

Depth Perception and Visual Manipulation of Japanese Gardens

Ran Kamiyama, Toyo University, Japan

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Abstract

The primary interest of this research is to introduce the principle of visual perception of depth and how the principles are implemented and applied into Japanese garden design. Physical and psychological proximity to nature is essential for Japanese gardens. Consequently, many Japanese gardens are located near or surrounded by natural environment, however some of the gardens are not located in such desired environment. For this reason, some gardens are carefully designed as if to be in the natural environment by manipulating visual perception. In particular, visual perception of depth is essential factor to generate visual manipulation of a space. Generally the depth is perceived by variety of cues including relative size, order, texture gradients, color, lighting and shading, aerial perspective, and linear perspective. In addition to these, the principles of Chinese perception of depth called “Three Distance” theory, and “Floating Perspective” by Chinese landscape painters, Guo Xi, and “Six Distance” theory by Han Cho are regarded as important principles of depth perception in Japan. Such principles are carefully examined and intelligently adopted to Japanese garden design. In this paper, principles of visual perception of depth from the Six Dynasties to the Northern Song Dynasty in China are briefly described and explain how the principles are effectively implemented into the actual space and the unique landscape by introducing variety of Japanese gardens.

Keywords: depth, perspective, Japanese garden

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Introduction

The purposes of the study is to introduce the principle of visual perception of depth and how the principles are implemented and applied into Japanese garden design. First, Chinese perspective in landscape ink painting from the Six Dynasties to the Northern Song Dynasty is introduced to explain the principle of visual perception of depth. Next, the influence of Chinese perspective theory through Japanese painters and gardeners is discussed. Lastly, well known Japanese gardens are introduced as a case study, and explain how the principles are applied and implemented into Japanese garden design.

Chinese history of perspective in Art from Six Dynasties to Northern Song Dynasty

In general, the perspective in art is discovered during the Six Dynasty (ca.222-589) in China. Gu Kaizhi (317-420), one of the most famous painters in Chinese art history, is known as using perspective in his representative work, called “Nymph of the Luo River”. Unfortunately, his original drawing is not survived today, but some copies are preserved. The basic principles of perspective are found from the copy of the painting, such as overlapping figures, foreshortening figures, and oblique lines (Figure 2).

During the Northern Song Dynasties (960-1127), the perspective drawing techniques are highly developed and sophisticated by some landscape ink painters. Among all, Song Di, Guo Xi, and Han Cho are well known artists and the strongly influenced to the scenography of Japanese landscape ink paintings.

