CHAPTER 7-2
GARDENING: JAPANESE MOSS GARDENS

Moss Gardens

It is the end of a hectic week and your mind is racing between projects nagging to be finished before another set entreats you. The afternoon hour is late and Friday traffic winds about you in the fury to be somewhere else. Children shout and horns warn of impending danger, or just impatience. You turn the corner and park in the only remaining spot next to the shrouded garden. The Japanese have taught us how to construct a fence that deflects the city's clamor, creating a refuge from the turmoil that bombards our daily lives. But within that fence, in the midst of the city, is a garden – a moss garden. Barely 50 meters on a side, the garden is a far away and peaceful world. Here all seems to melt away as the soft mountains in the distance, created by gentle hills of moss, blend into the quiet fields of green before us. At last we can relax. In such a setting, we can reflect on all that is bryophyte ecology. Moss gardening certainly requires an understanding of mosses in all their ecological and physiological glory. Although the Japanese have been successful for centuries, moss gardening is no small challenge.

Japanese Moss Gardens

Perhaps originating in their present usage during Japan’s feudal era (12th-19th centuries; Schenk 1997), mosses have become a part of Japanese tradition. In Japanese, koke means moss and dera means temple, hence the name of the moss temple kokedera (Figure 1). However, as far back as a thousand years ago the Zen Buddhist monks wrote of the mosses in their temple gardens. Yet the rest of the world is just beginning to understand and copy the tranquility of the moss garden.

Bryophytes have always been greatly appreciated as a precious attribute in Japanese gardens. Some of the Japanese gardens are known from as early as the 7th Century A.D. (Seike et al. 1980). The earliest of these were based on the T’ang China gardens, but they soon developed their own character, resembling the Japanese landscape. The theme generally reflects the Japanese
religion of Shinto, wherein the world is viewed as "infused with the primeval forces of creation" (Seike et al. 1980).

By the fifteenth and sixteenth centuries, the scale of the gardens was smaller, opening the way for miniature plants such as bryophytes to provide the feeling of expanse. Natural features such as ponds and waterfalls were represented by stone and gravel. Unlike gardens throughout most of the world, the Japanese garden is ruled by simplicity. Following this theme of tranquility, the garden must not appear manicured, but rather must maintain a natural look. For this reason, as the gardens became the setting for the tea ceremony, they also continued this tradition of a natural look. To avoid the austerity of too much care, the Tea Masters considered the most appropriate caretakers to be old men and boys who would not be too painstaking in their care to sweep and clean the garden. Having leaves tucked among the rocks or at the bases of trees provides interest (A. L. Sadler in Seike et al. 1980).

Courtyard gardens are small and provide a relaxing view from a window or doorway. Generally only a few plants provide highlights to an arrangement of gravel and rocks. Mosses may be used here to make a green layer on the ground, or may be islands in a bed of gravel that simulates the sea or a pond (Seike et al. 1980). In even larger courtyards, the pond may be real with koi swimming about. In other cases, the mosses surround a gravel bed shaped to resemble a lake. The mosses are not arranged in rectangular plots so common to western gardens, but rather typically follow a circular theme. Species of Polytrichum are often used for these islands to break up the bright appearance of the sand (Saito 1980). A roofed courtyard or indoor garden may provide a tea table and cushions for a tea ceremony.

A path of stones may meander through the gravel or across the moss bed and is often not straight or even direct. Even the straight paths give a sense of meander by mixing large and small stones or making sure 4 corners never meet (Seike et al. 1980). Small stone or wooden bridges may cross the gravel bed in somewhat larger courtyards, and generally a stone or iron lamp such as the one seen in Figure 2 provides the soft light of a candle or merely a point of interest. A small garden, such as most courtyard gardens, will typically have a single plant or object as its point of focus.

Among the larger gardens, one may see, instead of mosses mimicking the mountains, that shrubs mimic the mosses. In these gardens, the shrubs are cut into rounded forms that look like moss-covered rocks, cascading down a hillside, and sometimes with a small stream or waterfall in their midst. Many attractive moss gardens are seen in Kyoto, the ancient capital city of Japan, where the surrounding mountains ensure constant humidity, and prolonged summer rainy seasons favor growth and survival of the mosses (Figure 3). Perhaps the most popular Kokedera, or Moss Temple, is the Koinzan Saihoji Temple located at the foot of Mt. Koinzan in the west of Kyoto City (Figure 1). There are 92 different species there, each with its own required environmental conditions.

Figure 3. Hill and pond garden in Koinzan Saihoji Temple garden in Kyoto, Japan. Photo by Janice Glime.

Generally there are three types of Japanese moss gardens: the flat garden "for contemplation and meditation," the Tea Ceremony garden that must convey the feeling of simplicity and seclusion, and both the oldest and most widely appreciated – the hill and pond gardens. These hill and pond gardens resemble the natural landscapes of Japan in simplified form (Avery 1966). The use of rocks to portray mountains (Figure 18), ponds as oceans or lakes (Figure 3), and bryophytes as the foliage are the essence of traditional Japanese gardens where flowers, per se, are of lesser importance; a green garden, unlike ephemeral flowers, symbolizes long life and offers a place for relaxation and contemplation. In sharp contrast to the myriad of colors and shapes in a traditional American or European garden, the moss garden allures with its subtle shades of green, accentuated here and there with a rock, a bamboo fountain, or an occasional small flowering shrub.

