



**THERAPEUTIC  
GARDENS  
FOR HONG  
KONG**

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A lush garden scene featuring a central stream flowing through a dense thicket of green plants and trees. The water is clear and reflects the surrounding foliage. Large, smooth rocks are scattered along the banks of the stream. In the background, more trees and a glimpse of a building can be seen under a bright sky. The overall atmosphere is peaceful and natural.

# INTRODUCTION

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There is a large and increasing body of scientific evidence demonstrating the psychological and physiological health returning to gardens designed to therapeutic principles, especially for older people. As Hong Kong's population ages, the demand from the private and public sector for therapeutic garden will grow. Developing a greater awareness of the scientific justification, applications of, and demand for therapeutic garden design will enhance the standards and external competitiveness of landscape architects and healthcare providers.

With the support of the Professional Services Advancement Support Scheme (administered by the Commerce and Economic Development Bureau), the Hong Kong University of Science and Technology and the Hong Kong Institute of Landscape Architects came together to launch a new project entitled 'Developing Capacity and International Co-operation in Therapeutic Landscape Architecture for an Ageing Population'. The goals of the project we to support Hong Kong landscape architects to:

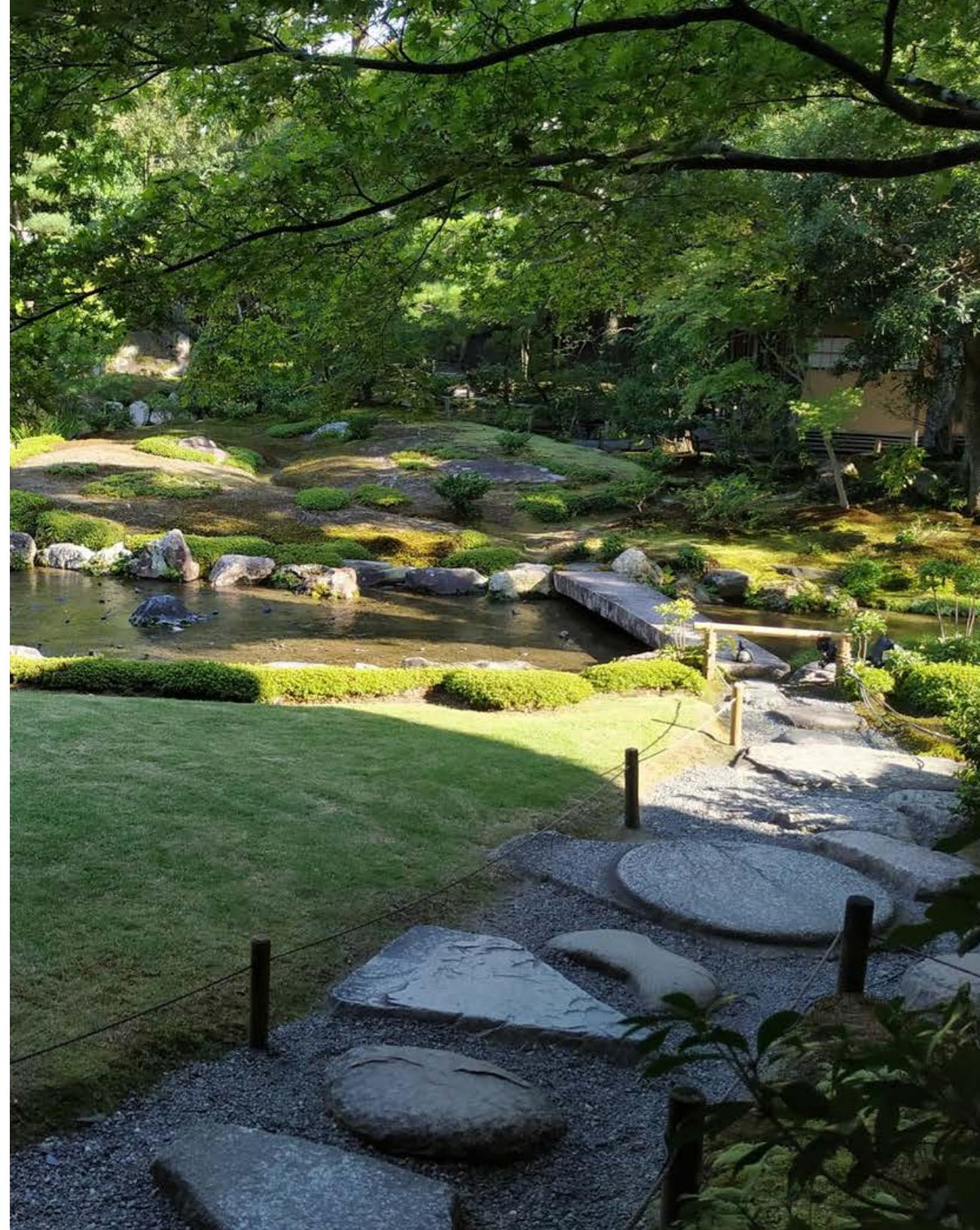
develop their understanding of therapeutic garden design;

1. appreciate the growing demand for such services;

2. learn best practices from international experts;

3. develop professional contacts with international colleagues; and

4. develop a more concrete collaborations and relationships with landscape architects in Japan.



We organised an international conference in November 2019 led by experts drawn from private practice and academia presented the 'state-of-the-art' in the field of therapeutic gardens in terms of application, scientific justification and future demand. We also organised a study tour of therapeutic gardens in Kyoto led by one of the world's leading experts in the field, Professor Seiko Goto. The study tour drew participants from public and private landscape architecture practices, as well as from other related fields including medicine and even law. During the tour, Hong Kong landscape architects were able to interact with a large number of their Japanese counterparts in private landscape architecture practice to share lessons and experiences; and to develop contacts and collaborations which can grow in the future.

This online handbook reports the findings of the project: including the proceedings of the workshop represented as a special set of pictorial essays; experience sharing of participants in the workshop and study tour; and experience sharing of local landscape architects and their perceptions of therapeutic gardens.

**SHARING SESSION WITH  
LANDSCAPE ARCHITECTS  
FROM JAPAN**



A lush Japanese garden scene featuring a central stream flowing through a landscape of rocks, moss, and various green plants. Large trees with dense foliage frame the top and sides of the image, casting shadows on the ground. The overall atmosphere is serene and natural.

# THE THERAPEUTIC JAPANESE GARDEN

*An overview*

SEIKO GOTO,  
NAGASAKI UNIVERSITY



# ORIGIN

Most Japanese islands are belonging to Asia monsoon region. During the summer, the temperature, humidity, and amount of sun are as high as tropical region. In addition, rainy summer monsoon brings abundant water which made people to sustain their life by producing rice. Rice cultivation is well-suited to countries with high rainfall as it requires ample water, however, the summer monsoon rainfall is so irregular that it is not uncommon to have low harvest due to lack of water or excessive water. Ancient Japanese, whose life was dependent on uncountable natural phenomenon, did not conceive deity as a monotheistic one.

They considered all natural elements, such as mountains, oceans, sun and wind as gods, so called eight million gods in the world. Shinto revered to these natural elements, and prayed for the peace of gods' spirits not to bring catastrophe to people. In Shinto tradition, the Japanese native religion, it was important to have rituals to pray to gods for rain in the spring and thanking for the harvest in the autumn from early period.

For Japanese, nature has been the source of their gods and the support for life: there is no life without gods or without nature. Shinto called the purified place where they believe gods' spirits gather "garden (niwa)." As a space for pray, rocks, plants, streams and ponds which represent gods were created in "gardens." We can still often find an enshrined huge rock as a gods' seat "iwakura", or an enshrined huge tree as a gods' tree in Shinto shrines. These worships of rocks and trees in Shinto shrine are the origin of Japanese garden, and such attitude of nature worship or finding the spirituality in natural elements is the basic nature of Japanese garden. Thus, unlike gardens in other countries, Japanese gardens have been developed as contemplative places where individuals can enter into dialogue with nature/gods to realize that human existence is a part of nature.





In Shinto, there are three other worlds beside the current world, namely, takama-no-hara (the heavenly world), yomi-no-kuni (the nether world), and tokoyo-no-kuni ( the distant land across the sea).

Shinto believes that there is eternal world called "tokoyo" far beyond the horizon and the Kami of the ocean came from there.

Therefore, ocean is the most important element of nature for Japanese as the connector between this world and other world.

Their life are supported by mountains, and rivers. Japanese cultivated rice on delta area.





# CHARACTERISTICS: THEME AND FORM

Japanese garden was developed to invite all important gods of nature, Ocean, Island, River, and Mountain... or represent their blessing spirits.

Since it is impossible to create such landscape in small space, Japanese garden started to develop technique of miniaturization to squeeze all elements of nature in the limited space.

In the 11th century, the first garden manual book Sakutei-ki was written in Japan. What Sakuteiki recommended in the first chapter is to depict beauty of surrounding nature and compose them to represent bigger nature.

“Select several places within the property according to the shape of the land and the ponds, and create a subtle atmosphere, reflecting again and again on one’s memories of wild nature.”  
(Sakuteiki: Takei.2008)

地形により池のすがたにしたがひて、よりくる所々に風情をめぐらして、生得の山水をおもはへて、その所々はここそありしかと、おもひ寄せ寄せ立つべきなり。

There are famous scenic locations where many poets composed poems from the ancient period. These locations became popular themes of the garden. For example the beach at Ama-no-Hashidate became the inspiration for the garden at Katsura Villa

## **AMA-NO-HASHIDATE**



## **KATSURA VILLA**

This is the miniaturized scenery of Amano-hashidate in Katsura villa. In this garden, one small pine tree represent the pine forest, and the small cobbled island represent the beach.

Since the humidity in the monsoon summer in Japan is so intolerable, ventilation is very important for living comfortably in Japan. Therefore, the basic structure of the Japanese building is “skeletal”, with wide openings through which air can circulate. And it is made of wood, because wood swells and absorbs moisture. Because of its basic design and material, the Japanese building has open structure which allows people to view outside from the living space.

Moreover, the floors of the traditional Japanese building are raised above the soil to avoid the humidity. Because of this, Japanese people take their shoes off when they enter a building, a custom which reflects a different spatial concept of the relation between inside and outside than developed in the West. In Japan, people think that they are inside the house, whether it is a room or a garden, once they take their shoes off. Public and private space is distinguished by this action. This physical and conceptual intimacy between inside and outside space has resulted from an architectural style produced by a particular climate. Because of such open, skeletal structure of the traditional Japanese house, gardens were designed to be viewed from the living quarters, rather than to be walked in. Japanese think that the garden is part of the house: it is simply “a room with no ceiling.”

**There is an intimate relationship between the inside and outside of the building**



The style of Japanese garden can be classified two types; 1. Strolling garden: the garden to walk in, and 2. Viewing garden: the garden to view from the living quarter. In the early period around the 7th century, the garden was developed in the noble houses, so called palace style garden. These gardens were designed not only to view from the residence but also to walk in. People enjoyed succors in the open field, boating in the pond, and having poem parties along the stream in the garden.

By contrast, many gardens in the medieval period were created as viewing gardens to accommodate a completely different taste. As the feudal order broke down around the middle of the fifteenth century, Japan was torn by civil war for nearly 100 years as warrior lords of different domains fought one another. The political balance of this warrior society was preserved by military power and the common people were frequently involved in battles. People were always confronted with death, so they began to think that the essence of life was their spirit that would live forever in a world far different from the immediate world of hardship and peril. It was during this period that Zen Buddhism was introduced. As the military class embraced Zen Buddhism, Zen temples began to set the cultural tone. Under Zen influence, gardens were designed to fulfill a spiritual quest. Gardens in Zen temples were places not to entertain people but where people meditate and find enlightenment.



## TENRYU TEMPLE, KYOTO

In Tenryu temple, there is white sanded area in front of the residence, a pond, and back drop mountain. The garden is designed not only to walk around but also to view from the building.

One of the important elements of Tenryū Temple is the dry waterfall called Ryūmon-baku or “Dragon Gate Falls”. This waterfall was an actual waterfall in the old days, but the water pipe that once conveyed water to the waterfall is ruined now. The name “Ryūmon-baku” comes from the Tale of Dragon Gate Falls in China. The story about a fish climbed up the falls—perhaps one out of a million—and it became a dragon and flew to heaven is often used in Buddhism as an allegory to indicate the difficulty of becoming a Buddha.

Tenryu Temple were designed to help one contemplate Buddha-hood and nature by sitting in the temple building.



## SHARI-DEN (KINKAKU), KYOTO

Kinkaku-ji officially named Rokuon-ji, is a Zen Buddhist temple in Kyoto, Japan. The garden complex is an excellent example of Muromachi period garden design. It is designated as a National Special Historic Site and a National Special Landscape, and it is one of 17 locations comprising the Historic Monuments of Ancient Kyoto World Heritage Site





**SHARI-DEN (KINKAKU), KYOTO**



NIJŌ CASTLE, KYOTO



## MURIN-AN GARDEN, KYOTO

Murin-an (無鄰菴) is a Japanese garden in Kyoto, built by political and military leader Yamagata Aritomo. Yamagata is the first prime minister under Japan's parliamentary regime (1889–91, 1898–1900). In 1895, Yamagata introduced the water from the Biwa Lake Canal into his summer villa Murin-an. The garden was designed and overseen by Aritomo himself. He began work in 1894 but stopped in 1895 to conduct a war with China. He resumed work when the war was finished, with the help of Ogawa Jihei VII in 1896. Based on the experience in the European countries, Yamagata requested Ogawa to create new style garden in his villa, which is open concept with lawn and application of cedar and cypress trees which has not been commonly used in Japanese garden. Murin-an garden is a new residential garden in the Meiji and Taisho period, when Japan modernized the country by accepting the western culture





**MURIN-AN GARDEN, KYOTO**

MURIN-AN GARDEN, KYOTO





**MURIN-AN GARDEN, KYOTO**

## OKAYAMA KORAKUEN

Here is a resting place in Okayama Korakuen. You can see that the river in the garden is directly run through the building.





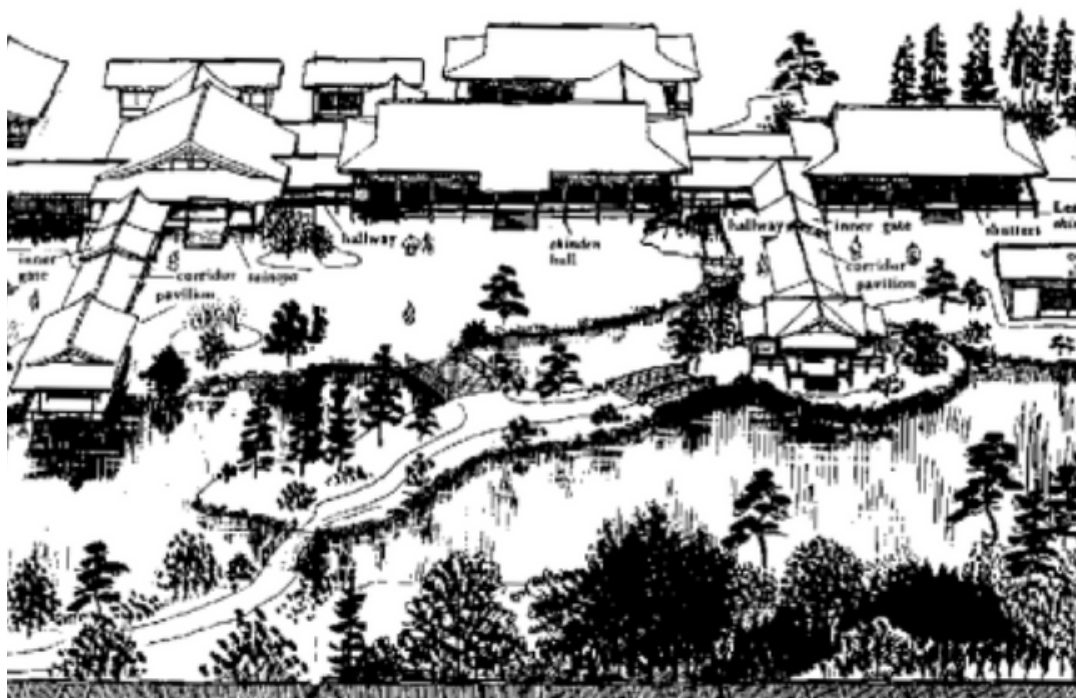
Because people sit on the floor, people can look to the garden with relatively low eye level. The garden is designed to be viewed from the building in Japan.

On the other hand, because the wall structure restrict the view from inside out, western garden is designed to be viewed from outside.

As a result, Japanese consider garden is a part of the living space, but westerners consider garden is outside and living space is inside.

The deep eaves of Japanese building create unique outside space. It is semi interior space. You may be sketching the garden sitting on the verandah of the temple thinking you are inside, however, you are physically outside.