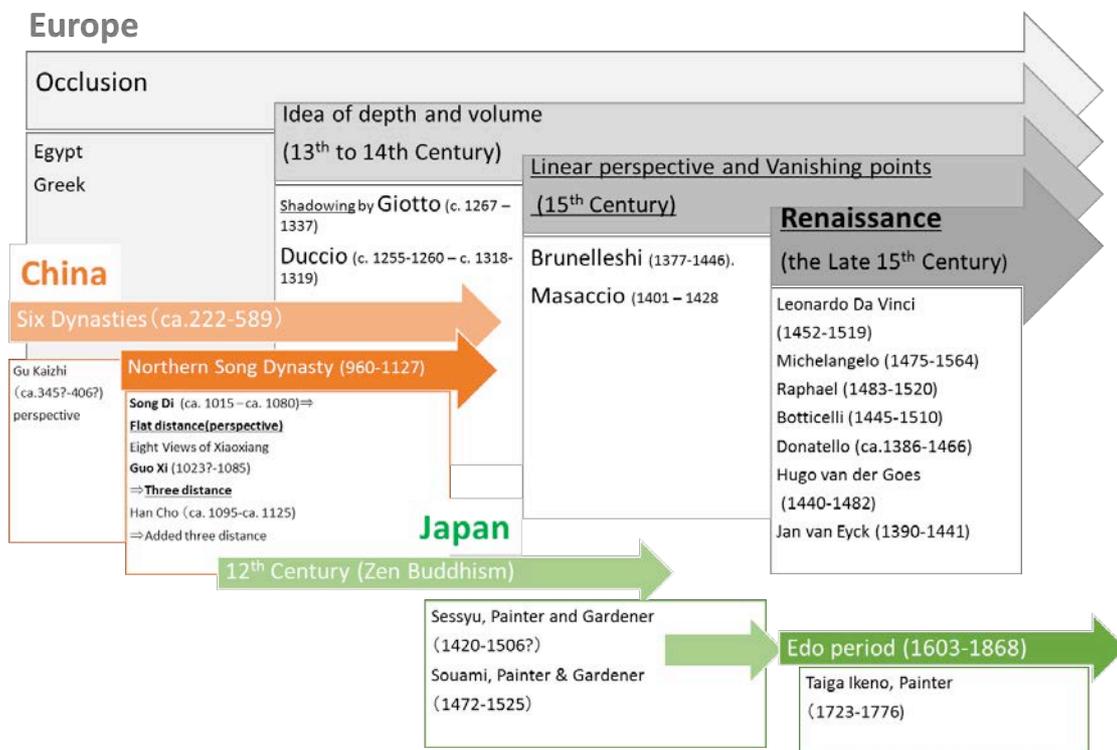


Figure 1: Chinese and Japanese history of perspective in Art

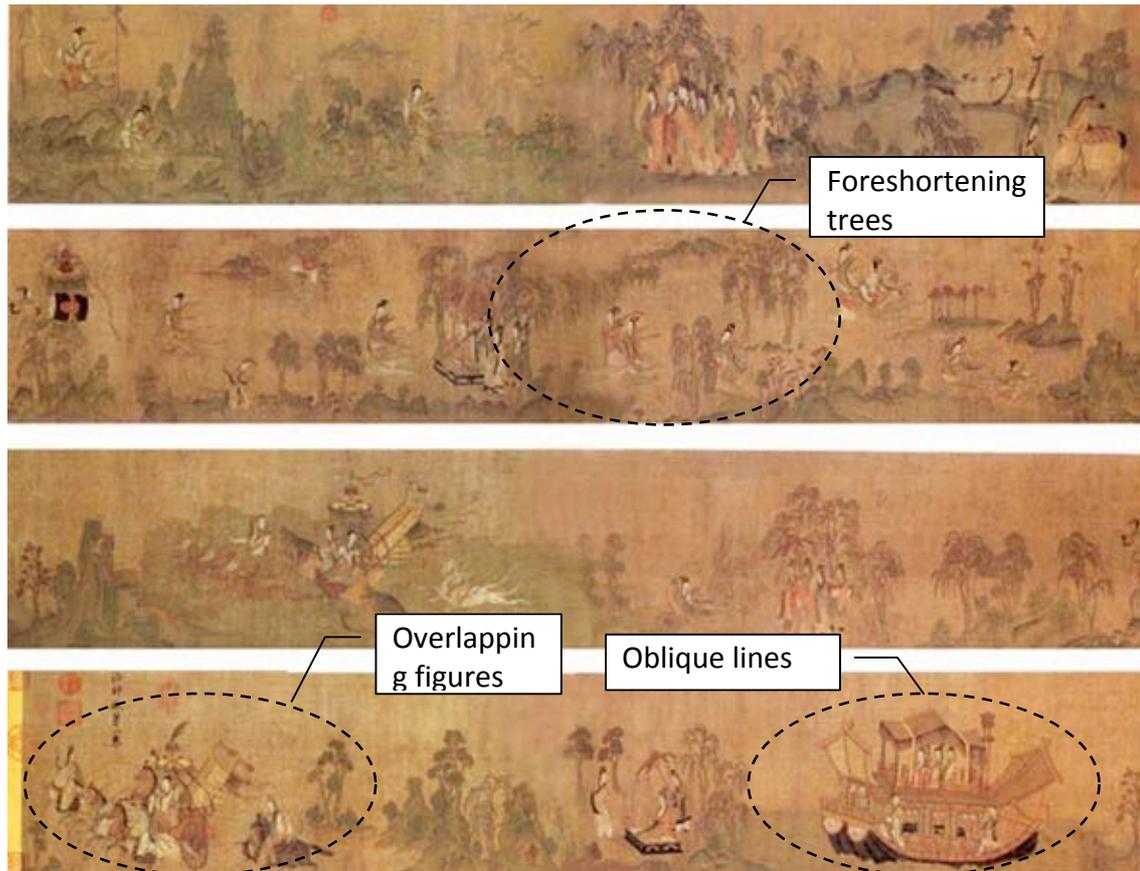


Figure 2: Copy of Nymph of the Luo River attributed to Gu Kaizhi modified by author
Retrieved from National Palace Museum, Taipei (Kaizhi, 317-420)

The first painter is Song Di (ca. 1015 – ca. 1080). Apparently, the most famous painting of his works is “*Eight Views of Xiaoxiang*”. He drew the eight most outstanding views of Xiao and Xiang river area in Hunan Province. The followings are the description of selected eight views.

1. The rain at night on the Xiaoxiang in the south
2. The wild geese coming home in Yongzhou
3. The evening gong at Qingliang Temple in Hengyang
4. The temple in the mountain in Xiangtan
5. The snow in the evening on the Xiang River in Changsha
6. The fishing village in the evening glow in Taoyuan County
7. The moon in autumn on Dongting Lake
8. The sailing ship returning home in Xiangyin, in the north

One of the interesting techniques of “*Eight Views of Xiaoxiang*” is that the difference sceneries are drawn all together on a handscroll. In reality, the eight views are not observed from a certain fixed view point. In addition to eight views, different time and seasons are drawn in a painting. The similar drawing technique is often seen from paintings which represent the narration of a story or history. The sequential sceneries such as the story of the bible on stained glass windows in a church are exhibited the characteristics of the technique. Additionally, “*Eight views of*

Xiaoxiang” is completed as a panoramic view as a whole, even though the different views, time, seasons are represented. One of the reasons that the painting is perceived as a naturalistic scene is the degree of viewing angle. The painting is drawn as if the landscape is observed from a certain point. This may result that the “*Eight view of Xiaoxiang*” is called “Flat Distance” painting. Figure 3 is most likely to be the oldest Xiao-xiang painting attributed to Li, a Chinese painter flourished 12th century, owned in Japan.



Figure 3: Right part of Imaginary tour through Xiao-xiang by Li (12th century)
Retrieved from Tokyo National Museum (Li, 12c)

During 11th century, the unique scenography called, Three Distance perspective were established by Guo Xi (flourished 1020-1090). He is one of the most famous landscape painter of the Northern Song period and credited with writing a book on scenography, called “*Linquan Gaozhi*” also called “Lofty Record of Forests and Streams” in English. In his essay, he pointed out three distance perspectives of mountains; High Distance (Vertical distance), Deep Distance (Horizontal distance), and Distance of Flatness (Level distance). According to “*Linquan Gaozhi*”, the drawing techniques mainly consists of four categories; viewing angle, color, force, and figures (Table 1).

Table: Description of Three Distance

	High Distance	Deep Distance	Flat Distance
Viewing angle	Looking up to the top of a mountain from below	Looking toward its back from its front	Looking at distant mountains from near mountain
Color	Clear and bright	Thick and dark	Sometimes bright, sometimes dark
Force	Pushing up	Thick and folded	Mildness in grandeur like ocean
Figures(human)	Bright and clear	Small like fragments of stones	Ocean waves

“Early Spring (1072)” is the representative work of Guo Xi. According to Shindo (1989, p. 239), the Three Distance is expressed in this painting (Figure 4). Comparing with “*Eight view of Xiaoxiang*”, “Early Spring (1072)” is drawn from multiple viewpoints. This technique called floating perspective or multiple point perspective. The principle is similar to Cubism created by Pablo Picasso and Georges Braque in the early 20th century. Cubism is the rejection of adapting the traditional techniques of perspective and the use of multiple vantage points. Similarly, Chinese perspective technique is also used multiple vantage points. However the distinctive difference of Chinese landscape ink painting is not only imitated nature but also kept a holistically harmonious scenery with the pleasant association of dimensions.

In the early 12th century, three different perspective types are added by Han Cho. He wrote the “*Shan-shui Ch'un-ch'uan chi*” and described new dimensions called Six Distance of Chinese landscape ink painting. The added three perspective types is as follows:

1. Broad distance: generally a wide stretch of water with a shore in the foreground and a spacious sweep to distant mountains
2. Hidden distance: thick mists and fogs that interrupt streams and plains, and cause them to disappear
3. Obscure distance: scenery that becomes obliterated in vagueness and mistiness.

The added three perspective types are caused by atmospheric condition. These are generally called aerial perspective or atmospheric perspective. The atmospheric effect such as haze or fog creates the illusion of depth and is expressed effectively in landscape ink painting.

