INQUIRY INTO AND SECCESSION TO TRADITIONAL JAPANESE ZEN GARDENS

by

YOON JUNG LEE

(Under the Direction of William Ramsey)

ABSTRACT

The objectives of this thesis are to find the historical origins and backgrounds of traditional Japanese Zen gardens as meditation gardens in the Eastern culture. Based on this academic research, there is a need for a new design criterion to replace the design vocabulary of traditional Japanese Zen gardens, arguments that have been suggested by landscape architects like Isamu Noguchi and Shodo Suzuki who are proponents of modern Zen gardens. According to this modern criterion, the design guidelines are established and applied in planning a modern Japanese Zen garden on the selected site.

Therefore, this thesis is largely divided into three parts. First, it is devoted to a study of traditional Japanese Zen gardens. The second part is a proposal for a design criterion that would replace traditional Japanese Zen gardens. Lastly, the methodology in applying these criteria to a specific design project is explained in the final part of this paper.

INDEX WORDS: Garden, Japanese Zen gardens, Modern Zen gardens, Traditional Japanese Zen gardens, Inquiry into traditional Japanese Zen gardens, Design criteria for modern Zen gardens

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YOON JUNG LEE

B.ARCHI., THE UNIVERSITY OF SEOUL, SOUTH KOREA, 1997

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YOON JUNG LEE

Major Professor:	William Ramsey
Committee:	Mary Anne Akers Glen Kaufman Peter Drey Dexter Adams Scott Simpson

Electronic Version Approved:

Maureen Grasso
Dean of the Graduate School
The University of Georgia
May 2005

DEDICATION

For my father in my memory, for my mother in my country, and for my wife and son in my love

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Chapter 1: Introduction

"Whatever the tasks, do them slowly with ease in mindfulness.
Do not do any tasks in order to get them over with.
Resolve to do each job in a relaxed way, with all your attention [1]."
-Thich Nhat Hanh

These comments from Thich Nhat Hanh [2], one of the most well-known monks in the world, help us to understand the essence of Buddhism through the relish of Zen gardens. Zen, a specific branch of Buddhism, emphasizes contemplation and meditation as ways for achieving self-knowledge. The atmosphere of meditation and contemplation in Zen gardens promotes a state of mindfulness in order to ultimately achieve Enlightenment, or nirvana.

By looking at and meditating in Japanese Zen gardens, we can more fully understand Zen Buddhism. However, it cannot be said that only understanding Zen Buddhism is enough to fully understand Zen gardens. If Zen gardens were based only upon the philosophy of Zen Buddhism, then the Zen gardens in China and Korea where Zen Buddhism has also flourished, should have been discovered. The Zen garden style, however, was invented and developed only in Japan. Therefore, it can be said that Zen gardens arose from various causes inherent only to the Japanese and their culture in addition to the Buddhist religion. Feng Shui and unique Japanese aesthetic sensibility are other factors that helped to create and develop the Zen garden style. Based on these causes, the first Zen gardens appeared in the Kamakura period (1192-1338) [3].

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[1] Brett Greider, Buddha Mind 25 May 2001, 15 Aug. 2003 < http://www.uwec.edu/greider/bmrb/index.htm>.

[2] Thick Nhat Hanh is a monk, born in Vietnam on 1926.

[3] Although there is a record that the first Zen temple was built by Empress Danrin around 847, the evidence for it is not enough to prove.

One of the misconceptions that many Westerners have about Zen gardens is a belief that the dry landscape (kare-sansui) is an original and exclusive characteristic contributed by Zen garden designers. However, dry landscapes or areas without water already existed prior to the Kamakura period. Kare-sansui literally means "withered mountain-water" or "withered landscape." The term kare-sansui appears for the first time in the 11th Century in Sakuteiki, the oldest treatise of the art of gardens in Japan. The author, Tachibana no Toshitsuna, includes extensive suggestions for garden design using dry landscapes. Therefore, Zen style gardens are not just a invention, but a construction of Zen priests made to artistically reveal the philosophy of Zen Buddhism.

Since the time Zen gardens first succeeded and modified the existing garden style of kare-sansui, the style has been refined and further developed. Many landscape architects have designed gardens that have the design motifs and elements of Zen gardens. Landscape architects such as Shodo Suzuki and Isamu Noguchi are famous for their gardens based on a modern understanding and modification of traditional Zen gardens. However, many landscape architects have concerned themselves too much with the imitation and reproduction of traditional Japanese Zen gardens without any creative and contemporary understanding. Those gardens represent only superficial and hollow design attempts at Zen gardens, in which the symbol of Yin and Yang is repeated in walls or pavements without any reason and sand[4] is used only to fill empty spaces. The most important thing in designing Zen gardens is not only to repeat the design elements shown in traditional Zen gardens, but to study and understand the motivation of Japanese Zen garden designers. Only by understanding the design elements of Japanese Zen gardens can one imitate the gardens of old. If the underlying reasons for creating Zen gardens are understood, a

[4] In traditional Japanese Zen gardens, sand is larger and heavier than usual sand which is seen from typical seashore. The sand in traditional Japanese Zen gardens was gathered in riverbamks.

noble and contemporary design vocabulary can be developed that would be of great help in producing modern Zen gardens, instead of mere repetitions of traditional Zen gardens. These causes might also benefit modern landscape architecture theory.

Therefore, to both appreciate and design Zen gardens, it is essential to investigate and understand the Buddhist religion, Feng Shui, and the aesthetic sensibility of the Japanese. After this process, true appreciation for Japanese Zen gardens and a new vocabulary for the design of modern Zen gardens can be established. Studying the works by landscape architects like Isamu Noguchi and Shodo Suzuki will help uncover new design criteria for modern Zen gardens. Consequently, these design criteria will act indicators to produce design guidelines to be applied to designing a modern Zen garden.

Chapter 2: Design Backgrounds of Zen Gardens

During the medieval period, the Japanese faced major social, political, and cultural upheavals. These forces occasionally acted negatively to cause unrest, but also became a catalyst in developing medieval Japan in various fields.

The traditional Japanese Zen garden was also created and formed by these social, political, and cultural influences. The so-called "Zen" religion was the most important influence in the creation and development of the traditional Japanese Zen gardens. If there had not been any religious concepts of Zen Buddhism, Zen gardens would not have come into existence and flourished in the medieval period. However, Zen Buddhism is not enough to fully explain the invention of the traditional Japanese Zen gardens. If Zen Buddhism were the only factor for the existence of Zen gardens, the Chinese or Koreans would have similar garden types similar to the Japanese Zen gardens. However, research seems to show that the Chinese or the Koreans did not have these Zen gardens. Thus, it seems certain that traditional Japanese Zen gardens have other factors that contributed to their creation. To understand Japanese Zen gardens deeply and profoundly from the viewpoint of a landscape architect, these factors must be discussed and analyzed with an interpretation of Zen Buddhism.

Feng Shui and the Japanese aesthetic sensibility are the other factors influencing the creation and development of traditional Japanese Zen gardens. The creative and characteristic application of Feng Shui and the aesthetic sensibility of the people of medieval Japan, helped form the Japanese Zen garden that exists today. Therefore, Zen Buddhism, Feng Shui, and

Japanese aesthetic sensibility are the crucial factors in the inherent existence of the traditional Japanese Zen gardens.

1. Philosophical Background

1) Zen Buddhism

Buddhism originated in India in the 6th Century B.C. In its early stage, it was divided into two groups called Theravada [5] and Mahayana [6]. The Mahayana group spread from India to China along the Silk Road. It came to Japan from Korea in about the 6th Century and coexisted with the existing animistic philosophy called Shinto. Buddhism then was very different than it is today. Over time, several schools derived from the Mahayana Buddhism. The main ones today are Pure Land and Zen in Japan, both of which originally developed in China and Korea.

The major differences between the Pure Land and Zen sects are whether they accept the idea of mappo and how they attain enlightenment. Pure Land Buddhism originated in China around 350 A.D. and was propagated into Japan around 950 A.D. In the 12th Century, Pure Land Buddhism became the most popular sect among many Buddhism branches. Pure Land means a paradise in the world after death. That world can be reached by salvation through faith alone and rebirth with the aid and mercy of Amida Buddha, a god controlling and governing the Pure Land. According to Pure Land Buddhist thinking, humankind passed through shoho, the period of true law covering the first 500 years after Buddha's death, and zoho, the period of false law, which

[5] A conservative branch of Buddhism that adheres to Pali scriptures and the non-theistic ideal of self-purification to nirvana and is dominant in Sri Lanka, Burma, Thailand, Laos, and Cambodia.

[6] One of the major schools of Buddhism, teaching social concern and universal salvation and active in Japan, Korea, Nepal, Tibet, Mongolia, Vietnam, and China.

had lasted the 500 years after that, in order to reach mappo, the period of ending law [7]. In the belief of the Pure Land sect, the mundane world at that time was the period of mappo and it was believed that salvation could be attained in this final stage by simply uttering the name of Amida Buddha. This uttering Amida Buddha in Pure Land is a method of calling upon help from a higher being for salvation, or "tariki" (external aid/strength) [8]. Therefore, the method to attain enlightenment for salvation and rebirth in Pure Land Buddhism is to rely on Amida Buddha (also called Amitabha in China). Repetition of a mantra, including the name of Amida Buddha, Namu Amida Butsu, is used to ask aid and mercy of Amida Buddha, as well as a basic practice to attain enlightenment and rebirth in Pure Land.

On the other hand, the Zen sect of Buddhism, which is better known to people in the West, denies the idea of mappo and focuses on the individual struggle for personal enlightenment, or "jiriki" (self-aid/strength) [9]. Zen Buddhism is derived from one of the teaching sessions of the Buddha, who is believed to be the creator of Buddhism. At the lecture, the Buddha chose not to speak but held up a white lotus as a method for attaining enlightenment and nirvana.

In Buddhism, the meanings of lotus are many. Lotus sutra is the one most often used. In this case, lotus implies zazen (or shinka tanza=just sitting). Zazen represents meditation in a seated position in which the legs are folded and the back is held straight. This is known as the lotus position. Therefore, Buddha suggested individual effort through meditation. He represented this by a "white lotus" instead of using discipline by "teaching" to achieve nirvana. Because of

[7] Seiko Goto, The Japanese Garden: Gateway to The Human Spirit. Asian Thought and Culture. Vol. 56. (New York: Peter Lang, 2003) 74.

[8] Mark P. Kean, Japanese Garden Design. (Rutland: Charles E. Tuttle, 1996) 52.

[9] Goto 52.

this, the Zen sect was established. An individual effort through meditation has continued to be an important way to attain enlightenment, as well as the characteristic to distinguish Zen from other sects.

Figure 1. Bodhidharma (? ~ 528? A.D.) [10]

The main contributor to the development of Zen Buddhism was Bodhidharma (or Bodai Daruma in Japan), an important Buddhist monk. He was described as an aggressive man with a beard and intense staring eyes, born in 5th Century India. There are a lot of classical paintings that depict him in this way. It is said that he was in a cave for nine years, meditating in order to

[10] "Dalma-do," A Diary of Siyoung and Sangwha's Travel 2000, 10 Jan. 2004 <http://sarangbang.pe.kr/m5/myung-guk/km1.htm>.

achieve enlightenment. He is said to have taught and evangelized the Zen philosophy to other non-believers. He became famous for his interpretations and his teachings of Zen Buddhism to these people. He taught the importance of meditation and "direct personal experience" to reach enlightenment. He also proclaimed that everyone shared the characteristics of Buddha and that our finite minds prevented us from learning the truth from these experiences. Furthermore, he is said to have preached that the follower of Zen must know that what exists in this world is nothing and that there is an "interconnection of all life" according to the Zen. Thus, he argues that it is futile with our finite minds to try and deal with empty human created concepts that try to seek the truth. Rather, we must go beyond human created worldly logic in order to attain enlightenment. Hence, the key term in Zen Buddhism is direct personal experience that occurs at any time a human being comes to a realization [11].

Bodhidharma went to China and spread his message of direct experience through individual effort, or meditation, in the 5th Century. At that time the school was called the Ch'an, meaning meditation in Chinese. Later, Zen Buddhism was taken by Chinese monks into Korea. In Korean, the school was called Sun. Through the Korean peninsula, Zen was exported into Japan around the 10th Century. Because Pure Land sect was popular at that time, the Zen sect did not flourish at first.

It was not until the medieval period that the Zen sect became popular. The medieval period began with the Kamakura era in 1192. Minamoto Yoritomo was inaugurated shogun and established a military dictatorship that controlled Japan. From this time on, the political system of shogun was established and the traditional feudal order was destroyed. However, the weak political system faced many kinds of resistance by the warrior class who wanted strong political

[11] Mary Hedriks, "Buddhism in Japan," The History, Philosophy, and Practice of Buddhism 2000, 15 Feb. 2004 <http://www.acay.com.au/~silkroad/buddha/h_japan.htm>.

power, and that resistance made the foundation of the whole society very fragile. The political balance of this warrior society was supported by military power, and the common people could not help in battles. They were always confronted by death. Many warriors and others wanted to remove the threat of death from their lives, forget themselves, and began to think that the essence of life was that their soul would live forever and safely in a world far from the immediate world, which was filled with hardship and peril. Based on this socio-political situation, the inner strength and composure that meditation brings was appealing. The release from worldly desires eventually led to a detachment from oneself, a state of non-self (munen muso: no form, no thought). These individual requirements made Zen Buddhism flourish in the medieval time in Japan.

2) Design Influence of Zen Buddhism

In the medieval period, the desire of the Japanese to endure grim realities brought about the popularity of Zen Buddhism. Zen teaches that the follower seeks to hold the Buddha-mind in everyday life in order to forget the harsh mundane world and attain enlightenment. Although enlightenment is important and the ultimate goal in Zen Buddhism, it is not thought that meditation in a quiet room is the only way to achieve enlightenment in Japanese Zen Buddhism [12]. The zazen in the nature is also thought of as a way to achieve enlightenment because they have Buddha's nature and express it.

The concept that the natural environment helps to attain enlightenment is traced from the Muso Soseki (1275-1351), who played an important role in the development of Zen Buddhism in its early periods. Zen sects were introduced and established by Min-an Eisai and Dogen Zenshi

[12] In China and Korea, the meditation through zazen position is emphasized and considered as only way to achieve enlightenment

around late 12th Century [13]. But the monk who explained the philosophy of Zen Buddhism most easily for the common man was Muso Soseki (sometimes referred to as Muso Kokushi: Kokushi means a "country's teacher"). Muso first studied the esoteric teachings of the Shingon sect, but was then attracted by the simplicity of Zen. He entered the monastery at Kenninji in 1294 at the age of 19. He said that as a beginner, he was not able to think about anything during meditation, but with training he could communicate with surrounding nature and become part of it while meditating. This is the process of developing spirituality by communicating with nature. He added that, theoretically, one should be able to develop spirituality in any environment, but it is more difficult for common people to do so in an ordinary setting. Therefore, inspired by a unique setting, one can then understand the beauty of an ordinary environment and, after attaining enlightenment, discover how even ordinary life can be an enlightened path. In order to win true enlightenment, Soseki wandered all over Japan to find out the beauty of nature: the ocean, mountains, forests, and fields. After that, Soseki devoted his life to spreading the Zen philosophy and created Zen gardens to promote it. Because he had attained his spiritual goal through the pursuit of natural beauty, he believed the beauty of nature to be an indispensable element for training and the ultimate teacher for enlightenment. Therefore, he re-created the scenery, which attracted him and helped him attain enlightenment for visitors who wanted to do the same as he.