Residential gardens were built from around the 7th century in Japan, but the style of Japanese garden was developed to today's style during the medieval period, 12-15th century. Medieval period in Japan was the period of civil war when people sought spiritual help from Zen Buddhism.



### HOJO FAMILY MANSION

This is the image of the regent Hojo family's mansion. You can see the similar relationship between the main building and the garden here.



This Tōtekiko (stone garden) is said to be Japan's smallest rock garden. The circular wave represents falling drops of water. The garden expresses the preciousness of every single drop of water which leads, in turn, to a big sea

**RYŌGEN-IN TEMPLE, KYOTO**







TENRYŪ-JI TEMPLE, KYOTO





**RYŌGEN-IN TEMPLE, KYOTO**



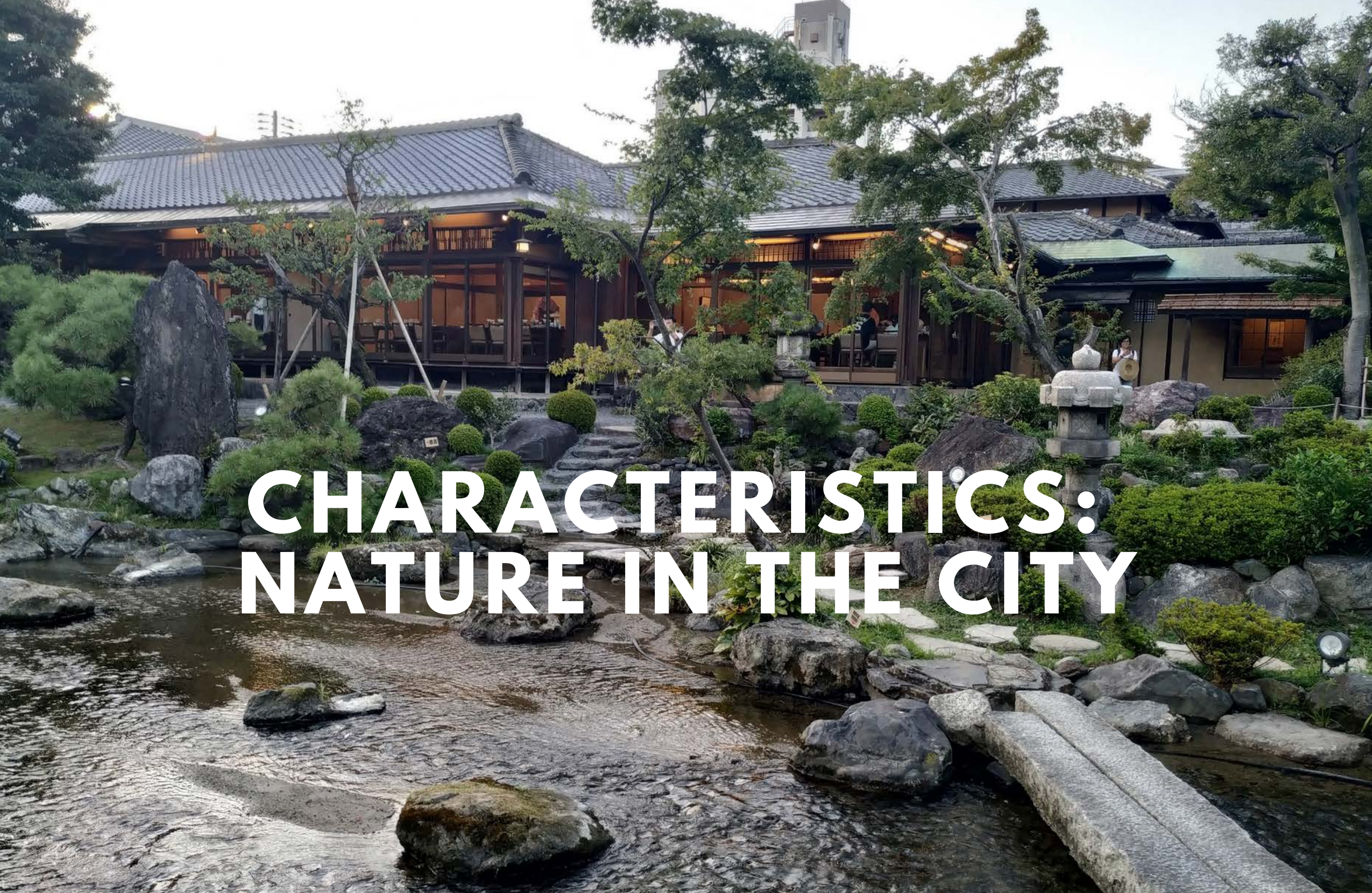
Tenryū-ji is the head temple of the Tenryū branch of Rinzai Zen Buddhism, located in Susukinobaba-chō, Ukyō Ward, Kyoto, Japan. The temple was founded by Ashikaga Takauji in 1339, primarily to venerate Gautama Buddha, and its first chief priest was Musō Soseki. Construction was completed in 1345. As a temple related to both the Ashikaga family and Emperor Go-Daigo, the temple is held in high esteem, and is ranked number one among Kyoto's so-called Five Mountains. In 1994, it was registered as a UNESCO World Heritage Site, as part of the "Historic Monuments of Ancient Kyoto".

## TENRYU TEMPLE, KYOTO





TENRYU TEMPLE, KYOTO



# CHARACTERISTICS: NATURE IN THE CITY

During the medieval period, urban city was developed in Japan. As people live in the limited space in the city, people started to create gardens to introduce nature in the living space.

**MURIN-AN GARDEN, KYOTO**



Note the stylised use of nature in this garden within a modern, urban hotel courtyard

**RICHMOND HOTEL, KYOTO**





山縣有朋の第二無鄰菴跡, KYOTO



Garden in Zen temple was designed to dispel sleepiness and to improve one's mood during the meditation. Then, what is the psychological and physical effects of viewing Japanese garden? Here is one example of experiment to answer such a question.

The experiment was conducted in a nursing home with using a temporally built Japanese garden comparing and a previously installed Snoezelen room. Snoezelen room was originally developed in the Netherlands in the 1970s for therapeutic application in cases of cognitive disorders, such as autism and Alzheimer's. It is a room to integrate a wide array of equipment that consists of auditory, visual, olfactory and tactile stimulation that aims to stimulate a patient's senses through controlled stimuli in a calm, comforting environment.

### **Subjects**

The subjects were tested in two groups, 18 individuals (6 men and 12 women) from nursing home were recruited to participate in 2010, and 18 individuals (5 men and 13 women) were recruited in 2011. All participants were Caucasians with advanced dementia and mini-mental state exam (MMSE) scores of less than 12. Their average age was  $88 + 4$ . A third of the subjects were diagnosed with depression; 15% of subjects were diagnosed with Parkinson disease; 58% of subjects were diagnosed with hypertension according to their medical records. Six subjects out of 18 participated in all of the studies. Three of the subjects died during the course of testing and full data sets were not able to be compiled for them.



## **Snoezelen room**

The Snoezelen room of the nursing home where this study was conducted was a windowless quiet room (17' x 20'), equipped with a comfort chair and a sofa, a bubble lamp that changed color (blue, yellow, red, green) automatically, fiber optic lights that also changed color, a disco globe, a projector to display a moving image on a blank wall, an audio set for music, musical instruments, tactile toys, and a small aerosol apparatus to deliver aroma therapy. The carpet and walls were a warm beige color to aid in relaxation and the ceiling was draped in soft white curtains that help lessen the harshness of the fluorescent lights. The wall was also finished with soft textile, which is comfortable to touch. For this study, we used the projector to display a woodland nature scene, the audio set to fill the room with sounds of a natural environment, the aroma generator filled with cedar scent, the fiber optic lights and the bubble lamp.

## **Garden Intervention**

The temporary Japanese garden was constructed in an indoor space approximately 12'x20' with two windowed walls. The space was previously used as a storage room in the nursing home. The garden was composed of small plants (20 pots of chrysanthemum, 6 pots of fern, a palm, and dried bamboo), sand, rocks, bamboo screens, and a stone lantern.



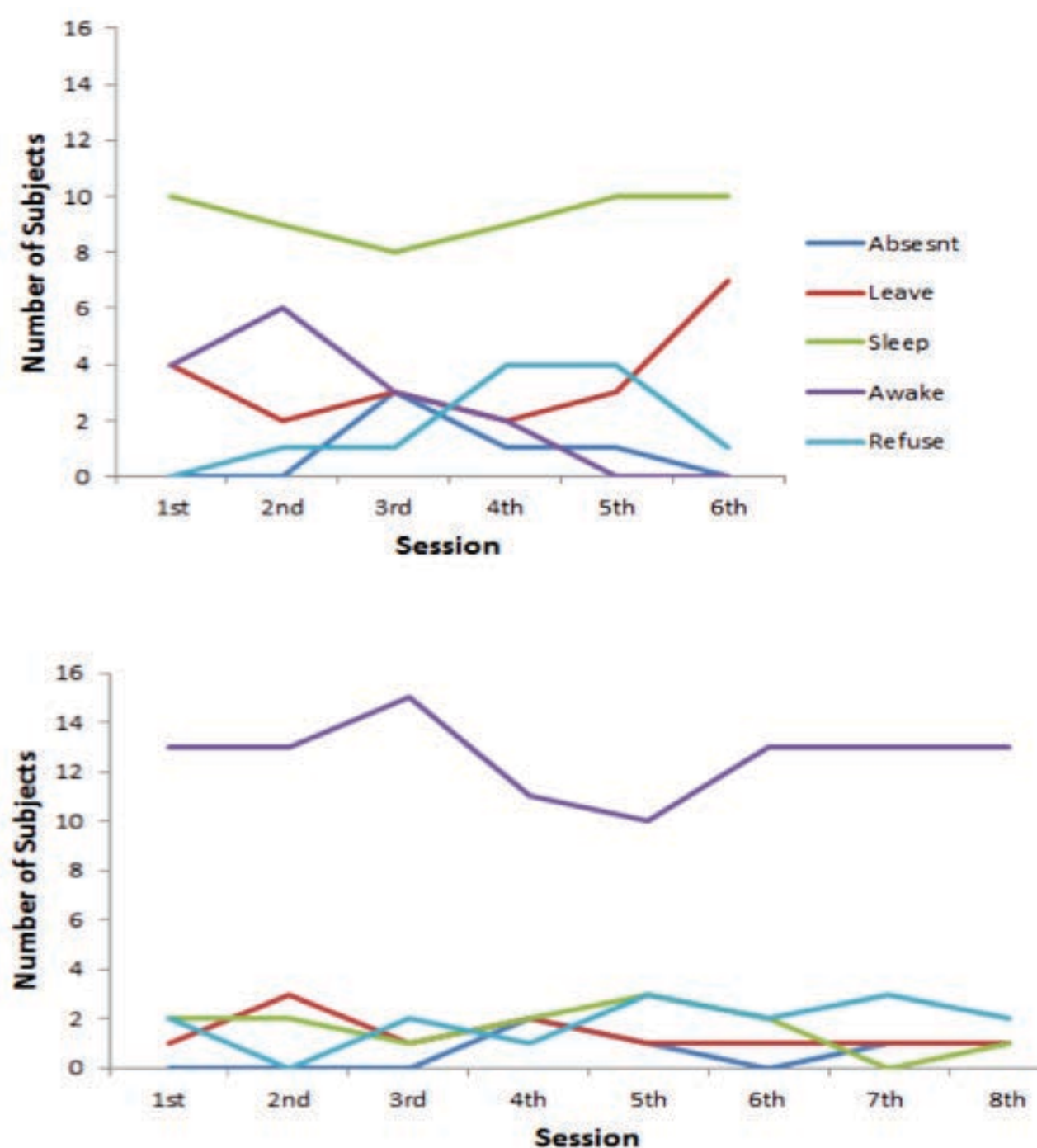
**TEMPORARY JAPANESE  
GARDEN IN PARKER HOUSE**

## Assessment

Subjects were exposed to either the garden or Snoezelen room for 15 minutes two times per week. The garden intervention was continued for a period of 4 weeks; exposure to the Snoezelen room was continued for 3 weeks. Visits were scheduled only for daytime hours – 9:30-11:30 and 1:30-3:30. During each session, heart rate was assessed using a simple fingertip heart rate monitor. For each session, for each subject, the research assistant filled out the “Behavioral Assessment Check List.” and noted any specific behavioral or mental changes during the observation. A video camera was set up in both rooms to record the interaction of the subjects with the garden.

## Results

The willingness of the subjects to participate in the individual sessions was given a score from one to five (See Figure 1). A subject placed in the “absent” category indicated that the subject could not visit because of a physical or other condition unrelated to garden/Snoezelen room itself. A score in the “leave” category was assigned to subjects who insisted on leaving before completing their 15 minute trial. A score in the sleep category was given if the subject fell asleep during the session. The “stay awake” category indicated that the subject stayed awake during the entire session. We assigned subjects into the refuse category if subjects who initially agreed to visit the room refused to enter after they were taken to the room. The data illustrate the dramatic difference in the response of the subjects to the two environments. In the garden, the majority of the subjects stayed awake for the entire session, and several subjects asked if they could stay after their session had been completed. No subject requested to stay in the Snoezelen room; indeed, few remained awake for the entire session, and this response to the environment increased following repeated exposures to the room.



**FIGURE 1: SUBJECTS RESPONSE BY SESSION. UPPER PANE: SNOEZELEN ROOM; LOWER PANE: JAPANESE GARDEN**

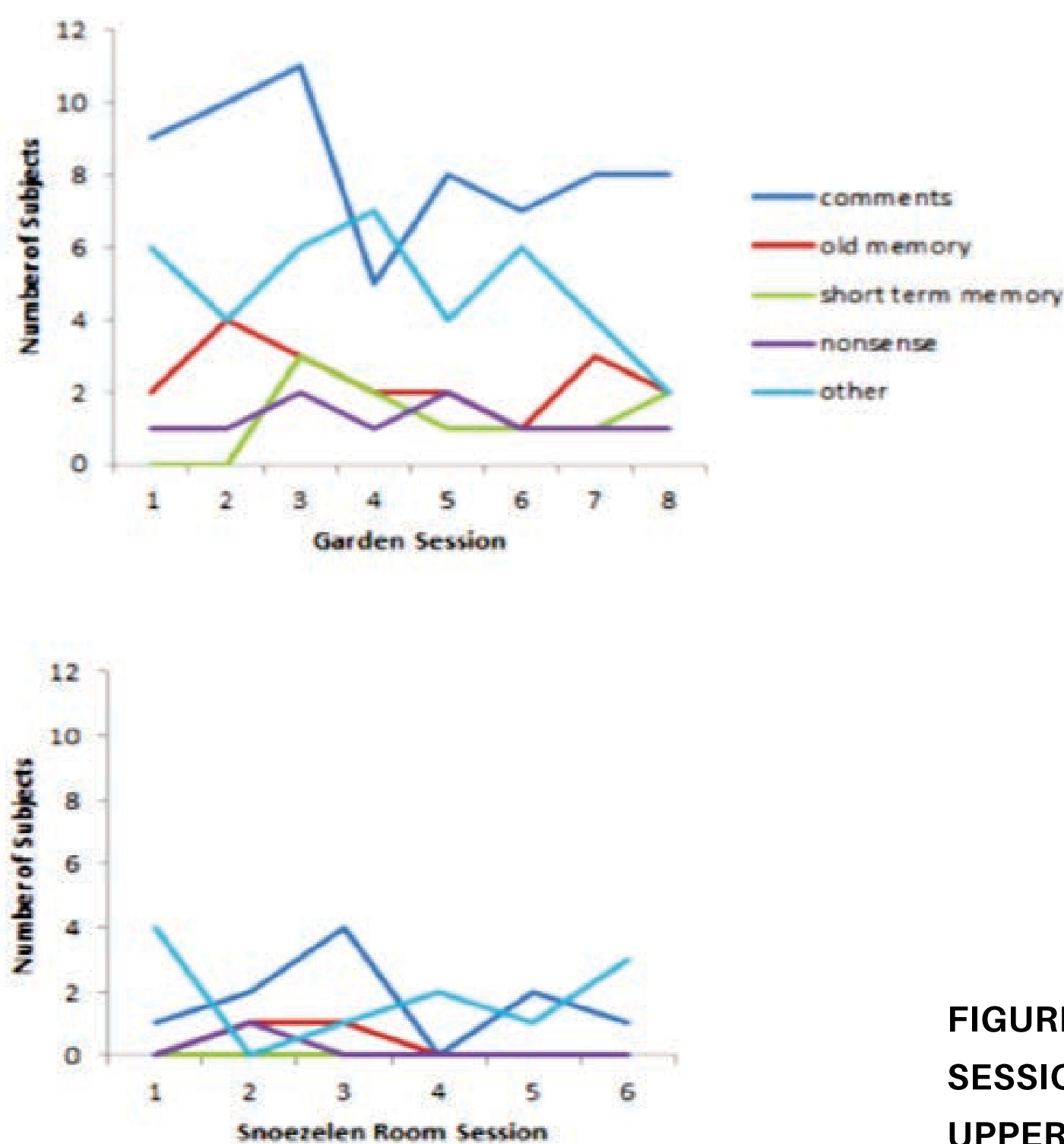
After one or more visits, many refused to go in or asked to leave. A paired samples t-test was conducted to compare the number of subjects that remained awake in the Snoezelen Room and the Japanese garden setting. There was a significant difference in the scores Snoezelen room ( $M=2.50$ ,  $SD=2.35$ ) and the Japanese garden ( $M=12.63$ ,  $SD=2.35$ ) conditions;  $t(5)=11.18$ ,  $p<0.0001$ . Note as well that the responses to the garden were not only more positive; they were more consistent from one visit to the next.