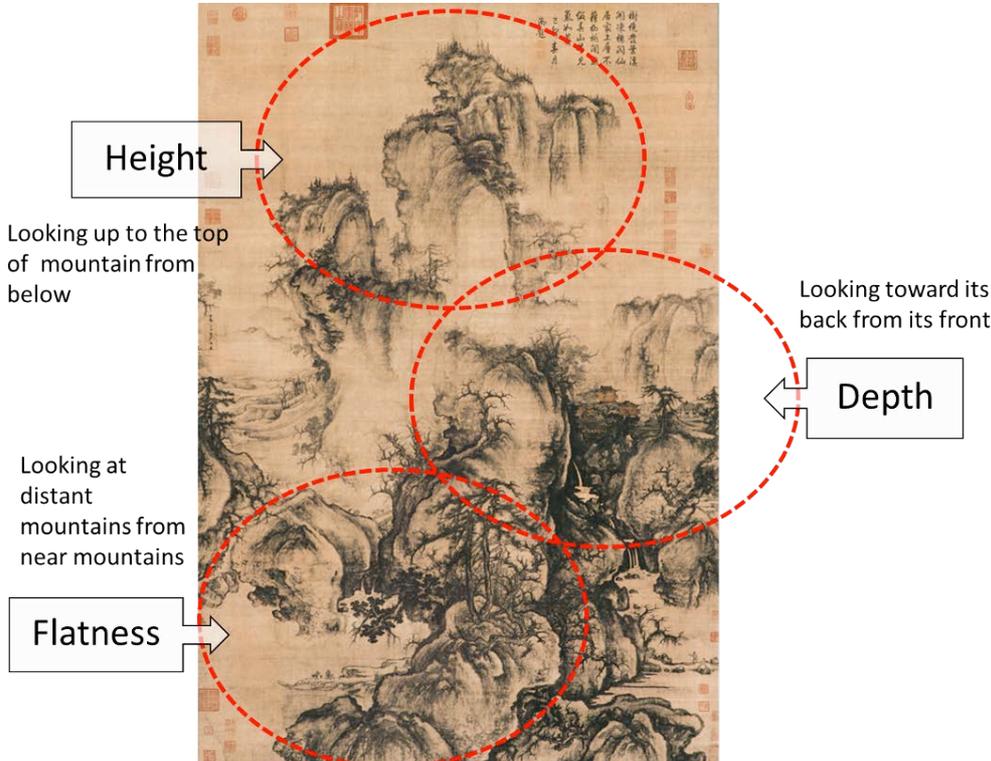


Figure 4: Early Spring (1072) modified by author
Retrieved from National Palace Museum, Taipei (Xi, 1072)

Influence of perspective in Art from China to Japan

“*Eight views of Xiaoxiang*” is drawn by famous Chinese landscape ink painters such as, Muqi Fachang, Hong Wang, Ma Yuan, Yu-jian. According to “Kundaikansouchouki” (Hayashiya, 1973), some of their paintings are introduced to Japan during the late Kamakura period (1192-1333), and it became one of favorite theme of landscape ink paintings in Japan as well. Consequently many Japanese painters draw the same subject matter over and over through the early modern times. It seems like that Japanese landscape ink painters are almost obsessed with the particular subject matter for a long time.

Initially, “Xiaoxiang” is celebrated an idealistic landscape and peaceful scene through poetry and paintings, and literary similar places of Xiaoxiang are praised scenic beauty in Japan. Eventually, the concept to select eight views in a certain region or area became popular, frequently regardless of scenery of Xiaoxiang. Similarly, eight views are often selected from famous gardens to praise the aesthetic. Therefore, selecting eight views became conventional expression to praise landscape aesthetic beauty in Japan. Another reason that the particular theme became popular is that the scene of Xiaoxiang is familiar for Japanese people because the geography and climate of Xiaoxiang is probably the most commonly found in Japan. Secondly, the expression of eight view are easily captured the people’s attention. Thirdly, the calmness and simplicity of the subject matter are highly associated with Zen Buddhism. Zen Buddhism was introduced to Japan during 12th century. “*Eight views of Xiaoxiang*” was introduced in the Kamakura period (1185-1333) in Japan. A stillness of mind is also an essential philosophy of Zen Buddhism. Consequently, the subject matter is accepted with the philosophy of Zen. As a result, the subject was frequently drawn by Japanese monks of Buddhism, such as Sesshu Toyo (1420-1506), Soami (unknown-1525).

Meanwhile, Three Distance and Six Distance were not expressed in a painting by the Edo period (1603-1867). Perhaps the theory was literarily introduced such as written document, however the particular model or the reproduction of the painting is not introduced until the Edo period. In 1679 “*Chieh Tzu Yuan Hua Chuan*”, Chinese painting manual, was introduced from 1688 to 1704, and the reproduction called “*Kaishiengaden*” was published since 1748 in Japan. After the publication of the painting manual, Taiga Ike (1723-76) drawn the painting to explain the concept of the six distance theory visually. He painted a set of the Six Distance in 1762 named as “Rikuen”, which means six distance (figure 5). After four years later he drew the same theme. At this point, he selected the Five Great Mountains in China and Xiaoxiang as a flat distance to represent Six Distance theory (Figure 6). The followings are the selected mountains and Xiaoxiang.

1. High Distance: Mount Heng
2. Deep Distance: Mount Tai
3. Flat Distance: Xiaoxiang
4. Broad distance: Mount Heng
5. Hidden distance: Mount Song
6. Obscure distance: Mount Hua



Figure 5: Rikuen by Taiga Ike (Reizei, 2010)

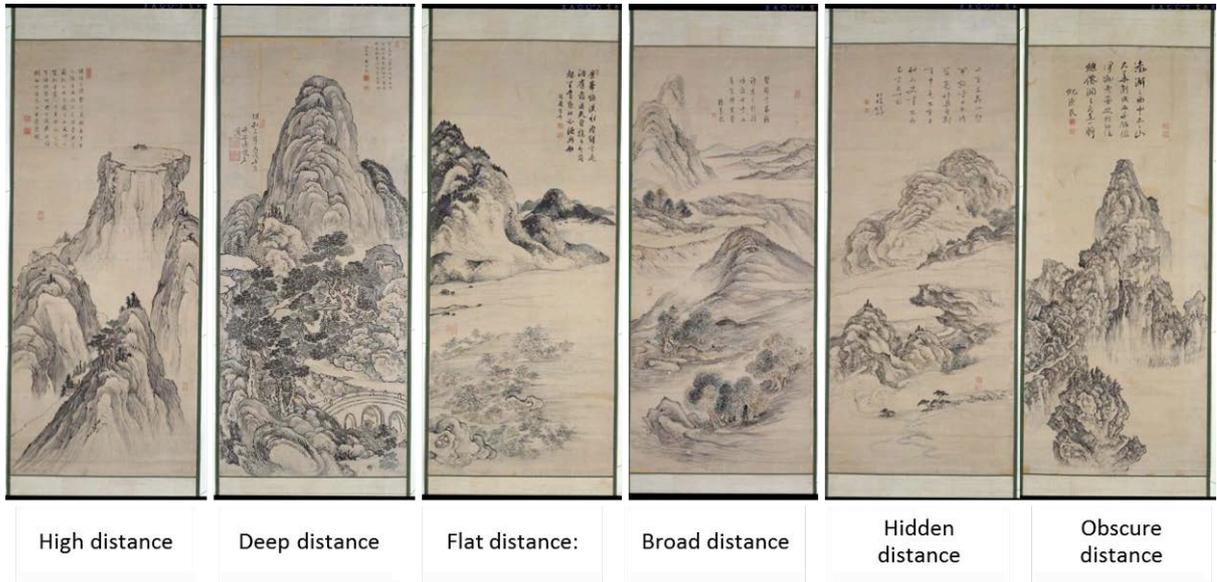


Figure 6: Rikuen sansui zu by Taiga Ike Added text by author
Retrieved from Tokyo National Museum (Ike, 1766)

