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I am submitting herewith a thesis written by Xue Yue entitled "TRANSLATING THE CULTURAL LANDSCAPE: A Chinese Garden In East Tennessee." I have examined the final electronic copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Landscape Architecture, with a major in Landscape Architecture.

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Avigail Sachs, Brad Collett

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TRANSLATING THE CULTURAL LANDSCAPE:

A Chinese Garden In East Tennessee

A Thesis Presented for the

Master of Landscape Architecture Degree

The University of Tennessee, Knoxville

Xue Yue

August 2013

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DEDICATION

To my beloved Mom and Dad:

Thank you for being with me for every single significant moment in my life,

especially my birth

To Hongtai:

Thank you for making every single moment of my life beautiful

ACKNOWLEDGEMENTS

I would like to express my deepest appreciation to my thesis advisors: Garry Menendez, Avigail Sachs, and Brad Collett. My primary advisor Professor Garry Menendez dedicated many of his valuable thoughts and times in helping me construct my thesis. His passion and patience has been encouraging me for this whole process. Many thanks to Professor Avigail Sachs and Brad Collett for guiding me in defining my core thesis topic and selecting the appropriate site, which is fundamental and crucial. Special thanks to Avigail for her statement during one of our meetings, "make a place worth of a garden", which really inspired me.

My appreciation also goes to Professor Ken McCown, who was the initial instructor of my studying on Chinese garden. It was also him who encouraged me to develop it into a thesis. Professor Tracy Moir-McClean was instrumental in my literature reviews, and I am very thankful for the inspiring books she recommended. I would also like to acknowledge Professor Sam Rogers for his valuable suggestions on plant selection. Moreover, I want to thank him for leading me into this program to start the fantastic journey.

Finally, my gratitude to my family and friends is too much to fit into this limited space. The tremendous support from my friends is the beacon that points out my direction. The infinite love from my family gives me a firm backing and makes me move on without fear.

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ABSTRACT

Cultural landscapes are valuable representations of humans' interaction with nature. These world heritage sites should be protected since they are illustrations of the evolution of human society and settlement over time. However, many of the traditional ones are losing their impact under current physical constraints that are presented by their natural environments, or social, economic, and cultural forces. Based on today's modern context of efficiency and simplicity, the vanishing legacy of these sites should be interpreted by extracting the essence rooted in the culture and translating it into distinctive but concise characteristics that can be used in modern landscape design. The Chinese garden referred to in this paper is an example for analyzing the essence accumulated throughout history. At the The University of Tennessee's International House, by designing a simplified Chinese garden with translated features base on the identities that are elaborated in this thesis, a place is created for the preservation and spread of culture, as well as benefit and appreciation for all visitors. In this way, these translated cultural landscapes will not only stand as a symbol on their own, but also serve people from all backgrounds and therefore add valuable benefits and diversities to the existing landscape.

PREFACE

In this thesis I have made an attempt to clarify what a real Chinese garden is. Its unique topography, profound historical background, and characteristic aesthetic and world views make the beautiful classical Chinese gardens we see today. I appreciate that when wandering in the garden, each of the features and moments has a story or a guiding theory behind it. Everything is alive.

I couldn't stop thinking that it would be so wonderful to see these valuable cultural landscapes not only in their home countries, but in other places all over the world so that people from different backgrounds can equally share and enjoy them. To overcome the limitations in fitting the landscapes into other cultures, extraction of their intrinsic elements is extremely important. In this thesis, my attempt is made to identify those elements so that they can be preserved and reflected in my design in an optimal way.

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INTRODUCTION

Cultural Landscape

There exist a variety of landscapes in different regions all over the world. Based on the interaction between humans and the nature, each garden generates its own meanings and features to reflect people's understanding of nature — this is how culture is embedded in gardens and landscapes. A Nordic "romantic landscape" teaches people to survive in nature. A desert "cosmic landscape" has frequent sandstorms, and almost has no transition between sunrise and sunset. This makes the oasis a sacred world with hope. The Greek philosophy of "classical landscape" views nature as an equal and friendly counterpart, and therefore its spirit is that people should live with no fear in nature. These landscapes record the evolution of humankind and the environment, thus are great treasures to human beings. These sites, which are generally called cultural landscapes, have been included on the World Heritage List, to be revealed, sustained and protected.

A Cultural landscape is defined as,

"distinct geographical areas or properties uniquely '... represent[ing] the combined work of nature and of man'. They are illustrative of the evolution of human society and settlement over time, under the influence of the physical constraints and/or opportunities presented by their natural environment and of successive social, economic and cultural forces, both external and internal" (Operational Guidelines, 14).

But some of traditional landscapes are difficult to preserve because of our current "social economic and cultural forces" (Operational Guidelines, 14). Although the World Heritage Centre has done a good job preserving these cultural landscapes, these sites still need more attention from the public, designers and architects to keep them from being ignored and finally forgotten in the speeding development today. Therefore, it is crucial to translate these cultural landscapes into a modern language that can be easily

adopted by contemporary aesthetic view and context while keeping the essences of their spirits. My thesis will focus on identifying the cultural landscape, extracting the essences behind its characteristics and translating them into modern interpretation so that it can be easily accepted by today's user, efficiently constructed and spread to various regions.

Memory and Place

Every designed space needs to create a sense of its place. Culture is not only about the identities it owns, but also the emotional bonds that attach to it. There are two kinds of places that will effectively draw people's attention: "disnification," a nonexistent creation that is unique; and "elsewhereness," an imitative scene that is very realistic and familiar, or where you've been staying for a long time (Bushman and Davis 78). People experiences the world differently compared to other species mostly because of the way our senses work. This is not only about acuity, but the sensibility—that is how humans relate their memory with a place.

Sight is probably the most important sense for us since it directly relates to the three dimensional world we experience. It is a gift that we can recognize things by colors, while some mammals such as cattle are monochromatic (literally "one color"), which means they can only see black, white and intermediate grays (O'Neil). This explains why it is a misunderstanding that it's the red cape irritates the Spanish fighting bull, because the bull doesn't see that color. It is actually because the cape waving that drives it crazy. Humans are trichromatic, which means we can differentiate blues, greens and reds, which makes our vision more vivid than those dichromatic animals that can only discriminate between greens and blues (O'Neil).

Human beings are sensitive to color from very early age. Colors have strong effects on emotions. That's why color is always the striking factor that attracts people's eyes. According to Tuan's theory, black, white and red are the most distinctive colors so that

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humans give their names first (Tuan 6). The reason why black captures people's attention is from the fear of the unknown world. And it is the only color left that people encounter when they are blind. White is so bright that it can never be ignored when it appears among colors. As a contrast color to black, it is widely used in recording human history and ceremonies like funerals, in China. Red is the color of blood, thus representing passion and life, which is also the reason why Chinese people use it on weddings and in northern gardens. Yellow is also an important color in ancient China since it is the color of earth. It also represents the emperor. However, this color is rarely used in garden design, but it is used for interior and architectural design like the artificial decorations in halls, or the tiles on the roof. In China, each color represents a particular meaning. Meanwhile, the particular color combination will convey the spirit of a tradition.

We feel more vulnerable to sound because we cannot control hearing as we do vision. It inspires our imagination since it doesn't relay accurate information. It however greatly extends our feeling of a space that could be limited by our visual field. The auditory sense provides us with opportunities of reacting to the source, which helps people to engage with the environment when visual information is not enough. We may not understand the situation until somebody tells the story, or we may not see the bird but still know it's somewhere around because we can hear its singing. However, the beauty of hearing doesn't stop here, it evokes emotion. Christmas carols warm people's heart with a feeling of tradition. Wind whistling through bamboo groves or pine forests may purify the mind. Cooing pigeons on a sunny plaza remind passers to slow down and have an afternoon tea. Our daily lives are full of sounds that subtly affect our mood, as well as helping us remember such places.

Smell sometimes tends to be neglected and treated as the least useful sense; however, it is actually powerful enough to evoke vivid memories of past events and scenes. This is probably because the olfactory sensation is related to the cortex that stores a huge

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amount of memory information that is originally connected to smell. The olfactory is closely bonded with the sense of taste and it can change with feelings such as stress, aversion, agony, enjoyment, satisfaction, and happiness. Smell is much less restricted by locations compared to vision in recalling people's memories. A landscape may easily change over time, but smell does not. You may never see the old structures you used to play hide and seek in childhood, but today you can still smell the odor of grass that grew all over that place somewhere else. In Beijing, I smell heat, underground subway and people sweating. I will never forget that in my hometown, I smell drought, thunderstorm, and grassland. But when I get off the plane in Knoxville, smell suddenly changes to humidity, freshness and wood. Smell is such a memory storage box that can be triggered at any time and at any location.

Observing the world with all these gifts allows each of us to generate a personal world view, which are then represented in our man-made landscapes. A place is important or special to someone because it carries certain characters, feelings, and memories that matter to him/her. Therefore, to design a meaningful place is to design a place that is able to engage the senses that record experiences of the past events. This relationship makes it easy to recall the memories and achieve emotional resonance within the landscape. In this case, I will use a Chinese garden as an example since it has a very distinctive style and profound historical background.