The Snoezelen room is meant to stimulate the senses; however, the subjects did not interact with most items even when the assistant offered them. Most subjects fell asleep in the Snoezelen room. This may be due to the fact that the room is dimly lit (in contrast to the garden). The more mundane stimuli, such as the lava lamp or the light strands, would capture a subject's attention, but only momentarily. Soon they would grow tired of these and look back at the images of nature. The rotating nature scene had enough complexity to evoke a response in some subjects, such as naming the animals and the type of landscape. It was soothing and relaxing enough to calm the patients rather than excite or anger them. Yet, even the rotating scenes appeared to become boring after a while, perhaps because the scenes were repeated every minute.

Furthermore, during each visit, we scored the length of time during which the subject appeared to be focusing their attention on their environment (the garden or the Snoezelen room) or on the attending personnel (the research assistant) or on nothing in particular.

We assigned a value from 1-4, with 4 representing a frequent or continuous focus, 1 representing occasional focus and a value of 0 when the subject focused on nothing at all. Consistent with the other observations, the subjects in the Snoezelen room focused most frequently on nothing in particular.

We also scored the subjects verbal expressions. In keeping with their more alert state, the percentage of subjects who uttered any sort of expression in the garden (56%) was more than double that of the participants while in the Snoezelen room (24%). We also noted that there was a pattern to the type of verbalization. We assigned each comment to one of four groups: comments related to the room or the institution (comments); recollections of past events (old memory); memories of recent happenings (short-term memory); and nonsense or other. It is important to mention that the total score is greater than the total number of the participants because one subject could be scored for multiple comments.



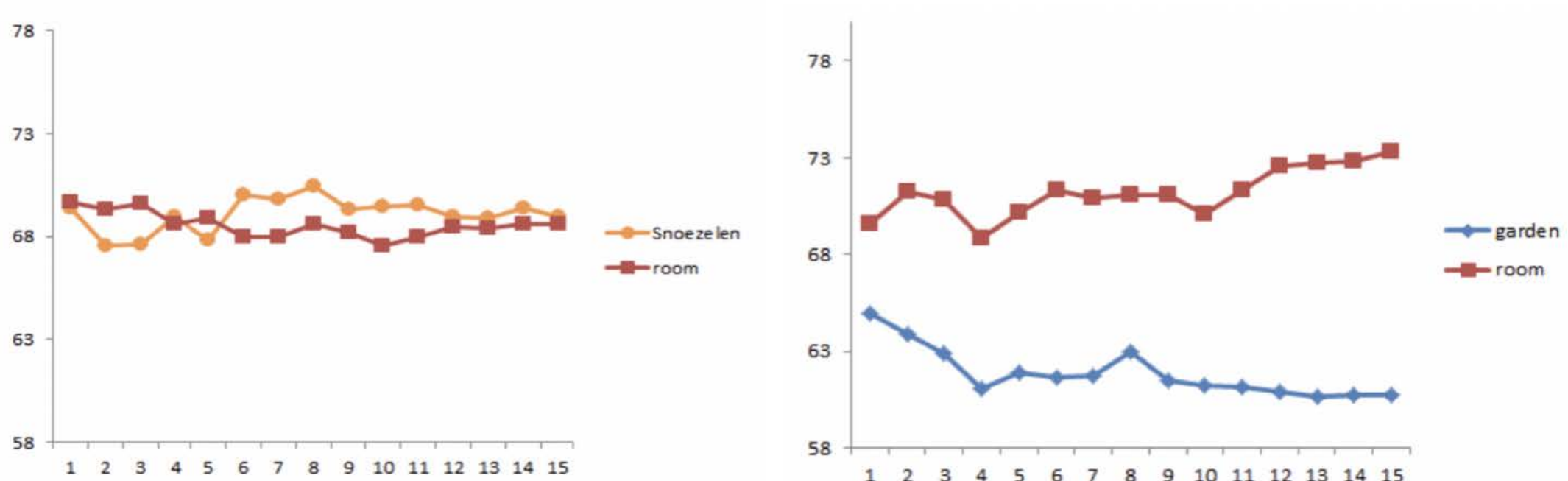
**FIGURE 2: SUBJECTS VERBAL RESPONSE BY SESSION. LOWER PANE: SNOEZELEN ROOM; UPPER PANE: JAPANESE GARDEN**

In the Japanese garden, the subjects stayed awake and spoke. Their speech often reflected complex thoughts - stories based on old memories, comments based on short-term memory, as well as remarks expressing their immediate responses to the environment. These varied and individual responses suggest that the garden stimulated an engagement of the subjects with their environment that differed markedly from the Snoezelen room as well as from their normal state. We noted that the descriptions of the old memories could be quite detailed. Researchers also observed that there were subjects who were not only verbal but showed a desire to interact with their environment. Many subjects tried to reach out their hand to touch the plants.

In the Snoezelen room, the verbalizations were much rarer. When they occurred, the content of the comment was rarely related to the Snoezelen room. For example, among the 6 subjects who participated in both garden room and Snoezelen room studies, 4 subjects were capable of verbal expression. In the garden room, all these four subjects made comments on the garden; the two other subjects were not verbal at all, but kept awake and murmured to themselves. In the Snoezelen room, 4 subjects fell asleep immediately and 2 asked if they could leave early.

### The heart rates

In addition to these more qualitative measures of the subjects' response, we plot the average heart rate (beats per minute - bpm) of all subjects for each 1 minute interval. Although these data were gathered over multiple sessions, the average initial heart rate for most subjects appears relatively constant at approximately 68-72 bpm. When we track this rate over the 15 minute sessions, either in the Snoezelen room or at rest in their own residential room, we noted little change in this average rate. By contrast, from nearly the moment we started monitoring heart rate in the garden, there was a significant drop in the rate that continued for nearly 5 minutes then appeared to level out at about 60-62 bpm. The average bpm (all subjects/all time points) during the session of the garden room was  $61.9 \pm 0.97$  bpm - substantially less than the rate observed during the session of the Snoezelen room ( $69.1 \pm .63$  bpm) which was similar to the rate recorded in their own room.



**FIGURE 3: SUBJECTS HEART RATES, LEFT PANE: COMPARING SNOEZELLEN TO ROOM; RIGHT PANE: COMPARING GARDEN TO ROOM**

Many studies have proven the positive effects of nature on mental and physical health, however, we should remember that the form and the effects of nature are varied. The way to contact with nature to take its advantage can be classified into three ways; 1. eating, 2. exercise, and 3. viewing, and there are different forms of nature for each application. Gardens are one of the forms of nature which are constructed to do exercise and viewing within them, however, Japanese garden is particularly designed to appreciate certain landscape from designated locations. Whereas other naturalistic gardens in the world, such as Chinese garden and English garden, have been developed as a real scale nature to enjoy the physical contact by walking through, i.e. touching, feeling, and smelling, Japanese garden has been a miniaturized nature which gives the sense of season and represents bigger nature by viewing.

Given the evidence of the experiment with American elder subjects, we can say that viewing a Japanese garden not only helps Zen monks to meditate but provides mental and physical improvement for elder people who are not familiar with Japan. In the experiment, as the subjects improved their mood and interaction by viewing the garden, they became more collaborative with the caregivers. When the sensory, motor and cognitive capacities of an individual are degraded during the course of a dementing illness, a Japanese style garden may prove to be a non-pharmacological intervention that is particularly effective at decreasing stress and improving the quality of life for both subject and caregiver. Japanese garden is an abstract landscape which represents a model nature not only for Japanese but also for everyone who love nature, and provides physiological and psychological wellness for each viewer. Although the philosophical principles that guide the design was developed under certain climatic and social conditions in Japan, features that can applied within the broader context of the world.

A vertical photograph of a Japanese garden. In the foreground, there's a pond with a small stone pagoda on a mossy island. The background is a dense forest of tall trees. The sky is blue with white clouds. The title text is overlaid in the center.

# JAPANESE GARDENS AS THERAPEUTIC SPACES

A view from the United States

KENDALL H. BROWN,  
CALIFORNIA STATE UNIVERSITY, LONG BEACH



In writing three books on Japanese gardens in North America, I have both come to know well this topic and to care deeply about how gardens impact people (1). I have tried to shift the understanding of Japanese gardens from microcosms of Japan to microcosms of nature informed by Japanese culture. The move is from the closed system of cultural politics to an open one based on interpreting Japanese gardens as fundamentally therapeutic environments. As an art historian who now works equally as a garden historian and advocate, gardens are appealing because unlike paintings or sculptures they are a vital kind of living art that nurtures us to the degree that we nurture them.

Winston Churchill said, “We shape our buildings; thereafter they shape us” (2). This reciprocal relationship is even more true of gardens because they require constant maintenance, or more accurately, “fostering” so that the gardener’s ministrations are a kind of “soft creation” upon the original design (3). Gardens are compelling environments in which we do the most mundane things (rake leaves, prune shoots) and the most special things (celebrate weddings, commemorate the dead). In the modern world, Japanese-style gardens serve as “places apart” when culture and nature fuse in the service for connection with a special, even ideal, environment. In them, I contend, we can connect with our better selves and with other people in positive ways.

This potential power of well made and well kept Japanese gardens likely stems in part from their emphasis on spatial relations (*ma*), where space is an evocative interval, a gently mystery or a pregnant pause, suggesting a way of being in the world premised on intimate and thoughtful relationships. Confined and microcosmic, Japanese gardens also open up boundless real and imaginary vistas to suggest harmonious relationships. With the exception of stone gardens, they trans-mediate sensory experience, so that sight, smell, texture and sound merge to create a fully integrated realm predicated on thoughtful human engagement.

In the last 150 years, hundreds of public and thousands of private Japanese-style gardens have been created around the world; but most have not survived. To sustain Japanese gardens, we must expand—or perhaps simplify—their roles to connect them directly with the physical and mental health of humans so they participate in the social health of their communities. When we focus on how gardens sustain human wellness, they become necessities rather than luxuries.

Japanese-style gardens are well adapted to serve as powerful wellness environments. They accord well with Rachel and Stephen Kaplan's ideas of "optimal living environments" characterized by water and diverse plants, open views, moderate complexity with easy coherence, and gentle mystery that encourages mental exploration (4). Building on their strong biophilic qualities and balance of prospect with refuge, Japanese gardens call forth effortless "involuntary attention" which, in a world of stressful voluntary attention, is restorative. This "soft fascination" for things inherently intriguing but not overwhelming is central to what the Kaplans' term "attention restoration." And those qualities that contribute to their "perceived restorativeness scale"—being away, fascination, coherence, and a sense of human belonging—exist in great number in many Japanese gardens (5).

Thus, we may imagine Japanese gardens as ideal places intended for solitary contemplation where more dynamic social functions are inappropriate and unwelcome. Yet, the history of writing about and activity in gardens in Japan suggests that some kinds of socializing in gardens is well established. For instance, *Sakuteiki*, the famed 11th century treatise on garden making, begins by connecting garden design to natural surroundings near and far, to historical precedent, and to the practical needs of the owner-user. It then goes on immediately to remind garden builders not to forget to create a place for musicians on the back of a pond island (6). One of the most paradigmatic, and common, garden types is the "meandering stream garden" used for literary drinking parties. Medieval Japanese diaries and histories tell us that gardens were used for many regular religious activities as well as both formal and informal parties (7). Arguably, these intimate—and usually crepuscular or nocturnal—activities in gardens were downplayed or lost in the 20th century when gardens at temples and villas shifted from private residential spaces to public tourist spaces. When these garden environments became like museums, open 9 to 5, gardens became things purely to be seen, like landscape paintings; thus, passive viewing was mistaken as the proper—and only!—kind of interface.

To make sustainable use of gardens, we must embrace them as places for intimate celebration, for thoughtful play, and for marking life transitions. Happily, in the early 20th century, many Japanese-style gardens in North America are increasingly being deployed as productive places for relaxation and mindfulness, for structured healing, and for thoughtful creative interaction through art installations or weddings. This report will ignore the latter to survey some of the former activities in American garden so they may be adapted in Hong Kong or other cities struggling with ageing populations and youth alienated by cyber-culture.





The two most noteworthy garden as healer programs were developed in Florida, the US state where geriatric care is most relevant and advanced. To see if engaged garden walks could decrease depression, loneliness and fear and encourage happiness, in 2006, Ruth McCaffrey of the School of Nursing at Florida Atlantic University began developing therapeutic walks in the large stroll garden at the Morikami Museum and Japanese Gardens in Delray Beach, Florida. The program was initiated in response to letters from garden visitors stating its profound impact, a growing body of literature on how gardens improve the moods of hospital patients, and evidence that exercise itself is therapeutic. Combining these facts with reminiscence or reflective therapy, premised on the idea that reflection can ease depression, McCaffrey's team tested several kinds of guided and unguided walks. These experiments eventually produced the "Stroll for Well Being: A Reflective Garden Walk" (that combines individual strolls on 12 themed garden journeys (awareness, connection, trust, forgiveness and so on), stops at 6 specified spots (including a gate, pavilion, zigzag bridge), reading a descriptive paragraph connecting a theme—gratitude, reflection, etc.—with a location, and then the journaling of responses. Participants met with a facilitator before and after the walks over several months. Based on answers to standard questions measuring depression, participants significantly lowered their depression levels. In responses to broad questions by the facilitator, and journal entries, participants signaled four positive experiences: feelings of release based on being away from stress-inducers; appreciation of nature's beauty; depth added by the short texts to the garden experience; and gratitude both for their lives and nature (8).

At the University of Florida's Harn Museum, in 2017 retired administrator Martin McKellar decided to see if the focused contentment he felt from raking patterns into the rooftop sand and stone garden might be extended to patients in the nearby University Hospital. Working with Arts in Medicine program, McKellar and his associates developed a program where patients confined to their rooms created a design on a blueprint of the garden with a special 3D printed rake, then volunteers (including the patient's family in some cases) raked the design into the actual garden, showing video of their act to the patient. The impact of remaining creative for hospitalized patients with life-threatening illnesses is hard to gauge, but the positive effect on their families and the volunteers seems obvious (9). McKellar is now adapting the program for use with a wider variety of people in other stone gardens.





Image: <https://www.kurusu.com/project/rosecrance-griffin-williamson-campus>

The expanding wellness function of Japanese gardens is also seen in the partnership in Rockford, Illinois, between the Anderson Japanese Garden and Rosecrance, a substance abuse treatment facility for teens. John Anderson's generous gift and strong counseling led Rosecrance Health to hire Hoichi Kurisu to create a Japanese garden on their campus as an integrated restorative environment where the journey metaphor takes literal form. During the garden's construction in fall 2004 and spring 2006, patients helped plant shrubs and groundcover.

Reportedly they were fascinated by closely Kurisu's process of harmoniously setting stones and trees in the 6-acre pond-style stroll garden constructed in a semi-Japanese style. With the garden built, patients help foster the garden by raking the paths and doing general clean up. They take therapeutic strolls with counselors who interpret garden features—bridge, tumultuous waterfall, gentle streams, carefully pruned pines—as symbols of diverse life experience.

The garden also helps heal physically through the aura of calm gained from simply walking its mile-and-a-half of curving paths, the fluid harmony of its parts and the mindfulness engendered by structured garden walks. Counselors report that garden experiences help quiet mental distractions and calm anxieties, and the Rosecrance website quotes former patients positive descriptions of how the garden contributed to their recovery.

Because a key aspect of twelve-step treatment is giving back, in 2015 Rosecrance counselor Hanah Matz suggested that patients do volunteer work at Anderson Japanese Gardens, a 13-acre landscape built by Kurisu beginning in 1978. By helping improve a mature garden, patients would encounter an aspirational model.

