central compositions of a Chinese garden.

With regards to composition A, Fengshui itself is a rule that guides the settings of every element in the garden. Some rules still apply to today’s design, for instance, the orientation of a building (figure 3.1) or the zigzag bridge. With Composition C, spatial articulation is invisible in the Chinese garden, since the spaces are naturally connected, micro landscape and Fengshui make the naturalness possible. Composition D, the space framework is the key to designing Chinese garden. Once you walk into the garden, you feel like there is no line dominating the garden, but followed with a series discovery, surprise appears in front of your eyes. In fact, there is a design framework that is undertaking these disorders. Composition E and Composition F are like the subsets of Composition D. A series of scenic views composed a thematic unit, and some thematic units produced a characterized space, series of described spaces formed the Chinese garden.

Physically, Fengshui is the basic rule that controls the garden layout. Spiritually, paintings and poetry guide the garden spirit. Spatial articulation and spatial framework follow the basic rules and guidance.
THE FRAMEWORK

The general framework of designing a Chinese garden is as the diagram showed below. It is a summary of different voice but common values through the literature review. When you apply the diagram to design, it’s like “fill in the blank”. What you need to put in are elements. Then, organizing these items to shape views or units, at the same time, creating the spiritual atmosphere within them. Design principles are just tools that help build a good performance of views.

![Diagram of the framework of designing a Chinese garden](image)

---

**Figure 3.3 the basic framework of Chinese garden**
HYBRID DESIGN STRATEGY

This framework could be used as an outline to guide the design process of a Chinese garden. It is the formula that designers must remember and obey when they create a Chinese garden. Then, the problem comes to how to make the garden look contemporary. Inspired by the case studies, the solution varies. Through the compare of the traditional and contemporary examples, two types of performances are frequently seen in the contemporary Chinese garden.

One performance that varies with traditional gardens is the performance of elements. Most of them are simplified and abstracted into simple shapes. For instance, the moon gate usually seen in traditional Chinese garden is designed with the form a moon and functions as a gate, and also frames the beautiful scenic view behind the wall. Today only in the frame is kept. The moon gate has become a cultural symbol, and frequently appears in contemporary landscape design. Another way that used in the contemporary design is the replacement of color. Typical colors often seen in traditional gardens are used by contemporary designers as the background for the modern garden. For example, the Suzhou Museum, black and white colors are treated as the thematic colors of the museum. It is because most of the traditional gardens in Suzhou are enclosed with the white wall decorated with black tiles. The other method is identifying a place with ancient poems, paintings or articles. The words or and images will help people imagine the scenes of the traditional Chinese garden.

The other performance is the replacement of materials. The use of modern materials is likely to produce a feeling of closeness in people. People live in urban context could feel that similar materials more go with the urban texture. It results in the commonly seen elements in the contemporary design, such as glass, concrete, and steel.

Figure 3.4 cultural symbol-moongate

Figure 3.5 contemporary strategies
"FRAMEWORK+ELEMENTS"

Through the exploration of the past design, this creative project aims to find out a suitable design strategy for the modern city. Cumbersome Chinese garden elements are not necessarily adaptable to a different cultural environment. Not to mention in many urban environments, reinforced concrete already has become a symbol of cities nowadays. So the adaptive design needs us to sacrifice some old elements and hybrid the rest with new fresh things.

If we summarize Chinese garden design framework, and then extract the required items in agreement with the needs of modern landscape design. It will not only meet the correct design principles but also not contradict with urban texture. Thus, as a new theoretical system, complicated Chinese garden design process can be simplified into a pattern structure of “Framework + Elements”. The framework, as the core content of Chinese garden design, is the premise. It will insure the creation of a Chinese garden, even if designers use very contemporary elements.
4.1 SITE BACKGROUND—CHINATOWN IN CHICAGO, IL

The first Chinese immigrants arrived in Chicago in the 1870s, under the circumstances of anti-Chinese sentiment along the Pacific Coast, when some active young men began to venture away to other places. When they found the Chicagoan to be more agreeable to Chinese, they settled down. Although suffering the same restrictive immigration laws, the Chinese population grew steadily. From the 1950s to the 1960s, the Chinese population in Chicago doubled from 7,000 to 14,000. By 1970, Chicago ranked fourth in the Chinese population in America.