Chinese cultural landscapes used to be mainstream in Eastern Asia during ancient time (fig. 1-1). However, with today's trend toward designing for efficiency, economy and public accessibility, the complicated concept and structure that make up Chinese classical garden design is fading out of the modern context. Instead, what's happening in China is that more and more patterned "modern" gardens appear to take over the public spaces (fig. 1-2). The reason I don't consider it as real modern work is because they are only a copy of the modern form, with no soul that connects it to people spiritually. Since today's parks are designed for the masses, their layout and design become clean and simple to create more open space. However, but it is also rigid and boring – it's just a lifeless green space which is completely against the Chinese gardening philosophy. A Chinese garden is deeply infiltrated with thoughts of respect to the nature and humanity. In ancient days, people started to dwell on the earth with a respect for nature and its unpredictable power. But then they gradually moved to mimicking it along with their growing knowledge. With numerous scholars participating in gardening, which is kind of unique since this would be architects' job in Western countries , the theories of gardening, such as setting and layout, appear to be influenced by verses, ditties, odes and songs that reflected the scholars' lives and aesthetic views. Tuan describes the beauties of the Chinese gardens that are appreciated by the scholars:

The (Chinese) garden is not designed to give the visitor a certain number of privileged views; seeing is an aesthetic and intellectual activity that puts a distance between the object and the observer. The garden is designed to involve, to encompass the visitor who, as he walks along a winding trail, is exposed to constantly shifting scenes (Tuan 138).



Figure 1-1: Classical Chinese Garden Source: nipic.com



Figure 1-2: Contemporary Chinese Garden Source: wallpapershd.biz

In such place described above, a full moon gate indicates the pursuit of perfection; the combination of mountain and water brings forth the idea of duality that creates a harmonious world. Rocks tell of the integrity of their master. Seasonal flowers can be symbols of nobility, elegancy, charm and quiet. To wander in a Chinese garden and pause even at a small fraction of the whole is a feast of mind, sense and spirit.

By identifying this precious heritage and relating it back to today's world, my thesis revolves on two questions: What is the spirit under the appearance of those gardens that is rooted deeply in culture? How could these characteristics be extracted based upon the spirit while avoiding only copying the form? By extracting and resembling those most representative traditional elements based on the spirit behind them, we can develop a new modern Chinese garden to commemorate and spread Chinese culture, which may also contribute to the variety of global landscape design.

CHAPTER I BACKGROUND

History of Chinese Classical Gardens

ORIGIN AND DEVELOPMENT

Shanshui, which means mountain and water, refers to a style of both Chinese paintings and landscape manifestation. It has been long appreciated in Chinese landscape paintings and gardening. The earliest documented Chinese garden dates back to the West Zhou Dynasty, 11 B.C (Zhou 5). It was initially designed to provide a rest area for the emperors' hunting activities. A deeper understanding of Shanshui started with a switch from people's fear of nature to relate nature to human spirits.

TRANSITION

The Weijin and South & North Dynasty (220—589 C.E.) was a transition point in garden making history since it was such a turbulent period filled with wars and frequent regime changes (Zhou 18). People were suffering from unstable lifestyles while Buddhism and Taoism prevailed. As a result, three categories of classical gardens formed and developed in parallel: imperial gardens, private gardens, and temple gardens. Since imperial gardens are designed to serve the emperors, it became a stereotype that it must be in large scale and showing off its luxury but not paying attention on the detail of how to position the elements. Compared to imperial gardens, private gardens are more progressive in space design though it is limited. Views and the positions of objects are carefully considered so that you can see the fine textures of structures and constantly changing foreground and background, which built up examples for future garden making. Temple gardens emerged from this special time period when people were desperately seeking refuge. Because of the doctrine of Buddhism and Taoism, the colors inside of temple gardens are calming and peaceful so that they appeared to be less aggressive to nature by keeping the existing landscapes the way they are. This is why trees around temple gardens are all tall to reach

the sky. Also, such gardens were open to the public which neither the imperial garden nor private garden could achieve at that time. This special respect to nature and the equal relationship with common people deeply influenced even today's design philosophy.

GOLDEN AGES

Sui and Tang Dynasty (589—960 C.E.) were the booming time for gardens. People during the Tang Dynasty highly praised Buddhism (Zhou 23). As a result, temple gardens expanded all over mountains at that time and it attracted lots of visitors, including people from Japan. The imperial examination system was created, which broke the hereditary system and gave more chances to people who were talented in administration or literature. These literati needed places to meet and relax, which boosted the number and scale of gardens. Also, since old officials couldn't guarantee passing their positions to the younger generations as in the old hereditary system, they chose to save money for making gardens where they could stay when they retired.

MATURE PERIOD

Through the Song to the beginning of the Qing Dynasty (960—1736 C.E.) is a mature period of garden making (Zhou 27). The economy was prosperous during Song, which made people addicted to enjoying life. From the emperor to officials, people were competing by building gardens to show their riches, and escape the reality that their country was actually weak and threatened by the minorities in the north. Science and technology were fast growing throughout the world, which highly boosted the skills in garden making. Books like *List of Orchards, List of Chrysanthemums,* and *List of Stones* demonstrated designers' capability of systematically and scientifically recording and applying elements in gardening (Zhou 27).

POST MATURE PERIOD

The gardens in the Qing Dynasty (1736—1911 C.E.) were developed based on those of the Ming Dynasty (Zhou 43). Current existing classical gardens in China are mostly

from Ming and Qing Dynasty. Emperors used to destroy all the structures built by the prerulers, but since Qing dynasty they stopped doing that and started to preserve and refine Ming's structures and facilities. At this time, the imperial gardens began to borrow more and more from southern gardens, and because of their abundant financial capability, the scale of gardens are unprecedentedly magnificent. Being affected by their nature of riding and shooting trained by hunting tradition, Emperors like Kangxi's Summer Mountain Resort in Chengde have less buildings but great scale of forests and green landscaping, which mimic the archetypal view of their homeland. As for the temple garden, since one branch of Buddhism Zen became the prevailing doctrine, thousands of temples were built up during Qing Dynasty around Beijing. Monks actually started to make friends with literati while drinking and versifying. This turned temple gardens from a sacred place to a more public and secularized place. The social status of gardeners and designers was promoted significantly. Gardening theories became more mature and were recorded. Master works like Yuanye by Jicheng are still treated as models today (Zhou 42). However, classical gardens declined during this period due to the turbulent political environment and invasions from Western countries. The development of classical garden finally ended with the death of Qing — the last feudal dynasty in Chinese history.

Theories of Chinese gardening have been constantly accumulated during the past two millennia. Imperial gardens have become a history because of its unique background. Private gardens are the most prevailing type in current days in China. Their essence and characteristic features are the reason why they have been interpreted in many ways.

Essence of Chinese Classical Gardens

The Chinese garden is deeply influenced by two principles that have been constantly referred to through history: oneness between man and nature, and noble men's analogy of their virtue. These two thoughts shape the form and direction of Chinese classical garden (Zhou 54).

The bond between man and nature is a continuing topic and a core concept of Chinese gardening. It was Menci (372-289 B.C.), a master in Confucianism, who introduced the thought "man and nature should be one" (Zhang, The "Oneness" In Ancient China). This alleviated the tension between human and the wild. It led people to understand nature with respect rather than fear. This is the time when people were not only trying to inhabit the landscape, but somehow manage it to reflect their own wills and traits. As a "second nature" in a much smaller scale, a garden should be seen as a simulating nature though it is created through human hands.

A primary manifestation of Chinese classical gardens is that noble men always reflect their virtues through landscape elements. It represents how humanity is blended into natural law. Therefore, the reason why the garden is appreciated especially among literati is because the elements echo their own virtues, or the virtue they are longing for. Confucius once said that "The wise enjoy the waters, the benevolent enjoy the mountains" (Zhou, 14). Water is constantly changing while supporting life on earth. It is turbulent and silent, extroverted and mild. Mountains provide habitats for lives. They are stable and selfless, similar to the spirit of a benevolent man. Instead of asking for satisfaction from the tangible objects, people prefer to enjoy spiritual happiness that the analogy brings to them. This thought could be widely seen in private gardens.

Character and Identity

Norberg Schulz thinks that "human identity presupposes the identity of place" (Norberg Schulz, 1980). Man-made places are related to nature in three basic ways: they visualize, complement, and symbolize. By these, humans show their understanding of nature through structures, add what we need that nature doesn't have, and finally make it a meaningful place in which to dwell. Humans abstract a systematic cosmic order

from the flux of occurrences, and they relate character of objective natural elements to subjective human traits. Therefore, Chinese gardeners developed an artistic environment both spatially and spiritually in both direct and indirect ways.