Developed Japanese perspective in Art and transformed into a garden

Rinzai, one of the major Zen Buddhist sects was transmitted to Japan in 1191 by the priest Eisai. During the Muromachi period (1338–1573), Zen Buddhism became major religion and a landscape ink painting became popular among monks of Buddhism. Landscape ink paintings became more important culturally as well as religiously under the patronage of lords and warriors who are remained influential during the Muromachi period. At the same time, the gardening style were dramatically changed and highly sophisticated in this period. Before the Muromachi period a paradise garden is the dominant garden style and created to pray for peaceful death and rebirth by aristocrats and monks. In contrast, Zen Buddhism garden is very simple because generally created for meditation and practice. Some Zen gardens are consist only stones and sand without water and vegetation, which called “rock garden”.

In this section, two outstanding painters also known as gardeners are introduced to explain how the Chinese drawing techniques are incorporated into Japanese garden design. The first painter is Sesshu Toyo (1420-1506). He is the most prominent Japanese master of ink painting and is a Rinzai Zen Buddhist priest (Figure 7). Sesshu Toyo is also known as a gardener. He designed several temple gardens. Funda-in is the sub temple of Tofuku-ji temple and its garden is designed by Sesshu from 1460 to 1468 (Figure 8). The garden is considered one of the oldest garden of dry landscape style.

He studied ink painting from Shubun, who is an artist-monk of Shokoku-ji Temple, in his early age. He tripped to Ming China (1468-69) and strongly influenced by Chinese Song dynasty landscape painting. Obviously, he studied the three distance theory by Guo Xi during his trip, and presumably he could apply the theory to a garden design.

As a painter, he had a special interest to paintings of Ruofen Yu-jian (Japanese: Jakufun Gyokukan), and he imitates Yu-jian's painting style and studied his technique. Ruofen Yujian is one of the popular Chinese painter in Japan. Coincidentally there is a Japanese garden style called "Gyokkan ryu garden", which means garden style by Ruofen Yu-jian. There are three "Gyokkan ryu garden" styles are documented in "*Kokon chado zensho*" (Kosenzan, 1694) (Figure 9). This is the fact that the composition of landscape ink painting are actually became a model of a garden.

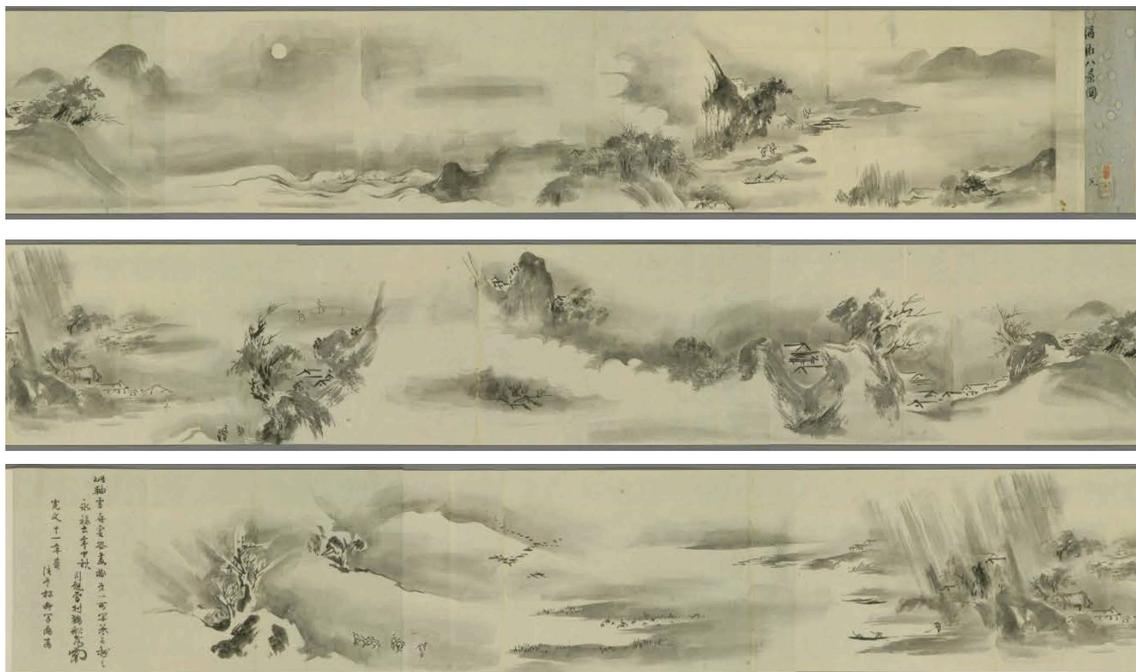


Figure 7: Eight Views of Xiaoxiang by Sesshu,
Retrieved from Waseda University Library (Sesshu)



Figure 8: Funda-in garden (south)
Image retrieved from Kyoto Kanko (Kyotokanko, 1996)



Figure 9: from “*Kokon chado zensho*”
Retrieved from Waseda University Library (Kosenzan, 1694)

The second painter is Soami (1472-1525). He is a painter, poet, and the most celebrated Zen temple gardener. He is also influenced by the philosophy of Zen, the meditative sect of Buddhism. He painted a landscape painting on sliding doors in the Daisen-in, a monastery within the Zen Buddhist Daitoku-ji Temple in Kyoto (Figure 10). He knows all there is to know about art, so he succeeded as a Master of tea ceremony, incense ceremony, and flower arrangement. Therefore, he is specialized in analyzing, interpreting and evaluating art. As a connoisseur, in 1511 he revised Noami's (Soami's grandfather) famous catalog of Chinese paintings, the “*Kundaikan sayu choki*” (compiled in 1476) (Hayashiya, 1973). As a landscape designer, he designed several gardens (Figure 11), and two gardens are the most celebrated Zen

temple gardens in Japan: the Ryoan-ji Temple garden and the Daisen-in garden in Kyoto. In 1735 one of the garden design and technique manual called “*Tsukiyama niwadukuriden*” (Kitamura et al., 1735). This book is considered as Soami’s garden design manual. The reason why the garden book was published at a later time is that the most of garden design techniques are regarded to be secret until the Edo period, and only a few people know the existence of written document because usually the technique can be told verbally from masters to disciples. The Three Distance theory by Guo Xi is described in his design manual book. This suggests that the Three Distance theory is adapted to design a garden.