Muso Soseki is considered to be the father of the Zen garden. He used rocks of various shapes and textures to represent natural formations, such as mountains, cliffs, and waterfalls. So, because his gardens were landscapes of immensity realized in miniature, the awesome forces of nature were reduced to the human scale that a Zen meditator could cope with. In addition, he employed the use of sand and white pebbles as water and thus, in some of his works, eliminated

[13] Kean 51.

the pond, which for many centuries had been the central feature of Japanese gardens. His two masterpieces are the gardens at Saiho-ji and Tenryu-ji at Kyoto.

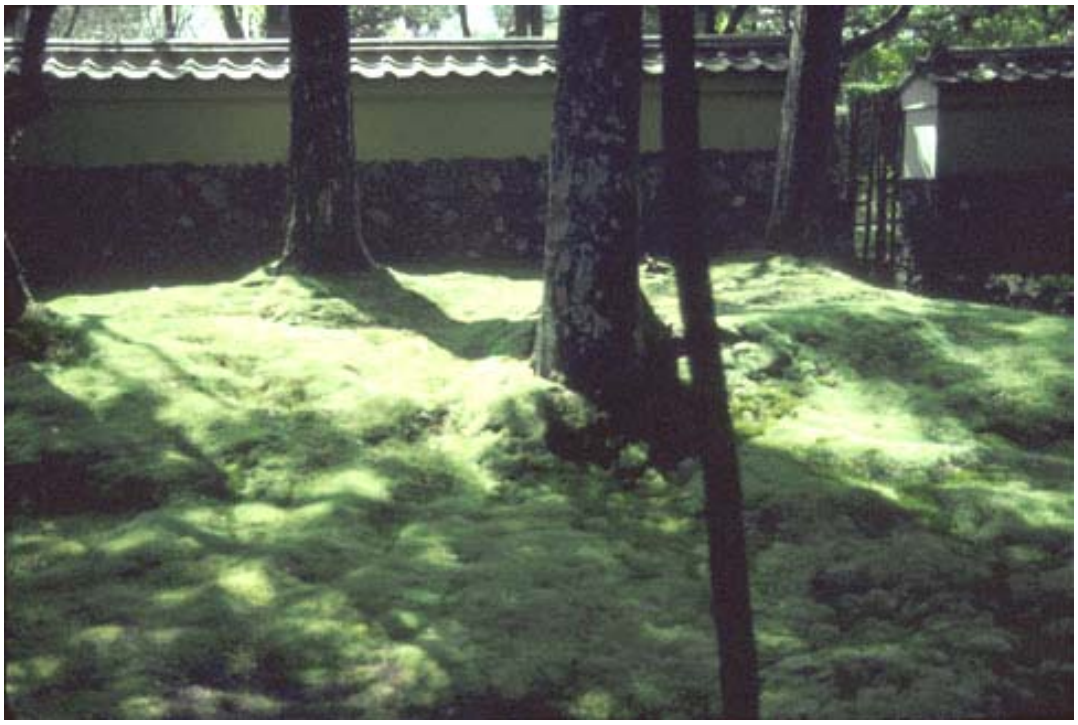

Figure 2. Saiho-ji, Kyoto [14]

The ancestor of the dry landscape garden in the Zen style is found at Saiho-ji situated in the hills that border Kyoto to the west. This particular garden may be seen as the starting point in the transition from the paradise garden of the Pure Land to the new types of the Zen sect. This garden was created between 1329 and 1334 by Muso Soseki [15]. Originally, the site of Saiho-ji was designed to be used for a resort palace by prince Shotoku in the Asuka period (593-710). It was subsequently changed to a Pure Land temple in Heian period. Originally, Saiho-ji had no

[14] Clifton Olds, The Japanese Garden 8 Oct. 2003, 10 Feb. 2004 <http://academic.bowdoin.edu/zen/index.shtml>.

[15] Teiji Ito, The Japanese Garden. (New Heaven: Yale UP, 1972) 165.

moss in its garden. However, gardens are living things and they are remade as time goes by. Gardens are constructions of space, layers of time, and various kinds and quality of objects as time accumulates. Today there are so many varieties of moss that form a carpet on its grounds that Saiho-ji is popularly known as Kokedera, the "Moss Temple." Contrary to the later Muromachi temple gardens, the Saiho-ji introduces tourists to a beautiful garden where a person can leisurely stroll along a path leading to a lake. There are also small bridges that connect the islands that dot the peaceful serenity of the lake. This was a style that existed in the Heian Period in Japan. Furthermore, the dual character of the Saiho-ji garden identifies it as a transitional cultural byproduct.

The evidence of the effect of this transitional period is that the lower half of the garden represents the Heian Period, while the upper half demonstrates the new rock prototype [16]. The lower half contains a pond garden with three large and four small islands, four peninsulas with celebrated night-mooring stones, and a number of islands consisting simply of single rocks. Unlike the lower half, the upper part of the garden contains rolling hills with three unique rock compositions, which blend in with the soft carpet of moss. The first rock is called the “kam-shima,” or a “turtle island” group, floating in a sea of moss. This reproduces an effect of a natural pond with water by using moss, gravel, and sand to simulate that natural effect. Simulation is an important characteristic of a Zen garden, as with this innovative use of moss, gravel, and sand to simulate water. Representation by simulation is critical in a Zen garden. Most Zen gardens were actually based on these long ago techniques. Then there is the zazen-seki, located slightly higher up the slope. It is a stone with a flat top symbolizing the silence and calm that accompanies meditation. The third stone is the kare-taki, containing a number of stones with flat tops representing a dry waterfall in a stepped arrangement. In theory, these stones were

[16] Goto 94-95.

designed according to the principles of Sakuteiki. They are grouped by threes and each set of these piles represents the Amitabha Triad [17]. As a result of these arrangements, water may run down the mountain, and one pile of these Amitabha Triad on the first step splits it into several streams. These streams will then hit another set of Amitabha Triad stones in the middle section until it reaches the lower part of the garden. The effects of the waterfall symbolize the way the Buddhist religion is spread to the people. These rock arrangements are accepted, by some Japanese scholars, as being the first examples of Japanese garden architecture inspired by Zen Buddhism. These characteristics have been reflected in Zen gardens until now.

Figure 3. Dry Waterfall, Saiho-ji, Kyoto [18]

2. Compositional Background

1) Feng Shui

Another fundamental element in the creation of Zen gardens is Feng Shui. Although the concept of Feng Shui was invented and refined in China, the Japanese in earlier periods

[17] Amittabha Triad consists of Amitabha Buddha (The Buddha of Infinite Light), Ksitigarbha (The Bodhisattva of Beings in Torment) and Avalokitesvara (The Bodhisattva of Compassion).
[18] Olds.

developed Feng Shui (Fusui in Japanese) independently and blended it into their individual cultural and aesthetic tradition during the Heian period (794-1192).

The meaning of Feng Shui is wind and water (風水) in Chinese. Feng Shui has traditionally dealt with understanding the forces and powers that are continually around humans with the hope of harnessing these forces and assuring good fortune. It acts as a principal to guide a way of life and has affected the shape and location of cities, palaces, and cemeteries in China.

The first fundamental concept of Feng Shui was traced to about 4000 years ago. However, the first mention of Feng Shui was in the Lun Heng by Wang Chung during the Han Dynasty (202 B.C.–220). He characterized Feng Shui as a superstitious belief in aerial currents and subterranean watercourses that bring good or bad fortune. In the Tang Dynasty (618-907), the ancient science and art was confined to the ruling class. However, after Yang Yun-Sung wrote several books, the general public was allowed to have access to the secrets of Feng Shui [19]. Since then, the Feng Shui has been popularized and has become fundamental truth in many lives.

In general, Feng Shui has been classified as a pseudo-science; nevertheless, people started looking more closely into the location of their houses, temples, and graves to assure prosperity. Feng Shui was often used to design auspicious houses and tombs because the location of one's usual and final resting place is extremely important to the Chinese. It is said that Feng Shui was first applied to tombs by Kuo Pu (276-324) and to house buildings by Wang Chi (b. 990), although divination to determine favorable building locations goes back to the beginning of the Chou Dynasty around the 11th Century B.C.

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[19] Joseph Needham, Science and Civilization in China. Vol. IV. Pt. 1. (Cambridge: Cambridge UP, 1956) 242.

After Kuo Pu, Feng Shui was divided into two schools: the Form, or Kiang-si school, and Compass, or Fukien school. The Form school is the original school succeeding Yang Yun-Sung's principles. The Form school focused heavily on the shape of hills, mountains and water. The most important thing in this school is finding the body of the dragon that can be replaced with offsets of mountain or water in contemporary interpretation. The dragon and its moods explained everything that happened in China, so it was extremely important for the Chinese to determine how to influence the dragon. The books that Yang Yun-Sung wrote were all based on the dragon, and the Form School rationalized good and bad land sites in terms of dragon symbolism.

On the contrary, the second, or Compass, School focuses on identifying which directions are auspicious. This school was affected by the discipline of Wang Chi and evolved in the flat plains of Northern China [20] that had few topographical features. This school introduced the ideas that specific points of the compass exert unique influences on various aspects of life. Rooted in the same natural world as the Form school, the Compass School allows for easier use of Feng Shui in a variety of locations.

To understand the forces and powers that continually influence humans, many philosophers in Feng Shui have studied the Heavens and Earth in relation to humans and developed a concrete philosophical and theoretical system to explain those relationships. It consists of four correlative philosophical premises: Yin and Yang (陰陽), Wu Hsing (五行), Pa Kua (八卦) and Chi (氣).

The Yin and Yang model is used to expound the creation process through the interaction of bipolar forces. However, the Yin and Yang does not mean polar opposites but polar complements that need each other to create harmony together. Through their complementarity,

[20] The name of the school, Fukien indicates the area in Northern China where this school was flourished.

the Heavens, Earth and humans were created and classified within the category of the Yin and Yang system. In general, Yin indicates woman, dark, moist, square and moon. In the contrary, Yang means man, light, dry, round and sun. In this philosophy, the most important concept is equilibrium between Yin and Yang. If Yin and Yang are not balanced by each other, the imbalance can cause a kind of disaster or harmfulness. With this point of view, Feng Shui aims to achieve a balance between the forces of Yin and Yang.

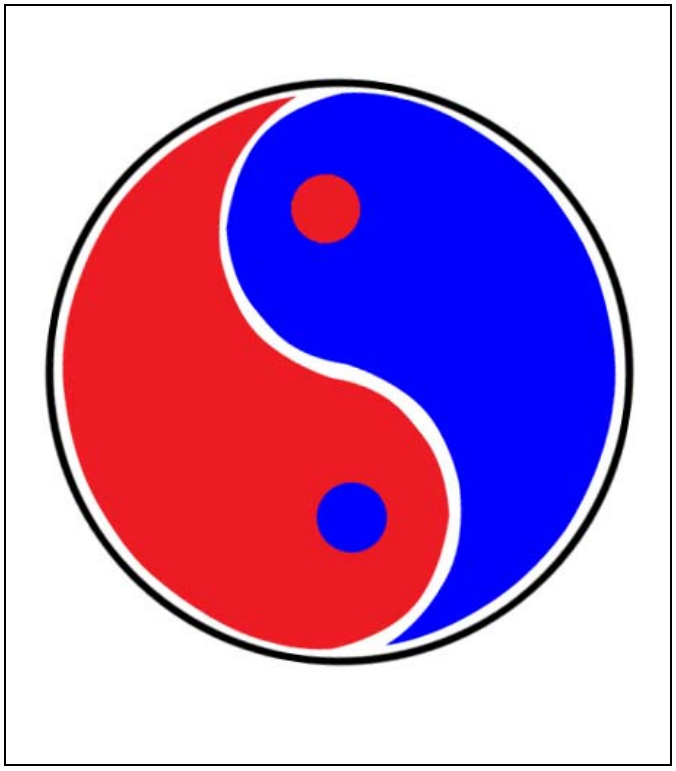


Figure 4. Traditional Symbol of Yin and Yang

Based on mutual independence and harmony of Yin and Yang, the next important concept to explain the relationship of the Heavens, Earth and humans is the Wu Hsing. Its basic concept is that everything in creation can be categorized within the parameters of wood, fire, earth, metal, and water. This theory has its roots in the interplay of Yin and Yang, and it is said

that Wu Hsing further differentiates this universe including the Heavens, Earth and humans into five fundamental force and movements.

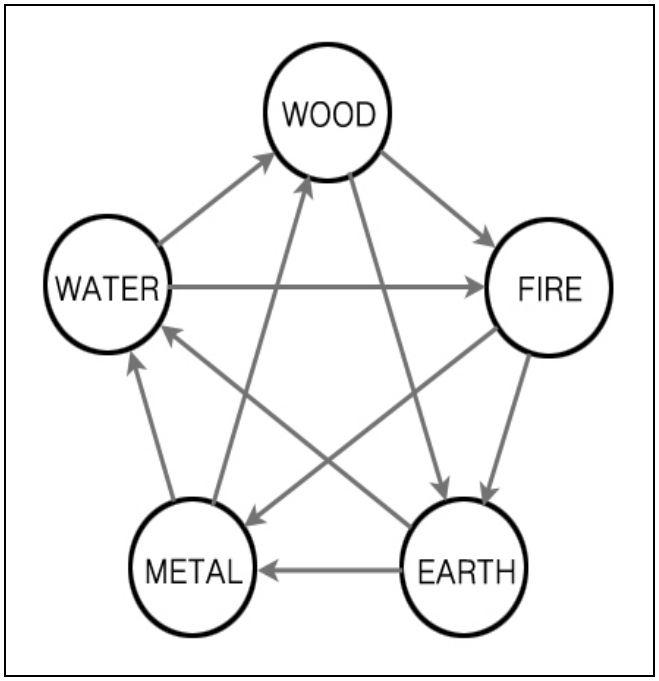


Figure 5. The Relation Diagram of Wu Hsing

The five elements of Wu Hsing have their individual characteristics. Wood is associated with growth and the beginnings of new life. It is the element of the east and its color is green. The most Yang of the five elements is fire. This is the element of the south and red color. The earth element is more than just soil. It indicates clay and sometimes stone. It is associated with the center of the source, whose color is yellow and tan. Metal means white and gold and is the element of the west and northwest. Water, one of the most powerful elements on the planet, is often associated with the north and blue or black colors.

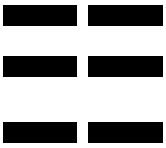
The Wu Hsing has a rule to handle its five elements. Wood produces fire, fire produces earth, earth produces metal, metal produces water, and water produces wood. It is forbidden to

use them in a damaging combination such that wood uproots earth, earth blocks water, water douses fire, fire melts metal, and metal chops wood.

Based on these characteristics and relationships, buildings were placed and their surrounding circumstances modified in China. For example, if a building faces north and sits to the south, this is a Li [21] building. The house would be supported by a lot of red flowers, but would not benefit from blue or black colors. A house that sits to the west and faces east would benefit from white and gold flowers.