Direct expression may be easily told through objects that are commonly used in the Chinese garden. The rock, or mountain, is viewed as a worship of the sky or spirit of human; vegetation represents growth and process; and water is a symbol of life. These three primary components of nature are transformed, and recombined to prove men's understanding of nature. Yi-fu Tuan, a famous Chinese-U.S. geographer, mentioned the reason why mountains appeal strongly to human imagination in his book *Topophilia*. He pointed out that people view mountains as a ladder to the sky, where the Gods live (Tuan 70). But the reason for people's admiration and yearning for mountain life doesn't stop here. Mountains, as described in numerous Chinese poems and folk tales, are where the hermits live. In the mountain people can escape the noisy world to find their own peace, which became appealing to literati since the period of Wei and Jin in China. The peaceful and joyful life in mountains can be read through the poem by Wei Wang from Tang dynasty:

Idly I watch the cassia petals fall;

Silent the night and empty the spring hills;

The rising moon startles the mountain birds;

Which twitter fitfully in the spring gully (Wang, "The Gully of Twittering Birds").

The Chinese garden, as shown in landscape paintings, emphasizes the contrast between the vertical mountain and the horizontal water and plain, which is the way we understand nature through Chinese topography. Mountains with water presents the duality as well as the perfection of the world by supplementing such a hard material with a soft one. Plants are added to give this space life and subtle decoration. Implied expression is popular for Chinese gardening theory since scenes in gardens are always associated with what may happen in nature or undiscovered places. The contrast between hide and reveal in spatial arrangement is an interesting theme, such as the winding path leading to mystery in the Grand View Garden in Shaihai, China (Fig. 2-1). The rock hill that is made by 3,000 tons of Taihu Stone is placed right behind the gate which acts as an effective screen from the views inside. It is an prompt for visitors to clear their minds and prepare for a visual feast. People have no idea what place they would achieve until they pass through this dark, narrow and mysterious path. Unlike western designers, many Chinese classical garden designers are literati instead of landscape architects. This difference brings much romanticism to gardens that encourages scholars, artists, and poets to depict and imagine this beautiful second nature in each of their



Figure 2-1: Grand View Garden in Shanghai Source: web.egotour.cn

different ways. As a result, their works will inspire further development of garden design.

Color is the easiest way to give people an indication which style of the garden belongs to because it is always the most obvious feature. The main colors for Suzhou gardens are black and white, while in Beijing they are red and green (fig. 2-2, 2-3). This is probably



Figure 2-2: The Humble Administrator's Garden



Figure 2-3: Temple of Heaven

first because the mild climate makes Suzhou clean. So people there prefer to choose neat colors for their dwellings. However in Beijing, it is so windy, hot or cold that people need bright color to keep energy. Second, people in Suzhou are mostly influenced by sedate, secluded literati who prefer quiet and introverted lives. But in Beijing, power and wealth make people ambitious and competitive. Also being a military area, choosing red and green is showing this perspective of personality, which is aggressive and energetic.

Light and shadow may be the most interesting aspect of garden design. Maintaining the principle of designing with nature, light and shadow in Chinese classical gardens are not seen for their own beauty but communicate with the light from nature, such as the moonlight. The Three Pools Mirroring the Moon in Hangzhou (capital of Zhejiang Province in China) is a master work in southern gardens for its subtle treatment of light and shadow (fig. 2-4). Each Mid-Autumn Festival, three little stone towers on the pool are lighted. The lights echo with both the light of the full moon in the dark sky and its reflection in the pool, which fully interprets the essential spirit of creating access to nature.



Figure 2-4: Three Pools Mirroring the Moon Source: tripadvisor.com

Sound, as we discussed at the beginning, really adds a new dimension to space. In Chinese gardens, designers "borrow" the landscape beyond their restricted space to increase the beauty of the view. Similarly, sound can be borrowed from anywhere, for instance the flowing spring within the garden, or a bell tone from far away. Imagine how it feels to sit in a pavilion and hear the constant sound of rain drops hitting the lotus leaves — the only sense is pure tranguility.

The essential concept of the Chinese garden is delivering a delightful peace. This is where it differentiates from the Japanese garden, which sometimes may be confused since they look similar from some aspects. It is not a bad thing to share common characters in two cultures, but it is necessary to distinguish each of their own unique identities clearly. The most significant difference in garden making between the Chinese and Japanese is their philosophy, which is deeply influenced by each of their geographic environments. Japan is a calamitous country in history for its special geographic location. It is a small island affected by tsunamis, earthquakes, and volcanoes. All these natural disasters have taught the Japanese people to get used to them and life is evanescent. That is why Zen becomes the core belief and pessimistic emotion has more or less pervaded their garden design. The Japanese rock garden is a reflection of this mood because water is not used for a stream; instead, they use white sand or pebbles, which is truly still. Chinese gardens are different. Unlike the Japanese who want to seek pure peace in the almost empty garden, the Chinese aesthetic view is based on joyousness, which makes the design philosophy focus on emphasizing the vitality of life. In the relatively less aggressive southern garden, bamboo and Taihu stone are still marks of righteous and unbending traits that suggest vivid and strong personality.

Elements discussed thus far can be sorted into five categories as generalized by Christian Norberg-Schulz: "Thing, order, character, light and time are the basic categories of concrete natural understanding" (Norberg-Schulz 32). "Thing" and "order" are spatial;

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"character" and "light" are general atmosphere. Only time is about constancy and change, which differs from place to place. It is the point that makes a place unique. How to abstract the characters and what characters to abstract are essential in making a meaningful place. We tend to dwell in the environment in the same way all over the world despite the differences – in cities. This trend of monotony covers our specialty, which makes variety so fascinating. We are eager to copy from each other and as a result we become uniform again. When the ever changing sun and light hits the never changing day and night, our environmental crisis, which is brought by introducing exotic things, starts to call people's attention. That is where we depart to look for the genius loci and bring the spirit back which originally belongs to our culture.

Limitations and Challenges

The Chinese classical garden is indeed a precious cultural landscape worth spreading throughout the world. However, there are only a small amount of classical gardens that exist outside China and most of those are built as restorations of historical landscapes. Even in China, the classical garden style has stopped developing in current days. There are reasons behind this stagnation worth exploring.

WHO TO SERVE

Chinese classical gardens were originally designed for emperors, scholars, and rich and noble men. Whether Royals or private individuals, only a small minority was served by the gardens and their designers never thought about the public. Figure 2-5 is a bird's view for "The Humble Administrator's Garden". Water takes up almost half of the whole area, which is marked in yellow dash lines. Many of the touring routes (blue lines) are narrow corridors over the water. Excluding the building structures and their courtyards, the green spaces circled by red lines are densely vegetated and broken into small pieces. Designers intended to create a neat spatial experience. However, it is also the crucial



Figure 2-5: Model of The Humble Administrator's Garden Source: flickr.com

reason that pushes the classical garden out of the developing contemporary landscape design. Lacking of sufficient space makes it only a historical legacy for research and documentation, but not a concept to be widely applied in modern landscape systems.

CLOSED SYSTEM

Classical gardens are generally closed systems since they were generally built for private use, which is difficult to fit into the cities' open systems today. One common concept is that the boundary walls are mostly tall and solid to keep the privacy for the owners and mark their property (fig. 2-6). So each of these beautiful gardens are independent entities. Today we need organic public green spaces that are well connected to urban infrastructures. Therefore, gardens need to be accessible to function as part of the city's circulation. They should combine with streets, communities, buildings, water systems.

AESTHETIC VIEW

The views of aesthetic beauty have shifted dramatically from ancient days to the present. It was the lack of transportation that promoted public desire of bringing nature to their backyards. However, today, going to the field is no longer an issue, which somehow

weakens the classical garden as a "miniature nature". A new focus should be on the planting design. China is lacking of technical horticulture knowledge. In comparison to the whole spatial layout and structural detail, plants are less valued in terms of form, texture, etc. Refocusing on planting design needs more helps from horticulturists and botanists.



Figure 2-6: Wall for Private Mansion Source: s.dianping.com

ECONOMIC VIEW

Elements used in Chinese classical gardens were very expensive because they were used to show off their owners' wealth and status. For example, the Taihu stone can be costly depending on its size, form, and freight. Such an element is unfortunately not appreciated today in terms of cost efficiency (Zhou 56). This thesis is proposing a simplified style to link garden space to nature in a more open, blended, and accessible way as well as reducing the cost on the elements and installation.

Benefits of Chinese Garden Principles

People need to communicate with their surroundings, especially those living far away from home. For Chinese people who are accustomed to Chinese gardens, a space that has the features with which they are familiar, to remind them of their homeland would be the best place for them to socialize. New international students may miss their home and need a refuge from this unfamiliar environment where they may sometimes find challenging with the different culture and language. After becoming familiar with a foreign environment and their curiosity wanes, they may experience homesickness. When days become long, some go back home, but those who choose to stay still cannot get rid of homesickness for thousands of things that used to happen in their lives in their hometown: festivals, family reunions, and so on. Even if they, as the first generation immigrants themselves, don't miss all these features, their parents or families who have to come here with them will desperately miss the Chinese culture. Yi-Fu Tuan, a famous Chinese-U.S. geographer, gave this emotion an elegant word, which also is the name of one of his books – Topophilia. In the book he wrote:

The word "topophilia" is a neologism, useful in that it can be defined broadly to include all of the human being's affective ties with the material environment...The response may be tactile, a delight in the feel of air, water, earth. More permanent and less easy to express are feelings that one has toward a place because it is home, the locus of memories, and the means of gaining a livelihood (Tuan 93).