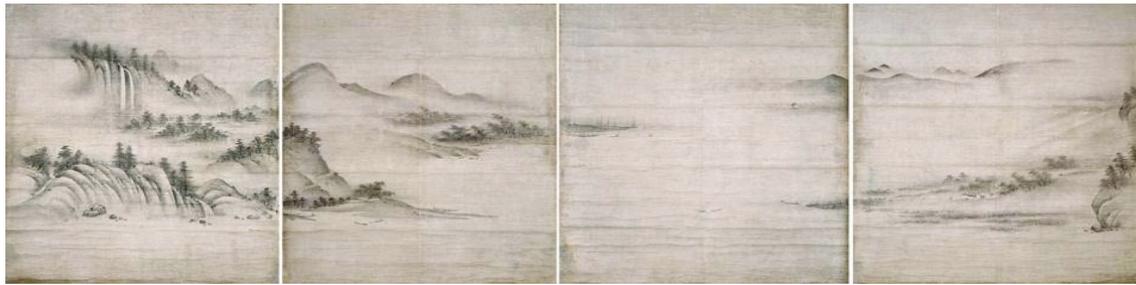


Figure 10: Eight Views of Xiaoxiang by Soami (Japanese: Shosho hakkei zu)
Retrieved from Kyoto National Museum owned by Daisen-in Temple (Soami)



Figure 11: Garden design drawing “*Higashiyama Sensui zu*” contributed to Soami
Retrieved from Tokyo National Museum (Soami, 16c)

Case studies: How the Three Distant theory is transformed into Japanese gardens

In this chapter, the case study is designed to find out the actual implication of Three Distance theory in garden design. The gardens designed by Soami are mainly exemplified and identified how the Three Distance theory is applied into Japanese garden design. In addition to the actual garden, the paintings by Ike Taiga is demonstrated as a reference to substantiate the theory visually (Figure 12). On the other hand, added Three Distance types by Han Cho is eliminated from the case study,

because the aerial perspective highly depends on atmospheric condition and rarely represented in garden design.

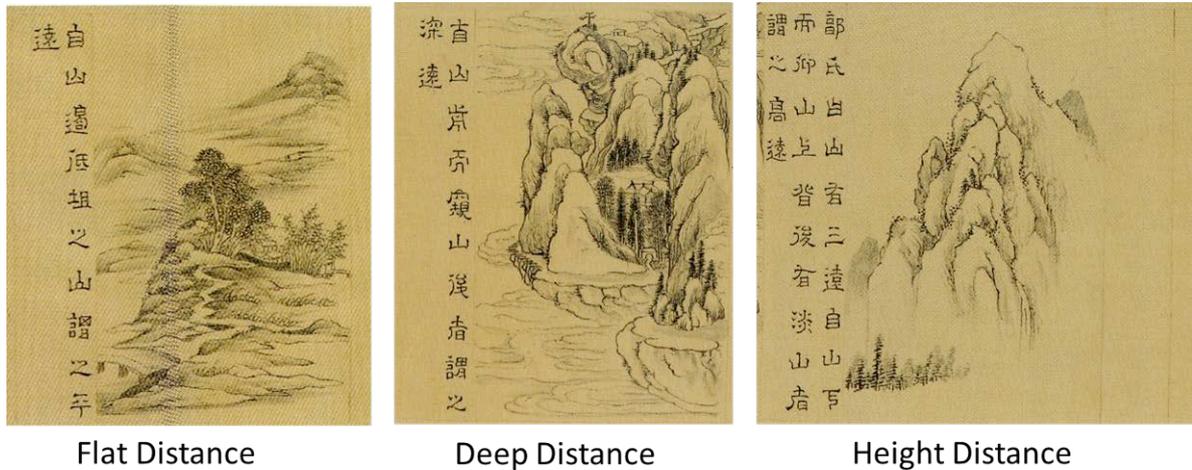


Figure 12: Six Distance theory represented by Taiga Ike (Reizei, 2010, pp. 56-57)
Image is modified by author

Case study 1: High Distance theory and paintings

According to “*Linquan Gaozhi*”, High Distance is described as follows; First, the mountains are drawn by looking up to the top of a mountain from below. Secondly, the color should be clear and bright. Thirdly, the force is pushing up. Lastly, the human figures should be bright and clear. (Murakata(Ed.), 1992, p. 44). The techniques are more likely to suggest how to draw mountains look high rather than how to draw high mountains. Figure 13 shows two paintings by Takga Ike, and there are some common aspects can be found. One is mountains are drawn by overlapping vertically. This vertical alignment enables to express the angle of elevation and vertical force. The vertical depth is enforced, contributing the drawn mountain looks high. Additionally, Guo Xi mentioned “A mountain cannot be tall, if every part of it be shown” (Murakata(Ed.), 1992, p. 45). When you look at Figure 13, you recognized that the bottom of mountains are not defined. This allows to imagine that the mountains are taller than what are seen. Theoretically, the perspective of elevation is defined as followed;

“When an object is visible relative to the horizon, we tend to perceive objects which are closer to the horizon as being further away from us, and objects which are farther from the horizon as being closer to us.”(Carlson, Miller, Heth, Donahoe, & Martin, 2008, p. 187).

Therefore, the mountain looks high and closer to us. Again, multiple vanishing point can be found in the paintings. For example, the mountains are seen from below, but mountain top is shown. Realistically, this does not happen in the real world. However, this phenomenon like an optical illusion is more likely to create a natural view. In other words, there are at least two different angles of view, but it coexist together in a painting. This could be one of the most outstanding characteristics of Chinese and Japanese paintings comparing with European perspective paintings.

