

THE ART OF BONSAI



INTRODUCTION

The objective of this booklet is to acquaint the reader with the basic culture and care of miniature trees. Bonsai, pronounced bone-sigh, can be an art as well as a hobby.

The booklet will discuss the terms used in plant culture and illustrate the important parts of a plant. The object being that you will be able to regulate the development of your bonsai.

The plant will be your design and need only to appeal to you.

BACKGROUND

Basically, bonsai is not new, for it has occurred in nature since the dawn of time.

An excellent example of this form can be seen in the Bristlecone Pine trees that grace the timberline in the Rocky Mountains. Due to extreme environmental stress, this needled evergreen species has attained true bonsai form and is one of the oldest living plants on earth.

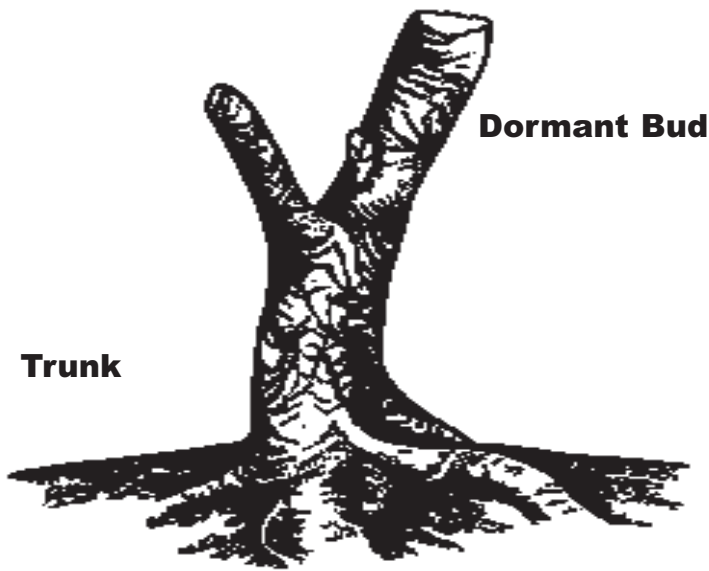
If we examine the character of these plants, we see a very limited amount of root and vegetative growth. Many specimens have an abundance of deadwood which gives these trees a most unique bonsai appearance.

As a sideline, remember this point as you are working with your bonsai. It is only natural that parts of your plant will die from time to time. Don't be hasty in removing this dead material unless it is excessive; for in time it may lend to the character of the plant. Dead material can be removed at any time, but once removed it can't be replaced.

Since there are many excellent accounts of the history and development of bonsai available from your local library, it is of little value for us to pursue this topic in our booklet.

COMMON PLANT TERMS

As our first discussion, let us review some basic plant parts. If you will, examine your plant as we call attention to its parts. You will need a working knowledge of each. The following illustrations will serve as an easy guide.



TRUNK

Starting at ground level, the first part of the tree is called a trunk.

In most cases this should be kept free of all vegetative growth. Since most species of plants have dormant buds which tend to develop from time to time, they must be pinched off. You may let them mature if you wish, but generally speaking, most bonsai plants call for a trunk and main branches to be free of all growth because it distracts from the character of the trunk.

FORMS OF TRUNKS

1. Single—Straight
2. Single—Slanting
3. Single—Cascading
4. Single—Gnarled
5. Two (2) or More
6. On A Stone
7. Grouping (More than one [1] plant)
8. Interconnecting

MAIN BRANCHES

Coming off the trunk, you will find a series of smaller stems or branches.

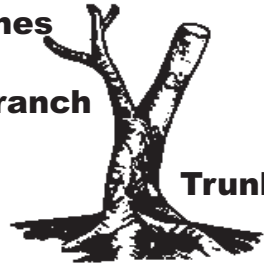
Generally, you will note that most bonsai trees have an odd number of branches. This is a carry over from the oriental religious belief relating to odd numbers symbolizing immortality. Again, this is not a must, but only a guideline.

The amount of branch exposure you form will depend upon the design you wish to develop.