In the 1920s, Chinese community leaders secured approximately 50 ten-year leases on properties in the newly developing Chinatown. Because of severe racial discrimination, these leases needed to be secured via an intermediary, and H. O. Stone Company decided that a Chinese-style building should be constructed as a big visual announcement of the Chinese community’s new presence in the area. With no Chinese-born architects in Chicago at the time, Chicago-born Norse architects Christian S. Michaelsen and Sigurd A. Rognstad were asked to design the new building in spring 1926. During the late 1980s, a group of Chinatown business leaders bought 32 acres property north of Archer Avenue from the Santa Fe Railway and built Chinatown Square. Additional residential construction included a 600-units village of townhouses. The most outstanding feature of this new development was, perhaps, the creation of Ping Tom Park in 1999 (Bronson, Chiu & Ho 2011, p 32-51).

The Chinatown in Chicago is a traditional urban ethnic enclave, occupying a significant portion of the Armour Square region on the city’s near Southside. The intersection of Wentworth Avenue at Cermak Road is the neighborhood’s historical epicenter. Chinatown has historically been dominated by Chinese-American commercial interests, though in

Canal Streets and the area adjacent Ping Tom Park south of W.18th Street, have exponentially increased the number of residents in the area. While it is a cultural tourist attraction for visitors, Chinatown also attracts Chinese immigrants hailing from China as a gateway neighborhood.

So far, there isn’t a typical Chinese garden in Chicago’s Chinatown. The Ping Tom Park is a public space that features some Chinese elements, but it is not a real Chinese characterized landscape. Since Chinese residents occupy the neighborhoods around Ping Tom Park, a real Chinese landscape is needed.
Signage on the site shows that the location is private property, fenced with barbed wire. Separated by and active rail line, Ping Tom Park, adjacent to Chicago river, which can be seen not far away from the site. One of the rails is elevated over of the site. The structural columns of the fly over railway eliminated one of the sides of the site. On the southeast side of the location is the residential area, adjacent to Chinatown commercial area.

The site is close to Ping Tom Park, but not connected with the park. CSAL (Chinese American Service League) building is on the south side of the site. The residential area separated the Chinatown and the site. There is no public street or trail which connected them. The railway station of Chinatown is close to Chinatown. South Archer Ave. As the main road that passes through the Chinatown commercial area is also connected to another main street in this area.
Chinatown, Amour Square
Amour Square is the gathering plaza in Chinatown.

Most people who work in Chinatown live nearby. The building is townhouse structure.

Site [3.5 acre]
Private property, fenced empty space. One apartment on the southwest side of site.

Residential

Chinese American Service League
An organization that helps Chinese immigration adapt to local life.
Teaching language and skills.

Railway
Two rails, one fly overhead, the other is on the ground, closer to Ping Tom Park.

Ping Tom Park
A public park, the Chinese features settled inside. Every season held different programs for entertainment.

Chicago River
South branch of Chicago River.

Except the railway, the other three sides of the site are open. The apartment on the site is supposed to be removed. The southwest side is adjacent to a parking lot, the northeast aspect of the site are townhouses. And the south side of the place is a street.
The favorable condition that the overhead railway creates is that all passengers on the train would see this garden. It would spread the idea of a Chinese garden all over the city. Additionally, the columns that support the structure of the railway create a natural frame for observing Ping Tom Park. In the design, making use of these columns would create a feeling of endless painting hand-scroll. However, the railway blocks distant views, such as the Chicago River and skyline. Thus, in the design, some features need to be created to ensure seeing the borrowed scenery from the garden. The outline of the townhouse reminds me of one of the roofs in old towns of China. Enhancing the roofline in design would be a very impressive symbol of the Chinese garden.
As to the safety issue, the railway fences with iron on both sides, which leads to the result of no interaction and connection between Ping Tom Park and site. A safety cross intersection is suggested. The benefit of doing this is that the visitors would access Ping Tom Park through the site.