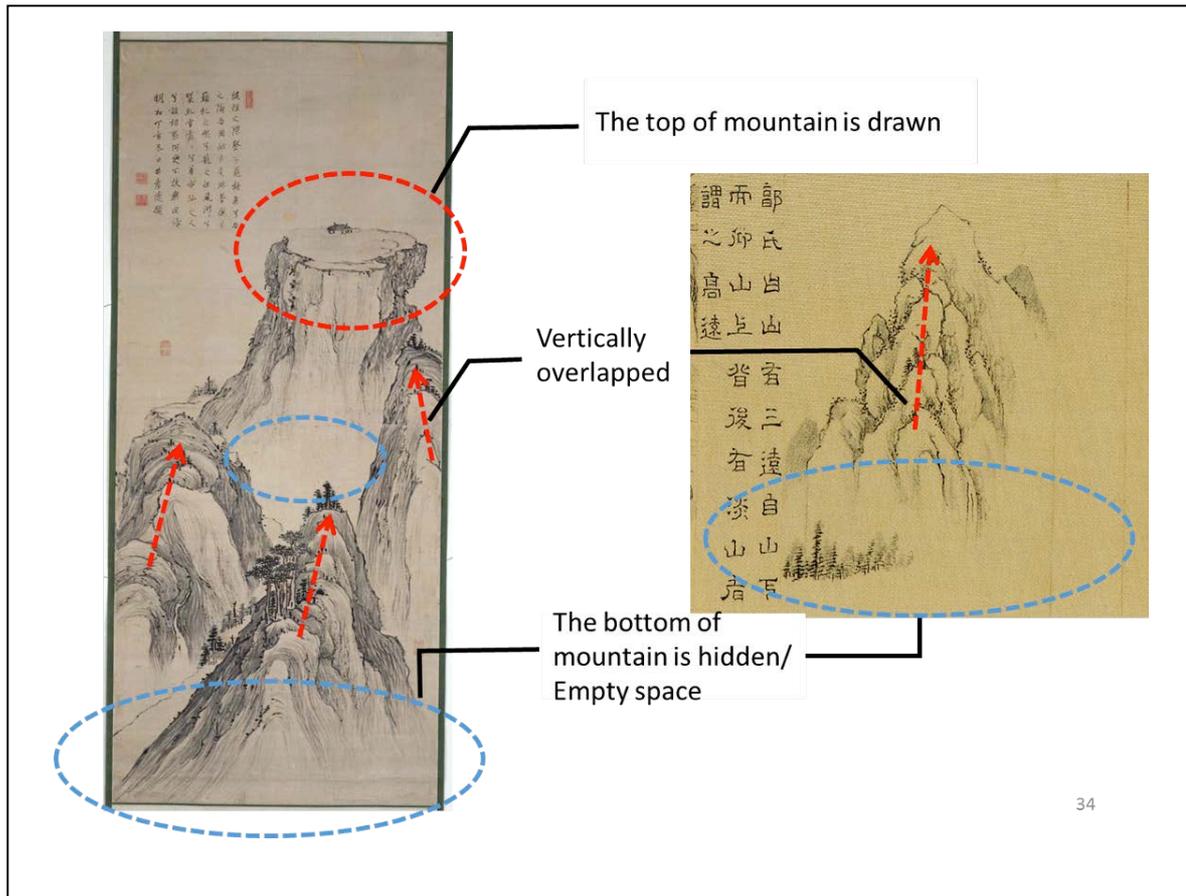


Figure 13: High Distance by Taiga Ike (images are modified by author)

High Distance garden

Unfortunately, there is a few high mountain near gardens in Japan. Consequently, it almost impossible to make such a vertical view for garden in a natural setting. Alternatively, a rock or the cluster of rocks often represents mountains or islands in Japanese gardens. Traditionally, stones are represented landscape of ocean, river, mountain & river, swamp, and even hidden text in a Japanese garden according to the oldest Japanese garden book “*Sakuteiki*” (Hayashiya, 1973). This traditional idea is adaptable to represent a high mountain view. When you look at rock gardens, you can recognize that stones are set vertically and hidden the bottom by sand or moss (Figure 14). Vertical stone arrangements are generally expressed dynamics of nature (Figure 15). Daisen-in, a sub-temple of Daitokuji temple is one of the five most important Zen temples in Kyoto, and the garden is designed by Soami (Honda, 1911), which is one of the best example of representing a high distance view (Figure 16).



Figure 14: Stone arrangement: Hidden the bottom by sand (Left) and moss (Right)

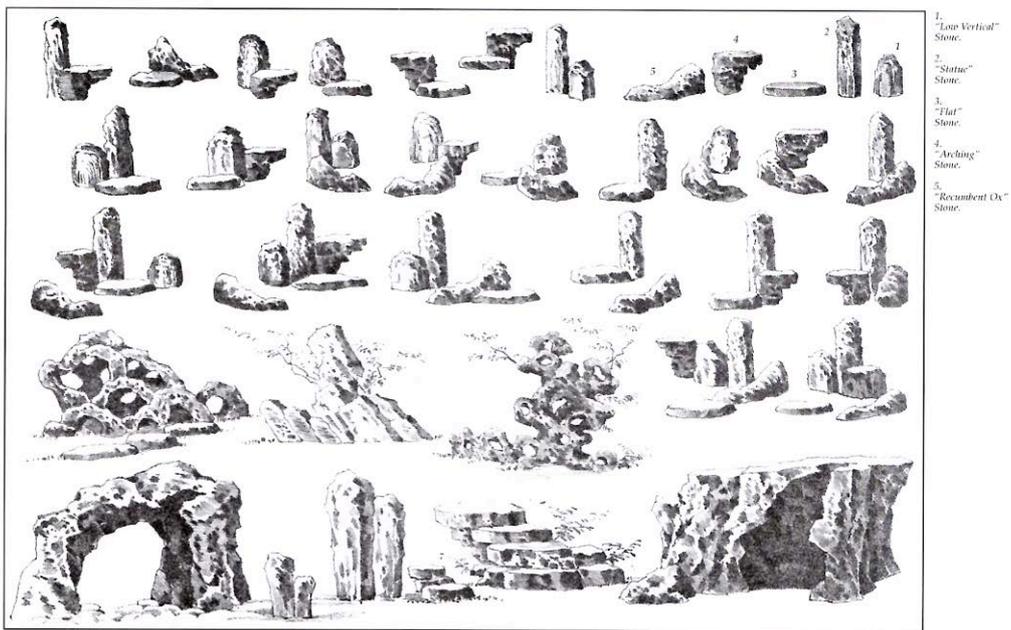


Plate XXIII. RADICAL STONE SHAPES.

Figure 15: Various stone setting design from Landscape gardening book in Japan
"Tei zou hou" (Honda & Conder, 2007, p. 106)



Figure 16 : Daisen-in garden in Tokudai-ji temple
Image retrieved from Kyoto Kanko (Kyotokanko, 1996)

Case study 2: Deep Distance theory and paintings

The drawing technique of Deep Distance is rather unique. It says that “Looking toward its back from its front” (Murakata(Ed.), 1992, p. 44). This technique is how to represent depth of mountains. The description sounds optically impossible in two dimensional representation. However, it is theoretically capable because one of the significances of Chinese painting is not limit to one point of observation. If there are multiple vanishing points in a painting, an object such as a mountain can be seen from different angle.

There are some distinguished representations found from the Deep Distance painting, which are horizontally overlapping mountains, detailed edge, and trajectory of induced eye movement (Figure 17). The horizontally overlapped mountains are classical technique to inform the depth. However, overlapping is the only que to inform the order, the relationship of back and forward between objects. Curved edge can be seen on the painting and drawn in detail. The detailed edge increase the perception of three dimensional volume and lead eye toward a deep and shadowy interior space. A series of curved lines, including a mountain path and water channel subconsciously induce eye movement and functioned as an implied line which refers to the path that the viewer's eye takes as it follows shapes, colors, and forms along any given path. This induced eye movement by a sequence of curved lines enables to psychologically create depth in painting.