The next philosophical and theoretical premise associated with Feng Shui is Pa Kua. The Pa Kua is understood as the Eight Trigrams [22] and used to explain the genesis in the I Ching [23]. Most of the characteristics of this concept are clarified in the I Ching. According to I Chng, the characteristics of the elements in Pa Kua are as follows [24]:

乾 : Chien is creative, strong , heaven, and father.



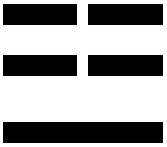
坤 : Kun is receptive, devoted, earth, and mother.

[21] Li means fire in Chinese.

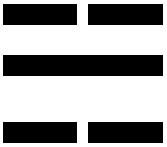
[22] James Legge, I Ching. (New York: Bantam, 1969) 94.

[23] I Ching means Book of Change in Chinese.

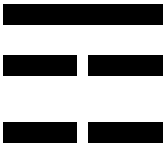
[24] Cary F. Baynes, I Ching. 3rd ed. (New York: Bollingen Foundation, 1967) 357.



震 : Chen is arousing, movement, thunder, wood and the eldest son.



坎 : Kan is abysmal, danger, water, cloud, the middle son.



艮 : Ken is keeping still, standstill, mountain, the youngest son.

巽 : Sun is penetration, wind, wood, the eldest daughter.

離 : Li is Light-giving, sun, lightning, fire, the middle daughter

兌 : Tui is joyous, pleasure, lake, the youngest daughter.

As shown in the I Ching, the first concept of Pa Qua did not have any directional and numerical meanings. However, as time passed by, this premise was combined with Lo Shu (Lo Writing) about 4000 years ago. Lo Shu is the ancient diagram often referred to as the magic square. It is an arrangement of numbers and directions indicating the cosmological order for understanding the surroundings. After this blending, Pa Qua has a peculiar number and direction for its elements. In case of Chien, the number and direction is 6 and northwest. Kun means 2 and

southwest. 3 and east is the number and direction of Chen. The number and direction of Kan is 1 and north. 8, 4, 9, and 7 mean the number of Ken, Sun, Li, and Tui with the direction of northeast, southeast, south, and west for each element respectively.

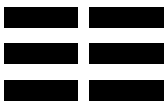
These numbers and directions represent perfect balance. Summed in any direction they total 15, which is referred to as the magic square of Lo Shu. The numbers are not fixed and change location with time. However, the pattern of the number ascension remains the same according to their directions; center, northwest, west, northeast, south, north, southwest, east, southeast. This pattern remains, but the placement of the numbers changes depending on orientation and time factors.

In the pre-Han Dynasty, when the concept of Pa Kua was developed in detail, Pa Kua was a separate school. But, in the Han Dynasty it began to be grafted into Yin and Yang and Wu Hsing in order to understand and study the order of the universe more effectively and perfectly. Therefore, the elements of Pa Qua began to be classified and applied according to the Yin and Yang and Wu Hsing. Consequently, these concepts became parts of the foundation to establish Feng Sui.

Since the Han dynasty, the Pa Qua premise has been the basic tool for Feng Shui analysis. When a Feng Shui analysis is performed, the practitioner refers to these basic concepts to analyze the situation within each area of the building. From this analysis, the basis of the mathematical calculations is found. In other words, it is a tool for calculating the attributes of a building.

Finally, Chi is the premise that establishes the concept of Feng Shui. This concept is a basic explanation to all the premises such as Yin and Yang, Wu Hsing, and Pa Qua. It is believed

Table 1. The Pa Qua-Eight Trigram [25]

Sun  **4** **SE** **Element:** Soft Wood **Family Relationship:** Eldest Daughter **Symbology:** Wind	**Li**  **9** **S** **Element:** Fire **Family Relationship:** Middle Daughter **Symbology:** Brightness, the Sun	**Kun**  **2** **SW** **Element:** Earth **Family Relationship:** Mother **Symbology:** "Mother Earth"
Chen  **3** **E** **Element:** Hard Wood **Family Relationship:** Eldest Son **Symbology:** Thunder	**Center** **5** **Element: Earth**	**Tui**  **7** **W** **Element:** Soft Metal **Family Relationship:** Youngest Daughter **Symbology:** Marsh
Ken  **8** **NE** **Element:** Earth **Family Relationship:** Youngest Son **Symbology:** Mountain, Youth	**Kan**  **1** **N** **Element: Water** **Family Relationship:** Middle Son **Symbology:** Water, the Moon	**Chien**  **6** **NW** **Element:** Hard Metal **Family Relationship:** Father **Symbology:** Heaven, Leader

[25] "The Eight Diagrams," 168 Feng Shui Advisors 14 Jun. 1999, 20 may 2004 <http://www.168fengshui.com/Articles/8_trigrams.htm>.

to be the most important influence on our lives. Chi means life's breath or energy and is the unifying energy that links everything else together.

During the Chinese Zhou Dynasty (1766-1112 B.C.), the concept of Chi was developed and explained. Chi literally means gas and is a force that creates and destroys living and non-livings things. For example, it is Chi that creates mountains and allows persons to live. It is with human beings from birth to death. It is a life force we cannot live without. Each individual has different levels or kinds of Chi and it can influence the fate of one's life. A person's Chi can be made stronger through meditation, positive human relationships and a healthy environment. Chi is a constant force that changes, and no one can live without it.

The three main forces of Chi sustaining all life are the Heaven Chi, Earth Chi and Human Chi. The Heaven Chi is the force of nature. The force is derived from the planets, sun, moons, etc. This is like the energy that a sun exerts on the earth or the moon exerts on the earthly tides. Even the faraway stars and planets emits cosmic Chi. The Heaven Chi shows us why the weather affects our personal moods and feelings. This Chi is the root of abundant wealth, fortune, peace, honor, and good health.

The force of Earth Chi influences and impacts an individual with the forces of its mountains, streams, valleys, and plains. For example, we have the mountains to protect persons from the harsh weather. It has a soothing psychological effect of stability and security upon the people living near the mountain. These mountaineers tend to be more stubborn, loyal and honest. Like the mountain, they tend to be more steadfast in their values.

Lastly, the person has a Human Chi. There is a unique Chi that travels on its own in each person. Because of the different paths that each Human Chi travels, it has an effect on our personality, social interactions, mood, and other personal characteristics. It makes us all different

in one way or another. The practitioners of Feng Shui try to figure the Chi contained in each person and make it in harmony with the environmental Chi that best suits the person. One can say that it is like the Western concept of bioenergies [26].

2) Design Influence of Feng Shui

Both concepts of Feng Shui and Confucianism were introduced to Japan around the 3rd Century. At that time, Feng Shui was thought of as a kind of a complex cosmology [27]. It was not until the Heian period that Feng Shui became thought of as a kind of design principle for the common Japanese.

In the Heian period, the Feng Shui emerged as an important guideline for town planning and building design. For example, Heian-kyo, which is Kyoto city today, was selected as a capital in Heian period and renovated according to Feng Shui. Also, the layout of the Heian villas, Shiden Zukuri [28], generally followed the Feng Shui, including the idea that the pond should be created by a stream entering the garden area from the northeast and exiting at the southwest to draw away any evil spirits.

Subsequently, the design principles of Feng Shui began to be applied to garden design for various reasons. One of the reasons is found in Sakuteiki, an early treatise on garden design, written by Tachibana no Toshitsuna in the 11th Century. Sakuteiki depicts the aesthetic tastes of the great Heian courts that no longer survive today [29]. While the text has detailed instructions, it has no illustrations or technical descriptions of garden building. Also, some of the language

[26] Elizabeth Hagerty, "Feng Shui," The Religious Movements Homepage Project 2001, U of Virginia, 15 Aug. 2004 <http://religiousmovements.lib.virginia.edu/nrms/fengshui.html>.

[27] Kean 24.

[28] Shinden Zukuri means the style of sleeping hall in Japanese. Shinden was considered as an important space in Heian villas.

[29] Wybe Kuitert, Themes, Scenes, Taste in the History of Japan Garden Art (Amsterdam: J. C. Gieben, 1988) 30-36.

contained in the text is vague and contradictory. The only thing clear about Sakuteiki is that the principles it discussed would appear in gardens built later in the period.

Among the design principles introduced in Sakuteiki, Feng Shui is mentioned as an important guide for garden design. The text describes prohibitions according to Feng Shui. For example, a poor arrangement of one's garden can call calamities and disasters to the owner. On the contrary, evil can be prevented by creating a garden with proper positioning of design elements such as water, rocks, and plants [30]. Stones have many taboos regarding their shapes. Generally, stones are considered as touchstones, where Chi lands from the heaven. In case of upright stones, they are considered as mountains and Yang elements according to Feng Shui. Therefore, they play important roles to affect the flow of Chi and are subjects that must be placed with cautious concern for Yin and Yang [31].

These compositions of stones described in Sakuteiki reflected the way the Japanese interpreted Feng Shui according to their sense of aesthetic values, which differed from the Chinese. The Chinese Feng Shui concept of harmonizing and balancing the opposing forces of Yin and Yang and moving the flow of Chi naturally through harmony and balance was referenced by Japanese. In other words, the concept of Yin and Yang and Chi is considered predominantly in Japan, more so than Wu Hsing or Pa Qua.

These Japanese design tastes influenced by Feng Shui thought were embodied in various design practices. In the case of gardens, a harmonic and balanced state influenced the spatial composition of design elements, especially rocks, in Zen gardens in the Kamakura period.

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[30] Kean 38.

[31] Kean 38.

Ryoan-ji is one of the best examples of revealing the influence of Feng Shui filtered by Japanese aesthetic sensibility.

The rock garden of Ryoan-ji, which belongs to Rinzai sect [32], was designed and built originally by Hosokawa Katsumoto (1430-1473) and Soami in 1450. But the building was burned down in 1472 and Katsumoto's son, Masamoto (1466-1507) rebuilt Ryoan-ji in 1488 [33]. The rock garden is the attached courtyard of the abbot's quarter in Ryoan-ji.

Figure 6. Rock Garden, Ryoan-ji, Kyoto [34]

The garden occupies a rectangular area (about 30' by 70') about the size of a tennis court. It has only a few clusters of rocks within the enclosed flat ground, which are surrounded by coarse and white sand. Temple buildings are on the north and east side of the garden and there

[32] Rinzai sect was established by Mi-an Eisei (1141-1187). It advanced the theory of sudden enlightenment.

[33] Goto 111.

[34] Olds.

are low walls on the other two sides. From the temple side, one views the garden from a covered veranda. Here, the visitor could sit and contemplate the scene.

There is a significant amount of space between each rock cluster with a cushion of dark moss, and the space between each rock group is filled with the raked sand. The sand isolates each group even further and makes each one look like an island in the ocean. The sand is raked to emphasize this pattern.

Figure 7. Rock Garden, Ryoan-ji, Kyoto [35]

The most significant design elements in this garden are the fifteen rocks. These rocks consist of five separate groups (5, 2, 3, 2, and 3 stones respectively) and show the design principles of Feng Shui. In Japanese gardens, rocks are classified into four categories based on their relationship to one another, namely, (1) the main stone, (2) accessory stones, (3) unifying stones holding the arrangement together, and (4) linking stones between the main and unifying

[35] Olds.

stones. Among these four types of rocks, the energy relationships can in turn be categorized respectively as receptive, transmitting, pulling, and flowing based primarily on the diagonal juxtaposition of the main and accessory stones. In the rock garden of Ryoan-ji, this interpretation can be applied to each rock group. In the case of the group with three rocks, it can be said that unifying or linking stones are omitted, or the main stone and accessory stone act as substitutes for them achieving their original roles. This arrangement of rocks promotes harmonious and balanced tensions among the rocks and this energy matrix is influenced from Chi of Feng Shui. In other words, the flow of Chi is the driving force classifying and locating rocks in Japanese gardens. This typical classification influenced the arrangement of the rocks in the Ryoan-ji.

Also, this rock garden supposedly arouses a subtle musical rhythm in a visitor's mind [36] based on the proper symphony of Yin and Yang in Feng Shui. In the Yin and Yang theory, voids and fluids are classified as the characteristics of Yin. On the contrary, solids and masses are considered as forces of Yang. The two major design elements of this rock garden are sand and rocks. They represent Yin and Yang. Through the effective placement of sand and rocks, the garden realizes the harmony and balance theory of Yin and Yang. It is not clear whether Katsumoto, Soami, and Masamoto referred to Sakuteiki [37] or kept in their minds the premises of Feng Shui during construction of Ryoan-ji. They may have not known about them. But, one of the Japanese artistic characteristics is that artistic styles are cumulative [38]. For example, the layout and symbolism in Pure Land gardens in the Heian period are repeated in Zen gardens of

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[36] Brent Plate, ed., Religion, Art, and Visual Culture: A Cross-Cultural Reader. (New York: Palgrave, 2002) 147.

[37] Sakuteiki was published in the 11th Century and Royan-ji was constructed in 15th Century. Between them, there is a long gap of time.

[38] Goto 5.

the Kamakura or Muromachi period (1338-1573). Therefore, it is probable that Sakuteiki with Feng Shui influenced the design vocabulary of Zen gardens. This design influence was exhibited in Ryoan-ji and succeeded into other Zen gardens.

3. Expressional Background

1) Yamato-e and Suiboku-e

The last background element for the organization of Japanese Zen gardens is the Japanese' unique aesthetic sense. Their aesthetic sense is distinct from that of Westerners and even Chinese or Koreans and influenced the transformation of many types of art works into unique Japanese forms. Although calligraphy, lacquer ware, embroidery, and painting were introduced from foreign countries such as China or Korea, they were transformed according to Japanese aesthetics. Painting is an especially good index to measure the effect of Japanese aesthetic characteristics as applied to the artistic expression of Zen gardens.

Japan's long cultural interaction with China and Korea influenced the entire history of Japanese art. Painting began to flourish with the coming of Buddhism from China and Korea in the 6th Century [39]. Subsequently, Buddhist monks from China and Korea brought both paintings and artists with highly developed styles and techniques. The Chinese and Korean-inspired styles were transformed to a Japanese taste in Buddhist paintings of the Heian period. Exquisite color and gold leaf enhanced the painting surface, creating an impression of restrained elegance. This style reflected the tastes of the aristocratic culture of the period.

With a rich tradition of forms and materials derived from China and Korea, Japanese artists during the 10th Century began to create the unique painting style that came to express their truly national artistic experience. This distinctively Japanese painting style was known as

[39] H. Batterson Boger, The Traditional Arts of Japan. (New York: Doubleday & Co., 1964) 9.

Yamato-e. The style mainly used nonreligious subjects such as human figures, houses, and trees. In Yamato-e style, these nonreligious subjects are described with hair-thin lines and bright and harmonious colors in scroll-paintings [40]. This national style is closely linked to classical Japanese literature and its poetic fascination with the changing seasons and the beauty of nature. The Heian court aristocrats preferred Yamato-e because these paintings reflected the elegance and refined taste of the Heian court and flourished in the late Heian and Kamakura period.