Ping Tom Park is built in memory of Ping Tom, who contributed so much to the construction of Chicago Chinatown. This park is more like a public park in the city, even though there are some elements that make visitors feel like in a Chinese garden.
Through the analysis on all four sides of the site, the possible accessibility to the garden is on the west and close to parking lot, or on the southside near to the neighborhoods. Depending on how much percent that the design want the garden to be exposed to public, walls will be built along the street with various elevation. The fly over railway is excellent in provide bird view. Under the railway, the columns would create perfect see through views, which is the core spirit of traditional Chinese garden.
4.3 GOALS AND OBJECTIVES

Provide a demonstration design of contemporary style of the Chinese garden, which follows the traditional design principles but serves the modern landscape needs.

Goal 1: Provide Chinese immigrants the cultural memory of China, and help natives understand the truth of the Chinese garden.

- Use traditional Chinese garden design principles to wake up immigrants’ dim memory about China.
- Use the material that is in harmony with the existing buildings but follows the conventional forms.
- Use cross culture plants or similar local plants to create an atmosphere of Chinese garden and the four season’s scenery.

Goal 2: Provide citizens an urban open space to relax and recreation.

- Create a space that satisfies the basic needs and functionality as an urban public open space, such as recreational space, rest place, playground, etc.
- Create the space with the philosophy of the Chinese garden and provide visitors all senses of the Chinese garden, including visual elements, fragrance, etc.
- Create a space that weakens the limitation as a traditional Chinese garden and gives a better solution to its weakness.

Goal 3: Create a better connection with Chinatown commercial area and Chicago River to attract more visitors.

- Optimize the pedestrian system between the Amour Square and Ping Tom Park.
- Create an efficient and safe connection between the railway, elevated railway and Ping Tom Park.
- Create the characteristics of cultural Chinese identification through redesigning the existing items on the site, such as townhouse exterior, sidewalk paver,
Embraced by Chinese Residents and Chinatown, the new garden will provide activity space for residents, and also refresh their mind of China. Additionally, the reconnection to Ping Tom Park and Amour Square will attract more visitors to the garden. The overhead railway is an excellent opportunity for conveying the garden reputation to all over the city by passengers.
SITE PLAN- FOUR SEASON GARDEN

Based on the site inventory, utilization of the elevated railway, the structure columns, and the street orientation help determine the location of the garden entrances. The design of Four Season Garden follows the “Design Framework” that is summarized in Chapter Three, including Two approaches, design framework, hybrid design, and elements. To tell the story and express the spirits, the design follows the poetry from the old dynasties. The site space is divided into four sections to create a dynamic landscape in four seasons.

Figure 4.10 site plan and site section
TWO APPROACHES

Physically - Fengshui

Fengshui, as a basic rule, helps designer decide where to locate hills, mountains, water and buildings. This garden obeys this rule. As mentioned in previous chapters, literature review, and design framework, the building mostly oriented toward the south, hills and mountains protected the buildings from unfortunate (harsh winter wind) from the north. Water features flow in front of the buildings. But to break the traditional design limitation, the hills, and the water are conceived in a more contemporary way. Hill still stays in the north to protect the buildings from unfortunate, but it also provides open space and interest as a playground.

Figure 4.11 analysis-fengshui

Revealing the spirit of the Chinese garden, the commonly used method is name the scene you designed. The other way is to create an atmosphere of an article or paintings. In this creative project, I picked four poems from the old dynasty. These verses describe the landscape and plants of four seasons, which I think is the best option to explain the garden spirit. The poems mention some plants that frequently appear in traditional Chinese garden design, and each of the plants represents a type of mind. For example, the bamboo represents the courage, and the lotus represents pure.

