

Bonsai

Bonsai is the art of creating miniature versions of trees. Bonsai combines the aesthetic concepts of art with the scientific principles of horticulture to create three-dimensional living art. The word “bonsai” (pronounced bone-sigh) is made up of two Japanese words: *bon*, meaning tray or pot, and *sai*, meaning tree or plant. A bonsai tree is merely a dwarfed plant that has been trained to resemble a full-sized tree and is grown in a container. Bonsai trees are not genetically altered or botanically different from their full-sized counterparts – the only differences are the design and the size. Whereas a nursery plant is nurtured to become a full-sized specimen, a bonsai plant is kept small through training and shaped according to a certain style.

History

Bonsai was introduced to the Western world from Japan; however, the earliest record of bonsai is from China, in frescoes dating before AD 220. The first bonsai in Japan appeared in pictures dating back as far as 1185; other depictions date to around 1300. Early bonsai artists collected wild plants that had been deformed by the elements, as these were highly prized by the Japanese aristocracy. Eventually it became too difficult to find plants in the wild, so methods were developed to train specimens to mimic naturally dwarfed trees and plants.

The first bonsai artists in the United States were Japanese-Americans who brought their knowledge of the art with them from Japan in the early twentieth century. After World War II, US servicemen returning from Japan brought bonsai specimens back as souvenirs. This led to widespread exposure in the United States. In less than 100 years, bonsai has developed into an art form that is practiced around the world. Bonsai enthusiasts join together in clubs and associations and at meetings, shows, exhibitions, conventions, workshops, classes, and lectures. Hundreds of books and other publications are available, and there are thousands of Web sites devoted to the art of bonsai.

Styles

Bonsai trees are shaped to grow like those found in the wild – leaning toward water or away from prevailing winds, twisted in some places, straight in others, or otherwise affected by the forces of nature. Over the years, the most common shapes have been categorized into what are known as styles. The art of bonsai consists of training the plant into one of these styles while applying the artistic design principles of balance, proportion, line, and form to all parts of the bonsai plant – trunk, branches, foliage, roots – as well as the angle from which it will be viewed and the container in which it is growing.

Most bonsai specimens appear to be much older than their size suggests. Some bonsai plants are in fact very old, but the illusion of age is more important than the actual age. Creating the appearance of age and mimicking the effects of weather are integral parts of bonsai styles. Styles of bonsai plants are often grouped by trunk form, branch characteristics, root configuration, or a combination of elements.

Single trunk styles

Single trunk styles include formal and informal upright, slanting, literati, cascade, and coiled or twisted. Formal upright bonsai trees have a vertical, cylindrical trunk that tapers gradually from the soil to the tip, similar to the pyramidal shape of a large conifer, while informal upright trunks may have a slight curve or slant or be asymmetrical. Slanting style plants often look like they will tip over – the trunk leans sharply to the left or right. Literati style plants have few branches, which are kept to the upper third of the trunk, and sometimes the trunk leans slightly or twists. In the cascade style, only a few inches of the trunk grows upright, the rest arches over the edge of the container and angles downward, resembling trees in the wild that grow over the edge of a cliff. Coiled or twisted style bonsai trees feature a single trunk that twists into a spiral around its axis.



Formal upright style

Multi-trunk styles

Multiple trunk bonsai are grouped by how many trunks they have: double trunk, triple trunk, five trunk, and clump. In all of these styles, the trunks rise from a common root system, with the trunks varying in height. The branches do not grow into each other, so the overall composition looks like a cohesive unit.

Branch styles

Branch styles include broom, windswept, and weeping. Broom style bonsai feature a straight upright trunk and numerous thin branches that all originate from near the top of the trunk and interlace to form a domed outline. In the windswept style, the trunk and branches all point in one direction to imitate trees in the wild that have been shaped by wind. Weeping style specimens have an upright or slanting trunk and branches that originate in the upper portion of the trunk and hang down from either the main trunk or from short side branches.