In the late Kamakura period, a new style of painting known as Suiboku-e [41] emerged, influenced by the Song Dynasty of China (960-1269). This style was brought to Japan by Chinese and Korean monks, who used it to reveal the teaching of Zen Buddhism. Therefore, black was used instead of various colors, and empty space was accentuated. This paucity, which is associated with black tone and emptiness, represents the philosophical essence of Zen thought. The lines in Suiboke-e change with the slow or rapid strokes of the brush according to the painter's will in contrast to the simple outlines of the Yamato-e style. Lines play an important role because color is expressed with the infinite subtlety in the black tone and stroke of lines.

Using Suiboku-e, Japanese monk-artists depicted the founders of their faith as well as animals and plants, such as the tiger and the orchid, each of which had a symbolic meaning. They often inscribed poems in the Chinese style on the upper part of the paintings. However, Suibiku-e became a truly Japanese form with the work of two monk-painters of the 14th Century—Tensho Shubun (1415-1460) and his pupil Sesshu Toyo (1420-1506). After traveling to Korea in 1423, Tensho Shubun introduced a sweeping landscape style. He painted on screens and scrolls, using ink washes and fine black lines. On the other hand, Sesshu Toyo traveled to

[40] Boger 34.

[41] Suiboku-e is called as Sumi-e also, which means an ink painting style.

China in 1467, where he came into contact with classical Ming Dynasty (1368-1644) painting. On his return in 1469, he worked in a variety of styles and techniques, a diversity shared by many later Japanese painters. He created technically superb and powerful expressions in both ink and color.

After Sesshu Toyo, Suiboku-e came to be increasingly influenced by unique Japanese aesthetic sensibility more and more. This movement resulted in the combination of Suiboku-e and Yamato-e. The Kano school, founded by Kano Masanobu (1434-1530) in the late 14th Century, became one of the most powerful artistic groups in this movement. Kano school painters blended the two styles to produce impressive compositions with colors filling the spaces within delicate black lines. Kano Eitoku (1543-1590) played an important role in fully achieving the hybrid style. He described figures with bold and simple shapes and colors in delicate and precise lines, departing from the previous emphasis on single-colored paintings.

The Kano school continued to prosper as the official painters for the Tokugawa shoguns in the Edo period (1600-1868). The basic style of Edo painting came from the Kano school and later influenced Ukiyo-e [42], which is more familiar to the Western world through multicolored woodblock prints. The Japanese aesthetic sensibility, which promoted the creation of the Kano school, also gave an impetus to create the Ukiyo-e.

2) Design Influence by Aesthetic Sensibility

Throughout the history of Japanese painting, there were many kinds of artistic transitions that merged Chinese and Korean artistic styles with Japanese artistic characteristics. It is certain that all the transitions were transformed for Japanese aesthetic sensibility. Two features can be thought as main factors that also affected the expressional composition of Zen gardens. One is

[42] The term Ukiyo means “Pictures of the Drifting World” or “Pictures of the Floating World.” See Boger 51.

the “superb and powerful expression,” which can be observed in the drawings of Sesshu Toyo. The other is the “harmonious restricted color palette” from the Kano school including Kano Eitoku.

Dynamic Angular Expression

Empty space is an important means in expressing the teaching of Zen thought. The terms of nothingness (mu) or emptiness (ku) are used to reveal both the Zen philosophy and a compositional feature of Zen painting and gardens. These also act as design characteristics to distinguish Western and Eastern drawing styles in medieval periods.

Figure 8. Landscape by Hee-an Kang (1417-1464) [43];

Figure 9. Winter Landscape by Sesshu Toyo (1420-1506) [44]

[43] The Art of Kang Hee An, 2002. Towart. 15 Feb. 2004 <http://www.towooart.com/oldart/old_korea/kangheean/kangheean.htm>

[44] William Gardner, Japanese Visual Culture 2002, 20 Aug. 2004 <http://w00.middlebury.edu/ID085A/intro/gallery.html>.

In the Japanese Suiboku-e, empty space suggests Zen philosophy and emphasizes the aesthetics of paucity [45] as a common factor between Chinese, Korean and Japanese paintings. But Japanese Suiboku-e had a unique characteristic different from that of China and Korea. It is "super and powerful expression."

Figure 10. Daisen-in, Kyoto [46]

The superb and powerful expression in Japanese paintings was originated by Sesshu Toyo. In his paintings, angular dynamism was used to accomplish the superb and powerful

[45] The aesthetic of paucity is called as "yohaku-ni-bi" in Japanese. This represents the medieval aesthetic characteristics with "yugen", which means subtle profundity.

[46] Olds.

expression [47]. For example, “Winter Landscape,” one of his master paintings, emphasizes these characteristics. In this painting, the shape of mountains and trees was described with the angular stroke of an ink brush. This brush touch is distinct from that of the Chinese or Korean artists. In contrast, in the painting of a Korean painter, Hee-an Kang (1417-1464), lines used to describe the subjects are tender and subdued. In other words, the work of Hee-an Kang has the euphemistic and softer image. In contrast, Sesshu’s painting is expressed in strength and with an energetic atmosphere.

This superb and powerful expression, a Japanese aesthetic characteristic, was reflected in Zen gardens and expressed in the form of rocks, replacing the function of angular lines. The garden of Daisen-in is one example of this effect in the Japanese Zen gardens.

Daisen-in was an abbot’s quarter in Daitoku-ji complex, Kyoto. The quarter was initially constructed about 1509 to 1513 by the Zen priest, Kogaku Soko (1464-1548) [48]. The garden, which surrounds the quarter, probably dates from the same period. The garden that borders two sides of the quarter is a miniature landscape. There are several large rocks in the farther distance. In the middle distance, there are flat, bridge-like rocks, beneath which white sand flows like a river.

In this garden, the most important design elements are the disposition and shape of the rocks. These rocks stand mainly in a vertically piled disposition, representing towering mountains. Instead of the smooth and slippery rocks which were usually used by the gardeners in China or Korea, the shape of the rocks is angular and rather sharp. This shape of rock is

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[47] Kean 64.

[48] Goto 105.

reminiscent of a superb and powerful image like the figure found in the paintings drawn by Sesshu Toyo. Therefore, it can be said that the Japanese aesthetic characteristic, superb and powerful composition, was one of the design principles in Zen gardens.

Figure 11. Chinese Lions by Kano Eitoku (1543-1590) [49]

Restricted Colorful Expression

The Suiboku-e as modified by the Japanese aesthetic characteristic was absorbed into Japanese artistic style. The monochromic palette of black and white color tone in traditional Suiboku-e was preserved and passed on in Japan. However, this monochromatic palette also came to be influenced by Japanese aesthetic sensibility. Various colors began to be used in Japanese Suiboku-e, which brought about the hybrid of Suiboku–e and Yamato-e. The Kano school played an important role in this transition.

[49] Carol Gerten-Jackson, CGFA 2005, 10 Feb. 2004 <http://cgfa.sunsite.dk/e/p-eitoku1.htm>.

Among the Kano school painters, Kano Eitoku was the person, who finally blended the two styles. In his paintings, Suiboku-e's delicate and precise black brush lines are assimilated with Yamato-e, using dense rich colors [50]. However, Kano Eitoku used as few colors as possible to maximize the dramatic effect and harmony. This feature is different from the paintings of other countries, where a greater variety of colors are used. This Japanese characteristic can again be found in the woodblock prints of Ukiyo-e. In this style, the colors are bright and dense, but limited in their palette.

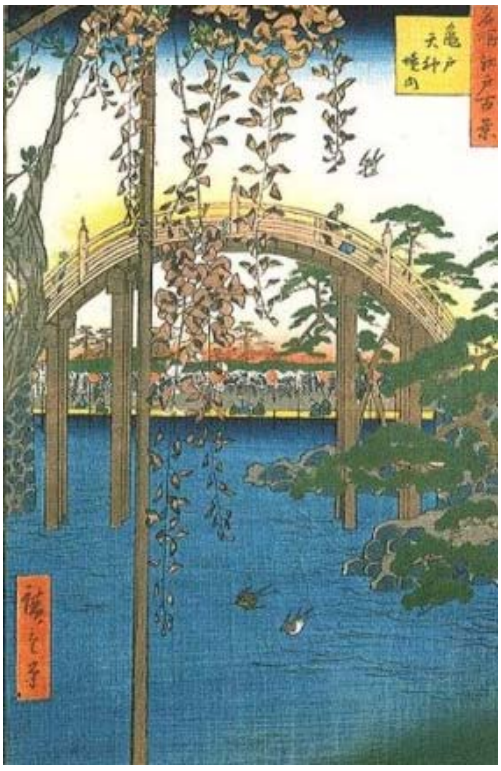

Figure 12. Kameido by Ando Hiroshige (1797-1858) [51]

[50] Boger 42.

[51] Ando Hirishige is one of famous painters using Ukioyo-e. See Joanna Ferris, " Monet and Japan," Artwrite 2002, 25 Aug. 2004 <http://www.artwrite.cofa.unsw.edu.au/0122/IssuesatLarge/Ferris_Monet/ferris_monet.html>.

This restricted but harmonized use of colors is also reflected in Japanese Zen gardens. The garden design of Ryogen-in is one of the best examples, supporting this fact. Ryogen-in was designed by Soami (? -1525) at 1502 [52]. It is a sub-temple of the Daitoku-ji complex. The abbot quarter in the Ryogen-in has five gardens, the most famous of which are the Ryogintei and Issiden-the rectangular gardens of moss and stones viewed from the veranda of the abbot's quarter.

Figure 13. Issiden, Ryogen-in, Kyoto [53]

The designer of the Ryogintei and Issiden used moss as a dominant design element beside rocks, sand, and trees. So this garden came to have an intense and restricted color palette based

[52] Plate 157.

[53] Olds.

on green, gray, and white-yellow tone. This garden is contrasted with the various strong color tones from the gardens in Korea and China, made in contemporary times. This restricted color palette is associated with the color usage in the paintings of Kano Eitoku. As shown from his paintings, the gardens in Ryogen-in contain few colors, but the colors are controlled and restricted effectively to maximize dramatic effect and harmony. Also, the sand, which surrounds this moss island in circular and lined patterns, reminds viewers of the precise and delicate lines of the Kano school paintings. In conclusion, Japanese aesthetic sensibility was applied to the visual expression of Zen gardens in simple and restricted colors.

Chapter 3: Design Elements of Zen Gardens

Based on the three design motifs, Zen gardens have unique and individual characteristics in their outward forms, as well as detailed design elements different from the palace style or Pure Land style gardens. The desirable method of appreciating Zen gardens is walking, stopping, and meditating. So, many spots are designed to observe the shape of stones or the color of each tree, where one can realize their symbolic meanings. As a result, the detailed aspect of each design element is emphasized more than in the palace and Pure Land style of gardens [54].

So, every rock, plant, and sand has special placement that gives it meaning. For example, numerical regulation is a major factor for the arrangements of design elements in the garden. The number three is often represented in these gardens. Three can represent the Buddhist Trinity, Sanzon-bosatu [55], or it can symbolize the sky, earth and humanity. Generally, odd numbers of elements are used to create a more natural look and explain how the world actually exists.

A Zen garden is designed with a realistic setting on a smaller scale and creates an environment where one can attain mindfulness and enlightenment. Zen gardens prompt a quiet emotional response that depends on the atmosphere created by the display of elements. Each element has a symbolic purpose for being in the garden and a design method for achieving that symbolic purpose.

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[54] Goto 91.

[55] Ito 171.

1. Rock and Stones: Ishi

Rocks and stones are major elements and have played an important role in gardens from the Japanese. Often Japanese aesthetic sensibility has penetrated the choices and arrangements of rocks and stones. The aesthetic appeal as well as the symbolic representation of garden rocks and stones has been the subject of much analysis. It is certain that their use and respect have roots in an animistic belief [56]. In their time, the selection and placing of stones was considered a spiritual component. This traditional manner with rocks and stones was passed on and developed until medieval times, and many ancient gardening texts described the shapes and dispositions of stones as major concerns in garden design.

Figure 14. Ryoan-ji, Kyoto [57]

Symbolic interpretation of garden rocks and stones in Japanese gardens according to their shapes, textures, and colors was important. In the viewpoint of Feng Shui, an upright stone was

[56] Kean 146.

[57] Olds.

considered important because of its symbolic function to collect energy from Heaven. Certain rocks and stones were placed to represent the various paradise mountains such as Horai and Shumisen in Hindu and Taoist myths. In Buddhist gardens, the groups of three stones were often intended to invoke a Buddhist trinity. Rocks and stones were also used in Zen gardens with the name of the carp stone, dragon waterfall, deep mountains, and mysterious valley to present the philosophies of Zen Buddhism.

2. Sand: Suna

Figure 15. Daisen-in, Kyoto [58]

Raked sand has been a garden element of many gardens from ancient times. The early shrines of Shinto, Japan's native religion, had been in forest clearings, where the ground was purified to protect the animistic spirit with a layer of washed sand [59]. The tradition was embodied

[58] Olds.

[59] Kean 150.

in the form of a simple rectangle of white sand among architectural structures. It also occurred in broad expanses of white sand located in front of important palace buildings, including the Imperial Palace in Kyoto. In the Heian Period, the area between the main hall of a residence and the pond to the south was often covered with white sand in aristocratic houses.

The sacred representation of white sand was probably preserved in the minds of garden designers of the medieval time. However, the designers of Zen gardens substituted sand for water instead of conveying the sacred representation. The sand came to simulate rivers, seas, or streams to be used for a subject as meditation and contemplation. The raking of the sand was intended to suggest waves or currents.

3. Water: Mizu

Figure 16. Daisen-in, Kyoto [60]

Water is often thought of as a source of purification and refreshment. The use of water in Japanese gardens emphasizes these general associations. Ponds and streams have been essential design elements in Japanese gardens from earliest history. In the aristocratic gardens of the Nara

[60] Olds.

(710-794) and Heian periods (710-1192), the pond for boating was an important component, generally located to the south of a main hall. It was the place of splendid parties and dramatic events.

However, concerns about the pond and stream were changed from their practical use to symbolic meaning. The large ponds eventually came to be considered as representations of mythical or esoteric lakes and seas, or paradises in the view point of Taoists or Buddhists. Finally, in Zen gardens, living water is not present. Sand, rocks, and moss replicate lakes, streams, and sometimes waterfalls, in what came to be known as kare sansui, or dry landscape garden [61].

4. Waterfall: Taki

Figure 17. Tenryu-ji, Kyoto [62]

The waterfall has philosophical implications. Like the river, it is always changing but its essence is the same. This nature of a waterfall symbolizes perfectly the permanent impermanence

[61] Ito 169.

[62] Olds.

of the universe as preached in Buddhist and Taoists thought. The waterfall plays an important role in Chinese and Japanese landscape paintings in the context that the art form directly inspired the aesthetic sensibility of many Japanese garden designs.

Many Japanese gardens include one or more waterfalls among their design elements. Sometimes these waterfalls use real water for streams or ponds, but in Zen gardens they are often dry cascades where rocks suggest the fall of water. Both types exist in various forms. Some cascades are single-step cascades while in others water falls through the various levels of rock. In the former, tall and vertical rocks frame the waterfall and a single stone breaks it at the bottom of the composition. This single stone divides and spreads the water at the point that it enters the pond or stream. That adds interest to the cascade, and represents a symbolic object, the carp that attempts to swim upstream, which is a common Chinese metaphor to mean the individual hope for a higher existence or spiritual enlightenment. The term ryumon-baku, which means dragon gate waterfall in Japanese, was made to indicate this design type of a cascade [63].