For the local residences and people from other cultural backgrounds who are visitors to Chinese gardens, an example at the University of Tennessee would be an excellent educational source for learning about a foreign culture. They can build their ties with this new garden based on their own understandings that are obtained from both emotional and physical communication within the garden. This could serve as a starting point for them to explore the profound history behind it. Beyond these benefits of a Chinese garden, there is no doubt that it will function the same as other gardens — a place that welcomes everybody to stay, wander and enjoy.

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CHAPTER II CASE STUDIES

Case Study 1

NATURE WITHIN WALLS: THE CHINESE GARDEN COURT AT THE METROPOLITAN MUSEUM OF ART

This Chinese Garden Court, within the Metropolitan Museum of Art, is based on a real part of a southern Chinese classical garden in Suzhou, named Wangshiyuan, which means Garden of the Master of the Fishing Nets (fig. 3-1). In 1980, using Wangshiyuan as a model, a group of Chinese craftsmen constructed this court with traditional tools, using both man-made and natural materials, to make a replica of Chinese classical gardens. This was a very successful cultural exchange and presentation between the United States



Figure 3-1: Front View of The Chinese Garden Court Source: Hammer 6

and the People's Republic of China. It was also valued as one of the earliest installations of Chinese gardens in North America (Hammer 9).

This is an exhibition on the beauty of Chinese classical gardens, thus there are many commonly used exquisite features within the design. When entering the exhibition hall, there exists the typical four-direction oriented courtyard with a half-pavilion structure on the left and a meandering covered corridor on the right. Within the courtyard, decorative plants and rocks are distributed naturally along the four sides. To reveal the authentic Chinese garden as much as possible, featured materials are imported from China such as Taihu stones and Nan wood.

The left-side wall is painted white with gray eaves, which is common for southern gardens (fig. 3-2). It immediately creates a quiet and clean space for visitors to relax.



Figure 3-2: Half Pavilion of The Chinese Garden Court

Against the wall, the half-pavilion, with warm yellow light, is set as the main structure and focal point. The curve of the wood-backs on the stone seats is in line with how ladies sit elegantly, which gives this treatment the name—Beauty's Back.

To the pavilion's left is the Deep Jade Green Spring. The constant sound of flowing water and the presence of goldfish in the spring add delicate color and liveliness into the entire design. To the right is a display showing the rough Taihu stones. These are juxtaposed with the fine groundcover plants which have different textures. An eye-catching banana stands upright to echo the form of the pavilion.

On the right side of the courtyard is the winding corridor with Oleanders and stone decorations against the wall (fig. 3-3). One of the detailed treatments in classical architectural design is the drip-tile on the edge of the eave. Their triangular shape directs rainwater into streams that finally run off the pointed end. The patterns on these tiles represent good fortune, longevity, and wealth (fig. 3-4) and there are similar patterns on the tops and under the eaves of the pavilion (Hammer 13). The window on the wall is



Figure 3-3: Corridor in The Chinese Garden Court Source: Hammer 8 Figure 3-4: Drip Tile Source: Hammer 13 another fine treatment. The various patterns on the windows are art works by themselves. However, the designers didn't intend this as a focal element, but further extend the sight line to the green spaces, or other beautiful views behind it. In this way it is not completely isolated, but still exchanges views with the outside.

There is an additional feature that should be mentioned among the many other merits of this garden — the transition between materials. Figure 3-5 shows one approach: the transition from the planting bed to the ground pavement. Tile elements are applied here to avoid hard, straight-cut edges. Also, the groundcover plants naturally extend and merge with the pavement which blurs the actual boundary. Several scattered rocks of different heights vary the elevation so that the transition from the ground level to the tree is smooth. Another feature may be seen where the veranda ends (fig. 3-6). Here, between two different scales and patterns of hardscape, the extremely rough rocks are used to suggest that the visitors are entering a natural space, compared to the formal structures in which they were previously.

ASSESSMENT

This case study shows a glimpse of a Chinese classical garden, and at the same time



Figure 3-5: Edge Design I

Figure 3-6: Edge Design II

includes most of the prominent features that such a garden would have. It is successful because those who encounter it truly enjoy the peace that this place creates. It's interesting to see non-Chinese visitors wandering in the courtyard space, taking pictures, and wondering about the exotic atmosphere this garden creates, while Chinese citizens are sitting down, relaxing, chatting, and enjoying an environment that they feel comfortable in.

Case Study 2

NO. 13 SIHEYUAN OF NORTH SHUNCHENG STREET

"Who To Sit With" is the core concept for this quadrangle dwelling reconstruction project. "Who To Sit With" is quoted from a Song poem by Shi Su ("Rouged Lips"). It was originally meant to express his desire of a bosom friend. But in this project, the designer extended the meaning to communication and friendship.

Located on the No. 13 North Shuncheng Street in Beijing, China, this project spans 335 m² (about 3605.91 ft²) of land and serves as a green belt between two main roads (Uffelen 824). Though not a massive site, this location is very special (fig. 3-7). On one side of the road, there exists very urbanized business buildings while on the other side is a main transportation node with heavy traffic most of the time during a day. The dwelling was originally a part of Luzhu Palace which is a cultural heritage in Xicheng District. All

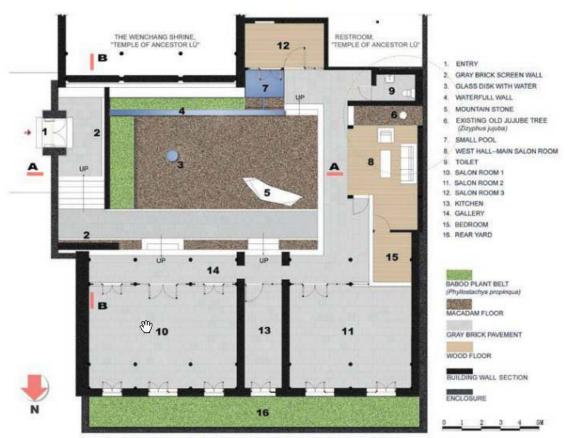


Figure 3-7: Shuncheng Street Source: wubiao137.diandian.com

these conditions provide this site with a very historical and cultural background in such an urban and modern context.

The approach for this renovation project is to inherit the Chinese traditional landscape culture. Because of its modern context, it is meant to serve as a salon for certain groups of people such as developers, bankers, and architects. This is where the core concept, "Who To Sit With", comes from. Yufan Zhu, the core designer of this project, emphasized that, instead of completely tearing it down and replacing it with a really striking structure, it creates harmony as its dominant tone: harmonizing with the architectural style of Luzhu Palace and harmonizing with the spirit of the old city.

The courtyard within these dwellings is designed as a recessed space in order to strengthen the feeling of enclosure and privacy (fig. 3-8,9,10). A screen wall (2) right in



PLAN OF THE NO.13 SIHEYUAN (AFTER RECONSTRUCTION)

Figure 3-8: Plan of Siheyuan Source: ddyuanlin.com



Figure 3-9: East-west Section of Siheyuan Source: ddyuanlin.com



Source: ddyuanlin.com

front of the entrance adds interesting variation to space, which is inherited from Chinese gardening theories (fig. 3-11). By hiding the view, providing an enclosed feeling at first, and then suddenly falling into an open sight, the experience of the scale of the space is changed dramatically. By applying the dark grey brick, which symbolizes the style of old Beijing, this new space being simple and peaceful, creates a subtle conversation with the blatant modern atmosphere around it. Therefore, it naturally becomes a refuge for people to gather and converse.

Within the courtyard, the spirit of the traditional Chinese philosophy is extracted and represented delicately through landscape. When turning at the corner of the screen wall, the first scene that instantly presents itself in front of the visitor is the courtyard with a mountain stone(5), a glass disk with water(3), and the ground covered by white pebbles (fig. 3-12). By the time people see it, the noisy world has disappeared because the focus is on this neat and simple place. The disk with water represents the full moon, referencing watermoon, a typical scene depicted in Chinese poems during ancient days. In response to the "moon" (water disk), the mountain stone represents solid ground, which Zhu claimed to be "me". The white pebbles create a tranquil mood and provide a background for the conversation between "moon" and "me".



Figure 3-11: Screen Wall Source: ddyuanlin.com

Figure 3-12: Courtyard Source: ddyuanlin.com

Standing in the courtyard, the waterfall wall (4) with bamboo becomes another focus, both visually and acoustically (fig. 3-13). Bamboo is an important and common element used in Chinese and Japanese gardens but here Zhu adds something more to successfully make it more in Chinese feeling; it is the Koi (fig. 3-14). Thinking in this level of detail should be highly appreciated for it is pointing out such a small cultural feature yet it gives this entire space a sense of belonging to China.

ASSESSMENT

This quadrangle dwelling renovation project is a feasible model that filters the noise of the city and utilizes symbols such as bamboo, waterfall, moon, stone, and koi to build up the atmosphere of a certain cultural landscape in a minimalist way. The design appears simple, however, the spirit it exudes is very well presented.