Root styles

Exposed root style bonsai feature roots that are exposed to the air above the soil line, similar to a tree growing near water, in which the stream has washed away the soil. A raft style tree mimics a downed log in a forest, which remains alive and has branches that grow upright from it. Similarly, the connected root style features several trunks that grow from one root lying on the surface of the soil or just beneath it.

Training

A bonsai tree is trained by both directing the shape in which the plant grows through wiring techniques and by controlling its growth through pinching and pruning. Wiring is used to force branches to grow in specific directions and positions, such as forcing a straight trunk into a cascade style. The wire, typically made of copper or aluminum, is anchored into the soil or around the trunk and wrapped around the branches or trunk in a spiraling manner while bending the branch in the desired direction. The wire is left in place for a full growing season, then removed before it has a chance to leave a permanent scar in the bark. Branches that are too stiff to be wired are sometimes tied down to the trunk or container and adjusted every couple months. Some bonsai artists use wedges of wood to spread branches apart or cord or wire to pull branches closer together.

Pinching is done to control the direction of new growth of branches and leaves. Pinching out the growing tip of a stem results in two or more new stems branching off the original. This is often done on new growth that would otherwise grow toward the center of the plant.

Pruning can be as minor as cutting out small branches to make the plant's structure more visible or as major as removing entire large branches. Major pruning is usually done as the initial step in establishing the basic shape of a newly acquired plant. It is usually best done in late winter or early spring, whereas minor pruning can be done at any time. Unlike pruning a large landscape tree, branches of bonsai trees are often pruned with a special cutter that leaves a slightly concave indentation that heals flat.

In addition to pinching and pruning, the technique of leaf cutting is often used to regulate growth. This is done by removing all of the leaves of the plant, leaving only the stalk (petiole). This causes the plant to think that it's autumn and produce new growth. These new leaves are usually smaller than the original leaves, giving the tree the appearance of being older and more mature.

Pruning the roots of a bonsai tree helps to dwarf the tree and rejuvenates the tree by bringing feeder roots closer to the trunk. Root pruning is done by gently removing most of the soil from the root ball and cutting off the roots to about half their length. Root pruning is usually done in early spring when the tree is growing vigorously or whenever the tree is repotted.

Buying and Caring for Bonsai

Buying a ready-made bonsai tree is an easy way to get started. Because bonsai are outdoor plants, do not buy them from a department store or mall where they have been kept in a heated and dry environment for a long time. These trees, often available around Christmas, are usually in poor condition and may die soon after purchase. If possible, buy bonsai trees from a bonsai nursery or other nursery or garden center where they have been kept outdoors.

In general, plants should be healthy but not too tall or spindly and should have thick, strong trunks. Select a tree or shrub with small leaves or needles, a compact growth habit, and lots of branches. The tree should have bright green foliage and no wiring scars, which are difficult to get rid of.

Caring for a bonsai plant is similar to caring for any plant in a container, but the main difference is that a bonsai is not a house plant. Indoor temperatures, humidity levels, and insufficient light can contribute to the quick demise of a bonsai plant. However, even though bonsais should be kept outdoors, they should be protected from excessive heat, high winds, and torrential rain.

Regular watering is essential to bonsais because of their small container size. Plants in very small containers, deciduous plants with thin leaves, and plants with many roots will need to be watered more frequently. Because bonsai plants grow in such a small amount of soil, they need to be fertilized regularly. Commercial liquid fertilizers work well and are easy to apply, although many bonsai enthusiasts prefer to use a slow-acting organic fertilizer.

References

Bonsai. By the editors of Sunset Books and Sunset magazine. Sunset Publishing Corporation. Menlo Park, CA. 1994.

Chan, Peter. Bonsai: The art of growing and keeping miniature trees. Chartwell Books, Inc. Edison, NJ. Quintet Publishing Limited. 1985.

Pessey, Christian and Samson, Remy. Bonsai Basics: A step-by-step guide to growing, training & general care. Sterling Publishing Company, Inc. New York, NY. 1992.

Student, Shirley and Larry. Beginning Bonsai: The gentle art of miniature tree growing. Charles E. Tuttle Publishing Co., Inc. Rutland, VT and Tokyo, Japan. 1993.

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