5. Plant: Ki and Hana

Many varieties of plants have appeared in Japanese gardens; however, some species have been so general as to be virtually expected, while they have played a symbolic role in Japanese garden design. In medieval period, pine, bamboo, and plum were planted with popular preference. “Three Friends of Winter” was the term used to call these three plants, because pine and bamboo keep their leaves and needles through the winter, while plum blossoms in the snow of the winter. Therefore, they have symbolized longevity, permanence, and bravery in the face of hardship. They were planted popularly in Zen gardens because of their symbology.

[63] Goto 99.

On the contrary, small flowering trees were not as common in medieval times as they were in the West. These plants were common in the gardens of the Heian period, but the frequency of their use diminished over time because of the influence of Zen Buddhism. However, shrubs and vines such as azaleas, rhododendrons, wisterias, and hydrangeas were widely used at that time. Azaleas and rhododendrons often added periodic color to a garden and were pruned with geometric exactitude to represent the rolling hills, which were founded in medieval Japanese landscape paintings.

Figure 18. Nanzen-ji, Kyoto [64]

In Japanese Zen gardens, a limited set of plants has been considered as the fundamental principle. Zen gardens are characterized by their rarefied palette, produced by a limited set of design elements, which includes plants. A Zen garden symbolizes nature, where floral arrangements are uncommon. Plants are used very carefully to bring a subtle and profound beauty to these gardens.

[64] Olds.

Especially pine, moss, and azalea have been planted widely in Japanese Zen gardens. Pine trees are highly respected because they help enlighten monks on permanent truth through the evergreen leaves in contrast to the ever-changing nature of human life. While Pine trees represent the philosophical and spiritual aspect, moss and azalea plants are used to represent the appearance of nature. For examples, in the Ryogen-in, moss suggests the image of the ocean, waves, or forested hilly areas with its fine needles arranged from the stem [65]. Also, azalea shrubs represent the mountains, filled with flowers during its blooming season in contrast to the rocky mountains, which are represented by rocks in Japanese Zen gardens.

6. Bridge: Hashi

Figure 19. Daisen-in, Kyoto [66]

Bridges are another important part of the Japanese garden design. In the Heian period, indispensable elements of the palace style gardens are ponds and islands. According to the sizes

[65] Plate 157.

[66] Olds.

and characteristics of ponds, gardens including ponds and islands generally have bridges connecting the islands with shores and other islands. At that time, typical bridges were arching structures of Chinese inspiration, beneath which boats usually passed. They could be built of either wood or stone, called sori bashi and sori ishibashi respectively. In the medieval period, many gardens had small ponds and bridges consisting of simple slabs of natural and uncut stones, which indicated the general stone aesthetics in Japanese gardens.

Based on this tradition, the bridge is actually part of a Zen garden, sitting over rivers of sand in condensed landscape scenes. Also, the bridges in Zen gardens are given a symbolic meaning, which represent a transitional pathway from the world of man to the larger world of nature-nirvana. In Pure Land gardens, the islands were often designed to suggest the paradise of Amida. Therefore, the bridges connecting those islands to the shore could be interpreted as symbolizing the passage between this world and Amida. This symbolic representation of bridges in Pure Land gardens influenced and was applied to Zen gardens. The bridge can represent the journey toward enlightenment in a Zen context.

Chapter 4: Examples of Contemporary Design Evolution

Responding to various influences, Japanese Zen gardens appeared in the medieval period. At that time, the Japanese were involved in lots of warfare and were threatened by political and social unrest. The peaceful and balanced landscapes, along with the quiet, meditative ambiance in Zen gardens, were preferred by the warriors and people who wanted to forget the secular fear or hardship. But, the popularity of Zen gardens did not decline in subsequent relatively peaceful periods such as the Azuchi-Momoyama (1573-1600) and Edo periods (1600-1868).

Currently, the influences of Japanese Zen gardens can be seen not only in modern Zen temples of Japan, but also in public or private gardens in the Western hemisphere. The aesthetics embodied in Zen garden go beyond the Zen Buddhists or Japanese and appeal, as well, to the sensibility of Westerners.

Landscape architects have designed many gardens similar to Japanese Zen gardens. These gardens, however, often involve imitation and copying of traditional Zen garden motifs. Without any understanding of design criteria, sand and rocks are placed on a site. Pine trees are planted with a lack of spatial understanding about the Japanese Zen gardens. The ideal evolution of traditional Japanese Zen gardens cannot fully be satisfied with just routine representation of the outward appearance [67]. A contemporary interpretation of traditional design criteria presented in the design elements of traditional Japanese Zen gardens is an essential prerequisite to make a modern Zen garden. According to this modern reinterpretation, design criteria and guidelines

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[67] Kyumock Lee and Kyungjin Cho, ed., Modern Landscape Architects in the 20th Century. Vol. 2. (Seoul, Korea; Nurie, 2000) 61.

should be constructed. Finally, a prototype of how these design criteria and guidelines could be embodied in the design of a modern Zen garden is necessary.

In the viewpoint of the modernistic succession of the traditional Japanese Zen garden, the works of Isamu Noguchi and Shodo Suzuki are very thought provoking. Through inquiry into their designs, a methodology for a logical succession can be suggested, and worthy and desirable design criteria established. Consequently, those design criteria can act as guidelines for designing contemporary Zen gardens.

1. Isamu Noguchi

Isamu Noguchi (1904-1988) was originally trained as a sculptor and applied this sculptural sensibility to the artistic works he created: lighting, furniture, stage sets, and gardens. He was a man of dualistic background floating in the uncertain space between Eastern and Western worlds. He was an American as well as a Japanese artist, and his works have both Eastern and Western aesthetic characteristics displayed simultaneously. The Eastern aesthetic, especially, helped him comprehend the ancient and medieval Japanese arts. Through the design criteria established by that aesthetic apprehension, he created and designed gardens where the aesthetic essence expressed in medieval Japanese Zen gardens was effectively recreated in a contemporary context.

1) The Chronicle of Isamu Noguchi

Isamu Noguchi was born in Los Angeles, California in 1904 of a Japanese father and an American mother. After he lived in Japan for fourteen years with his mother, Noguchi was sent back to America alone to study at an art school in Indiana [68]. The school was shut down during the Second World War, and Noguchi was cared for by a minister who raised him until he was old

68 Jeff Yang, Dina Gan, and Terry Hong, Eastern Standard Time. (New York: Metro East, 1997) 13.

enough to attend college. Originally, Noguchi planned to begin his career in a field different from the arts. He entered Columbia University in 1922 intending to study medicine. However, after attending a sculpting class at the Leonardo de Vinci Art School in New York, he decided to dedicate his interests to the arts. Noguchi's talent was obvious from the beginning, and he was awarded a Guggenheim Fellowship. The Fellowship afforded him the financial support to travel to Paris where he studied under the great sculptor, Constantin Brancusi.

After returning to New York from Paris in 1929, Noguchi traveled to many countries in the Eastern Hemisphere, including Japan. Among the Japanese cities, Kyoto was most impressive to Noguchi. He was captivated by the exquisite characteristics of ancient Buddhist Zen gardens. Back in New York in the mid-1930s, he set to work as a sculptor and designer in earnest and began to design stage sets for choreographer Martha Graham in 1935. He then undertook designing industrial products, such as an elegant intercom.

Noguchi also designed many gardens as landscape architect. With a memorial garden to his father at Keio University in 1950 at the head of his design list, Isamu Noguchi also designed a memorial to the victims of the atom bomb in Hiroshima Peace Park along with Japanese architect Kenzo Tange. Over the next decade, he had many design commissions: Lever House garden in New York (1951), the UNESCO garden in Paris (1951), the Connecticut General Life Insurance Company gardens (1956), the Beinecke Library courtyard at Yale University (1960), the Billy Rose sculpture garden in Jerusalem's Israel Museum (1960), the California Scenario in Costa Mesa (1979), and so on [69].

2) The Influences of Traditional Japanese Zen Gardens

[69] Kyumock Lee and Kyungjin Cho, ed., Modern Landscape Architects in the 20th Century. Vol. 1. (Seoul, Korea: Nurie, 1998) 26.

Isamu Noguchi was a Japanese-American and was influenced by cultures of both the Eastern and the Western hemispheres. Among the Eastern cultures, the Japanese arts largely affected his various art genres. Therefore, his sculptures and crafts often assumed an improvised form, discovered in the Japanese ancient arts. These influences were also apparent in his garden design. The impression of medieval Zen gardens led him to study the design criteria inherent in the gardens. Using these design criteria, he designed modern Zen gardens which strove to meld traditional design criteria with a modern design vocabulary. However, his understanding of the traditional arts did not mean servile imitation, but creative succession. In his garden designs, two design characteristics, which seem to be most influenced by the medieval Zen gardens, were symbolism and abstinence, which were translated into a modern style by his own design intuition.

In his garden designs, symbolism is a major philosophy. Rocks and water are used metaphorically for symbolic designs. This characteristic is based on the traditional style of Japanese Zen gardens, where natural landscape is expressed metaphorically on a condensed scale. However, Isamu Noguchi went beyond the stale representation of natural environments and recreated his own symbolic style, developed from traditional Japanese Zen gardens. California Scenario at Costa Mesa in southern California is a good example of this.

California Scenario is located between two major bank buildings and a parking lot in a 1.6-acre site. The garden, designed in 1979, presents a symbolic and dramatic vision of the Californian environment through design elements.

In this garden, Water Source is a triangular form of sandstone, which is 30-feet high, representing a mountainous water fountain. As the mountain water nurtures all life in California, the Water Source gives California Scenario a lot of vitality with its sound and movement. After water leaves the mountains, it flows through the landscape and disappears underneath a

triangular form of polished white granite. In this watercourse, subtle symbolism is also appeared. The thin rock edging of the watercourse at the beginning becomes thicker as the water flows through the landscapes. This design device is intended to represent how water creates a regolith that becomes thicker and richer as the stream goes on.

Figure 20. California Scenario, Costa Mesa, California [70]

Along the way, there is a circular mound, The Desert Land. It suggests the bleak beauty of California's deserts with such native plants as barrel cactus, ocotillo, and agave. A smaller mound, called The Forest Walk, is an exquisite contrast with The Desert Land with its wildflowers, grasses, and redwoods. Also, a sculpture of fifteen, called The Spirit of The Lima Bean is fitted symbolically into the composition to commemorate the agricultural use of this land about 50 years ago.

[70] The Noguchi Museum, 2005, The Isamu Noguchi Foundation and Garden Museum, 10 Aug. 2004 <http://www.noguchi.org>.

In California Scenario, all design in the setting represents the natural landscape, which you can find in surrounding nature. As you walk along the path in the garden, you can climb the small hill, listen to the gurgling water, or rest on the granite while meditating upon the essence of the garden and nature.

The design of California Scenario represents realistic nature. The artist's style of presentation is highly crafted, suggesting restrained and representational qualities, which fit the design criteria of the Japanese Zen garden. However, Noguchi attempted to recreate and reconstitute the natural environment of California in the context of locality, which was contrasted with the earth-like representations suggested in Japanese Zen gardens.

Abstinence

In his design, another feature, which seems to be inspired by the design criteria of Japanese Zen gardens, is abstinence. The term abstinence means the restrained use of design materials. It can be said that abstinence was the result of influences of surrealism or minimalism, into which category he is classified as a sculptor. However, it is also evident that the simple material use of traditional Zen gardens had an effect on abstinence in his garden design.

In his garden design, rock and stone play important roles as design elements. Of course, trees or shrubs appeared in his gardens, but their function is nothing but a background or a screen. This characteristic is associated with the common design features found in traditional Japanese Zen gardens. However, the employment of design elements becomes more limited in Noguchi’s design than in traditional Japanese Zen gardens. So, sand or moss in traditional Zen gardens was often replaced with rock and stone. He frequently designed his gardens in extremely minimalist ways with only rocks and stones, which means the modern succession of the traditional Japanese

Zen garden was based on his design philosophy. A design example is the sunken garden of the Chase Manhattan Bank building.

The sunken garden is situated in the open plaza of the Chase Manhattan Bank building in Manhattan. The garden is constructed below street level in a circular form. The circular opening has a metal railing on top, and enables viewers to look into the sunken garden below. The space is also surrounded by floor-to-ceiling windows on the lower level. These windows allow the garden to be appreciated from inside.

The sunken garden consists of small stone bricks and rocks. The brick surface grades gently, suggesting a series of low hills and valleys. Seven black boulders of varying sizes are situated on the highest points of the surface. The sloping of the surface, which is created by the organization of the bricks, circles around to suggest the contours of the ground. The lines from the bricks also serve to draw attention to the boulders.

In this sunken garden, Isamu Noguchi tried to incarnate the concept of Japanese Zen gardens with his modern design vocabulary. To appreciate this garden, the viewer is not allowed to enter, but rather must look in from the outside. The lines formed by the arrangement of the bricks are associated with the raked sand, found in Japanese Zen gardens. The features strongly remind the viewer of the Zen garden of Ryoan-ji in Kyoto [71].

Although Noguchi was inspired by traditional Japanese Zen gardens, he did not intend the blind reproduction of a traditional Zen garden. Instead, Noguchi sought a contemporary variation and application of the design criteria of Japanese gardens, satisfying his aesthetic need. In this sunken garden, he simply employed the rocks and bricks as the design elements. However,

[71] Lee Vol. 1. 25.

they effectively achieve their symbolic meaning in an extreme minimalist style, which a traditional Zen garden had with such elements as rocks, sand, gravel and shrubs.

Figure 21. Sunken Garden, Chase Manhattan Bank Plaza, New York [72]

2. Shodo Suzuki

The design of Shodo Suzuki is not only modernistic but also traditional. His geometrical design vocabulary with the use of rocks, water features, and plants is an expression of modern science, which was originally developed in the West. However, it also is based on a contemporary appreciation of the traditional Eastern arts such as calligraphy and Zen gardens. Therefore, his design is a good example indicating how to combine the Eastern cultural heritages with Western modernistic achievements. Also, the desirable continuation of the medieval Japanese Zen garden is well shown in his works.

1) The Background of Shodo Suzuki

[72] The Noguchi Museum.

Shodo Suzuki was born and raised in the mountainous area of Japan. In 1960, he graduated from Chiba University, majoring in landscape architecture, and entered Tokyo Institute University to study architecture. After he established his own design office in 1974, Shodo Suzuki designed many gardens using his aesthetic viewpoint.

Through a growth process, his individual experiences have influenced his design characteristics. Among them, three can be stated as major influences: natural environment, integrative study, and the influence of his father [73].

Figure 22. Calligraphy Concept Sketch, Shodo Suzuki [74]

The area where he was born was a plain that was surrounded by mountains and rivers. Therefore, wild and variegated landscapes in his childhood affected his view of nature. This

[73] Lee Vol. 2. 53.