Figure 3-14: Koi Source: ddyuanlin.com

Figure 3-13: Water Fall with Bamboo Source: ddyuanlin.com

CHAPTER III METHODS

Site Selection

The Chinese/Asian population in Knoxville is not as large as cities such as Atlanta, Boston, New York, and San Francisco but that doesn't mean there isn't a need for a Chinese garden. A Chinese garden should be proposed at a place a) where it has the most Chinese context – where Chinese people gather the most and have activities, and b) where a cultural center is located since the purpose of this garden is to fit into existing context and sharing the culture. In other words, to identify where people live and where they visit most often (groceries, restaurants, campus) is going to be an essential guide to site selection (fig. 4-1). On the Points of Interests map, red dots represent restaurants and grocery stores, yellow dots are communities and the blue dot is an educational institution. Places are listed based on my personal experience and observation. In figure 4-2, The University of Tennessee's (UT) campus and the restaurant area are the two locations many Chinese frequent in Knoxville. So these two destinations become the centers of

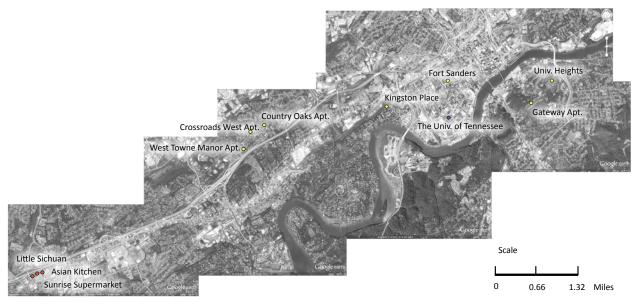
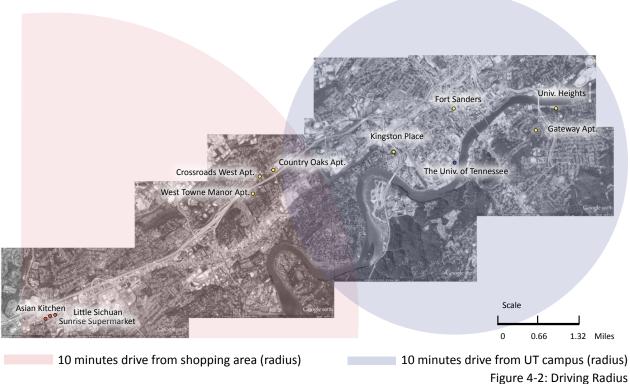


Figure 4-1: Points of Interests Source: Google Image



Source: Google Image

these regions, and the radii represent roughly a 10 minute driving distance. The radius of the shopping area is larger than that of UT's campus because of its accessibility to I-40. The blue circle still covers most of the Chinese communities including UT since students, scholars and professors spend an ample amount of time in school. This makes the campus a appropriate site for proposing a Chinese garden.

Introduction of International House

The International House (I-House) was founded in 1969 to serve students from various cultural backgrounds to communicate and share experiences at The University of Tennessee, Knoxville. The current building was established in 1995 especially for programming international cultural events as well as an educational source for international students to smoothly transition to life in The United Sates. It is located near John C.

Hodges Library and surrounded by the Melrose Ave. loop (fig. 4-3).

A multicultural atmosphere is the essence of I-House. It is a resource for the UT students from all over the world to share each other's unique backgrounds and also to learn to respect each individual's customs.

The primary goal is to meet the unique needs for international students and to provide a home far away from their home country. Since the United States is a nation of blended nationalities, the cultural exchange is equally important among American students. In order that nobody be excluded from I-House — this is a place that always welcomes both Americans and international students and is an ideal site for a cultural garden.

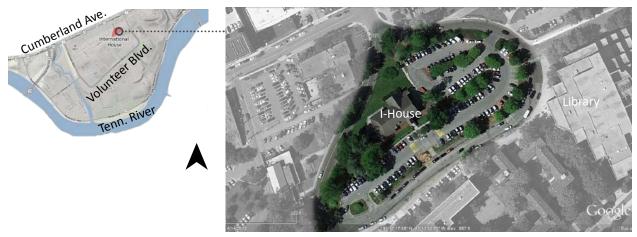


Figure 4-3: Site Plan—International House Source: Google Image

Opportunities

The I-House hosts numbers of activities throughout the year. Among the students that visit I-House, Chinese students make up a majority. It is located near by the library which is a symbolic building and core gathering place on campus. Also, it is close to Cumberland Ave. and 17th St. which are two main roads that enter into UT's campus. The I-House itself needs an identification to show its international atmosphere. In the next section I will illustrate a comprehensive analysis for the site.

Site Inventory and Analysis

TOPOGRAPHY

Tennessee is divided into six main regions: the Unaka Mountains, the Great Valley of East Tennessee, the Cumberland Plateau, the Highland Rim, the Central Basin, and the Gulf Coastal Plain. In addition, there are two minor physical regions: the Western Valley of the Tennessee River and the Mississippi Flood Plains ("Tennessee Topography"). Knoxville is located at the center of the Great Valley of East Tennessee which runs diagonally from southwest to northeast (fig. 4-4). In a micro context, my site is located at the Central Valley in between Sharp's Ridge and Tennessee River. To the southeast of the Tennessee River the topography is also oriented in the same direction as the Valley of East Tennessee.

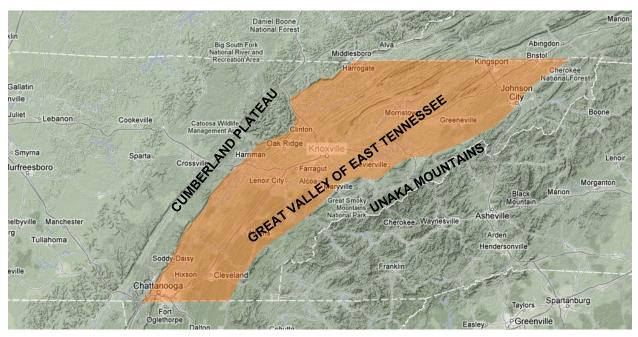
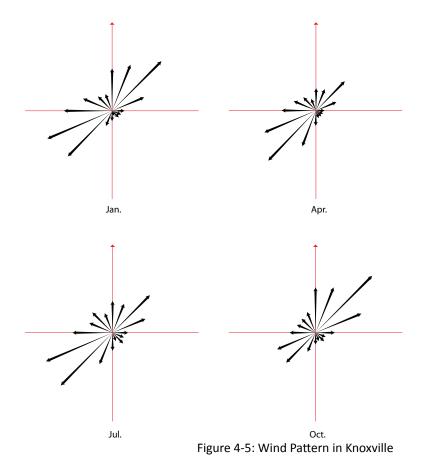


Figure 4-4: East Tennessee Topographic Map Source: Google Image

WIND PATTERN

Because Knoxville is located in a valley, the primary direction of its surface winds are from southwest and northeast. Figure 4-5 shows the frequencies of wind directions during four months of four seasons. There are two major factors that control Knoxville weather pattern: the Azores-Bermuda high pressure ridge that dominates summer and fall, and the Gulf Coast that has influence in winter and spring. Occasional cold fronts from the northwest, north, or northeast sometimes alter the wind direction as well (Energy Vision 2020 T1.12). In January winds mostly come from southwest and northeast. In April and July they mostly come from northeast. October is dominated by southwest winds. Wind pattern on site is similar to the macro scale due to the terrain (fig. 4-6). There are no large building structures on or around the site that may block the major winds.



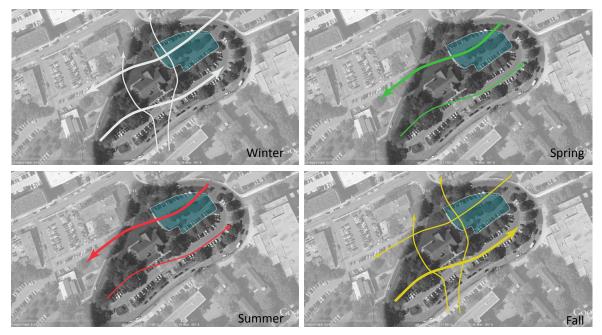


Figure 4-6: Wind Pattern at I-House Source: Google Image

SLOPE

Green, orange and red on the slope map (fig.4-7) represent slope<10%, 10%<slope<30%, and slope>30%. Both the upper and lower parking lot spaces are relatively flat. The slope of the lower parking lot is about 0.08, while the slope of the upper parking lot is about 0.03.



Figure 4-7: Slope Map Source: KGIS Map

CIRCULATION

Figure 4-8 represents both pedestrian and vehicular access to the site. This site is between John C. Hodges Library and Cumberland Ave. the walkways marked as blue dash lines are frequently used during daytime. The lower parking lot, where my proposed garden is located, is one-way, which means if one side is closed the other is hard to reuse as a parking lot. Therefore, the lower parking lot should be considered as a whole.