If simply being in the Rosecrance garden lowers pressure for patients, going to Anderson Japanese Gardens would demonstrate the benefits of taking control. There, gardener Catherine Marsh agreed to work with the Rosecrance patients. Although many teens initially worried about dirtying their hands and clothes, within a short time most underwent a transformation from resistance to grudging acceptance, and then from work with a positive spirit to the satisfaction of a job done well. Marsh teaches that the mature, lovely garden shows the constant attention required to create a long, beautiful life. Marsh concludes her garden sessions with five minutes of silence in the Canyon Waterfall area, then asks each patient to think about transformation in the garden and in his/her life.

Another garden built by Kurisu for healing is at the Samaritan Lebanon Community Hospital in rural Oregon. In 2004, when the Foundation launched a campaign to fund a health careers' education and training center at the 25-bed hospital in rural Oregon, a trustee suggested the benefits of a Japanese garden to bring the healing power of an 11,000-square foot Japanese-style garden into the hospital. While the classrooms and maternity ward look into a woodland garden with a simple pavilion, patients in the chemotherapy infusion center get treatment while gazing at rivulets descending a stone clad hillock and the gentle rhythms of koi swimming in the pond at its base. Visitors, employees and patients walking the long halls gaze into the garden, as do customers at the hospital café.

The garden's "remedy in green" and "infusion of serenity" extends throughout the hospital. The hospital's ArtsCare program, dedicated to "fostering healing through the arts" has produced patient and professional-produced garden photos and Japanese nature-themed art on the walls. While no studies have been to determine survival rates of chemotherapy patients prior to or after the creation of the garden, the once-struggling facility is now a picture of economic health due to increased patient use. In fact, the Foundation acquired adjacent land, built a larger Japanese garden and attracted numerous developments including a hotel and convention center, Veteran's housing, and a branch campus of Western University of Health Sciences.<sup>10</sup>

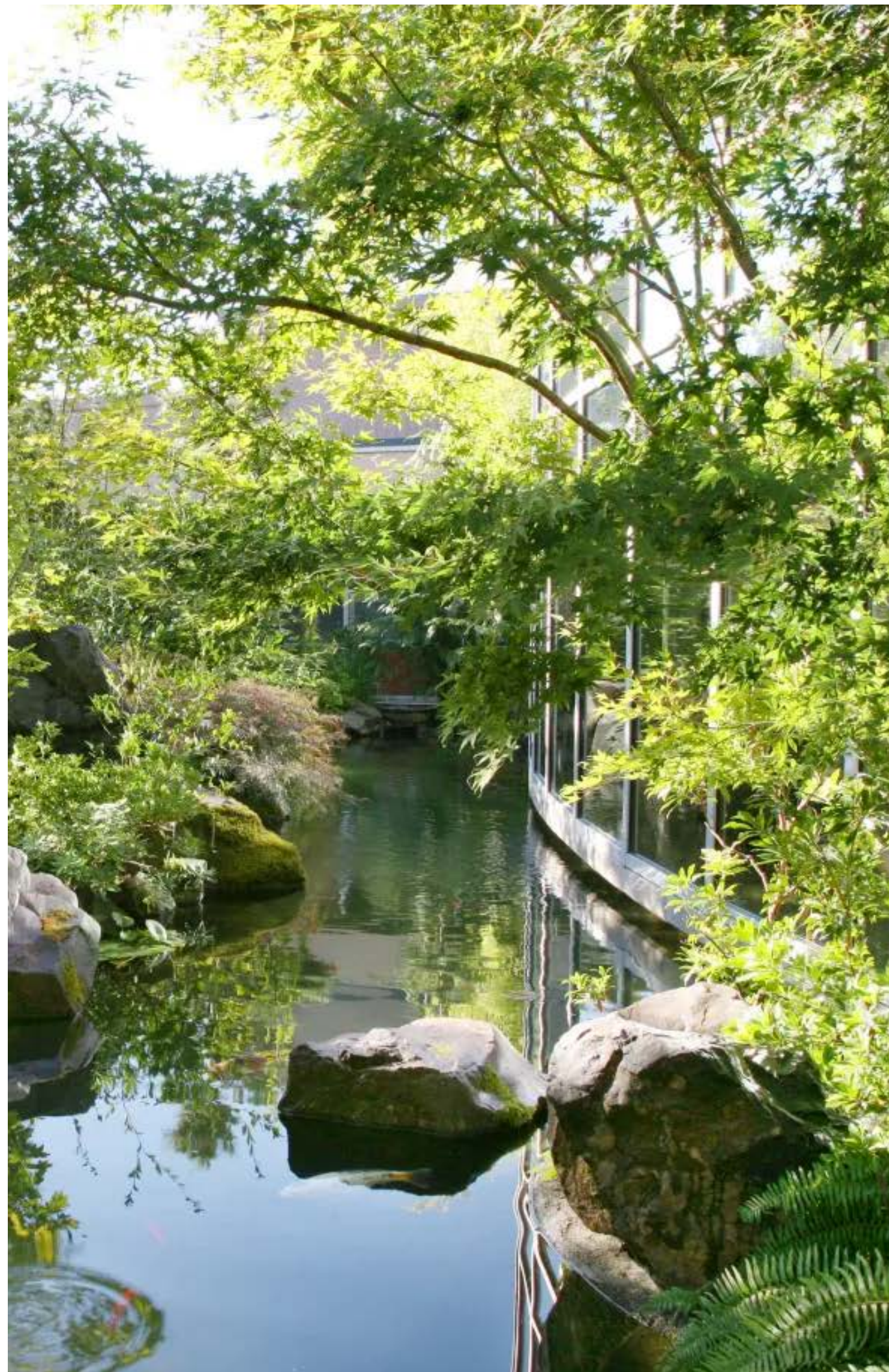


Image: <https://www.kurisu.com/project/samaritan-lebanon-community-hospital>

The creation of Japanese-style gardens as a kind of “soft” or passive therapeutic environment is increasing in facilities that house persons in the last phase of life. The essays here by Profs. Sun and Goto on the impact of gardens on residents at geriatric hospitals in Japan is echoed in Japanese gardens built by the Japanese Garden Society at hospices in Northern England. The British gardens, all dry gardens to keep low construction and maintenance costs, were created and reportedly serve as places of refuge for patients, caregivers and visiting families alike.

The impact of these places that provide a profound kind of nature-based art on working adults and youth should not be under-estimated. In general, gardening is both good physical exercise and an easy way of disconnecting from stress-inducing activities to reconnect with the earth as a nurturer. Because of their harmonious physical characteristics and cultural associations with peace, endurance and spirituality, Japanese-style gardens have greater potential benefit. If Japanese gardens are therapeutic both in their forms and the kinds of interaction they invite, then the habit of using them wisely and often should be extended from end-of-life palliative care to on-going prophylactic use.

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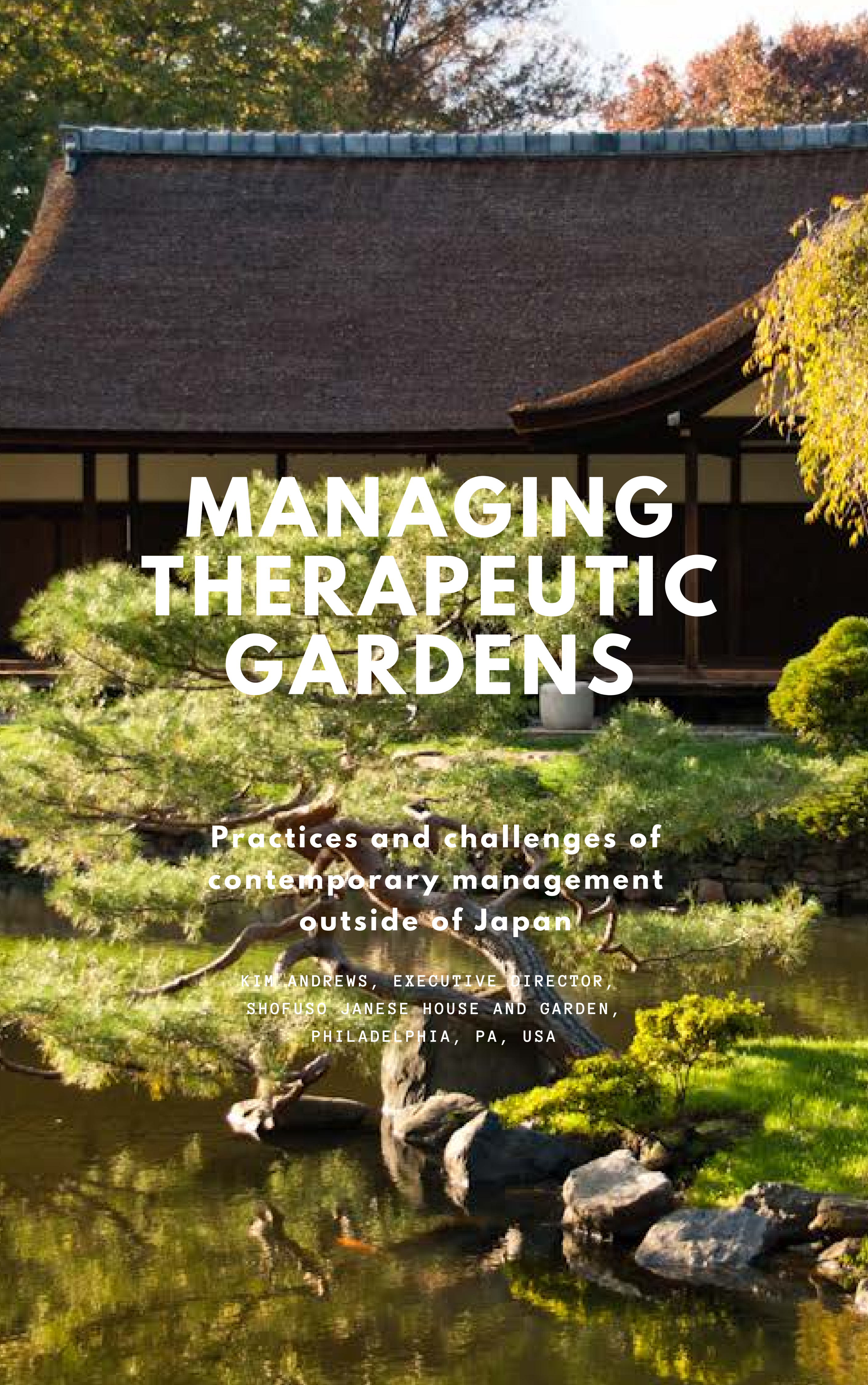
To conclude with special attention to the power of gardens to help ameliorate the isolation, alienation and depression that too often befall the elderly, I cite the experience of two retired women who do volunteer maintenance in Japanese-style gardens. When Duke Gardens, next to the Duke University hospital, built a Japanese garden, several retired medical workers volunteered. One, Flora O'Brien, took moss care as her specialty. Calmed by the focus of pulling leaves and pine needles from moss beds, O'Brien composed a garden-based haiku after each session. On September 17, 2015, she wrote: "In the quiet pool / pine needles float / on the sky." The poem reveals the power of profound engagement with a garden to pull us fully into one moment.

The appeal of volunteering may also connect with identity yet transcend it. In 2015, at age 78, Dawn Ishimaru Frazier began volunteering in the Storrier Stearns Japanese Garden, a pre-WWII residential garden in Pasadena recently renovated and open to the public. Raised in rural California to immigrant Japanese parents, she became a nurse then a housewife living in big houses in big cities. Widowed, relocated to an urban condo, and finished volunteering on museum boards, she felt the need to touch the living earth. Doing basic pruning and clean up for four hours a week, Frazier enjoys the garden's quietude, time with other like-minded people, and seeing things grow in a place that recalls her rural childhood and her parent's culture. "The critical thing," she says, "is connecting to soil, to plants . . . to something with a bigger, longer history [than myself]" (12).

The sway of gardens on volunteers speaks to kinds and depths of engagement beyond the familiar binaries of labor and leisure, creation and consumption, private and public. Indeed, the transcendence of such boundaries is part of the appeal of giving oneself to a garden that is not one's own. These personal accounts together with the public garden practices outlined, should clarify the therapeutic potential of Japanese-style gardens for contemporary city-dwellers everywhere.

#### Notes

1. They are *Japanese-style Gardens of the Pacific West Coast* (New York: Rizzoli International Publications, 1999), *Quiet Beauty: The Japanese Gardens of North America* (Rutland: VT: Tuttle, 2013) and *Visionary Landscapes: Japanese Garden Design in North America, The Work of Five Contemporary Masters* (Singapore, Tokyo, Rutland: Tuttle-Periplus, 2017). The second-half of the introduction to the last book dilates upon gardens as healing spaces.
2. Winston Churchill. Speech on rebuilding the House of Parliament, October 18, 1943.
3. The ideas of "fostering" and "soft creation" come from Dr. Tomoki Kato, a Kyoto gardener and garden builder as well as a garden historian.
4. These ideas are elucidated in Rachel and Stephen Kaplan, *Cognition and Environment: Functioning in an Uncertain World* (Praeger, 1982).
5. See Rachel and Stephen Kaplan, *The Experience of Nature: A Psychological Perspective* (Cambridge University Press, 1983).
6. Jiro Takei and Marc Keane, *Sakuteiki*, (Tuttle, 2008), 33.
7. Richard Stanley-Baker, "Mythic and Sacred Gardens in Medieval Japan: Sacral Mediation in the Rokuonji and the Saihōji Gardens," in Michel Conan, ed. *Sacred Gardens and Landscapes: Ritual and Agency* (Dumbarton Oaks, 2007) 115-152.
8. Ruth McCaffrey, Clare Hanson, William McCaffrey, "Garden Walking for Depression" A Research Report," *Holistic Nursing Practice* (September/October 2010). McCaffrey and the Morikami offered the program to the public for a fee, and, with financial support from Astellas Pharma USA, provided the program free to over two-dozen geriatric groups with mental and physical challenges. For adaptation of the Morikami program at three other public gardens, see in "Strolls for Well-Being: Four Case Studies of Therapeutic Garden Walks," in *The Journal of the North American Japanese Garden Association* No. 4 (2017), 76-86.
9. Martin McKellar, "A Trial Program Asking Hospital Patients to Create a Pattern for the Harn Museum's Asian Rock Garden," in *The Journal of the North American Japanese Garden Association* No. 5 (2018) 68-73.
10. Betty Koehn, "Award-Winning Kurisu Garden Promotes Healing, Economy," in *The Journal of the North American Japanese Garden Association* No. 3 (2016) 16-19.
11. Daniel Hirshberg, "Maintaining the Path to Nirvana," in *The Journal of the North American Japanese Garden Association* No. 5 (2018), 15-19.
12. Both of their stories are recounted in Brown, *Visionary Landscapes*,



# MANAGING THERAPEUTIC GARDENS

Practices and challenges of  
contemporary management  
outside of Japan

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Garden construction is only the first small step in the long life cycle of a Japanese garden. Garden building can take weeks, months, or years, but maintaining the garden will continue for decades or longer. The oldest existing gardens in Japan have been fostered for a millenium as a distinctive national art form with the universal qualities of cleanliness, naturalistic pruning, and broad swaths of uniform textures. The first known book on the art of the Japanese garden, the *Sekuteiki* (Records of Japanese Garden Keeping) was written in the 11th century and explains both the art of garden design and the requirements for care of the completed garden.