Secondary Branches

Main Branch

Trunk



SECONDARY BRANCHES

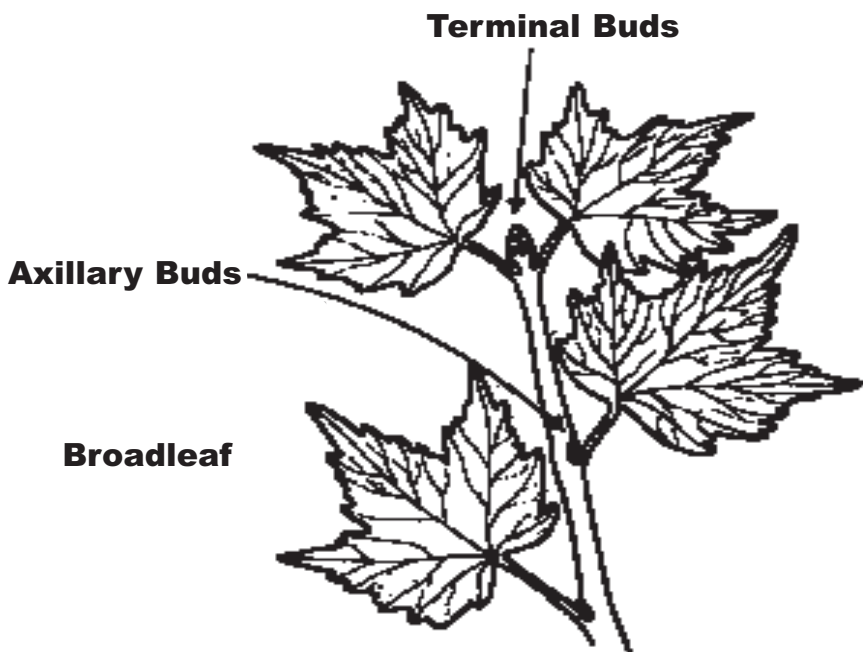
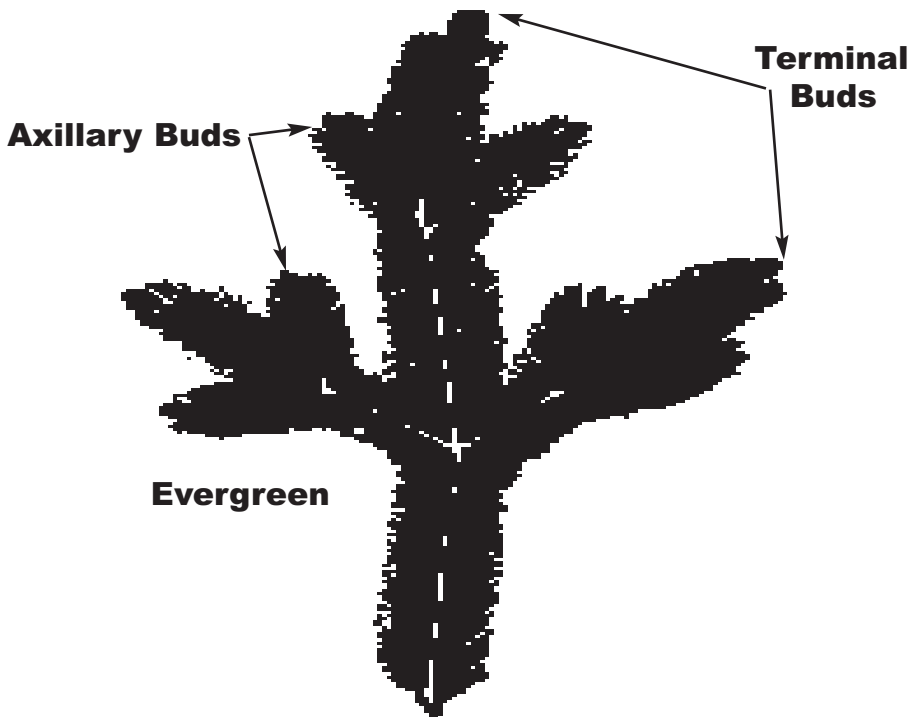
Coming off the main branches you will find any number of smaller branches.

It is this growth that will give you freedom of expression.

About the only problem that can occur from this growth is your reluctance to remove enough of these so as to maintain good root-vegetative balance. For if this balance is not maintained, the roots will be unable to supply the necessary water and nutrients.

Should this occur, the first symptom you may note is that of excessive wilting regardless of your watering method. Actually, it is only normal for you to want to water a wilting plant but if there is an imbalance between the roots and leaves, you may be overwatering, and in effect, drowning the plant.