Spiritually - Poetry

SPRING
It is proper to hate the marks of shoes on the green moss;
Of ten that knock at his brushwood gate, nine cannot have it opened.
Spring’s colors fill the garden but cannot all be contained.
For one spray of red almond-blossom pasips out from the wall.
On Visiting a Garden, When Its Master Is Absent, by Ye Shaoweng

SUMMER
From fountainheads water streaks out thin and quiet.
Soft and Sunny are trees reflected in the pond.
A slim lotus leaf, not yet unfurled, scarcely appears
When on its pointed tip a dragonfly is alighted.
A Small Pond, by Yang Wanli

AUTUMN
No more the lotus leaves that hold the rain appear,
Though yet chrysanthemums their frosted stalks would rear.
O friend, bear well in mind, the year’s best sights are seen,
When oranges their golden yellow mix with green.
A Poem Given to My Friend Liu Jingwen as a Present, by Su Shi

WINTER
I wondered why the covers felt so cold,
and I saw how bright my window was.
Night far gone, I know the snow must be deep—
from time to time I hear the bamboo cracking.
Night Snow, by Bai Juyi
Spatial articulation, a compositional mechanism which composes various elements invisibly. So, when you walk through the garden, even though there is a change of the elevation and features, these are not apparent. For example, once you step into the autumn garden, you may feel no big difference with the last one. However, you are already in a different space. Every element that shows up in the garden is arranged on purpose to have you well prepared for saying goodbye of the past scenery and hello to the new one.

1. Building
2. Water feature
3. Boulder
4. Wall
5. Plants
6. Paving

Boulders and stone paths are everywhere in the garden, mostly close to water features.

Wall, as a tool for dividing spaces, it frequently appears at where it is needed. It can be a seating wall or a screen wall.

For some particular plant species, the planting design tries always to refresh visitor's mind when it comes to a transfer space.

The texture of the paving all follows one pattern, this will also give people a feeling of unity of the space.
The diagram above explains how space is organized in this project. Following the theory of spatial framework that summarized in chapter three (figure 4.15), the composition rule is elements-scenery-themed units-charactered space. The commonly seen elements in the garden are building, water, boulder, plants, and paving. These elements compose different scenery in different seasons. Several views would produce a unit which reveals the beauty of one season. Add up to others like filter zone, paths, and corridor, and the integrity of the Chinese garden is revealed.

The sequence of viewing the scenery could be spring, summer, autumn, and Winter, or winter, autumn, summer, and spring. It depends on where you are entering the garden, view changes when you are in motion, or changes of position when viewing. Even though it is a four seasons garden, despite feeling the seasonal change individually, you can also experience the composition as a whole.
Thematic Units

Spring Garden
As the first thematic unit, spring garden provides the main entrance to the whole garden. The reflection pool is the main view in the garden, in the spring, the water reflects the pink color of the trees in the water. The filter zone helps guide visitors to next garden, and Ping Tom Park. The thematic tree in this garden is plum.

Summer Garden
This garden provides more open space than others. A Large area of water and shade trees provide cool air in hot summer. People could do Tai Chi on the lawn or take a rest at the corner of the pergola. The thematic plant in this garden is Lotus.

Autumn Garden
This garden is divided into smaller spaces by seating walls and screen walls, between these walls, is a small meditation area. As the highest point in the garden, the watch pier will get you the whole scenery of the garden as well as the Chicago skyline which is far away. Chrysanthemum is the thematic plant.

Winter Garden
This garden is composed with entrance plaza and backyard playground. Tables and chairs are set up for afternoon tea under shady trees and bamboos. A playground is a place full of fun. Kids may run through small hills and bamboo forest. The thematic plant in the garden is bamboo, which will provide an excellent view in winter.

Figure 4.16 analysis-thematic units
The place for admiring views

The diagram below shows the garden paths and pergola. Paths connect all points of view in the garden. When you walk around it, you are like walking in painting handscrolls. Garden paths make you experience the in-motion view. Pergola provides pause and break. When you want to stop and appreciate a particular scenery, it is where you should stop.

The scenery offered for view

The diagram on the left is the vision range of scenic views on the site. The scenery offered for view covers the whole site area. The walls with various elevation provide the different depth of fields, such as the doorway, meditation garden, and entrance plaza. It’s easy to see through the doors and trees and experience the layers. And when you see from a different position, the borrowed scenery is easy to find. The Reflection Pool borrows the views of the plum trees. The Recreational Lawn, and Lotus Pond borrows scenery each other. Meditation garden borrows the view of the Small Pond. The Watch Pier borrows the whole garden views and also the view of far away skyline.
THE FRAMEWORK

The garden design framework follows the framework from Chapter Three. To reinforce how the framework functions in the design, the words in red are marked up to explain the elements and the principles that are applied in this design. The filter zone is the most challenging section in the design. To make sure different space is connected naturally, similar elements are frequently incorporated into the zone. Also, to create the experience of systolic rhythm, the concept of “narrow and wide” is used to realize the spatial contrast of enclosure and openness.