Imagine yourself sitting alone in a Japanese spa perched near the top of a mountainside overlooking a green valley untouched by habitation. On every side of the valley are mountains and boulders – as far as you can see. All is peaceful and you are able to relax your eyes and your body. Thousands of Japanese seek just such retreats every year to take them away from the stresses of daily life. Among the most ancient uses of mosses that has persisted into modern life is the design of moss gardens to create that same feeling of distance, lack of commercial clutter, and tranquility of spirit. By using rocks and tiny plants such as mosses, the Japanese create in miniature those scenes that they crave in nature. Even in the space of a few feet in a

Figure 2. Ryoanji Temple garden in Kyoto, Japan. Photo by Janice Glime.
dooryard or window garden in a city, they often create such an illusion of distant mountains, dry stream beds, and green forests (Figure 4). The Japanese Zen scholars have philosophical ideas about landscapes, and about simplicity and repose, which they try to express in their traditional gardens (Fletcher 1991). While the space in the gardens is usually small, they may try to create an atmosphere of being deep within the mountains and provide a feeling of tranquility. Japanese gardening is not a mere imitation of nature; perhaps "borrowed scenery" is a more appropriate description (Avery 1966) for the attempt to alleviate the drabness of city life. Contemporary Zen scholars contend that many such gardens represent the best in abstract art (Avery 1966).

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Even bowls (Figure 5) and other objects in the gardens are likely to be covered in mosses, softening the lines and giving a quiet, cool appearance.

These ancient gardens suffer new dangers in our modern society. Aside from the effects of trampling from the ever-increasing population of visitors, the fumes of cars and busses have taken their toll. The pollution from these visitor vehicles has forced the closing of Saihoji in Kyoto to the casual visitor, requiring reservations in advance and forcing visitors to park at the bottom of the hill and walk up to avoid further damage from air pollution.

Kyoto is the city of moss gardens (Figure 6 - Figure 26), especially temple gardens. But even restaurants and private residences share in the serenity with their own small gardens.
Figure 9. This pond with a small island and surrounded with mosses at the Saihoji Kokedera in Kyoto, Japan, gives the illusion of a lake. Photo by Janice Glime.

Figure 10. Boulders add interest to this moss garden at the Saihoji Kokedera in Kyoto, Japan. Photo by Janice Glime.

Figure 11. Several mosses provide subtle color distances in this moss garden at Saihoji Kokedera in Kyoto, Japan. Photo by Janice Glime.

Figure 12. This Ginkakuji Temple (Silver Temple) overlooks moss gardens in Kyoto, Japan. Photo by Janice Glime.

Figure 13. A small river provides a natural setting in this moss garden at Ginkakuji in Kyoto, Japan. Photo by Janice Glime.

Figure 14. Here sand forms a volcano and mosses miniaturize the landscape at the Ginkakuji shrine in Kyoto, Japan. Photo by Janice Glime.
Figure 15. This path through the moss garden at Ginkakuji Temple in Kyoto, Japan, retains a natural appearance. Photo by Janice Glime.

Figure 16. A rock bridge retains a natural look in this moss garden and pond at Ginkakuji, Kyoto, Japan. Photo by Janice Glime.

Figure 17. This moss is interrupted by a sand garden at Ginkakuji, Kyoto, Japan. Photo by Janice Glime.

Figure 18. Rocks add focus and depth to this Ginkakuji temple moss garden in Kyoto, Japan. Photo by Janice Glime.

Figure 19. This moss garden at Ginkakuji Temple in Kyoto, Japan, has depth provided by the pond. Photo by Janice Glime.

Figure 20. Sand is used for dry stream beds and unused paths in moss gardens such as this one at Ginkakuji Temple in Kyoto, Japan. Photo by Janice Glime.
One unusual feature at the Ginkakuji (Silver Temple) garden in Kyoto is that it attempts to teach the public about the mosses. Below are displays of mosses with their Japanese names and an explanation of their utility to the gardens, showing the most important species (Figure 23, Figure 24); the translation of names is in the list following the pictures. In Japan, each species has a Japanese name, and like birds and flowering plants, mosses are known by these names. However, the bryologists know both the scientific names and Japanese names of the mosses. The "interrupter" mosses are "undesirable" mosses that must be weeded out (Figure 25). Among these are non-weedy things, but nevertheless undesirable ones, often for aesthetic reasons. To our surprise, this included *Andreaea* because of its nearly black (and undesirable) color.

Heinjo During, with the help of his students, attempted to interpret the Japanese names into their proper Latin ones, giving us a list of important temple garden species:
Summary

Moss gardens are known for their serenity, emphasizing simple shades of green with only occasional color from shrubs or other flowers. Mosses are used to miniaturize the landscape, giving the feeling of distance. They have been a part of Japanese tradition since the feudal era.

Even private homes, restaurants, and other shopkeepers maintain small moss gardens, especially where they can be viewed from within the building. The Japanese gardens can be classified into the flat garden, the tea ceremony garden, and the hill and pond garden. The greatest number of moss gardens is in the city of Kyoto.

Acknowledgments

Heinjo During kindly sent me the pictures and gained the permission for me to use the educational pictures taken by his student, Onno Muller, illustrating the educational displays at the gardens at Ginkakuji, Kyoto, Japan. He and his students translated the Japanese names into the Latin names.

Literature Cited