It may sound strange, but most people tend to over water plants, including many beginning bonsai enthusiasts.



TERMINAL—AXILLARY BUDS

At the end of each branch we find a leader or terminal bud. These will give height and width to the plant. Control of a plant's vegetative development is accomplished by either pinching or pruning these buds.

Pinching is simply the removal of the bud with your fingernail; whereas pruning is usually applied to woody tissue which must be removed with a pruning knife or shears.

Since you will be dealing mostly with the vegetative portion of your bonsai, it may be of value for us to acquaint you with several things about your plant.

Pinching terminal buds will cause the axillary buds to grow with one or more of these axillary buds trying to take the place of the terminal buds (or leaders). This will require a second pinching of the new growth, except where you plan for a special growth pattern such as a U-shape.

While pinching of the terminal buds stunts the most actively growing portion of the plant, it also stimulates many branch buds whose development and growth tend to make the branch sections very bushy.

This may or may not be desirable, depending upon your bonsai species but then again, this is your decision.

It is suggested that you don't remove all the terminal buds at once, but perform this over a period of several weeks. Since you want to keep your basic bonsai form, excessive removal is sometimes hard to correct and you may give your plant an off dimension.

HOW TO PLANT

Your Spring Hill Bonsai Training Kit comes complete with everything you need to repot your bonsai. Begin by thoroughly mixing the potting soil with one tablespoon of the slow-release fertilizer provided. Cover the drainage holes in the bottom of the ceramic pot with the screen provided. Add one inch of the potting mixture to the container.

Next, carefully remove the plant from its shipping container. You will note that roots of various sizes may have formed more or less into a ball. Open this ball by carefully unwinding the root system.

Spread out the root system over the surface of the potting mixture, cutting off any excessively long roots. Do not fold or bend these roots under the tree or bend them around in the container.

Once the roots have been arranged, fill the remainder of your container with more potting mixture. Make sure you fill all of the areas around and between the roots as well as eliminating air pockets. Finish the job by adding enough soil to anchor the plant in the pot and press firmly. Leave 1/4 to 1/2" between the soil surface and the top of the container for easy watering.



TRAINING YOUR BONSAI

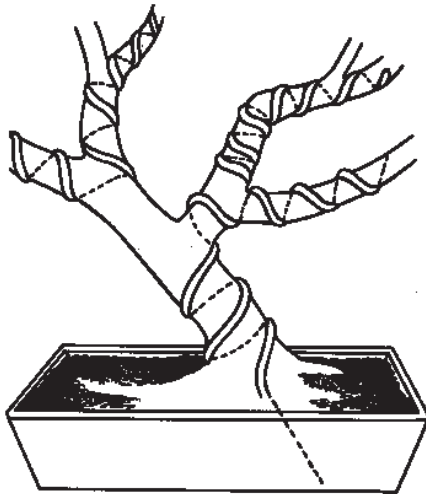
The ultimate shape of your bonsai will be determined by the degree of pinching and pruning you practice.

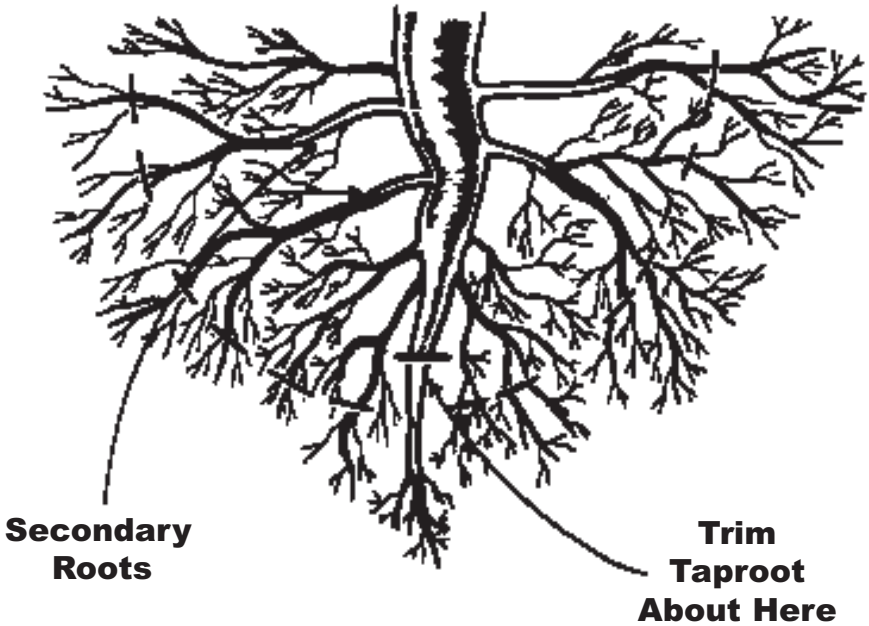
As you work with the tree, you may wish to develop a specific design or shape. This can be accomplished through the use of wire included with our bonsai kit or you can purchase wire from any hardware store. You may find an electrical shop that would be willing to sell the short strands of wire that have been left over from their work for your use.