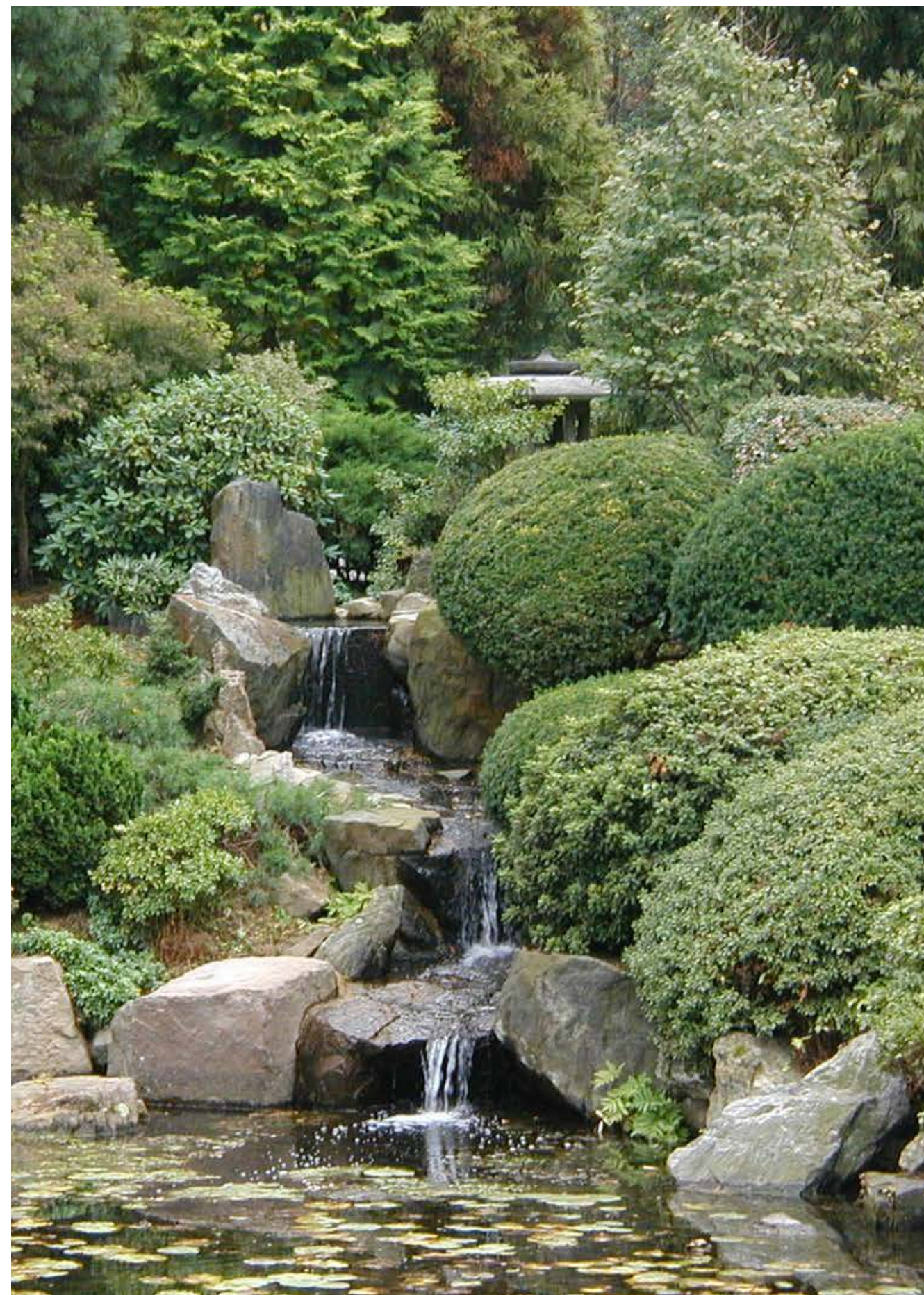
Today, prominent gardens that are open to the public in Japan are often maintained by resident monks (in the case of some temple gardens) or regional landscape associations, with expenses funded by a combination of admission fees, donations from the public, and funding from the National Treasury of Japan under supervision of the Agency for Cultural Affairs, which also provides technical support to caregivers.

In the United States, a handful of gardens have reached their centenary and are still carefully maintained and open to the public. Newer post-war gardens, such as Shofuso Japanese House and Garden in Philadelphia, Pennsylvania, USA, date back 60 years or more. In the US and across the United Kingdom, some Japanese gardens built in the past century have fallen into disrepair and gone fallow because succession plans for their maintenance were not in place when the founder couldn't or wouldn't continue caring for them.

Whether Japanese gardens are constructed for private owners, therapeutic institutions, or as public spaces, the builder must make a long-term commitment for thoughtful care, or else the universally pleasurable qualities of the Japanese garden will quickly dissipate and the original intention will be lost. The unique visitor experience derived from the proportions, textures, and shapes intrinsic in Japanese garden design will be quickly degraded by nature's hands through neglect.

## Management Practices

The existence of distinctive gardens in Japan is a one thousand year tradition with high standards for all aspects of care. Maintenance is implemented by gardeners who train by working for years under skilled elders, who learned from their skilled elders, in historic gardens with stringent oversight and funding from traditional sources.



Managing a Japanese garden outside of Japan is an exercise in determination and resourcefulness. Garden managers must commit to understanding the highest standards of practice, even when the practical implementation of best practices occurs incrementally because of limited staff or financial resources.

## Management Challenges

The challenges of managing a Japanese garden outside of Japan can be daunting, but the reward of presenting this universal art form to others is tremendous. Some areas of difficulty include:

**Professionalism.** Japanese gardens are a labor of love, but professionalism and objectivity must inform every decision. Each garden can require unique care while it performs different functions. For example, a historic municipal site like Shofuso in Philadelphia requires a focus on historic preservation and broad public access. Other gardens may perform therapeutic function for institution residents, provide handicapped accessibility for the elderly and disabled, or be available for general visitation for the public. All decisions for use, maintenance, and alterations should objectively support those goals. The caregivers of Japanese gardens can demonstrate great personal commitment and passion to a degree which interferes with objective decision making.

**Specialty skills.** Japanese style pruning, fence building, and maintenance techniques are best learned through hands-on experience. Outside of Japan, there may not be readily available opportunities for practitioners to observe and practice under the guidance of an experienced gardener.

**Language barriers.** Only in recent decades have study materials and professional development opportunities been created in languages other than Japanese. Traditional apprenticeships and garden texts were the only methods of study. Many traditional written sources of information have still not been translated out of the original Japanese, and even today, hands-on study under Japanese masters usually requires a degree of fluency in Japanese.

**Specialty tools.** Many of the hand tools required for maintenance of a Japanese garden are only available from Japan. The internet has opened up the availability of necessary tools and equipment to purchase from anywhere in the world, but with high shipping costs.

**Costs.** Because of the required staffing levels and specialty skills and equipment needed, Japanese gardens inside and outside of Japan are costly to maintain.





**Professional development.** In the past, there have been very limited professional development opportunities for Japanese garden practitioners outside of Japan. As Japanese masters began reaching outside of their country at the end of the 20th century to ensure the continuation of their art form, advanced practitioners now disseminate their learning around the world and there are more opportunities to sophomore practitioners to learn new skills. Information about best practices are more readily available outside of Japan today than ever, but practitioners have to actively seek out learning opportunities. Mandated professional development for all paid and volunteer staff is imperative to ensure that Japanese standards of design, maintenance, and use are thoroughly understood and embraced. Professional development can include site visits to gardens in Japan, attendance at international Japanese garden conferences, study at teaching institutes, apprenticeship with a knowledgeable practitioner, online research, and careful readings of professional journals.

Despite these challenges, Japanese gardens outside of Japan can incrementally implement best practices while providing quality visitor experience; don't let the perfect be the enemy of the good.

## **Staffing**

The primary expense of maintaining a garden is staff cost. Some of the distinguishing features of a Japanese garden, such as cleanliness, naturalistic pruning, and distinctive swaths of uniform textures are the direct result of many man-hours of hands-on care for each plant, shrub, and tree. A common rule of thumb for garden maintenance best practice is that there should be one full time gardener for every half acre of Japanese garden, dependent on the composition of the garden.

Pine trees must have their old needles removed and disposed of, and their buds removed in a hand process called candling, selectively removing or reducing the size of the new growth to reduce or restrict the growth of the tree itself. Other trees and shrubs must be pruned for shape, size, and health on schedules that encompass years. Mossy areas must be kept weeded and carefully swept of debris. Stone areas must stay clean and free of leaves. Ground covers must be weeded and uncovered dirt areas kept smooth and bare. Even stepping stones must be kept neatly swept. The people that care for a Japanese garden must have sufficient time and knowledge to ensure these tasks are accomplished as needed to keep the design and use intention intact.

**"Despite these challenges, Japanese gardens outside of Japan can incrementally implement best practices while providing quality visitor experience; don't let the perfect be the enemy of the good."**

**Staff.** Professional gardeners who have committed to the vocation or avocation of Japanese gardening should oversee the care of a garden. Clear job descriptions and well-defined reporting relationships maintain healthy boundaries and appropriate decision-making, while also ensuring accountability. Wages are determined by the prevailing local economy.

**Volunteers.** The lead gardeners in a Japanese garden can be volunteers, but their roles should be clearly delineated to avoid conflict or ad hoc decision making. Job descriptions for all volunteers clarify the work they are assigned and their reporting relationships (who supervises them). Any type of work can be assigned to capable volunteers, provided they clearly understand the extent and limits of their role.

**Contractors.** Special building or maintenance projects can be assigned to paid outside contractors. Garden overseers should ensure there is a clear scope of work, a binding cost estimate, and one or two staff members who will manage the contracted projects.

Contracted work can range from regular pruning, to simple maintenance like grass mowing, to hardscape installation, to electrical or plumbing installations, and beyond.

**Partnerships.** Japanese gardens outside of Japan benefit from partnerships with supporting organizations. A sister garden in Japan can provide expertise on care or building projects. A nearby horticultural college can provide semi-skilled labor for weeding and general pruning. Corporations provide unskilled volunteer groups for leaf clean-ups and possible financial grants. Neighborhood associations and friends' groups provide all levels of volunteers, as well as potential programming partners and financial contributions.

## Maintenance and Planning

Even newly constructed garden may have design and pruning requirements that must be implemented over time, and established gardens are still changing and growing and need a firm hand to foster their futures. The transmission of institutional knowledge from staff members today to staff in the future cannot be guaranteed. The valuable lessons learned should be preserved for future caretakers. All care and maintenance policies and procedures developed for the garden must be documented in written form.

Changes in an intentionally designed garden should be made thoughtfully, with transparent decision-making processes that include management, garden staff, and program staff. Management will bring knowledge of financial resources and budgeting for capital improvements and regular maintenance. Garden staff know what is possible and should have the deepest knowledge of garden design and implementation best practices. Program staff can inform the process with information about how visitors use the garden, possible visitor experience issues, and existing or expected program site challenges.





There are three important written documents that should be developed, updated regularly, and made available to both management and garden staff:

**Written maintenance procedures.** A clear written maintenance manual will document current practices and provide a record for future caregivers about how maintenance occurs in the garden. This document can be used for training new gardeners and familiarizing other staff with the needs of the garden. This should include tool and equipment care procedures, as well as techniques, materials, and orders of operation for garden maintenance.

**Annual maintenance schedule.** Developing a written annual maintenance schedule for a Japanese garden is an exercise in thoughtfulness. It requires research into best practices, evaluation of current practices, and developing a logical order of operations for garden tasks. A written annual maintenance schedule becomes a task checklist for gardeners and staff, ensuring that necessary garden tasks are accomplished when needed.

**Long-term replacement plan.** Every garden is a living entity; there is no static moment in time that can be preserved or retained. The stewards of a Japanese garden should identify the most significant plantings (examples might include a weeping cherry tree over a pond, a camellia near a tea house, or a quince in a courtyard) and have a replacement plan in the event of a loss. Know where replacement specimens of the same variety can be acquired, or what changes should be made in that area when a loss provides an opportunity for improving the garden. Having a replacement plan in place for signature areas in the garden prevents ad hoc decision making in the aftermath of a crisis.

## Finance and Budget

The costs of building a Japanese garden, although sometimes great, are dwarfed by the costs of maintaining a Japanese garden. The construction process may take weeks, months, or years, but that garden will need consistent hands-on, knowledgeable care and periodic capital improvements to maintain the aesthetic and functional intentions of the original design.

**Personnel and labor costs.** A general rule of thumb recommends one full-time gardener for every half acre of Japanese garden. This labor cost will be the largest, outside of any capital improvements that need to be made periodically, in the operation of a Japanese garden inside or outside of Japan. Even if skilled and semiskilled volunteers offer their hand work at no charge, garden labor needs should still be calculated by estimating the number of man-hours required for maintenance weekly and seasonally. An estimated budget can be determined by multiplying that by expected hourly labor costs. A record of man hours should be maintained as a permanent record so future caregivers can understand the needs and care of the garden through time.



**Materials and tools.** Specialty tools for pruning, digging, transporting, and cutting in the garden may only be available from Japan. To fully embrace Japanese maintenance techniques, Japanese tools and equipment should be properly used, including hand pruners, tool belts, saws, ladders, tripods, and many others.

**Contractor fees.** Outside contractors are useful for specialty work requiring skills that don't exist in the garden workforce (i.e. annual pine pruning), or for projects that require intensive labor and special machinery or equipment (i.e. a crane for moving stepping stones and other stone materials inside a garden wall or courtyard, a front end loader to dredge and deepen a pond with sludge waste containers to remove the spoils to a landfill). Scope of projects should be determined by garden staff and cost estimates from potential contractors should be evaluated before engaging any outside contractor. Always include a 10% contingency buffer in any budget to account for unexpected expenses.

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## Record Keeping

Since Japanese gardens in or out of Japan can have a very long life arc, record-keeping is an important part of responsible stewardship. Institutional memory will be lost as personnel change, but the original plan should still inform garden decisions over time. Future stewards will want to understand when and why changes were made to the garden. Permanent records must be maintained in a central location and passed on to subsequent stewards, so that gardener records should be maintained with important site records. The organization that built a garden may eventually transfer ownership to a new entity, like a municipal garden that transitions to a private nonprofit's care (like Shofuso Japanese House and Garden) or a medical facility with a therapeutic garden that purchased by a larger institution. These records should be maintained in an active file that is regularly reviewed; outdated records will become the garden's archives.

**Original design plans.** The original design shows the intent of the garden builder. Paths may migrate over time, shrubs and trees may die and not be replaced, and hardscapes may fail and be removed

Changes like these in a Japanese garden will happen over time and affect the use of the space and visitor experience. Garden stewards should have access to the original plans to make informed decisions about changes or restorations.

**As-built and current conditions plans.** Often, original renderings and plans are not implemented in full when a garden is constructed. As-built plans are a snapshot of what was actually installed and current conditions plans represent an actual moment in time of a garden's development. Caretakers can use these plans to evaluate the intentions and functions of their gardens and inform decision making.

**All maintenance plans and procedures.** The three written documents, as described above - maintenance procedures, annual maintenance plan, and replacement plans - should be preserved in a garden's permanent records or archive. There are few new problems under the sun, and often, caretakers of the past already developed a solution for what seems like today's new problem. These historic records should be reviewed occasionally for helpful suggestions.





**Photographic documentation.** No site records have as much impact over time as photographic documentation. Permanently recording and preserving images of garden construction, final results, garden programming, and garden staff at work will be inspirational for future caregivers. These images can also be used for seeking funding from private and public sources, as well as reminding the future of the work of the past.

## **Conclusion**

Most people will never visit Japan, so Japanese gardens outside of Japan give the world's citizens an opportunity to experience traditional Japanese aesthetics and design. Japanese garden management outside of Japan is incredibly gratifying, despite challenges of staffing, maintenance, and funding. Practitioners make the world a better place and encourage intercultural understanding among different people. Everyone responsible for the care of a Japanese garden can embrace the pride of presenting this universal art form for others to experience.

### **Professional Organizations outside of Japan**

Aesthetic Pruners Association, [www.aestheticprunersassociation.org/](http://www.aestheticprunersassociation.org/)  
Japan Garden Society, <https://ssl.gardening.or.jp/>  
Japanese Garden Society of Denmark  
Japanese Garden Society, UK, [www.jgs.org.uk](http://www.jgs.org.uk)  
North American Japanese Garden Association (NAJGA), [www.najga.org](http://www.najga.org)

### **English Language Recommended Reading**

Public Garden Management: A Complete Guide to the Planning and Administration of Botanical Gardens and Arboreta, 2nd edition, by Donald Rakow and Sharon Lee, John Wiley & Sons, Inc., Hoboken, NY, USA, 2011.  
Sukiya Living Magazine (The Journal of Japanese Gardening), edited and published by Doug Roth, Rockport, ME, USA, bimonthly print periodical.  
The Journal of the North American Japanese Garden Association, editor K.T. Cannon-Eger, Portland, OR, USA, semiannual print and digital peer-reviewed journal.

A traditional Chinese garden scene featuring a pond with several red koi fish, large dark rocks, and lush greenery. In the background, a traditional Chinese building with a dark tiled roof is visible, partially obscured by trees. The scene is bathed in soft, natural light, creating a serene atmosphere.

# JAPANESE AND CHINESE PRIVATE GARDENS

*A Photo Essay*

MINKAI SUN, JIAXING UNIVERSITY



# CHINESE GARDENS



## IMPERIAL GARDENS

Royal Family

The questions is, who need a garden therapy most?

The answer is scholars. In China, Scholar's ultimate goal is fight for a better world. First, they have to study science. When they were children, they must study all the bibles of Confucianism, then they must pass a exam called *keju*. After they passed, they will be assigned to be a government man.

The real thing is from now. once they became a government, they try to achieve the goal, but Chinese dynasties were always troubled by bribery and other severe politic problems. When the political situation was extremely unstable. Scholars, especially those with positions at court, were always facing the threat of death. most of them will be forced to retire or be killed.

Scholars who decided to live had to change their life style: both physically and psychologically

1. Distance themselves from politics for their own protection.

2. Resigned and go back to their home town.

3. Make their residential Reclusive landscape (宅院)(Zhai: Zhai means house, yuan: yuan means garden) to console themselves.