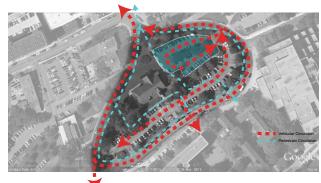


Figure 4-8: Circulation Source: Google Image

OPEN SPACE

The open space diagram indicates that areas that are covered by green have less vegetation cover and get the most sunshine (fig. 4-9). Areas covered by yellow are semiopen spaces that have some plants and are accessible. The blue color represents densely vegetated areas which are difficult to access.

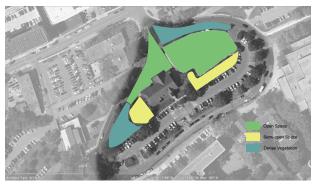


Figure 4-9: Open Space Source: Google Image

IINFRASTRUCTURE

Utility lines exist along the northwest edge of the site (fig. 4-10). However, they don't physically cross over the site or disturb the views to or from the garden. Lighting is located along Melrose PI. and I-House which improves nigh time visibility.



Figure 4-10: Infrastructure Source: Google Image

THE UT CAMPUS MASTER PLAN

The University of Tennessee, Knoxville maintains a campus master plan. The final draft and report has been submitted to the UT Board of Trustees for final approval. The goals are to "define current and future facility needs, promote a sense of community, integrate instruction, research, student living, and student life, and create a pedestrian- and bicyclefriendly environment ("The 2011 Master Planning Process"). Figure 4-11 represents the UT Board of Trustees' vision for the future of the area surrounding the I-House.

Long term, the areas surrounding the I-House are planned to be green spaces. The map suggests that the south side will be adjacent to pedestrian zones while the north side can be accessed by vehicles.

Figure 4-12 represents a detailed I-House landscape master plan that I proposed for future development. Spaces for potential international gardens are shown on the map.

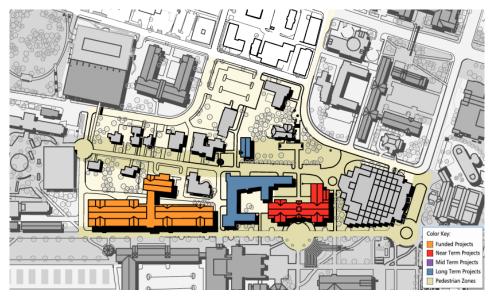


Figure 4-11: UT 2011 Master Plan Source: masterplan.utk.edu

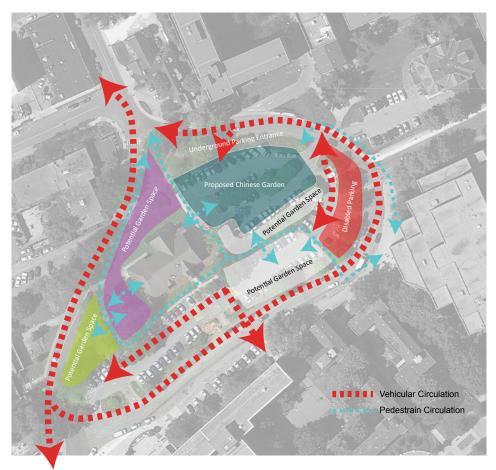


Figure 4-12: I-House Future Plan Source: Google Image

Some areas of the upper parking lot can be maintained for disabilities and convenient access to the library or I-House. There is also the potential to develop an underground parking lot under the proposed Chinese garden since there is at least a 15-foot change in elevation. Therefore, if the whole plan is implemented, people would no longer have to walk through a parking lot. This area will become a new attractive UT garden and educational resource.

PHOTO INVENTORY

From the analysis above, I selected my site because of the gentle topography, proximity to existing buildings, and exposure to sunlight. Figure 4-13 shows photos of the site's existing conditions. The east view is particularly interesting as a specimen pine and Ginkgo tree exists on this side. It would be beneficial to incorporate the existing landscape into the proposed garden. This would strengthen the relationship between people inside and outside the garden through the landscape which is a widely applied technique in traditional Chinese gardens.











Figure 4-13 Site Photos

CHAPTER IV PROJECT NARRATIVE

Project Overview

Because of the multi-cultural context of the International House, each of the cultures should be interpreted within that space as the Chinese garden does. Therefore, the project for this thesis only involves portions of the entire site around the I-House.

To deeply experience the beauty of the garden and build up an emotional relationship with it, senses related to the spirits need to be considered throughout the design process. In this chapter, I shall list the featured landscapes, explain the rationale and present my translation. Guiding principles for my design are:

- Open system break the boundary of the garden to blend into the context
- · Create as much gathering space as possible
- · Make adequate connections between the library and main streets
- Experiencing the Movement Interaction
- Scenic variety both seasonally and spatially

The overall color theme of this garden is set as black and white to recall the feeling of the southern Chinese garden, which is pure, clean and animate (fig. 5-1). As stated in the previous chapter, the beauty of the Chinese garden is it's constantly changing views. The following sections will serve as a guide through the garden to experience its movements, spacial changes, and seasonal interests.



Figure 5-1: Chinese Garden Plan

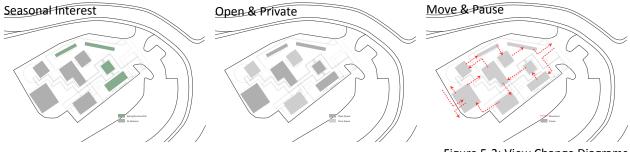


Figure 5-2: View Change Diagrams

Floating Wine Cups Along Winding Water

SPIRIT AND DESIGN

"Floating wine cups along winding water" is a rite held in March in China. It is derived from a folk-custom since Xia and Shang Dynasty (21 b.c- 11 b.c). People at that time believed that on March 3 of the lunar calender spring comes to the earth waking up every life. This is the best chance to hold sacrifice ceremonies to pray for a good harvest year and rinse off all the bad luck by floating fruits, eggs, and other food in streams. It wasn't wine cups at first. The ceremony itself is a reflection of the ancients' view of interacting with nature. The famous story began on lunar calender March 3 during the ninth year of emperor Yonghe (353 A.D.) (Wang, 31). Xizhi Wang, the most well-known calligrapher throughout Chinese history, invited 42 of his scholar friends and relatives to the Orchard Pavilion (now at City of Shaoxing, China) to celebrate this festival (fig.5-3). They were all sitting along both sides of the stream having wine cups floating on the winding water. Whoever had the cup stopped or spun in front is required to compose a poem or if failed, drink up the wine in the cup.

It is not hard to imagine how leisurely friends and families sit around to talk and drink while bathing in the sunshine of spring. There are two principles behind this ceremony: reunion and time. Reunion is an everlasting topic between people who left us nice memories. Groups of people want to get together because of loneliness, missing someone or relaxation. In this case, a place that is designed for gathering means to shorten the distance between people. That's the meaning of a scene where everybody sits along the stream, close to each other to talk, play, and laugh. When experiencing this atmosphere time is slowed down by meeting everybody as the river is slowed down by each curve. The desire is to wander along the winding water, listen to water flowing, feel emotion.

The zigzag water system is inspired by this rite and is designed for group gathering. In stead of irregular curves, the concept of meandering is simplified as straight corners. Flat concrete borders are used instead of natural stones to provide convenience and safety while sitting along the water channel.



Figure 5-3: Floating Wine Cups Along Winding Water Source: douban.com

Waterfall

SPIRIT AND DESIGN

When entering the main entrance from the east, visitors will be led by a paved path to their left. A waterfall is at the south east corner of the garden, which is also the beginning of the entire water system. Poems are displayed for each of the following sections to express the experience that each moment creates. For this particular one, it is:

In front of the stage, water is lured out by the aroma of lotus;

It is in full bloom and looks like a pure white jade (Li, "Tour to The Hot Spring").

Plants are common objects that are used to relate to human needs. The Lotus is a symbol of purity and nobility because it grows out from mud but still remains clean and delicate (fig. 5-4). Figure 5-6 is an example of how this element is applied in traditional gardens. To better fit in the climate in East Tennessee, similar plants like American White Waterlily (*Nymphaea odorata Ait.*) may be used as an alternative (fig. 5-5). Moreover, applying other green plants and textures in the planters will add excitement to the monochromatic background.

To blend the garden to the surrounding environment and create an open system, boundary walls are at different heights with several openings (fig. 5-7). Therefore, somebody who is passing by would know what is happening inside. In the meantime, sights of the visitors in the garden won't be blocked by a continuous solid high wall. To borrow the landscape outside the garden is a traditional gardening theory as well, which allows gardens to interact with a larger context.

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Figure 5-5: American White Waterlily Nymphaea odorata Ait. Source: kootation.com





Figure 5-4: Sacred Lotus Nelumbo nucifera Source: dcbbs.zol.com.cn



Figure 5-6: Lotus Applied in Classical Garden Source: nipic.com



Figure 5-7: Waterfall

Tea Stage

SPIRIT AND DESIGN

Tea originated from the southwest part of China and has been thriving for more than 5,000 years. It was first used as sacrifice and medicine. It has since become a popular drink with special rites. Various kinds of species, leaves curing, and brewing methods are reflections of Confucianism, Taoism or Buddhism.