Generally parallel line can be confidential information to perceive depth. The property of parallel lines converging in the distance, at infinity, allows us to reconstruct the relative distance of two parts of an object, or of landscape features. However, less straight lines are found in natural environment. Instead of using parallel lines, curved lines are often seen and employed for landscape paintings and garden design elements. As you can see Figure 18, strong curved lines are

intentionally drawn. The C-shaped and S-shaped curve unconsciously lead eyes its back from its front. Above three presentational techniques can induce human eye toward mountain back.

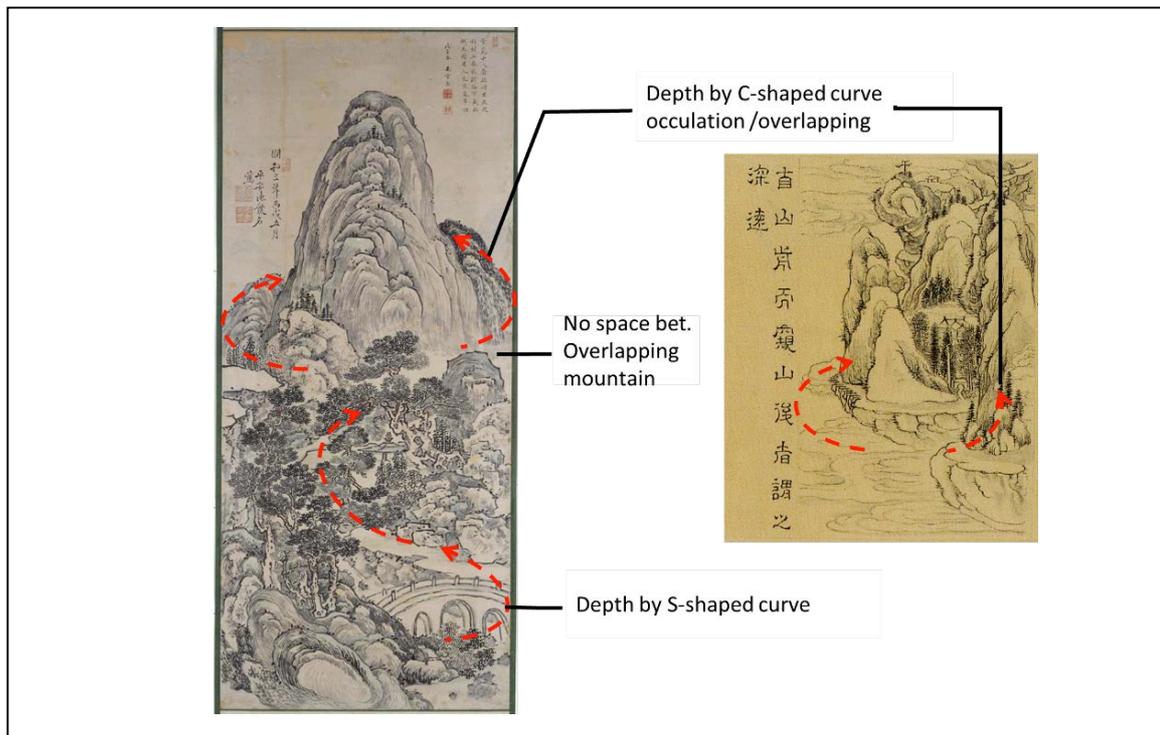


Figure 17: Deep Distance by Taiga Ike (images are modified by author)

Deep Distance garden

In case of painting, the representation of horizontal depth is a key factor to convert three-dimension world into a two dimension medium. In case of garden design, converting different dimension is not required, however a spatial change and rearrangement are required to express beauty of nature in a limited space. Correspondingly, the spatial composition of a garden and the harmonious proportion of garden elements are essential. Smaller gardens are more likely to require larger and deeper presentation to imply a sense of nature. Therefore, forming a mental image through landscape painting is quite useful to transform natural scenery into man-made landscape. Generally, design methodology based on naturalistic images in painting and literature called picturesque is one of the useful approach to makes pictorial view.

Joju-in is in the sub temple of Kiyomizu temple. According to “*Miyako rinsen meisyouzue*” published in 1799, the Joju-in garden was originally designed by Soami (Akisato, 1999, p. p.18). The narrower space in distance and curvilinear garden paths and water channels are shown on the illustration and plan view of the garden (Figure 18).

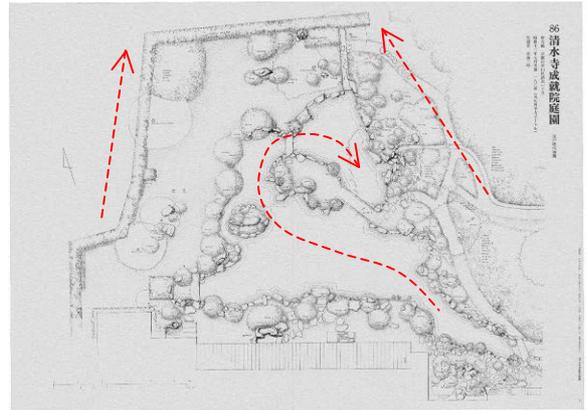
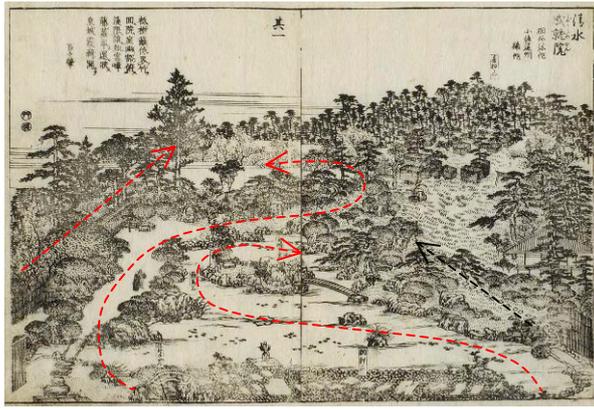


Figure 18: Image and plan view of Jojyu-in garden

Left image retrieved from International Research Center for Japanese Studies
(Akisato, 1799)

Right image retrieved from “*Jissoku zu nihon no meien*” (Shgemori, 1971)

Case study 3: Flat Distance theory and paintings

One of the most favorite subject matter, “*Eight Views of Xiaoxian*” and the landscape ink painting of Flat Distance are mentioned previously. The characteristic of Flat Distance is keeping eye on the same level or more or less looking downward like bird’s eye view. This viewing angle generally increased a stable and pleasant sense when a human sees a certain scenery. On the other hand, the manuscript says “Looking at distant mountains from near mountains” (Murakata(Ed.), 1992, p. 44), which recedes into the distance with a sure sense of interval and also indicates there is a spatial gap between observer and viewing object. When you look at the painting by Taiga Ike, very flat surface of water and plain in front and mountains far behind (Figure 19). These types of view can be found in many gardens in Japan and became one of the famous garden style known as “borrowed scenery” or “borrowed landscape”. Kyoto city is surrounded mountains, and resulting distant mountains can be seen from some temples, but it is very difficult to afford desired garden view such as a landscape ink painting. Among all, Tenryu-ji temple and Ryoanji-temple are known as borrowed landscape garden and the composition is radically distinctive and without equal.