## PRIVATE GARDENS

Bureaucrats, scholars, merchants

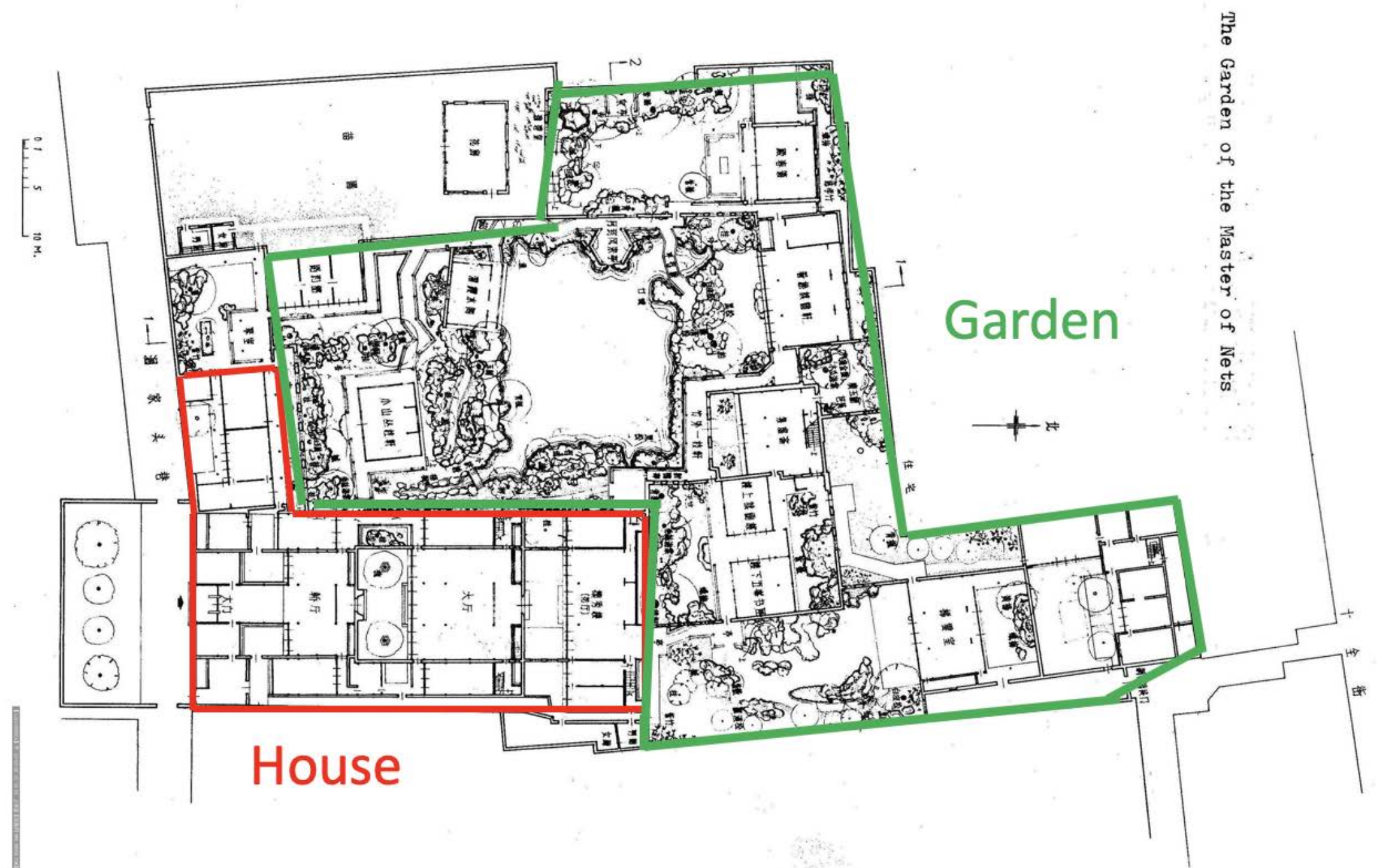
## RELIGIOUS GARDENS

Monks, priests



蘓過羊





This is a plan of a typical residential Reclusive landscape the red area shows the house and green part shows the garden. We can see here. Very clearly, straight lines domain the house part, and the right and left part is looks like the same. Contrary, the garden part is full of natural lines and the plan is not in order. In fact, this composition reflected the different conception between house and garden.

It's related to the psychological shifting. When the scholars were still in court. They follow Confucianism, which require them to follow social rules, everything is well confined. But once they resigned, they became a Taoism follower. Which means they follow they own nature and pursue the Dao "it can be explained as the truth of the universe.". Taoism's theory trusts the dao hide in the nature, so harmony with nature is considered very important.

We can summarize like this; the house part reflects Confucianism concepts with straight line and symmetry composition. The garden part reflects Taoism concepts with irregularity line and asymmetry composition.

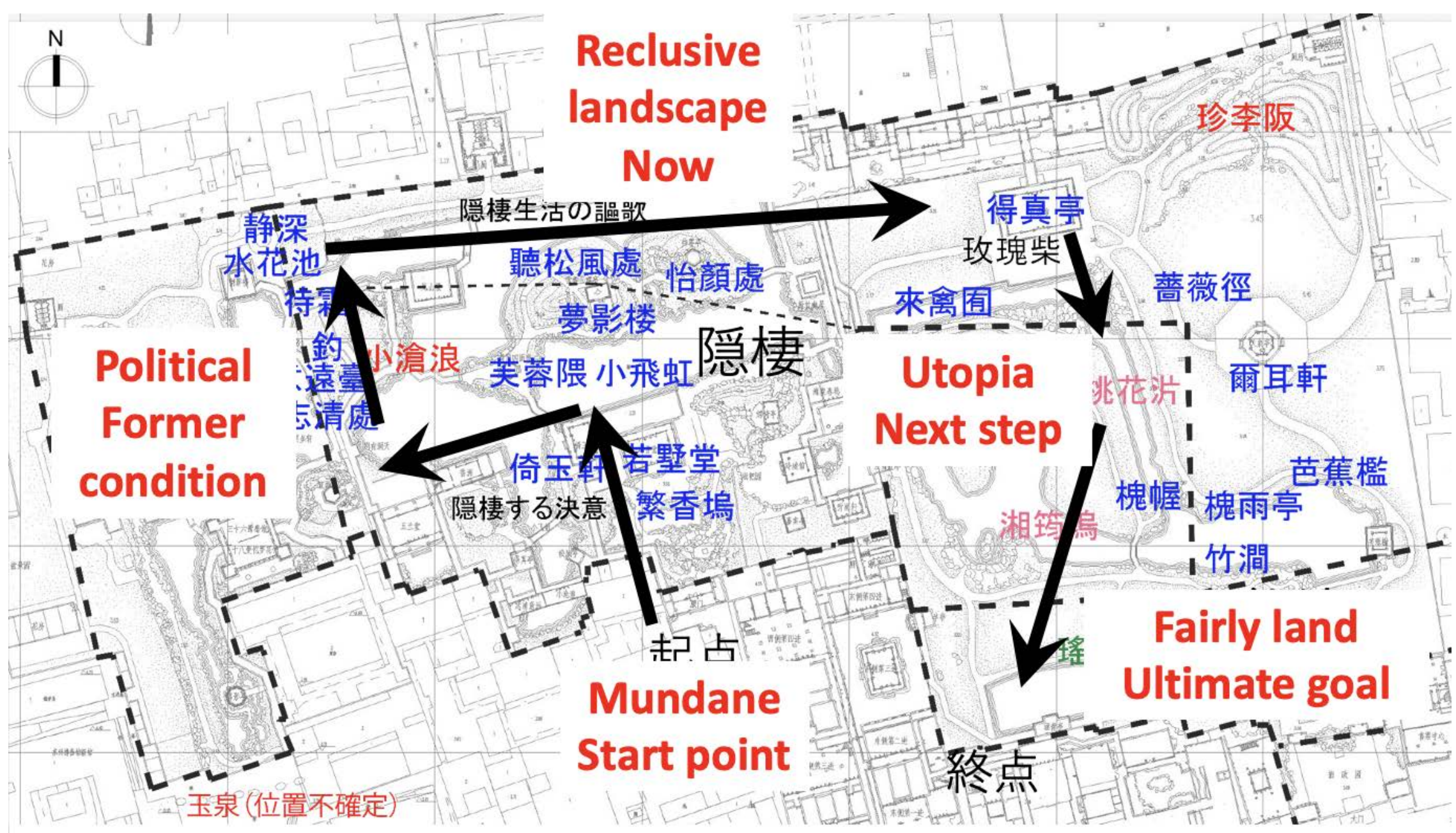


## ZHUAZHENGYUAN, SUZHOU

The garden is called Zhuozhengyuan. located in northeast Suzhou, is one of the four most famous traditional Chinese gardens. It was built in approximately 1513. Both of the owner and the designer were forced to resign to be a hermit. This garden, we can see here is the previous house part, and this is the garden part. The house part is full of straight lines which reflect Confucianism. And the garden part is full natural line, which reflect Taoism. And, the garden part was divided to three part: the west part, the middle part, and the east part. In each part, there are many scenic places. Scenic place is a basic component of Chinese garden, which include trees, buildings, rocks and other elements.



The many scenic places in the garden have meanings, from the meanings of the scenic places, the garden can be divided to four parts, the political area, rural area, the utopia area and fairyland area. All the scenic places were set out in a special sequence reflecting a movement. It starts from the residential area means mundane. Then turn left to the west part means political world, this area metaphor owner's former condition. Then the route turn back to middle area means reclusive area metaphor owner's current condition. After that is the east part of the garden means utopia area, this is the owner's next step. Finally, fairly land is the ultimate goal. And now, the owner completely changes his goal from better world to become a celestial being. Therefore, the garden was a place to expressing the owner's life experience and philosophy to visitors. We know talk to other people is a good way to reduce stress, via this garden, the owner talk to every visitor. I guess his stress was mitigated.



# JAPANESE GARDENS



## IMPERIAL GARDENS

Royal Family

## PRIVATE GARDENS

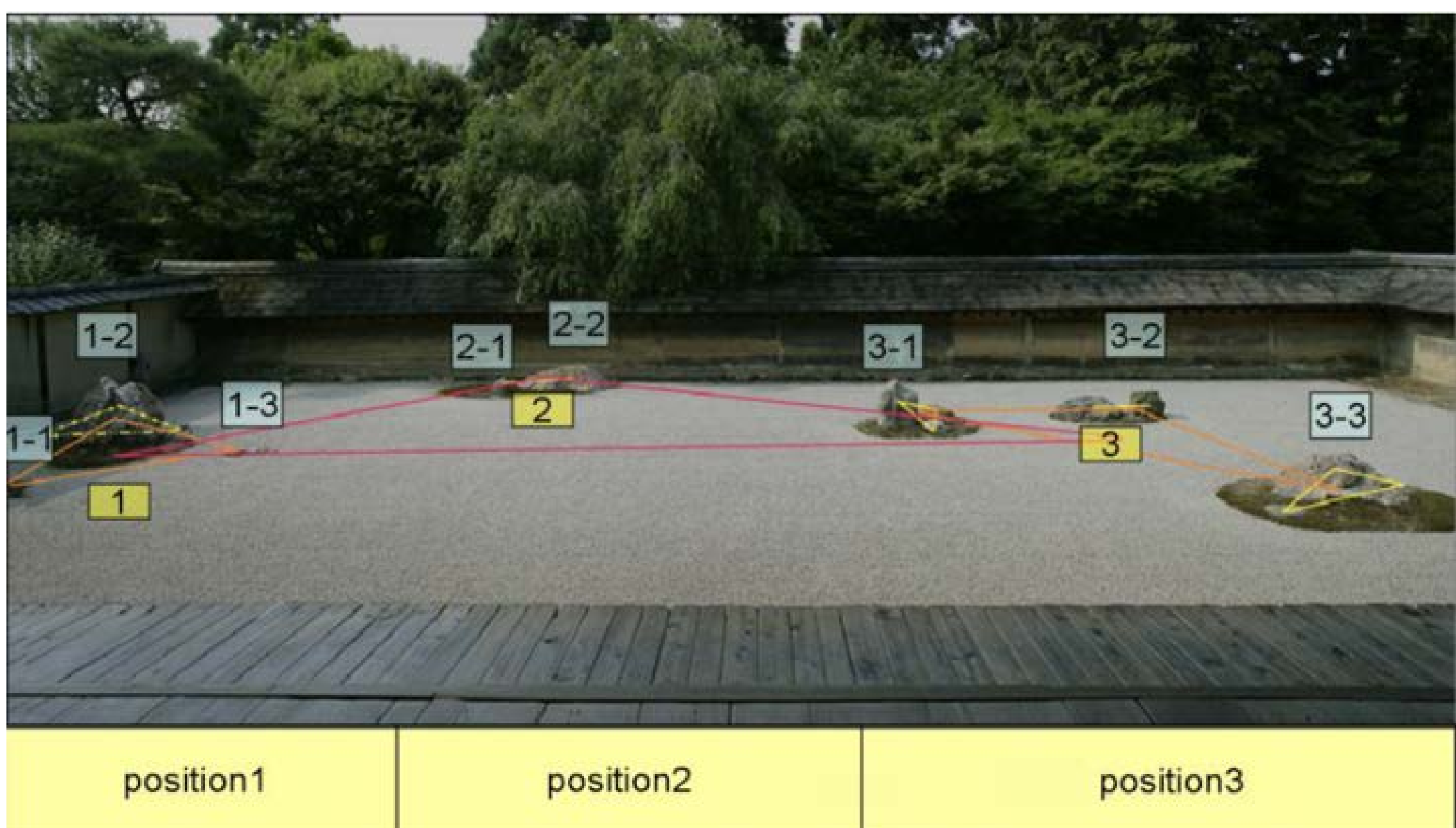
Bureaucrats, scholars, merchants

## RELIGIOUS GARDENS

Monks, priests

In Japan, the religious gardens strongly influence the development of both the imperial and private gardens.

Monks try to understand Zen by meditating in gardens. Japanese people trust if they can awake, then they can go to heaven after their death. The place where they meditate is extremely important.



# COMPARISONS

## JAPANESE

## CHINESE



**Buddhism**  
Harmony with self  
Truth in heart

**Taoism**  
Harmony with nature  
Truth in nature



**Meditate; view**

**Hide; experience**

**SCALE**

**Small**

**Large**

**DESIGN &  
MANAGEMENT**

**Interact**  
(controlled by  
human hand,  
Buddhist practice)

**Intact**  
(Follow natural rule)

**USAGE**

**Intact**  
(view only)

**Interact**  
(wander, experience)



# ROOF GARDENS IN JAPAN

A case study and photo essay

TAKEHIRO TAZO, TEIKEN CO. LTD





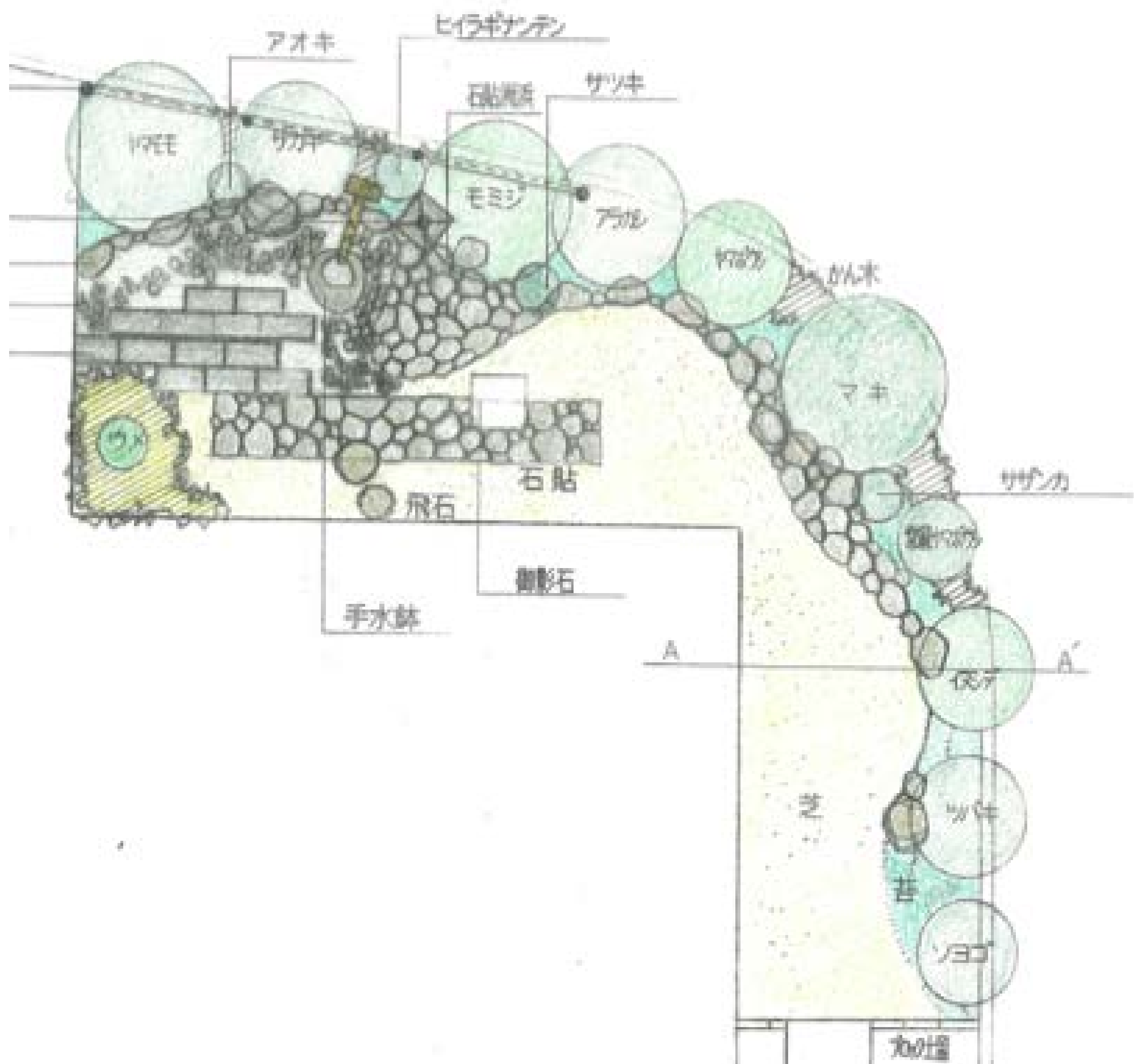


**MIHARA HOSPITAL  
ROOF TOP  
JAPANESE GARDEN:  
BEFORE, LATE 2001,  
2018**





RESIDENTIAL ROOF TOP (30M2)