The tea stage is surrounded by water. To arrive here, people must walk through the stepping stones which are scattered on the water. In this way, their speed is slowed so that they would pay attention to what's happening under their feet. Waterlilies are blooming and floating above the round leaves and koi are swimming and gathering for food.

Fitting plants that relate to this scene include the Pagoda Tree (fig. 5-8) which is a symbol of vigorousness and forcefulness. It is a specimen looks fantastic when blooming in summer, and its twisted branches earn equal attraction with their flowers. Native trees that have similar features include the American Plum (*Prunus americana*) or Magnolia (*Magnolia sp.*) (fig. 5-9, 5-10). At the time of conducting a tea ceremony, Plum trees or Magnolia trees may be in their full bloom. There are attractions on the wall as well. A poem that expresses this moment would be:

Dream is filled with the faint scent from steaming hot tea;

Delicate windows and wall scrolls paint out my memory of the River South (Lu, "Collected Poetries of Lu You Vol.29.").

As mentioned in the previous chapter, adding some vivid colors remarkably differentiates the Chinese garden from the Japanese garden (fig. 5-12). Therefore, the Chinese garden is not only about meditation, but also about joyousness and vitality.



Figure 5-9: American Plum Prunus americana Source: meridian.k12.il.us

Figure 5-10: Magnolia Magnolia Source: picstopin.com



Figure 5-8: Japanese Pagoda Tree Sophora japonica Source: unpcn.com



Figure 5-11: Trees and Wall Features in Classical Garden Source: lunyutongshi.baike.com



Figure 5-12: Tea Stage

Winding Path to The Mystery

SPIRIT AND DESIGN

Spatial variety may be strongly experienced on the winding path to mystery. It adds much of interests to create a mysterious place after a winding path that is isolated by dense vegetations on both sides. During the journey on this path, vision is blocked so that other senses will be aroused. Hearing is more sensitive with the water flowing, while skin can better sense the wind blowing. The destination that this journey is revealed as a surprise the garden wants its visitors to experience. Therefore, it is the opening and closing of the space that creates the attraction to this place.

Screen walls at two entrances are introduced to further emphasize the idea of concealment. A screen wall is a typical feature of old quadrangle dwellings which is also referred to in case study 2 (fig. 3-8,9,10). On one hand, it helps to keep the privacy of the living space behind. On the other hand, it pleasantly surprises visitors after they turn at the corner and see the beautiful courtyard. Surrounded by screen walls and bamboo groves, people walking on the path can hardly see anything until they reach the pavilion.

Representative plants that are utilized at this time include the native River Cane (*Arundinaria gigantea*) and American Winterberry (*Ilex verticillata*) which are substitutes for other varieties of bamboo and Chinese Plum (*Prunus mume*) (fig. 5-13,14,15,16,17). Bamboo is the symbol of integrity as it always grows upright, while Chinese Plum is elegant and enduring as it blooms in late winter or early spring. Thus wandering in this private moment, people can still appreciate the equal merits and seasonal beauty that native plants could bring:

Withered and fallen petals are stained by the mud;

Only the fragrance of the plum still lasts. (Lu, "The Plum").



Figure 5-14: River Cane Arundinaria gigantea Source: ourstate.com



Figure 5-17: Possumhaw Ilex decidua Source: davesgarden.com

Figure 5-16: American Winterberry llex verticillata Source: about-garden.com



Figure 5-13: Bamboo Bambuseae Source: bamboogarden.com



Figure 5-15: Chinese plum Prunus mume Source: g-years.com



Figure 5-18: Winding Path



Figure 5-19: Winding Path to Mystery and Calligraphy Stone

Calligraphy stones

SPIRIT AND DESIGN

Xun Jiang, a famous Taiwan artist, poet and writer once said during his interview in a documentary film *Taipei's National Palace*, "The core of western art history is architecture, while for China, it is calligraphy." The idea of calligraphy stones is brought into the design in honor of this unique heritage in China (fig. 5-20). The relationship between calligraphy and landscaping is very close and can be seen in early landscape drawings. Chinese classical gardens derive from the artistic conceptions from literary works and landscape paintings. So designers of classical gardens were both great poets and painters. In China, if you want to learn how to draw, you need to start with how to write skillfully. The ideorealm that literatus had been pursuing are the virtues that were gained from nature, no matter what media they were using. Thus calligraphy works, drawings and gardening are bonded with each other. In this garden, I propose calligraphy stones that are engraved with Chinese characters or poems to encourage people from all cultural backgrounds to know about it.



Figure 5-20: Calligraphy Inscription Source: wxmuseum.com

Recessed Amphitheater and Bonsai Wall

SPIRIT AND DESIGN

The sinking amphitheater design echoes with the bonsai wall as well as relating to the change in elevation. As a central area of the overall open space, it welcomes people to have a rest and enjoy the panorama view of the surrounding scenery. A Virginia Pine (*Pinus virginiana*) is planted in center surrounded by stone features and finely textured ferns and Pennsylvania Sedge (*Carex pensylvanica*) to create a mood of calmness(fig. 5-21, 23, 26). A pine tree stands for fearless and strength since it normally survives through all seasons (fig. 5-24). It is the most commonly used bonsai plant because its distinctive trunk and needle features, as well as its strong form. Bonsai are regarded as miniatures that reflect ancient scholars' atheistic standards (fig. 5-25). To have bonsais displayed and to build up a space that restores its beauty in actual scale will help visitors to understand more about the meaning of the space (fig. 5-26).



Figure 5-21: Sinking Amphitheater Section



Figure 5-23: Virginia Pine Pinus virginiana Source: commons.wikimedia.org





Figure 5-22: Yacca Podocarpus macrophyllus Source: sdnw.gov.cn



Figure 5-24: Pine in Classical Garden Source: scenery.cultural-china.com



Figure 5-25: Bonsai Source: crazyflora.com



Figure 5-26: Recessed Amphitheater

Moon View Stage

SPIRIT

The moon has been appreciated in Chinese tradition for thousands of years because its waxing and waning symbolizes the reunion and separation of families and friends (fig. 5-28). There are thousands of poems that relate the moon to the feeling of nostalgia. A poem for this moment is from one of Chinese most famous romantic poets, Bai Li:

Till, raising my cup, I asked the bright moon;

To bring me my shadow and make us three ("Three Hundred Tang Poems").

This is a moment for individuals. No matter how cheerful one's life is, how many families and friends he/she is surrounded by, there must be a moment people want to have solitude and miss the ones who are not around. It may not always be blue but it is a sentimental mood that is mixed with sweetness.

MOON VIEW STEPS

This moment is designed in honor of the very special tradition of moon appreciation in China. This feature is located at the northwest corner which is the lowest point of the garden. The water of the entire garden runs into this moon reflection pond. The full moon path diagram (fig. 5-27) shows the average altitude of full moons for each month through January to December based on four-year data. The lowest altitude of the full moon generally appears around June and is about 30° above the horizon. Altitude means the angle of the moon up from the horizon ("Sun or Moon Altitude/Azimuth Table"). Zero degrees altitude means exactly on the horizon, while 90° means straight above. Buildings at certain distances around the site that are higher than 30 degree could be a potential visual barrier to the full moon. So the full moons are less likely blocked by Hess Hall behind the I-House from this viewport. The pond is filled with black pebbles in order to give the best effect of moon reflection (fig. 5-30). Water drops in two levels and finally runs into this pond. On one hand, this is in response to the topographical change. On the other hand, it is to let the sound of flowing water fill in every moment within the garden with a delightful sound (fig. 5-33).

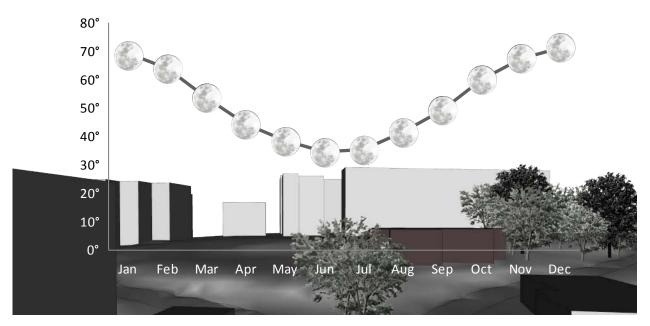


Figure 5-27: Average Full Moon Path



Figure 5-29: Fieldstone Figure 5-30: Black Lava Source: therockplace.biz Source: therockplace.biz



Figure 5-31: Large Patio Stone Source: therockplace.biz





Figure 5-28: Appreciate Full Moon Source: hi.baidu.com



Figure 5-32: Moon Inviting Platform Source: cocophotos.bokee.com



Figure 5-33: Moon View Stage

CONCLUSION AND FUTURE PROSPECT

Conclusion

Overall, this thesis is proposing a design language that would promote a gradual blending between cultures. Interactions between cultures requires a physical form to represent and document. A cultural landscape could keep its distinctive essence but may somehow fit into and thrive within another. Similar to the way people from all over the world are living in this country. Memories will help people build up their relationship with a place. To translate the classical Chinese garden into modern field doesn't mean to discard the historical feature, but rather to create possibilities for this culture, or this design language to be widely known, accepted, and applied into various settings. This thesis proposes an alternative strategy of promoting culture, providing a stepping stone or an entry, and ultimately, encouraging people to explore the beauty and essence from the classical cultural landscape.