[74] Lee Vol. 2. 54.

experience has embodied his garden design as the dramatic and contrasting characteristic of the four seasons. His integrated study of landscape architecture and architecture in his adolescence gave him a synthetic viewpoint about garden design. He considers landscape architecture as architecture in nature [75]. His synthetic design is incarnated in his gardens as a linear form.

His father, who was an art teacher who took interest in the poems of the traditional Chinese, formed the other experience. He introduced traditional poems to Shodo Suzuki, and this experience caused him to think about the traditional Eastern cultures. Calligraphy is one of them, which he indulges in and uses as the method to express his design concepts. Also, the subtle, various touch of calligraphy is applied to his garden design, replaced with the natural lines, and carved in the surfaces of rocks [76].

2) The Influences of the traditional Japanese Zen garden

As well as calligraphy, he was interested in the design criteria of traditional Japanese Zen gardens as the result of his concern about the traditional cultural heritage. The traces and influences of Japanese Zen gardens in his designs are found in his re-creation of the contemporary categorized into symbolism.

People often feel a strong attachment to traditions, as well as an appreciation for innovation. Shodo Suzuki sublimates the attraction into the reconciliation of past and present in his garden designs. For the grafting of cultural heritages into a modernistic garden design, he refuses to repeat thestale form of mere traditions.

He understands the design character of Japanese Zen gardens as symbolism, which is reflected in his gardens, while accommodating modernistic elements. So, he uses symbolic

[75] Shodo Suzuki. Shodo Suzuki: Japaneses Landscape Design. (Tokyo. Japan: Process Architecture, 1991) 11-17.

[76] Suzuki 11-17.

representation acts as a major design criterion. Contrary to the philosophical, symbolic expression of natural landscapes in traditional Zen gardens, he employs symbolism in his design to metaphorically suggest the macro or micro landscapes, letters, or specific landforms.

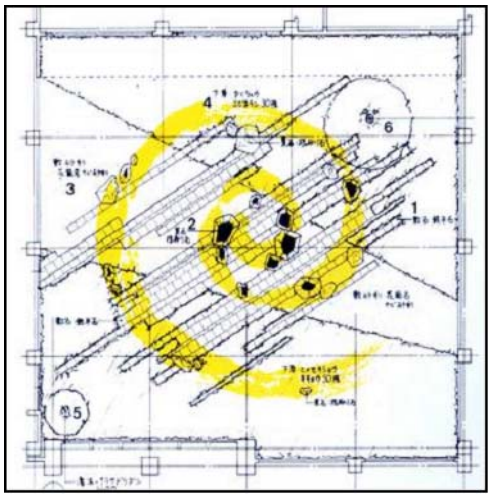

Figure 23. JR Minami Urawa Dormitory Court Garden, Urawa, Japan [77];

Figure 24.The Plan of The Courtyard of the Atami Mitsui Training Center, Atami, Japan[78]

20th Century science was a kind of religion to him, and accordingly, he incarnated his symbolic designs based on modern scientific considerations. In the past, gardens were affected mainly by religions like Buddhism and Taoism. Zen gardens were especially made to convey and understand Zen philosophy. The Zen view of nature acted as a major motif, which was embodied in Zen gardens. Shodo Suzuki concentrated on the spiritual trends of the times, which had an effect on his design vocabulary. He believes that this modern time is affected by science, which plays the same role as religions did in the past, and his gardens are designed to symbolize the phenomena, which can be represented by scientific processes and instruments.

[77] Lee Vol. 2. 57.
[78] Lee Vol. 2. 57.

Circular and spiral forms are often used in his gardens to imply scientific symbolism. These forms represent the basic shape of the universe, a deoxyribonucleic acid, and an atom in the scientific macro or micro views. Through the use of these verified forms such as circular and spiral shapes, he tries to symbolize natural and universal prototypes in his garden designs. Whereas Isamu Noguchi represented a local environment with the contextual viewpoint, Suzuki's gardens such as the JR Minami Urawa dormitory court garden and the courtyard of the Atami Mitsui Training Center vividly express his design goal of explaining scientific symbolism.

In the JR Minami Urawa dormitory, constructed in 1992, the main conceptual representation is a circle. The circular arrangement of rocks governs the atmosphere of the whole courtyard. This circle symbolizes the original shape of nebulas. This courtyard is surrounded by a series of dormitory buildings which allow a limited supply of light, and Suzuki designed this garden to emphasize the effective use of light. The center pond and rocks produce a unique landscape though their reflection of light at night. The circular rocks and light symbolically produce the image of the universe, representing nebulas and starlight in this garden[79].

In contrast, the courtyard of the Atami Mitsui Training Center was designed in 1995 with a spiral shape. The site of this courtyard is located in the hills, surrounded by trees. In a similar manner to the courtyard in the JR Minami Urawa dormitory, rocks play an important role, representing the basic shape of a nebula or a deoxyribonucleic acid by the spiral placement. This indicates the design intent of Shodo Suzuki, symbolizing scientific phenomena.

The circle and spiral, used for symbolizing scientific macro and micro landscapes, are not the only shapes used by Shodo Suzuki in his designs. In the Kimitsu Golf Club House court

[79] Suzuki 122-125.

garden and “Imagination in Crisis,” the extremely symbolized letter and specific landform are employed as design vocabulary to represent his design concept.

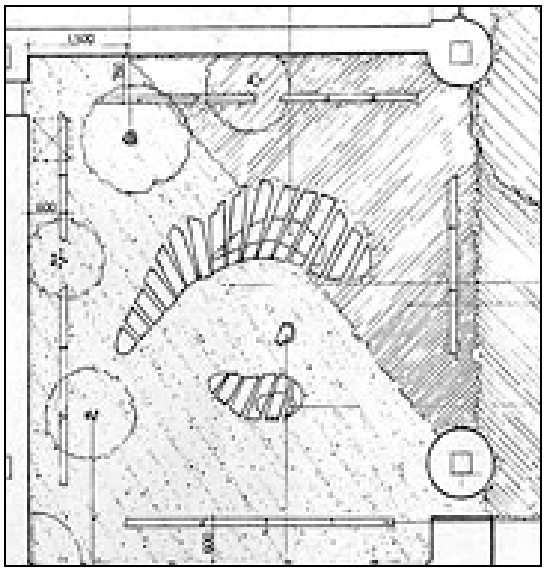

Figure 25. The Plan of the Kimitsu Golf Club House Court, Kimitsu, Japan [80]

The Kimitsu Golf Club House court garden is located in front of a women’s restroom. So, Shodo Suzuki tried to design this space, closely connected with the image of woman. “女” indicates a woman in the Chinese letter. It is the most suitable word to suggest the image of woman, because the letter is a hieroglyph, depicting a sitting woman. Therefore, the extremely symbolized form of the letter, “ 女” is used as a major design concept conveyed with the arrangement of rocks.

The “Imagination in Crisis” was designed as a place of entry for the 8th International Garden Festival in France. This work has also been called “The Archipelago”, which implies that the garden was designed to represent the landform of Japan. The broken rocks and timber stakes

[80] Lee Vol. 2. 58.

represent the Japanese archipelago and adjacent islands, respectively. Although the rippled sand suggests the sea like that of traditional Zen gardens, the rocks symbolize the landform of the Japanese archipelago [81]. This means that Shodo Suzuki symbolized not only the common landscapes of the Zen gardens, but the specific landscape form.

Figure 26. Imagination of Crisis, Chaumont-on-Loire, France [82]

In Shodo Suzuki's design, the succession of design criteria expressed in traditional Zen gardens has been embodied as symbolic representation. However, the purpose of the symbolic representation is different from those of traditional Zen gardens. His symbolism is not the metaphoric imitation of common landscape as intended in traditional Zen gardens. The creative symbolism of various subjects is the primary characteristic of symbolic representation in Shodo Suzuki's designs.

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[81] Lee Vol. 2. 57.

[82] Lee Vol. 2. 58.

Chapter 5: Design Proposals for Contemporary Succession

1. Design Criteria

Isamu Noguchi and Shodo Suzuki interpret the design characteristic of the traditional Japanese Zen gardens as symbolism and abstinence. Therefore, they gave the design elements such as rock, stone, and sand metaphoric meaning for making philosophical and meditative gardens. The meditative atmosphere in Isamu Noguchi's designs is emphasized by the limited use of design elements, which is also a characteristic of traditional Zen gardens.

As well as symbolism and abstinence, there are other criteria to be applied for designing the contemporary Zen garden. They are diversity and unity. Diversity means the various points of view, and unity indicates the dimness of boundaries in a design context. Therefore, symbolism, abstinence, diversity, and unity are the essential design criteria, which may be applied in making a modern Zen garden. These design characteristics should be explained and analyzed in detail to facilitate actual design adjustment.

1) Symbolism

Symbolic representation is one of most important design criteria, passed on from traditional Zen gardens. Because symbolism is a prime design criterion of traditional Zen gardens, many designers have employed the concept as a major design principle to plan their Zen, or meditation, gardens. But, the works of Isamu Noguchi and Shodo Suzuki suggest a better direction for the design criteria of modern Zen gardens. Isamu Noguchi used the symbolic representation from traditional Zen gardens. However, he expressed the local and climatic landscape symbolically. Similarly, Shodo Suzuki employs symbolic representation in his gardens

to metaphorically suggest the macro or micro scenery based on scientific achievements, letters, and landforms.

From the examples of Isamu Noguchi and Shodo Suzuki, the variety of subjects for symbolic representation can be seen as a key for the contemporary succession of a traditional design vocabulary. A subject can be a local landscape, a universal orbit, or a letter. However, there is an important principle in choosing the subject to be symbolized. It must be generally understood by its appreciators. In traditional Zen gardens, symbolized subjects were the common landscapes, which surrounded the Japanese [83]. So, the Zen gardens evoked an appreciators' sympathy, which caused them to meditate on and unify with the scenery. If a Zen garden, built in Korea, has the representation symbolizing the local landscape of California, the garden won't rouse feelings from the visitors. In this case, the garden is not a Zen garden, but a general garden because there is no motif for meditation.

2) Abstinence

In traditional Zen gardens, one of their characteristics was an austere limitation on the kinds of materials used, which means the abstinence of design materials. They consisted mainly of rock, sand, moss and infrequent vegetation in the form of evergreen shrubs. Evergreen trees were planted because of their slow growth, which produced the illusion that the gardens were permanent. The reason is that the designers of traditional Zen gardens tried to express a stable presence instead of transitory phenomena, a characteristic of other gardens in the medieval period.

Through the limited kinds of materials used, they stripped nature bare in order to reveal its essence, suggesting a universal entity. Stripping off the skin of nature stands for removing

[83] Kuitert 130-140.

everything unnecessary and removable. By compressing nature to its smallest size and bringing it back to its simplest expression, one can expose its essence. It is by seizing the essence of nature that human beings can find the Buddha nature, which is ubiquitous in all creatures [84]. Consequently, one could attain enlightenment while realizing ultimate truth through meditation on the universal appearance. This is the reason why Zen monks stripped their gardens bare, using only rock, sand, and a little evergreen shrubbery.

The modern succession of the material abstinence in traditional Zen gardens does not mean the copying and repetitive use of the materials. It simply means limited material employment in modernistic Zen gardens. The works of Isamu Noguchi are good examples to support this argument. In some of his designs, sand, moss, evergreen shrubs, and trees were effectively replaced with rock and stone [85]. Even with only two materials, his gardens effectively produce meditative impressions. Therefore, gravel or moss can act as rippled sand to represent seas or rivers, and small shrubbery can be implemented to suggest mountainous areas full of green trees. Therefore, landscape designers should not be concerned about the kinds of design elements. The most important design approach for a modern Zen garden is the limited and moderate use of the design elements.

3) Diversity

Diversity signifies multiple locations for visitors to look at a Zen garden. Actually, traditional Zen gardens were designed for meditation, walking, and stopping at many spots to

[84] Kean 63.

[85] Lee Vol. 1. 25.

view the shape and meaning of such design elements as rock, sand, or plants [86]. An abbot's quarter with a relatively small Zen garden had verandahs, used to walk and stop at various points[87]. However, the designed space for sitting and meditating should be different from continuous verandahs to look from, which imitates the traditional design vocabulary without any contemporary interpretation. The sites of medieval Zen gardens were mainly located in the precincts of a temple. So, wooden verandahs were considered important spaces to meditate. But, the sites of modern Zen gardens are totally different from those of traditional Zen gardens. Modern Zen gardens are constructed in public or private gardens, which do not connect with Buddhist temples. Therefore, the wood verandahs should be removed because of their inappropriate character. Instead of verandahs, modernistic benches or chairs should be considered a design element for the appreciators to meditate from.

According to the multiple viewpoint design, a landscape architect should consider the composition and arrangement of design elements, viewed from the different spots. Design elements, such as rock and stone in traditional Zen gardens, had various and different appearances according to the viewing point, and the variations caused appreciators to be interested. Generally, the scenery, which is understood at a glance, cannot arouse any sustained curiosity from appreciators. On the contrary, changes in appearances according to alternate observatory spots make the space more deep and abundant. Therefore, the appropriate choice and sequence plan of observation spots should be considered as important.

[86] Goto 91.

[87] Plate 156.

4) Unity

The final criterion to desirably re-create the design vocabulary of traditional Zen gardens is unity. This criterion is important because it is a prime theory and meditative subject in Zen Buddhism, and the purpose of traditional Zen gardens.

The prime message of Zen Buddhism is that all creatures in the universe have Buddha nature [88]. All the phenomena and things in nature have Buddhahood and are united in the viewpoint of a Buddhist. In Zen Buddhism, meditation is the method and pathway to realize the Buddhist principle. Meditating in a Zen garden is considered one of the indispensable processes to discover the Buddha nature, which resides in the landscape. If an ascetic finds the Buddhahood there, he can spontaneously be aware of Buddha nature in his mind and attain enlightenment, because all things and truths are integrated and connected there to each other. Therefore, the unity of all creatures in the universe has been one of the primary principles in Zen Buddhism. Dualistic thinking prevents achieving nirvana [89].

In this context, modern Zen gardens must be understood based on the philosophy of unity. However, most appreciators of contemporary Zen gardens are not Buddhists. It is impossible that appreciators who do not know the principle of Zen Buddhism think of the philosophy of unity. They generally want to taste the meditative ambience rather than learn the somewhat obtrusive doctrine of Zen Buddhism. Therefore, the philosophy must be embodied as a design criterion in modernistic Zen gardens. Through this design device, the philosophy can be seen visually and become a subject to be meditated upon by a viewer. By this design approach, traditional Zen

[88] Ito 168.

[89] Kean 63.

gardens can be replicated in a modernistic design vocabulary in keeping with the philosophy of unity.

The proposed design ideas for implying religious concepts of unity vary according to the characteristics of a design project, as well as the ability of a designer to create those ideas. Among the ideas, one possible design technique is a blurriness of boundaries. Usually, the clear division between design elements does not deliver a sense of unity and arouse any philosophical inspiration from an observer. Instead of definite separation, gradual boundaries between design elements imply the concept of unity. This design technique can be a philosophical motif for an appreciator to contemplate.