Flat Distance garden

Tenryu-ji temple is established in 1339 and became the head temple of the Rinzai Zen sect of Buddhism. One of the gardens in Tenryuji-temple is *Hojyo* garden which is designed by a monk as known as a famous garden designer, Muso Soseki (Kokushi). From *Hojyo* (an abbot’s chamber or a main hall), which is used for a meditation and practice room, you can see very flat white sands and a pond, and behind of it, the sequence of gradually elevated mounding and Arashiyama Mountain. Geographically Tenryu-ji temple is not adjacent to the Arashiyama mountain, however, the gradual elevation change hides the behind space and generates continuous view from the garden (Figure 20).

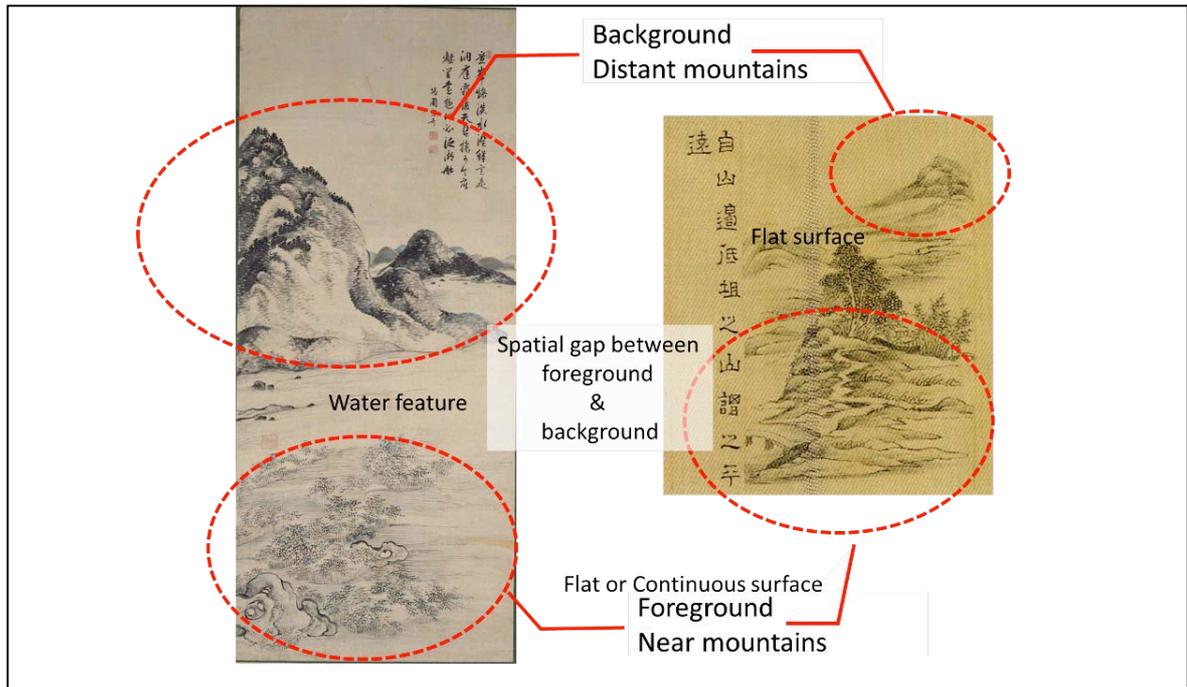


Figure 19: Flat Distance by Taiga Ike (images are modified by author)



Figure 20: Picture (left) and illustration (right) of Tenryu-ji Temple
 Right image retrieved from International Research Center for Japanese Studies
 (Akisato, 1799)

“Looking at distant mountains from near mountains” (Murakata(Ed.), 1992, p. 44) is traditionally favorable view for Japanese, because Japanese people primarily worship mountains as gods and also traditionally believed that mountains are the places where gods live. Many of the gardens in Kyoto are located near mountains or mountainous areas because of the reasons. Therefore this concept is so familiar that highly adapted in a Japanese garden design.



Figure 21: Picture (left) and illustration (right) of Ryoan-ji Temple
Right image retrieved from National Diet Library (Honda, 1911)

Conclusion

Physical and psychological proximity to nature and representation of nature are essential for Japanese gardens. To express the beauty of nature, many gardens are carefully designed as if to be in the natural environment by manipulating visual perception. In particular, visual perception of depth is an essential factor to generate visual manipulation of a space. However, the technique is less focused and clearly identified in the previous studies. Therefore, in this research, the principle of visual perception of depth and how the principles are implemented and applied into Japanese garden design are discussed.

In this paper, the Chinese history of perspective in painting from Six Dynasties to Northern Song Dynasty is explained to reveal the visual perception of depth. As a result, the fundamental design techniques of representing depth are identified. Flat Distance of “*Eight Views of Xiaoxiang*” by Song Di is highly accepted as a subject matter for Japanese painters. The scenery of Xiaoxiang is easily familiarized for Japanese people due to the similar geographical and humid climate condition. And also the subject was conceptualized and broadly adapted to Japanese culture. Three Distances theory (High, Deep, and Flat Distance) by Guo Xi is technically accepted and developed for Japanese painters and gardeners, and Six Distance theory (Aerial perspective) by Han Cho is identified and influenced to the expression of art works.

Secondly, the influence of perspective in landscape ink paintings into garden design is discussed by introducing Chinese and Japanese painters. Moreover, the developing process of Japanese perspective from landscape ink painting to garden design is explained by introducing two famous painters who studied Chinese ink paintings and became a famous gardener. A distinct possibility that landscape ink painting techniques are applied into garden design is explored. As a result, it reveals that the adapted theory is philosophically developed with Zen Buddhism, and a multitude of facts and documents suggests that the technique and composition of landscape ink painting are influenced to garden design. For example, some paintings and their style actually became a model of a garden.

Lastly, the case study is designed to explore how the Three Distant theory is transformed into Japanese gardens, and it shows that the theoretical techniques are actually applied and designed to manipulate the depth perception in many gardens.

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