Don't wrap the wire too tightly. It should be just tight enough to control the shape you want to put into the branch without bruising the bark or crushing the buds.

The wire can remain on the tree as long as it does not cut into the branches. When this starts to occur, the old wire should be removed and, if desired, the tree should be rewired.

The diagram below illustrates the procedure used to practice this art.





Root System (Taproot)

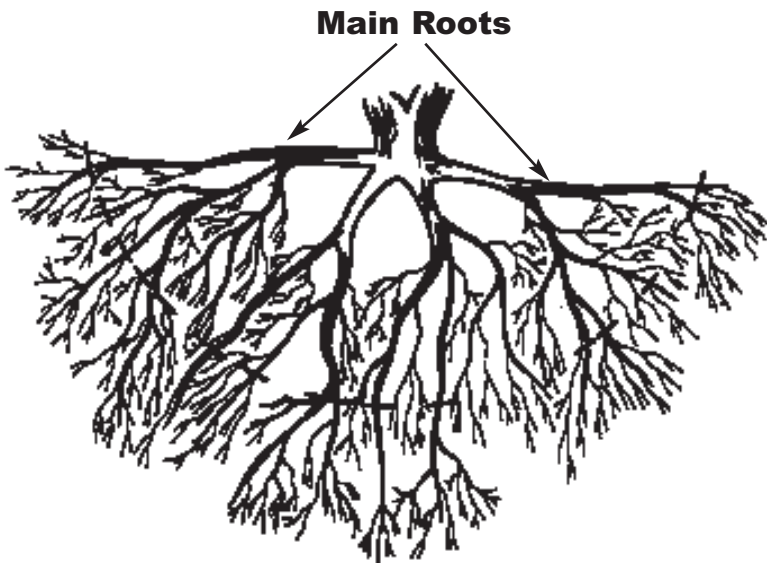
ROOT SYSTEM

As the plant develops, the root system fills the container and we say the plant has become pot bound.

Earlier it was pointed out that a balance between the root and aboveground portion of the plant had to be maintained. Thus, excess root growth must be removed.

About all you have to remember is that you should try to keep the root system of your bonsai pruned to correspond to the spread of the top growth.

If you are to maintain your plant in a healthy condition, you should consider repotting it about every two years.



Root System (Fibrous)

When preparing to repot your bonsai, you have two options. First, if you wish to maintain the present scale of the plant, you only need to follow the directions given for repotting in the following paragraphs.

However, if you wish to increase the size of your plant, select a container about one-fourth larger than the present container.

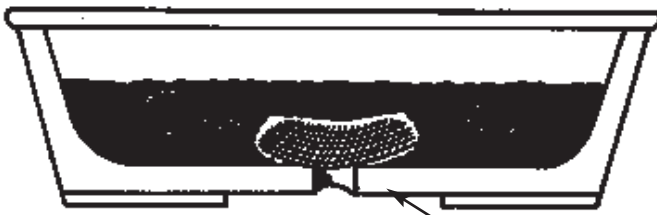
Prepare the pot by screening the holes and add one inch of soil mixture.

Soil mixtures are very simple to prepare and may be purchased from your local nursery or greenhouse.

Two good basic mixtures for you to consider are:

A. Broadleaf plants: $\frac{1}{4}$ peat, $\frac{1}{4}$ sand and $\frac{1}{2}$ loam soil. This mixture will permit moderate to slow drainage.

B. Needled Evergreen plants: $\frac{1}{4}$ peat, $\frac{1}{4}$ loam soil and $\frac{1}{2}$ sand. This mixture allows for fast drainage.