RESIDENTIAL ROOF TOP (30M2)





**STONE SETTING**





**PLANTING**





**BAMBOO WORKS**



**PAVEMENT AND  
STEPPING STONES**





# MAINTAINENCE

2017年度 年間維持管理工事

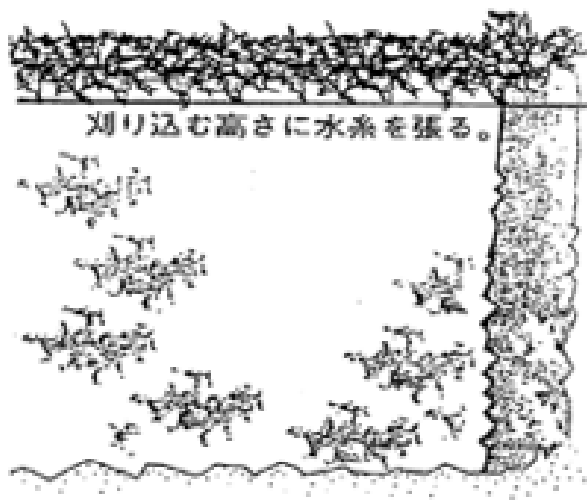
2016.5.21作成

工事項目	4月	5月	6月	7月	8月	9月	10月	11月	12月	1月	2月	3月
除草(草刈り)		←→			←→		←→					
剪定				←→					←→			
薬剤散布		←→		←→								
施肥										←→		

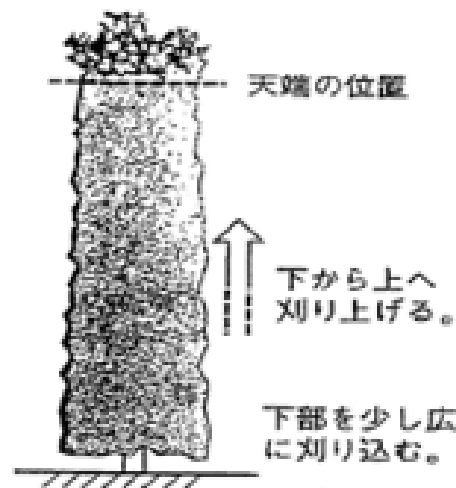
## Technique of the pruning

### 5. 刈り込みの技法

set up a thread to height to be under



ポール



Cut it short from the back upwards from the bottom to the top

bad X ハサミを表使いにすると先の部分が高くなりやすい。



good O 裏使いすると、ハサミを持つ手の位置が低くなるので水平に刈りやすくなる。

It is easy to cut it horizontally

(生垣の刈り込み方)





THINNING



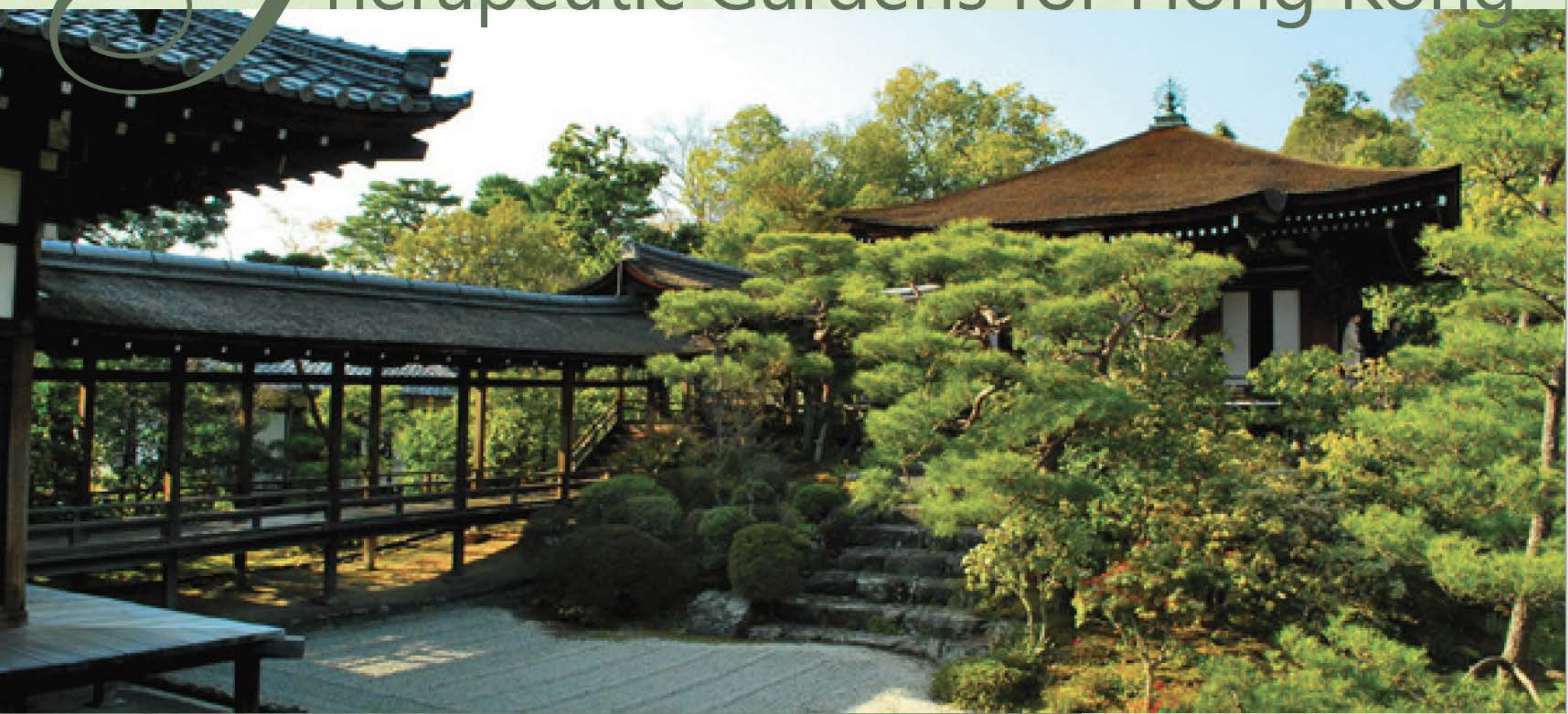
A photograph of a traditional Japanese garden. In the foreground, a stone path leads through a lush green space. To the left, a bamboo fence runs along the edge. In the center, a small stone structure, possibly a water feature, is surrounded by various plants and rocks. The background features a multi-story building with a white brick facade and several arched windows. The overall scene is bright and well-maintained.

# PHOTOS FROM NOVEMBER CONFERENCE

HKUST-HKILA Conference

# Therapeutic Gardens for Hong Kong

Workshop & Study Tour



## Session 1: Introduction and welcome

0900-0910 Stuart Gietel-Basten, Karl Herrup, Seiko Goto: Welcome and overview of PASS-funded project

0910-0930 Stuart Gietel-Basten and Karl Herrup: Therapeutic gardens and the demand for healthy environments for Hong Kong's ageing population

## Session 2: Asian therapeutic garden design

0930-1010 Seiko Goto: The therapeutic Japanese garden – an overview

1010-1050 Eijiro Fujii: Latest findings on cognitive characteristics of Japanese gardens

1050-1130 Minkai Sun: Chinese and Japanese therapeutic gardens – an historical overview

1130-1230 Visit to HKUST Japanese garden for dementia sufferers (led by Stuart Gietel-Basten and Seiko Goto)

*Please note, owing to size constraints this session is ticketed. Please assemble at meeting point outside lecture theatre at appropriate time according to your ticket.*

1130-1300 Lunch break. *Note that timed garden tours will take place from 1130.*

## Session 3: Japanese gardens in an international context

1300-1340 Kendall Brown: The history of therapeutic Japanese Gardens in America

1340-1420 Kimberley Andrews: Therapeutic Japanese Gardens in contemporary America

1420-1450 Coffee break

## Session 4: Therapeutic gardens in practice

1450-1530 Yutaka Hamano: Therapeutic gardens and horticulture therapy – A case study of Wakaba Nursing Home

1530-1610 Takehiro Tazo: The Japanese garden for roof garden

## Session 5: Round-table discussion

1610-1700 Round table discussion between speakers and participants.

1700 End



香港科技大學  
THE HONG KONG  
UNIVERSITY OF SCIENCE  
AND TECHNOLOGY

Organiser



THE HONG KONG INSTITUTE  
OF LANDSCAPE ARCHITECTS

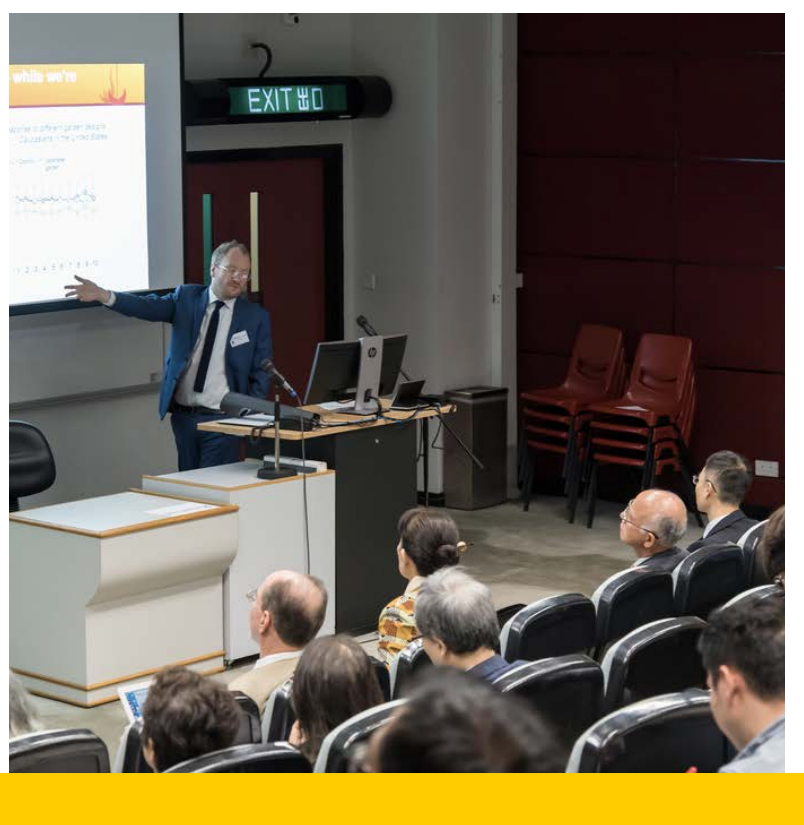
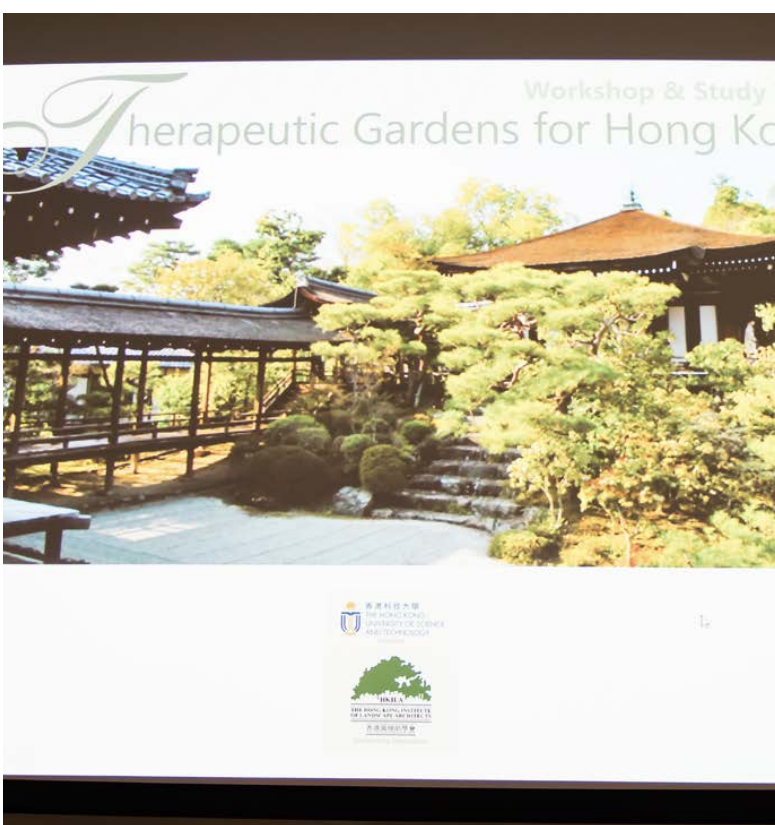
香港園境師學會

Collaborating Organisation

Therapeutic gardens and the demand for healthy environments for Hong Kong's ageing population

Stuart Gietel-Basten

HKUST





Latest findings on cognitive characteristics of Japanese gardens

Eijiro Fujii

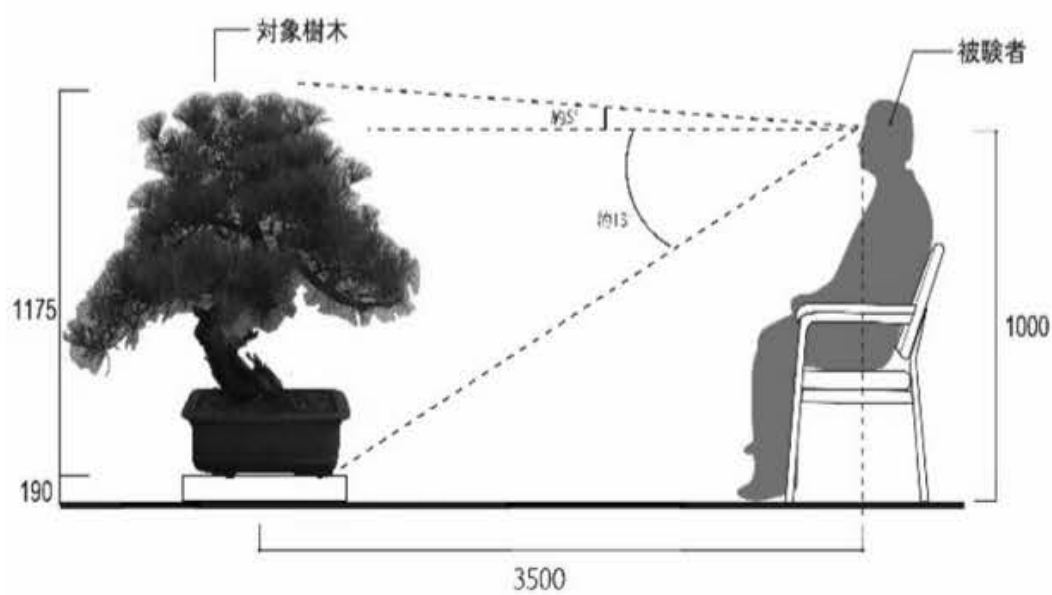
Chiba University

(Minkai Sun & E. Fujii, 2016)

Subjects :  
31 participants :  
Chinese students  
(20 males and 11 females)