Figure 4.19 new design framework
THE HYBRID STRATEGY: SCLM

The hybrid strategy is used to maximize the mixture use of Symbol, Color, Literature, and Material. The diagram below shows S2, S3, C2, C3, L1, M1, M2, and M3 are applied to the design. (L1 Poem was mentioned in previous page)

S2 Elements

The elements that frequently appear in the design are building, water, boulder, wall, and plants. These five elements cover each seasonal garden and filter zone. Even though there are four individual gardens, they still belong to a union. Some abstract symbols that originate from Chinese gardens are also applied to the design, such as the doorways and screen walls, however, they are reused in a more modern way.

S3 Plants

Some cross-cultural plants are used in the design to create the spiritual atmosphere. In each thematic unit, there is one plant represents the theme of the unit. The four plants origin from old poetry. These plants are not only located in the individual garden, but also are planted in the whole garden. It keeps the admiring views in the garden continuing through the year. The sheet below provides references for plants.
C2 & C3 White and Black

White and black is a frequently seen color composition in southern Chinese gardens, which is a smaller size than northern ones. The site that the design is applied to is a small area. It is perfect for a southern style Chinese garden. Also, the townhouses along the east side of the site, provide a favorable condition. Their roof outline is just like what is in south China. Today, white and black is more popular in neo-Chinese designs.

M1, M2 & M3 Glass, Concrete, Steel

For the section of materials, the contemporary design prefers to modern materials like concrete, steel, glass, marble, limestones, etc. In this project, there are not too many complicated structures. Thus, I choose glass, steel, and concrete for walls, buildings, and pavement. Glass is a suitable material. Creating a fascinating modern structure by the glass is easy. And the transparency property of the glass provides more opportunity for the design principles of depth of fields, space layers etc.

CONCLUSION:

The traditional Chinese garden is a very classic oriental garden. Compared with western gardens, which more focus on geometric symmetry, the traditional Chinese garden is subtle. It concentrates on the natural expression and embraces nature as well as humanity. What the spirit contains in Chinese gardens is very helpful for relieving the stress of modern living. However, compared to the Western-style landscape, the traditional Chinese garden lacks flexibility and practicality. Contemporary landscape emphasizes efficiency and functionality. But traditional Chinese gardens respect privacy and care about personal spiritual understanding. In the case of a bridge, traditional Chinese garden respect Fengshui, so the bridge is zigzag rather than straight.

But for the section of design principles, traditional Chinese gardens count. The design principles of the traditional Chinese garden are the resource of design inspiration. They provide interests for the modern landscape. The design principles like concealment and revelation, framed view, borrowed view, depth of fields, etc., all are excellent design resources for today.

For this creative project, by summarizing the history and learning Chinese garden design principles, I summarized a framework for design workflow for the creation of a new form of Chinese garden. This framework briefly indicates and explains how Chinese gardens are designed. And to make a better fusion of tradition and modernity, my strategy especially respects the existing conditions of the site, and optimizes the utilization of the current textures by applying the same or similar materials with the existing textures of the new garden, rather than copying the traditional material. The design language of the new garden is contemporary, and geometric forms are applied. I also developed a sustainable flow chart for the mixture use of tradition and modernity. Other designers can explore and add materials to this chart. The more exploration, the more complex and interesting the composition will be. The new Chinese garden is also designed with some characterized programs, which provide various spaces for modern lifestyle while make people appreciate the Chinese culture.
Figure 4.22 entrance plaza
Figure 4.23 lotus pond
Figure 4.24 playground
REFERENCES


http://www.gardens.si.edu/our-gardens/haupt-garden.html

http://chicagochinatown.org/


https://www.travelchinaguide.com/attraction/jiangsu/suzhou/humble_garden.htm

http://www.peipartnership.com/

http://whc.unesco.org/en/list/813/video