Screen Wire Mesh



Piece of Broken Clay Pot

Next, remove the plant from its present container. At this point, you will note that roots of various sizes may have formed, more or less, into a ball. Open this ball (unwind the root system).

With the plant resting on the soil media, spread out the root system to its maximum. Cut off all excessively long roots. Under no condition should you fold or bend these excess roots under the tree or bend them around in the pot.

If the species of plant you are working with has a taproot, it should be trimmed at this time. A good “rule of thumb” is to remove about one-third of the taproot each time the plant is repotted. Fibrous root systems should also be pruned each time they are transferred.

Next, refill the container with the soil mixture making sure you fill the areas around and between the roots. A small stick rounded at the end, about the size of a common pencil, can be used to work the soil

into these areas by simply using it as a miniature soil tamper.

Finish the job by filling the container with the soil mixture and press firmly in place.

Once you have completed the repotting procedure, it will be necessary to thoroughly water the plant.

This can be accomplished by setting the entire unit in a shallow pan of water and allowing the soil to become thoroughly soaked. This procedure is commonly referred to as “bottom watering.”

The other is simply the pouring of water on the top of the soil and letting it run down through until it runs out the bottom holes.

Two general comments at this time to consider are:

A) care should be taken to assure complete and uniform soil dampness and

B) avoid washing soil from the container as excess water runs over the top soil.

After the plant is established, the top method is the one most commonly used and this brings us to the problem of watering in general.

Since a wide variety of environmental conditions will affect the plant’s water requirement, it is important that the ultimate watering scheme will have to be decided by you.

Following are some of the factors to review:

A. Season of the year.

B. Location of plant—i.e., indoors or outdoors.

If outdoors, distribution of seasonal precipitation is very important as is the location of the plant in terms of sun intensity, overall temperature and wind conditions. Any excess in the above areas can cause serious problems.

Growing tropical or houseplant bonsai plants indoors is really an art in itself and special consideration “MUST” be given to (A) plant species; (B) light factors; (C) humidity; (D) temperature as well as other in-house conditions.

WATERING AND FERTILIZATION

Soil mixture—the more open the soil the more frequently the plant should be watered.

Here we must consider the topic of nutrition of the plant. The health and attractive appearance of your bonsai will depend on proper watering and nutrition.

Most bonsai plants are slow growing and you must not overstimulate them by overfertilizing. A common misconception is that the plant will be kept small if it isn't fed. If you starve your plant, it will become unattractive and unhealthy. The slow-release fertilizer provided in the Bonsai Training Kit will supply the necessary nutrients for the first growing season. For future needs, many kinds of houseplant fertilizers are on the market. Follow the label directions for a satisfactory program of feeding your plant.

As for the time of application, you will note that your plants will be most active during the spring and summer and it is suggested that you apply the fertilizer at this time.

The problem of insects and plant diseases are complex and generally peculiar to a specific area. Local garden and nursery dealers can give you specific control methods and materials.



GENERAL COMMENTS

All the bonsai plants we are offering in our catalog are considered outdoor bonsai and are hardy plants that perform best when exposed to seasonal changes. Most conifers, including pines and junipers, will do best if grown in full sunlight conditions. Deciduous trees and shrubs like maple and pyracantha and both deciduous and evergreen azaleas prefer morning sun and afternoon shade. Patios, decks and balconies are great areas to display your bonsai during the growing season. Outdoor bonsai can be displayed indoors, but it is best to limit the duration to 5-7 days. When indoors, keep your bonsai in a bright location away from heating and air-conditioning vents.

WINTER CARE

Outdoor bonsai will perform best if allowed to remain outdoors in the winter. Deciduous bonsai will “color up” and drop their leaves in preparation for their winter rest. Evergreen conifers will simply stop growing. Occasional light frosts and freezes will not harm your bonsai. When persistent cold weather approaches, place your bonsai in an area protected from wind and “heel-in” your bonsai by covering the pot and soil with pine needles or mulch. In areas that have extremely cold winters, bonsai can be protected in garages, sheds, cold frames or basements. Remember that during dormant rest periods you do not want your bonsai to dry out. Water occasionally or as needed to keep the soil slightly moist. In the spring, return your bonsai to the proper outdoor growing location and resume normal care.