*Pinus thunbergii*

*Ficus microcarpa*



Chinese and Japanese therapeutic gardens – an historical overview

Minkai Sun

Jiaxing University





Visit to HKUST experimental Japanese garden

Stuart Gietel-Basten &  
Seiko Goto

HKUST & Nagasaki  
University



The history of therapeutic Japanese Gardens in America

Kendal Brown

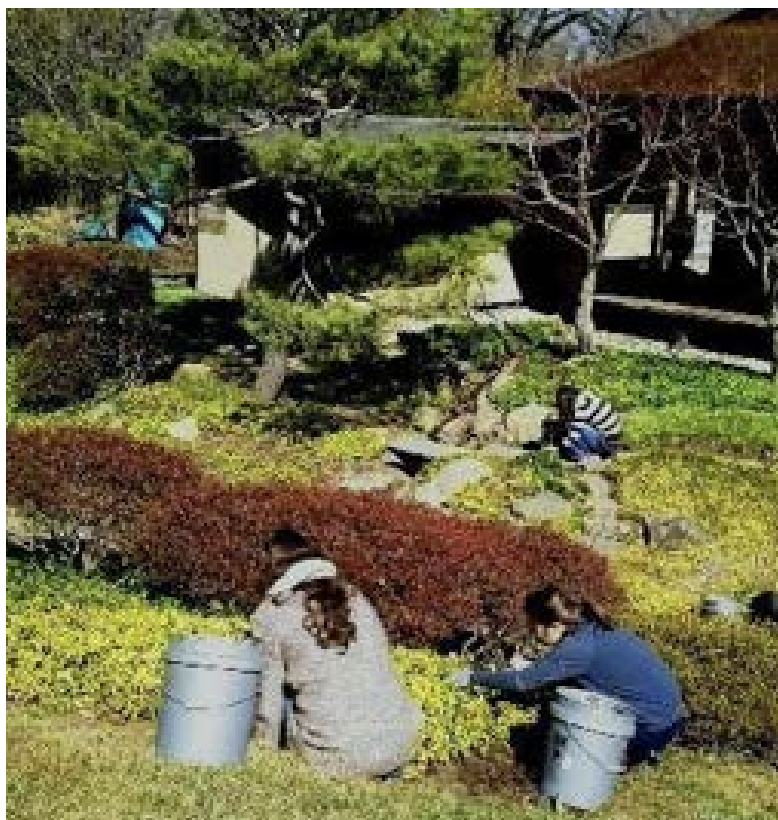
California State University, Long Beach



Therapeutic Japanese Gardens in contemporary America

Kimberley Andrews

Shofuso Japanese House and Garden, Philadelphia



Therapeutic Japanese Gardens in contemporary America

Kimberley Andrews

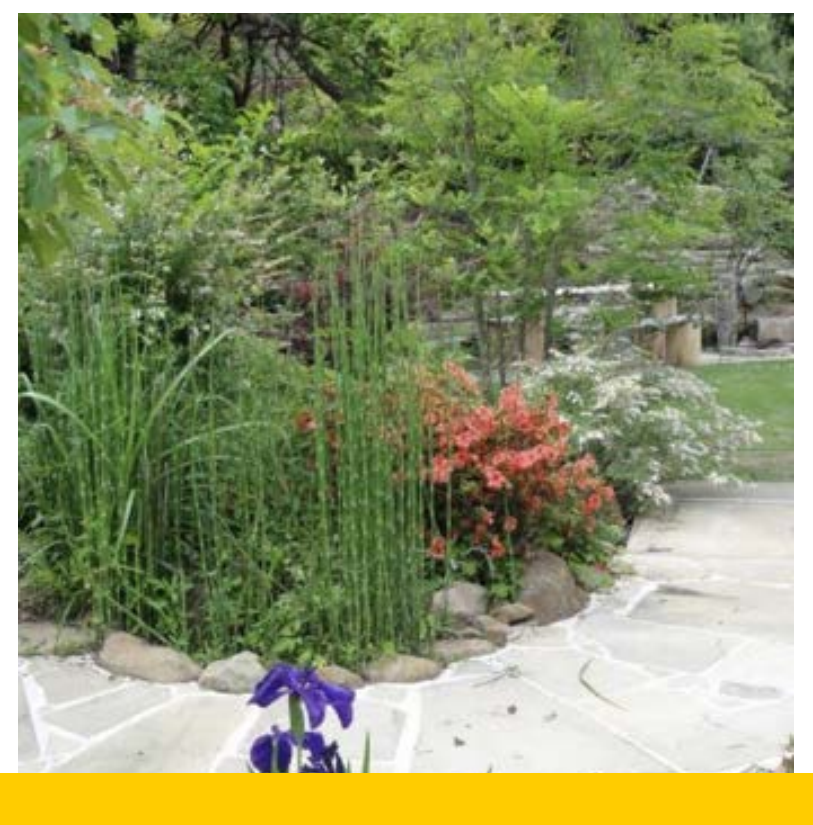
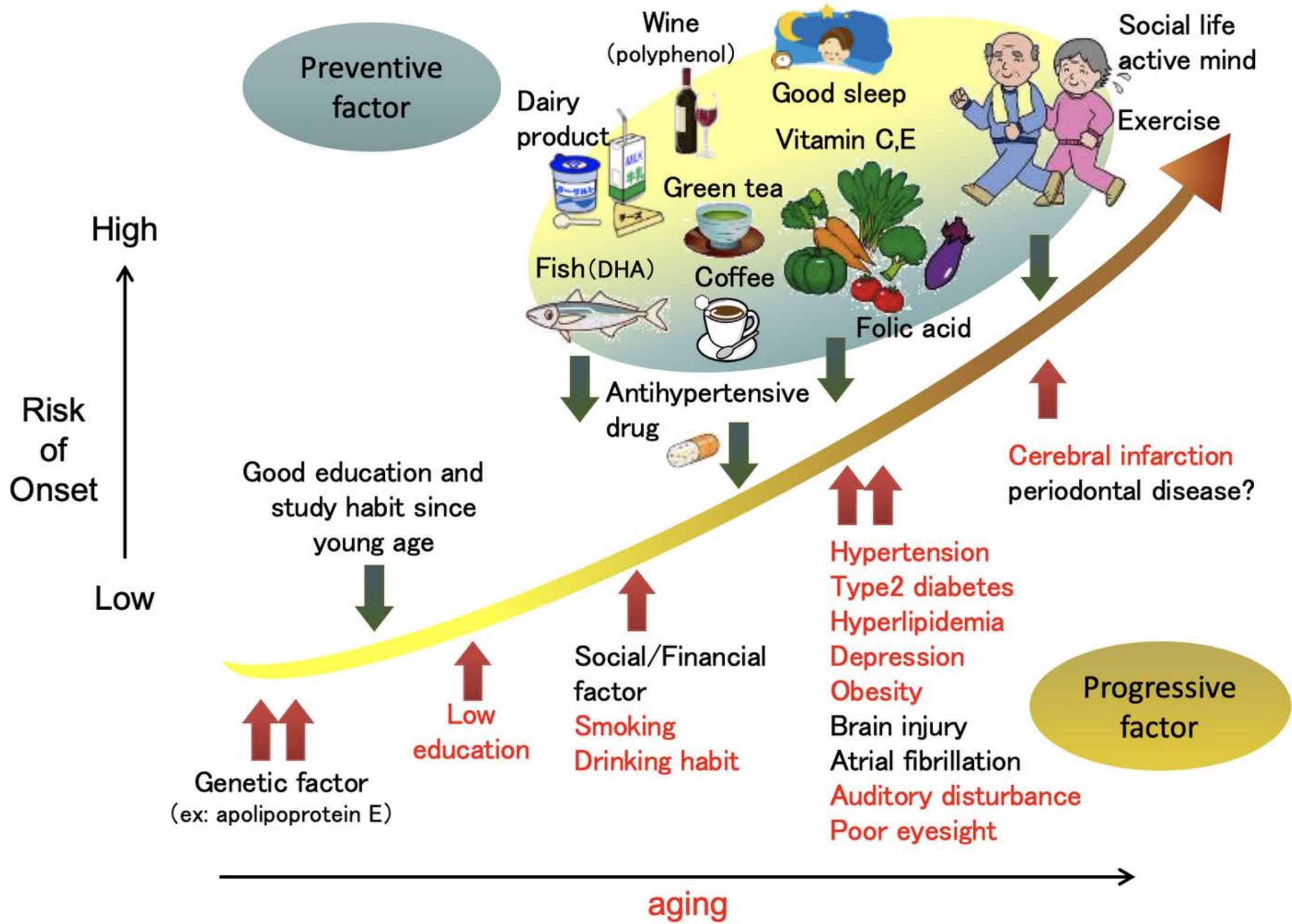
Shofuso Japanese House and Garden, Philadelphia



Therapeutic gardens and horticulture therapy –  
A case study of Wakaba Nursing Home

Yutaka Hamano

Hamano Hospital and  
Wakaba Nursing Home



Therapeutic gardens and horticulture therapy –  
A case study of Wakaba Nursing Home

Yutaka Hamano

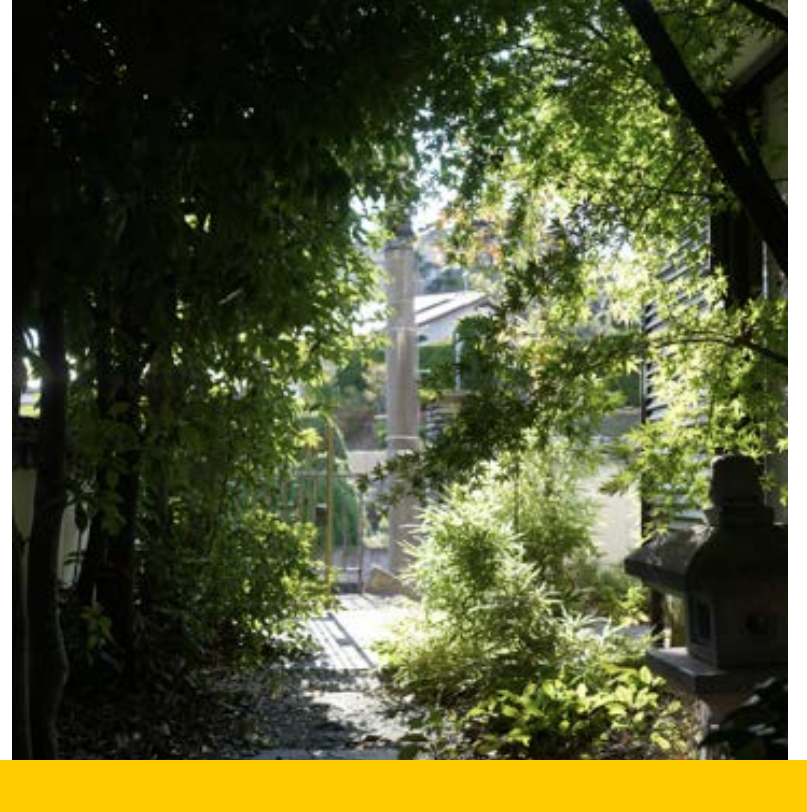
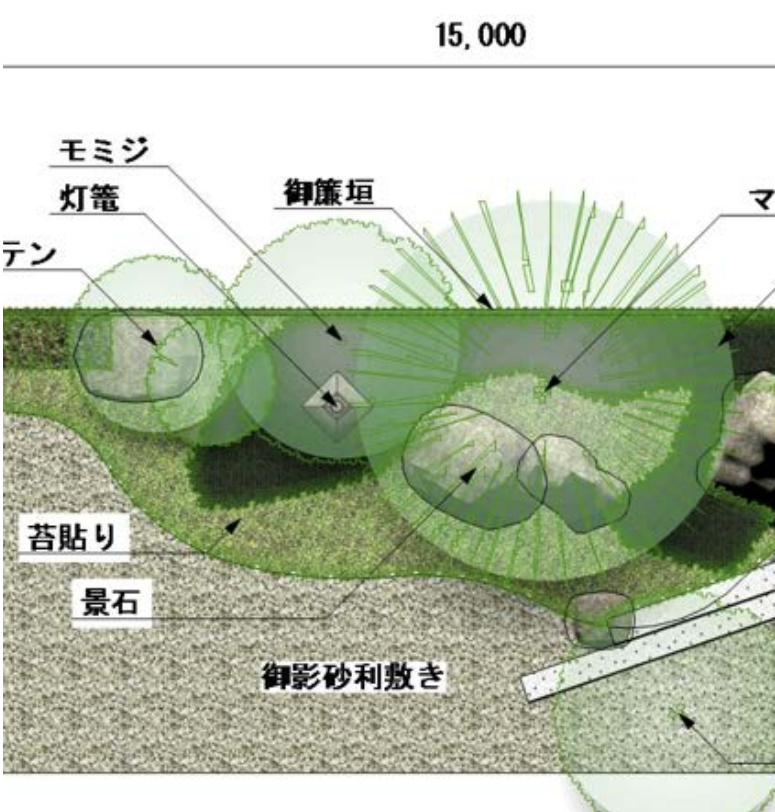
Hamano Hospital and  
Wakaba Nursing Home



The Japanese garden for roof garden

Takehiro Tazo

Teiken Co., Nagasaki



Round table discussion







A low-angle photograph looking up through a dense canopy of green maple leaves. The leaves are vibrant green and have a distinct palmate shape. The background shows a bright sky with some light clouds. The overall composition is vertical and fills the frame with natural elements.

# REFLECTIONS FROM KYOTO STUDY TOUR

September 2019



## HK-based landscape architect (public practice)

I greatly enjoyed the conference and the study tour of Therapeutic Gardens. I knew nothing on this topic and Japanese gardens before. At the conference I got some basic idea on therapeutic gardens and the appreciation of gardens under different culture. The understanding of the topic and appreciation of Japanese gardens were further enhanced in the study tour. A study tour after a conference is a brilliant arrangement. I normally put the information of the conference aside and forget it soon after, but with a study tour, in particular, an excellent study tour like this one has sustainable effect to the participant.

The conference and the tour is just a beginning, it has plough a seed in my heart. As mentioned by Seiko, in order to understand more about the topic, we need to know more about the Japanese history and culture. As a conservator, I totally agree to this, the historic and cultural knowledge is a basic to understand the garden or building that is standing in front of you. I will continue my reading on related topic.

Apart from knowing more about Japanese Gardens, I also enjoy the historic buildings of Kyoto. Seiko has explained a lot on the layout and decoration of the building and how it related to the garden.





Apart from knowing more about Japanese Gardens, I also enjoy the historic buildings of Kyoto. Seiko has explained a lot on the layout and decoration of the building and how it related to the garden. It is very valuable to understand the building and the hierarchy of the ancient Japanese society. From other observations, I learn some good design of the historic buildings in Japan which may be applicable to the conservation of historic building in Hong Kong. So I enjoy double benefit.

I always mention that I am doing the donkey works in my garden, picking up weeds, cutting dead branches of the plant every weekend, while my husband is doing his great job of planting. But I know I am doing a great job in maintaining the garden and these donkey works also have therapy effect on me, I can very concentrate and calm in doing the task. I recall the experience of my friend, picking up weeds in her garden has heal her psychological problem after giving birth to her daughter. The daily maintenance by the Japanese gardeners are the success of the Japanese gardens, and I believe it may also has spiritual effect to the monk by doing it.

There are still something more to do, having meditation in the garden, learning its therapy effect personally. I will find some chance to do it.

Last of all, I would like to thank all of you and Seiko in arranging such a good conference and study tour.

It is the best conference and study tour that I have attended.



## HK-based landscape architect (private practice)

What made the theme of the trip a success was the emphasis on going beyond just 'building' a garden.

Apart from "maintenance", users' culture, history and religion believes play a role. Beautiful things help and they cost because of "fostering"









## **HK-based landscape architect (public practice)**

During the garden visits, Professor Goto provided me a general understanding about the feature and theory of Zen gardens and the way of enjoying their beauty. The seasonal colour change of borrowed scenery, the collaboration within community for maintaining the mountain sightline, the committed work of professional gardeners in carefully replenishing moss on ground and pruning pine trees are particularly admirable. In the private gardens, the interpreter gave very clear translation.

## HK-based landscape architect (public practice)

### Constraints in Hong Kong

(i) Japanese gardens require intensive daily upkeep and maintenance, and will incur high maintenance cost. The Zen garden is a kind of culture and artwork, the maintenance personnel should preferably possess relevant cultural knowledge and know the theory of Japanese garden in order to ensure effective maintenance work.

(ii) There is great limitation to build Zen garden outdoor particularly for public parks and gardens, as Zen garden is vulnerable to storm attack such as loss of gravel, and fast growth of weeds under the hot and humid weather condition. Perhaps it may be suitable to be incorporated in the interior fitting-out of some artistic venues such as art museum / hotel and high grade commercial / residential properties etc.

(iii) The symbolic meaning of stones and gravel in Zen garden is strange to many Hong Kong citizens who are accustomed to the existing parks in Chinese traditional or Western style.