Future Opportunities

There are more styles of classical Chinese gardens that have the potential to be translated into modern gardens such as the big-dwelling, the north garden and so on. Each has distinctive features. Vermilion paint windows and doors, white marble staircases, highback wood chairs, blue and white porcelain, glazed tiles in various colors are all unique and representative elements that could be developed into a thorough theme. A Chinese gardens, or world cultural landscapes won't stop as a heritage that is limited in museums or certain display areas, they could continue as a concept and design feature that fits wider contexts and serves the general public through different ways of interpretation.

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APPENDIX

Literature Review

NORBERG-SCHULZ, CHRISTIAN. GENIUS LOCI: TOWARDS A PHENOMENOLOGY OF ARCHITECTURE. NEW YORK: RIZZOLI, 1980. PRINT.

Norberg-Schulz's goal for this book is "to investigate the psychic implications of architecture rather than its practical side" (5). Highly inspired by Heidegger's essays on language and aesthetics, Norberg Schulz determines the approach of his book as to understand "architecture as a concrete phenomenon" (5). His book is mainly focusing on man and environment, space and character. He thinks "human identity presupposes the identity of place" (22).

To begin, Norberg-Schulz defines the word "place" both structurally and spiritually. There are two common definitions for space: one is three-dimensional geometry and the other is perceptual field (11). But none of them speaks the whole according to the Norberg-Schulz's theory because these are all "concrete spaces" that without any emotion bonds. Man dwells in a place only when the environment is meaningful and "meaning is the fundamental human need" (23).

For example, Norberg-Schulz believes that the contrast of "outside" and "inside" is one of the many ways that give the meaning to each place, which forces a designer to think what may catch people's feeling in a specific environment before they take any further steps on design (11). "Inside", or enclosure is always defined by boundary. But Heidegger says:"A boundary is not that at which something stops but, ... is that, from which something begins its presencing" (13). As the Norberg-Schulz emphasizes through the book, it is a departure.

Natural place and man-made place are two categories of place that are defined by Norberg-Schulz. Each of these two types is a demonstration of how humans find their dwellings between earth and sky, and how they shape them with their own wills. "The landscape determines fundamental existential meaning or contents" because people would easily feel lost in a foreign landscape. But this doesn't make man-made place a refuge for human. Rather it is a ground that is prepared for human and guides them how to dwell in this concrete environment (47). Therefore, the man-made *genius loci* is the micro level of the macro natural *genius loci*, and its identifications are under the influence of the natural *genius loci* it is located (48).

TUAN, YI-FU. TOPOPHILIA: A STUDY OF ENVIRONMENTAL PERCEPTION, ATTITUDES, AND VALUES. ENGLEWOOD CLIFFS, NJ: PRENTICE-HALL, 1974. PRINT.

Topophilia is an affective bond between people and place (4). Tuan explains this theme by analyzing the mutual effect between man and environment. Our economy, life style, and the physical setting affect the way we perceive, structure and evaluate our environment. At the same time, our perceptions shape the environment in a certain level.

Tuan begins with introducing the sense organs to build up people's physical connections with place at first. Tuan points out that "a human being perceives the world through all his senses simultaneously" (10). Mammalian young, especially human child, begins their exploration of the world by sense organs. However, unlike other primates, human child's growth is directed by themes, which are ruled by adults. Therefore, their thoughts and behaviors are strongly influenced by cultural values (12).

Tuan then makes a deeper discussion on human's common psychological structures and responses. A huge difference between animal and human's mind is that human is able to react to symbols. Tuan believes that "an abstract language of signs and symbols is unique to the species" (13). With this gift, human beings can construct mental world in response to their external reality (13). Color and spacial psychology are closely related to symbolism. Primary colors, especially red, cause strong emotional reactions in many cultures because it reminds people of blood, life and energy (24). Everybody can distinguish black and white and "every language has special words for black and white" (26). White, black and red thus become the "colors of universal significance" (26).

For spatial psychology, Tuan breaks the symbolism into three aspects: center and periphery, open and enclosed, vertical and horizontal (27,28). Center and periphery is universally cognized by people all over the world. This idea further develops people's spatial values which are under the influences of various cultures. For example, forward is always taken as a positive word, while backward is psychologically unpleasant (27).

The idea of "Open and enclosed" has direct emotional affection to many people (27). It could also be related to white and black, or light and darkness. Tuan considers our whole human evolution as a movement from "enclosed" space to "open" space. Our ancestors moved out from the tropical forest shelter to the more open and unpredictable savanna. Every child birth is a move out from the dark womb to the bright world. The human civilization is an evolution from wildness to urbanism (28).

The third spacial characteristic Tuan mentions that can excite widely shared emotions is "vertical and horizontal" (28). Spiritually, Tuan perceives them as "antithesis between the ideal of disembodied consciousness (a skyward spirituality) and the ideal of earth-bound identification" (28). Different architectural spaces may invoke different types of emotions. Also, architectural forms can affect our impression on scales, or sizes of spaces, which natural landforms rarely provide (29).

Tuan thinks that environment does not "determine" *topophilia* feelings, but provides the "sensory stimuli", which could be "an accident of individual temperament, purpose, and of the cultural forces at work at a particular time" (113). In China, feelings of space and nature appeared in poetry long before in the visual arts (126). The Chinese landscape gardening is deeply influenced by its topography. The bulk of people lives on the alluvial plains against with the steep-sided hills and mountains. Therefore, the Chinese gardening theory focuses on this sharp contrast between mountain and water (*shan shui*) (127). Moreover, the impacts from Shamanism, Taoism, and Buddhism can be traced in Chinese gardens (128).

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HIGUCHI, TADAHIKO. THE VISUAL AND SPATIAL STRUCTURE OF LANDSCAPES. CAMBRIDGE, MA: MIT, 1983. PRINT.

In this book Higuchi wants to clarify the visual structure of landscapes. He defines visual structure as "the appearance of a given scene from a freely chosen point of observation" (viii). Higuchi divides his book into two major sections: visual structure and spatial structure.

In the first section Higuchi combines the theories from Uehara Keiji and R.B. Litton, Jr. to develop his own eight criteria for determining the visual structure of landscapes: Visibility or invisibility, distance, angle of incidence, depth of invisibility, angle of depression, angle of elevation, depth, and light (4).

The appearance of a view always depends on the distance from the observer. Higuchi explains this with three examples. In short-distance people can clearly see such details as leaves and patterns on the trunk. However, views change dramatically in middle-distance, where only textures of thousands of trees can be seen. Finally, in long-distance, maybe the only difference that could be told in a view is color variation (12).

Most of Higuchi's other criteria are mainly further explaining visibility and invisibility. The "depth of invisibility" is about people's visual perception of planes (24). It can be connected with several design techniques to achieve different goals. One case that Higuchi studies is the garden of the Shoden-ji in Kyoto because it is famous for using Mount Hiei as a borrowed landscape (32). The eastern wall of Shoden-ji is about two meters high and dense trees are planted right behind the wall. This combined screen cuts off the view of everything outside the garden except the Mount Hiei, which is about seven kilometers away. This technique thus situates Shoden-ji on an eminent position (32).

Unlike "depth of invisibility", when explaining the index "depth" Higuchi pays more attention on human's visual perception of space, which means in three dimensions. He makes a statement that "depth is an effect, first, of a continuous change in the surface of the terrain and, second, of atmospheric perspective or the overlapping of objects viewed"

(62). His first statement can be applied to any three-dimensional space; the second one is special to Japanese landscapes. He clarifies that "the Japanese idea of depth ... is not something that extends infinitely into space but something hidden behind the bend..."(84). This is why in Japanese gardens, it is rarely to see the magnificent vistas straightly. Even though the path is straight, they always terminate to hide a surprising space in a corner which could only be revealed after you turn.

In the second section, Higuchi introduces seven classical types of Japanese landscapes to discuss their spatial structures and their spatial elements of which they are composed. One of the seven types is the Akizushima-Yamato Type, which is a broad and fertile valley enclosed on all sides with green mountains (95). Each type is people's yearning for an ideal living space. For the Akizushima-Yamato, it represents an ideal country (98). Higuchi lists several places that were developed in the model of this type, such as palaces near Mount Miwa, Asuka, and the capital at Kuni. He summarizes the features of Akizushima-Yamato types in three points: 1) "It is surrounded by green-hedge mountains,... cutting the area off from the outside and creating a cozy place where it was possible to enjoy peace of mind" (110); 2) "The flatlands within constituted a land of light and hope, nestled in protective surroundings" (110); 3) "The space is oriented toward the east..." (111).

Higuchi posits that his future goal is to utilize these compositional elements in plans for landuse and development, and to apply these intrinsic elements in the best way in order to preserve their identity (viii).

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