2. Design Project

According to modernistic design criteria, detailed design guidelines can be proposed for a concrete design project for a Zen garden. However, there is a difference between criteria and guidelines. If the design criterion acts as a strategy, the design guidelines can act as tactics. Therefore, while design criteria are unchangeable and constant, guidelines can be applied differently to each design project according to site conditions and context of the project. Hence, the comprehensive explanation of possible design guidelines should be accompanied by a concrete project for a contemporary Zen garden. Following a general design process, the way to apply design criteria as design guidelines is very useful in understanding the modernistic succession of traditional Zen gardens.

1) Site Inventory and Analysis

The selected site for this study is an area adjacent to the Student Learning Center on the University of Georgia campus. Because many buildings, walkways, and roads surround the area, this site condition is quite urban different from the more rural location of traditional Japanese

Zen gardens. Also, this area is a focal point of contact and transport, connecting the North campus with the South campus of the University. These conditions of location make this site crowded, as well as noisy, for many students and vehicles travel near the site all day long.

The overall grade is somewhat gentle except in the northern and eastern areas, which have a relatively steep gradient. Except for a few plants in the northern area of the site, there are not any existing large trees, and most of the surface is covered with lawn and groundcover. The major axis is in the north-south direction and is bordered with a road and the north face of the Student Learning Center. The east-west axis is adjacent to a pathway and a road. The site has relatively abundant sunshine in the daytime. In the south area of the site, there is a high retaining wall, which indicates the difference of elevation between this site and the ground level of the UGA Student Bookstore. This difference in level allows the site to have open scenery toward the southern direction. This site is crossed with a diagonal pathway, which acts as a major access way, connecting the North campus and the Student Learning Center.

2) Design Guidelines

According to the site inventory and analysis, this site can be summarized as an urban location. Surrounding structures support this viewpoint. Therefore, this site requires unique design guidelines different from general gardens, which are mainly enclosed by a lot of plants. These design guidelines should follow the direction, established by each criterion.

Symbolism

Symbolic representation is an important criterion in designing a Zen garden. Therefore, whether the design concept is embodied effectively serves as an indicator of the desirable succession of the design vocabulary, extracted from traditional Zen gardens. However, as mentioned previously, the sort of symbolized subjects is not limited to any conventional theme.

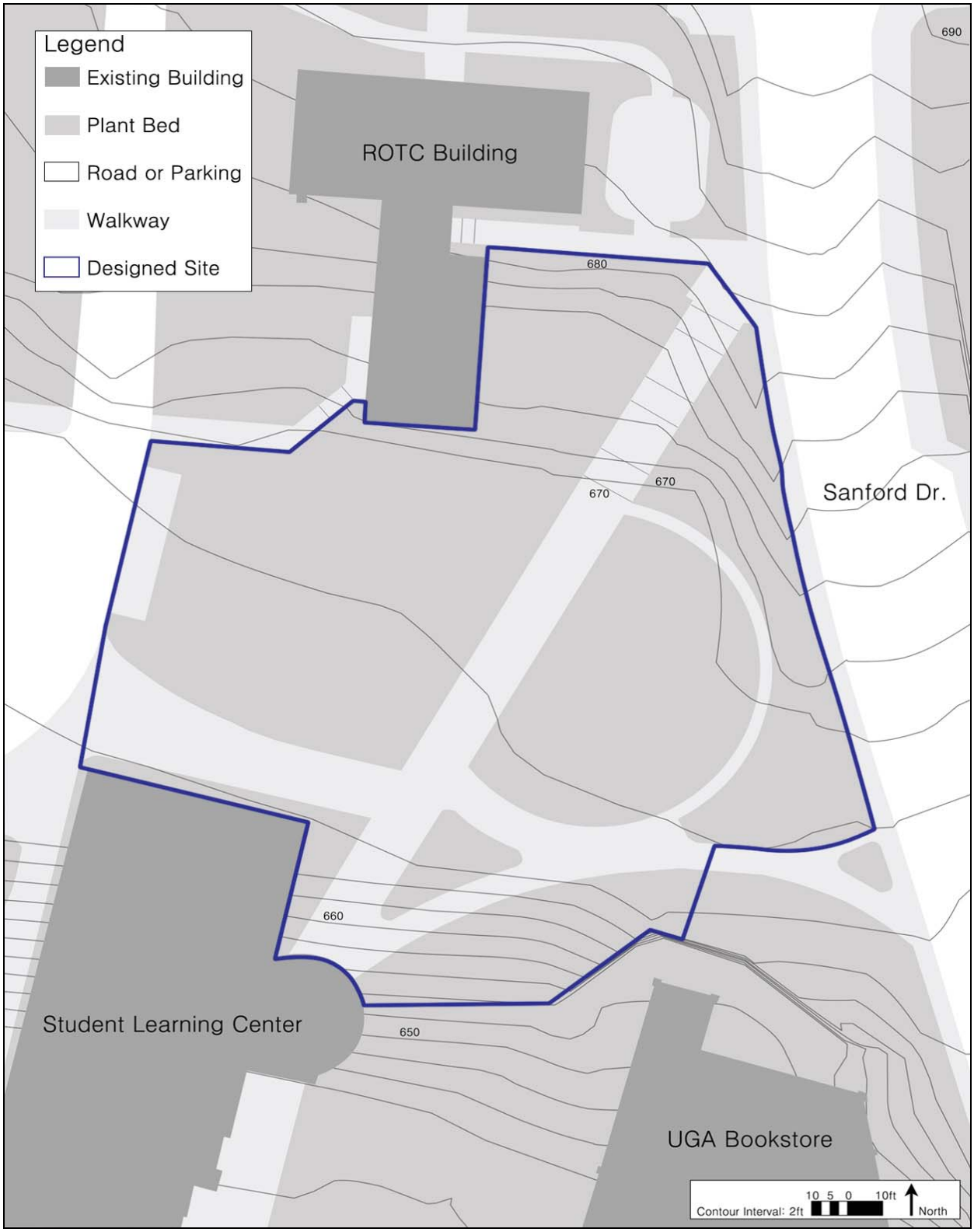

Figure 27. Design-Site Map

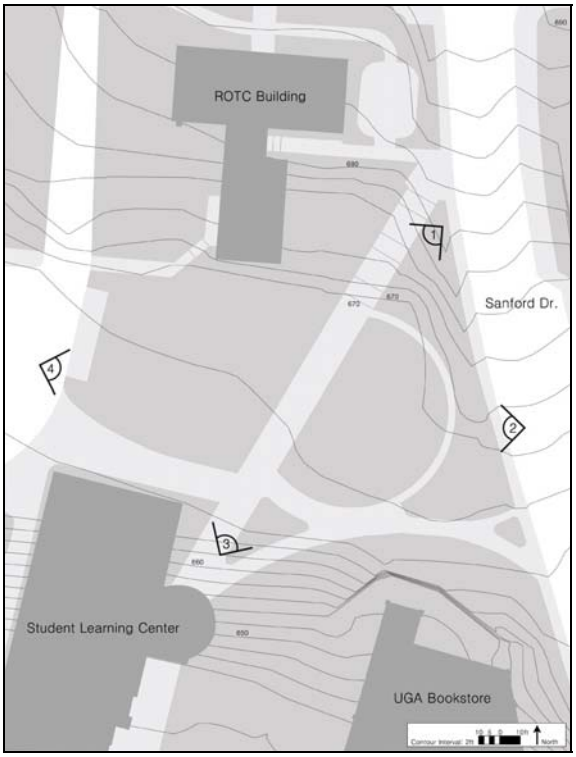

Figure 28. Design-Site Photos

In this garden design, modernistic subjects will be described metaphorically to show the creative modern succession of the old traditions. One metaphor is the symbolic representation of a regional landscape. The other metaphoric theme is the form of the universal landscape.

The regional landscape plays an important role in the conscious and subconscious world of a viewer, who lives surrounded by the landscape. To a viewer, the regional landscape can be a subject for remembrance or thought because it has filtered into the heart of the potential viewer. Therefore, symbolic representation of a regional landscape causes him to meditate and contemplate.

Figure 29. The Granite Outcrops

This garden is located on the North campus of the University of Georgia, which, consequently, sits in the North area of Georgia with a broad point of view. Generally, the

topographical characteristic of North Georgia is that of a Piedmont Region, and many granite outcrops are located in the Piedmont Region of Georgia [90]. Therefore, Piedmont Region with granite outcrops can be used as a main theme to be metaphorically designed in this garden.

If a subject to be represented is decided upon, then characteristics of the subject should be invested in the design of a Zen garden in a condensed scale. Natural characteristics are various in the granite outcroppings. However, the design criterion of traditional Zen gardens is to prevent excessive design vocabulary because they obstruct the creation of a meditation ambience. Consequently, the natural characteristic should be highly summarized and classified. Through the macro viewpoint, mountains with rock exposure, along with forests, rivers, and plains are important features to inform the natural landscape of a granite outcrop. Therefore, these natural features should be designed metaphorically in this particular Zen garden.

Figure 30. The Universe [91]

[90] William H. Murdy and M. Eloise Brown Carter, Guide to the Plants of Granite Outcrops. (Athens: U of Georgia P, 2000) ix.

The other theme to be represented is the universal landscape. As shown in the works of many designers, including Shodo Suzuki, the universal landscape is a popular subject to be presented. Often the landscape is symbolized in a circular and spiral form. These forms have been proven by scientific achievement and explained as fundamental constructions of the universe. Therefore, these basic forms generally have become subjects to be thought of and contemplated as the universal genesis, peaking a viewer's curiosity. Consequently, they create a still and meditative environment, which a viewer appreciates in traditional Zen gardens.

Between two basic shapes, a spiral has been preferred in the Easterners explanation of the order and construction of the universe even before it was scientifically established by Westerners. A deeper philosophical meaning has been given to spiral shapes rather than circular ones, and the diagram of Yin and Yang is a good example to prove this historical fact [92]. The succession of the modern Zen garden does not mean blind devotion regarding traditional Eastern cultures. However, it seems certain that the spiral shape predominates over the circle form in creating a meditative atmosphere as the ancestors in Eastern culture thought. Also, the spiral shape is more desirable than the simple circle for this experiment because the selected site is bordered by both geometric and linear forms of artificial constructions. According to this site condition, the circular form in this design is less suitable because of its artificial characteristic. On the contrary, the spiral form with the focal point in the relative central area of this site is effectively harmonized with its somewhat naturalistic line and form in contrast to the adjacent human works.

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[91] Chap. 10. The Structure of the Universe, 2004, Astronomy and Space Science Dep., Chungnam National U, 15 Dec. 2004 <http://astro1.cnu.ac.kr/contents/class/webpage/chapter10.htm>.

[92] See the diagram of Yin and Yang in page 17.

Figure 31. Design-the Base Line

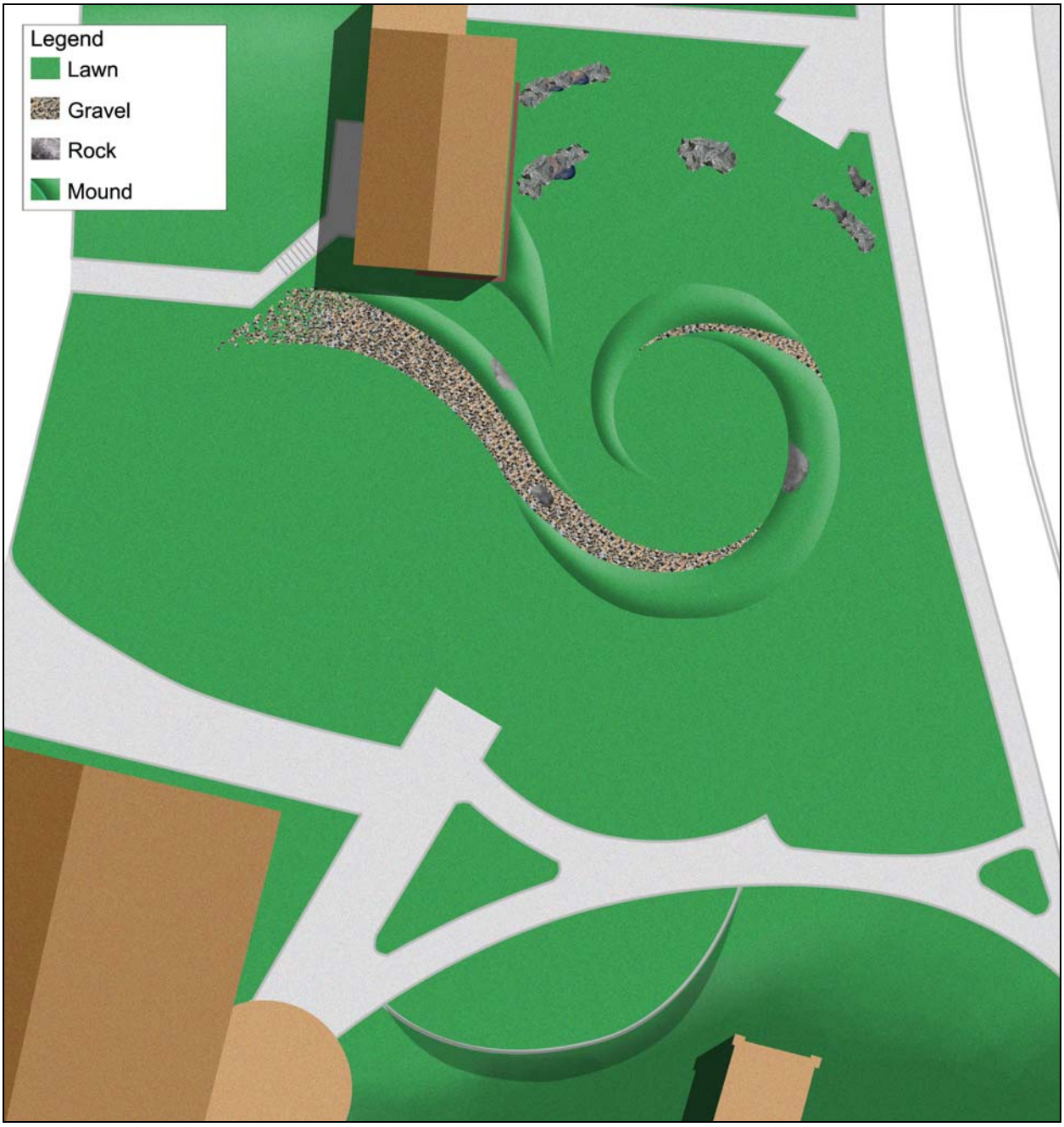

Figure 32. Design-the Symbolism of the Piedmont Region with the Granite Outcrops

Figure 33. Design-the Symbolism of the Universe

Therefore, the spiral should be used as a basic line to suggest the universal shape because of its meditative essence and harmonizing effect. As well, the symbolical representation of the granite outcrops will be designed with the matrix of the spiral form to successfully blend in well with the universal metaphor. This blend will symbolically reveal the philosophy that the universe and nature are united in a same principle.

Abstinence

If symbolized subjects are decided according to design guidelines, the next process in this design is how to effectively and artistically express these subjects into the condensed scale of a modernistic Zen garden. In other words, abstinence means the way of the design approach, while the process to choose the subjects for symbolized representation bears relation with the establishment of the design concept.

Abstinence plays an important role in traditional Zen gardens with the limited kinds of materials used such as rock, sand, moss, and evergreen shrubs and trees. Because of this characteristic, traditional Zen gardens have an altogether distinguished appearance different from other garden styles, an attribute which has attracted people's attention throughout the world. However, for the modernistic Zen garden, the employment of these design elements should be flexible according to the individual conditions of a selected site.

This site is surrounded with various human constructions such as buildings, roads, and parking lots. Therefore, the whole image of this site is relatively sterile and solid. If sand is used as a main design element in this Zen garden as it was in traditional Zen gardens, this garden shall strengthen the desolate impression of this area. Therefore, sand must be replaced with plants, which are able to give this site and its vicinity a vivid and colorful aura. Lawn would be good as

a design material instead of using sand. The plants also contextually connect the rest of the campus, especially the North campus, where lawn is planted as a major species.

The lawn should be planted over the designed topographical ground to suggest the symbolic subject, which is the Piedmont Region with the granite outcrops. One of the design guidelines in locating sand in traditional Zen gardens is the pattern of the sand. The rippled and circled pattern of sand metaphorically suggested the waves and ripples of a sea or rivers as parts of the common natural landscapes of Japan. Because Japan consists of many islands, the image of sea was especially susceptible to becoming an important theme in traditional Japanese Zen gardens. On the contrary, the Piedmont Region, the regional landscape in this part of Georgia, should be the symbolized subject to be embodied in this garden. The image of a sea is not suitable to indicate a landscape feature of the Piedmont Region. Instead, mountain ranges and surrounding flat fields should be represented in this garden. The series of upheaval and flat grounds in this Zen garden should be constructed to metaphorically imitate the topographical characteristic of a Piedmont Region. On this designed surface, lawn successfully achieves the symbolic representation of a Piedmont landscape, while it suggests various plants in mountain areas and flat fields from a bird's eye view.

Plants are used as essential design materials for this garden design. Traditionally, mosses, azaleas, rhododendrons, and pines were generally planted in the Japanese Zen gardens. However, there is no need to use these plants in a modernistic Zen garden. The reason is that climatic conditions are different according to the latitude and longitude of the selected site, and the modern succession of the traditional garden does not demand the same use of the traditional plants. Moss is not suitable to be planted because of the maintenance difficulty due to climatic

conditions. Instead of traditional plants, the limited use of the indigenous or common plants of the selected region is an important design guideline to produce a modern Zen garden.

In a particular design guideline for this garden, the appropriate use of flowering shrubs is very important and essential. The reason is that this garden is representing the Piedmont Region, and the flowers in the Piedmont Region can be replaced symbolically with flowering shrubs. Besides the symbolic representation of the flowers in the Piedmont Region, there are other reasons to use flowering shrubs in this garden. A shrub has a comparatively small size and height. This physical feature allows for the shrub to be easily trimmed and fitted in with other design elements such as rock and for the undulating ground to be balanced in reduced scale. Also, the flowers of the shrub repeatedly bloom and fall. This transient characteristic is contrasted with the permanence of sand, gravel, and rock which enlighten the viewers about the fatal essence of human life. Trees are also planted, but the heights and spots of the trees should be chosen carefully. If a tall tree is planted in the middle of the lawn area, it causes the whole balance and scale to be broken. Therefore, according to an appropriate scale, trees should be chosen and trimmed. They are more desirable for planting in the background than the foreground, because they symbolically suggest forest mountains in the distant background. Also, these trees would act as screens to prevent the noise from adjacent crowded areas and the visual confusion and dispersion of viewers.

Also, gravel and sand should be used for implying an image of rivers. The rivers flowing through mountains and fields have become an important image to reveal the topographical characteristics of the Piedmont Region. Also, the image is found among various literary expressions, which explain the universe. For example, the Milky Way in the universe is considered as a constellation of many stars. The constellation is understood as a river in the

Eastern culture. The term of the Milky Way is translated into 銀河水 in Chinese. In this Chinese letter, 河水 means a kind of a river. Because a river is understood as a way for water to flow, the concept of a river can be considered as one of the common images to describe the universe between the Eastern culture and Western culture. Moreover, the spiral shape acts as a guiding line for the symbolic form of the river, and scientifically represents the image of a river in this garden design. After all, the image of a river can be used as one of the symbolic representations for the Piedmont and the universe.

Gravel and sand are good design materials to metaphorically suggest a river, which shows the correlation between this contemporary Zen garden and traditional Zen gardens. Especially, gravel can be used to suggest a river in the Piedmont Region, and sand can be placed for the image of the river in the universe. This discriminate use arises from the different characteristics of each. Gravel can be used to indicate the dynamic flow of real water. On the contrary, sand is suitable to express the small elements like the infinite stars in the universe. They also give the site a meditative ambience by their implicated meaning.

In this garden design, granite outcrops, waterfalls, and islets in the Piedmont Region and relatively large stars in the universe are represented symbolically with various shapes and sizes of rock. The rocks, which are partly buried in the ground, symbolically convey the image of granite outcrops, which are exposed partly in mountains. On the contrary, an individual rock metaphorically represents the image of a rocky mountain such as Stone Mountain. Also, the waterfall in the Region is expressed with multi-layered rocks in horizontal and vertical direction. Because a waterfall has both the images of earth and water, the multi-layered rocks achieve the function of symbolically and potentially connecting the mountains and the rivers in this garden. The islets in the rivers in the Piedmont Region are represented with the rocks located in gravel in

Figure 34. Design-the Abstinent Use of Design Materials

this garden. In addition, the relatively large stars can be represented metaphorically with various rocks in this garden, contrasted with sand, which stands for the innumerably distant and apparently small stars in the universe.

Diversity

While the subjects for the symbolic representation are design concepts, and abstinence is the design guideline that embodies the concept in this Zen garden, diversity is the term to describe the way to appreciate this garden. This guideline is an indicator for the arrangement of the diverse vantage points from which a viewer may see this garden. In addition, multiple viewpoints have been a design method to actively appreciate a garden in the traditional Eastern culture of Japan and Korea [93].

Besides this site, the variable population and traffic is higher here than on the whole campus of UGA. The noises made by the population and traffic here is very loud. Therefore, spontaneous spaces or verandahs for meditation in traditional Zen gardens cannot exist due to the limitation of site conditions. Accordingly, this site requires quiet and isolated spaces for sitting and meditating on those spots with good scenery.

This site is classified into three parts according to each scenic panorama. The viewpoint from the upper site is one of them. The second spot is located in the low place on this site, and the viewpoint where both of them are viewed in a whole panorama, is the last. These spots are located respectively in the north side, south side, and west side in this site, and are designed for sitting and meditating with sitting facilities and accommodating screens to insolate from visual and acoustic disturbance. In addition, the scattered rocks in this garden can be used as the zazen-

[93] Inaji Toshiro, The garden as Architecture. (Tokyo, Japan: Kodansha International, 1998) 163.

seki, a flat-topped meditation stone for sitting and meditation as they were used in the garden of the Saiho-ji.

Unity

While symbolism, abstinence, and diversity are substantial criteria with which this Zen garden is designed, unity is the criterion that suggests the right way to understand and appreciate the garden in a profound way. Generally, the traditional view of nature in Eastern culture is different from that of Westerners. To Westerners, mankind and nature are thought of as separate and independent beings. Moreover, nature was an obstacle to be conquered. Of course, this view of nature has changed, but still remains in their subconscious awareness. On the contrary, Easterners thought that human beings were a part of nature; therefore, unity between mankind and nature was thought of as a prime principle to understand the world and universe. Therefore, unity was a philosophical concept affecting all traditional lives, arts, and religions of the Easterners.

The unity principle was more emphasized in appreciating traditional Zen gardens. Without this principle, the true worth of the gardens could not be discovered. The reason is that enlightenment could be attained with the prerequisite, unity, which means that the mind of a viewer has something in common with the essence, expressed in the landscape of a Zen garden.

However, this Zen garden at UGA is observed by the students and faculty, who are not accustomed to the traditional Oriental concepts, as there are many difficulties in expressing the unity concept with general visual methods such as signboards and handouts for the viewers. Therefore, this design concept should be expressed with designed features in the garden. Only

Figure 35. Design-the Diverse Sitting Area and Access Ways

through this design approach is unity indirectly suggested in the garden. Spontaneously, the design criterion becomes a subject to be thought upon and meditated on by viewers.

There are a lot of design vocabularies to imply the unity concept in a modern Zen garden. The blurredness of the boundaries between designed features in a garden is one as described in the previous chapter. This site is crossed by a strong artificial construction, the concrete pathway, connecting North campus and the Student Learning Center. The definite boundary of the pathway causes this area to be visually divided, and the pedestrians to be mentally isolated from adjacent landscapes. Under this condition, any kind of contemplated motif is hard to find because of the dualistic and stale design approach.

Instead of the existing pathway design, the vague boundary between pathway and landscape area gives an impression of unity, rather than separation. This design vocabulary was also found in the North Carolina National Bank Plaza designed by Dan Kiley in 1988. In his garden design, the boundary between the green area and the paving surface is unclear and subtly changed, bringing a meditative ambience [94]. Also, this design technique is discovered in the tea gardens, which were developed in medieval Japan [95]. The prime concept of the tea gardens was the assimilation between human beings and nature. This viewpoint was successfully reflected in the pathway design of the gardens through vague boundaries. Therefore, this design technique gives the design philosophy of unity to the viewers in this garden, giving a meditative atmosphere as shown from the garden of Dan Kiley or the Japanese tea gardens.

[94] Korean Society of Landscape Architects. ed., Landscape Design. (Seoul, Korea: Kimundang, 1999) 102.

[95] Kean 77.

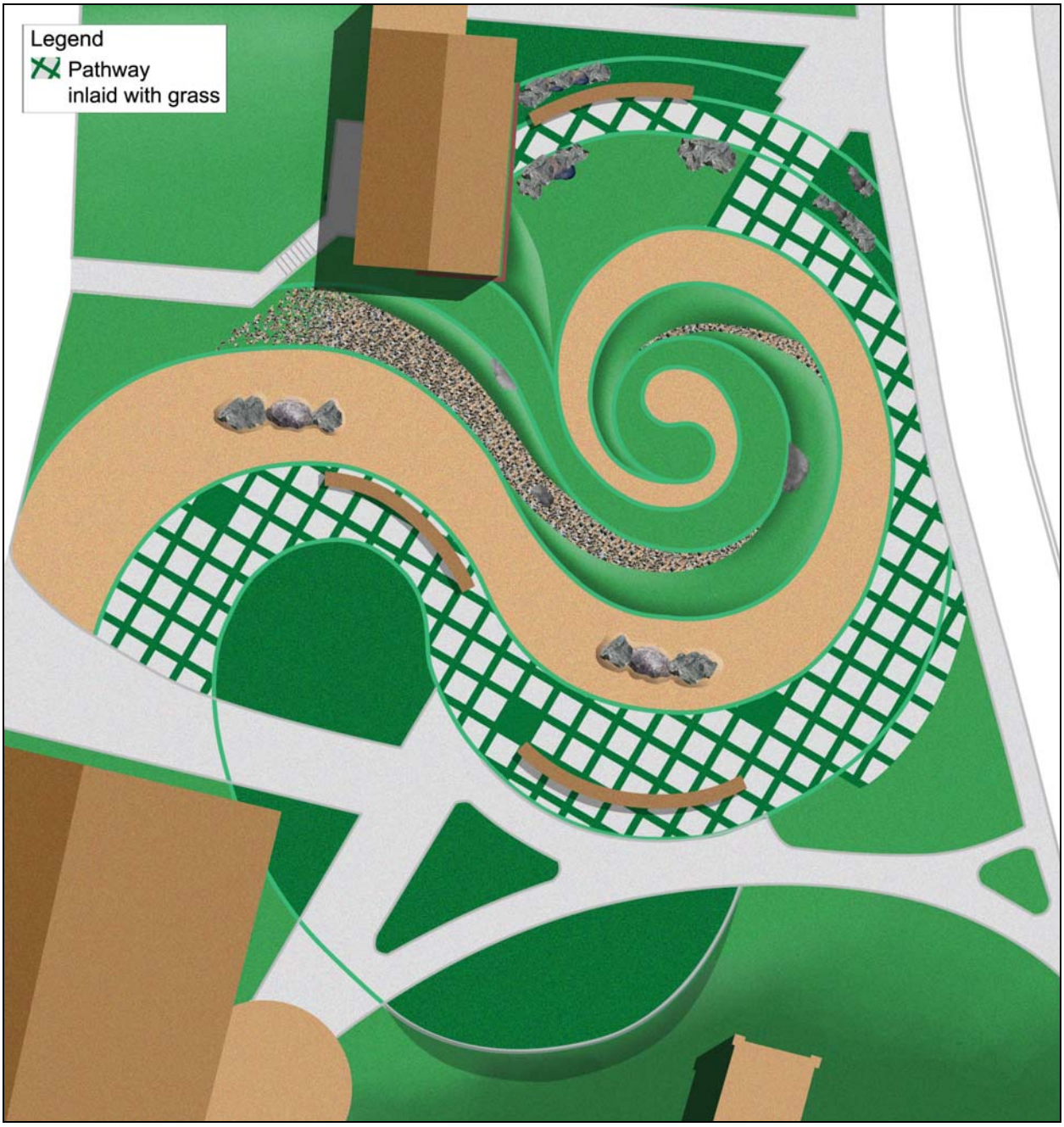

Figure 36. Design-the Unification of Hardscape and Softscape

Figure 37. Design-the Final

Chapter 6: Conclusion

Through various religious, geomantic, and aesthetic influences, Zen gardens flourished and developed in the social condition of medieval Japan, and their heritage represents the cultural identity of medieval Japan. Many trials have been made to resuscitate and recreate traditional Zen gardens in the present age; however, there are definite differences between the past and the present Zen gardens.

In traditional Japanese society, the ultimate purpose for designing and constructing a Zen garden was enlightenment through meditation by viewing the garden. However, all moderns do not hope to achieve nirvana in a Zen garden as the traditional ancestral Japanese did. For enlightenment, it is impossible for a viewer to spend much time, sitting and meditating while they are thinking on the content of Zen sutras. Yet, philosophical and meditative ambiance of traditional Zen gardens is required in contemporary Zen gardens. Traditional Zen gardens were constructed within Zen temple precincts and Buddhists' yards. But, modern Zen gardens have no limitation as their building sites. Some of them have been constructed in public parks, and others designed to decorate the front yards of commercial buildings.

Therefore, a Zen garden in the present age should be designed based on design guidelines different from those of traditional Zen gardens. Modernistic design guidelines should be flexible and changeable according to the conditions, context, and material appropriated to each designed garden. These guidelines should be followed as far as design criteria, extracted from the traditional design criteria of the medieval Zen gardens.

Symbolism, abstinence, diversity, and unity are the design criteria, passed on from traditional Zen gardens. According to these criteria, design guidelines are made for the embodiment of new gardens. Therefore, design guidelines vary according to a project and a garden designer, while the design criteria are permanent.

It is not certain that four criteria, as mentioned as the prime design principles for a contemporary Zen garden, are enough to successfully recreate the design criteria of traditional Zen gardens. However, in designing a modernistic Zen garden, they will be useful to designers, including some landscape architects who conventionally pour sand and place rock to make a Zen garden without any thought about the desirable modern succession of traditional Zen gardens.

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