



The Secret Art of Bonsai Revealed
by John Ainsworth

[History](#)

[Appreciation](#)

[The Importance of the Pot](#)

[Displaying your plants](#)

[Styles of Bonsai](#)

[Buying a Bonsai](#)

[Natural Free Bonsai](#)

[Inside or Out](#)

[Watering](#)

[General Care](#)

[Fertilisers and Humus](#)

[Soil](#)

[Fungus and Mildew](#)

[Insects](#)

[Seasonal Care](#)

[Re-potting](#)

[Groups](#)

[Rock Planting](#)

[Training](#)

[Pruning](#)

[Wiring](#)

[...A final Word](#)



The History of Bonsai

Although it is possible that the Chinese were the first to start planting small wild trees in pots there is no doubt that it has been the Japanese who have raised the culture of Bonsai trees to the art it is today.

Interest in Bonsai goes back many centuries in Japan. The first authentic record is in a picture scroll painted early in the fourteenth century by Takakane Takashina. Originally Bonsai (the word simply means a plant in a tray or container) were more or less confined to grotesque and tortured shapes. After this came the extremely formal pyramidal forms, developing towards the end of the 19th century into softer, more natural forms. Nowadays the majority of trees are trained simply to look like natural trees in miniature. We have come to a time when there is a place for all of Nature's moods for the Bonsai enthusiast.

About the beginning of the 20th century the interest in Bonsai began to spread to the Western world, especially to America. The United States now have many Bonsai societies and clubs. Here in Great Britain we have now caught "bonsai fever" as well. There are many bonsai societies and clubs throughout the country. These all hold regular meetings for discussion and instruction. Some also publish journals and news letters that are informative and interesting.

The Bonsai Kal and the British Bonsai Association exhibit trees at the Royal Horticultural Society's halls in Vincent Square, and put on exhibits at the Chelsea Flower Show every year. Bonsai culture is not regarded as an art form in this country but the Japanese Government recognized it as such in 1935. Perhaps we shall reach those dizzy heights one day!



A Trident Maple which has been trained in the clump style and is approx.40 years old

Appreciation

Admiration, even love, for Bonsai Trees is not something that can be taught in a few sentences. It will emerge and grow stronger only after some understanding has been reached)if the methods for growing and training these miniature works of art.

Art? Yes, for although a Bonsai grower cannot paint a single straight line he chooses a canvas from amongst the hundreds of different species of trees and plants. His hands and tools become the brushes and he has the whole expanse of Nature's different moods for a palette. Furthermore, he helps to create something that is not relatively static. It is very much alive and can continue living for literally hundreds of years; being admired by each succeeding generation.

But although appreciation is essentially personal there are a number of points worth Bearing in mind when considering Bonsai.

A bonsai tree in its container is not a contradiction of nature any more than a well-clipped awn or a cordon-trained fruit tree. It is an attempt, however modest, to emulate nature in miniature. Not only will it suggest its counterpart growing in the wild, it will also intimate the landscape in which it could be growing. For instance, a Needle Juniper can also suggest the rugged mountain where it might live: the cold wind keening through its branches and the sudden dart of a golden-eyed lizard across a rock. A group planting of Zelkovas might hint at undulating countryside, small wild flowers, and the sun shining on a meandering stream.

Although bonsai trees are small they lose nothing in this. Their lack of size enables one to appreciate every part of them. Seeing a cherry orchard blossoming in the English countryside is a moment to be remembered and treasured. Lovely, but it is impossible fully to appreciate even one of those magnificent trees. On the other hand, a cherry tree trained as a Bonsai still brings forth a profusion of blossom and shows, perhaps for the first time, the perfection to be found in a single flower.

Missing the details in nature, as most of us tend to do, is no longer necessary with a small collection of bonsai trees. Once Nature's small miracles are seen on one's own trees they will soon be noticed occurring in woodland and countryside throughout the seasons. How often does one notice the candles on a Pine slowly getting longer as the warm weather approaches, until finally the new needles make their tentative advance into the world? Or watch as the Maples gradually assume their autumn colouring? Each bonsai tree is unique in itself, there is no other tree quite like it. Every moment of its life, season by season, can be shared; its crises, when under attack by hordes of voracious insects, and its moments of glory when it radiates health.



A fully wired 40 year old White Pine



The Importance of the Pot

To be called a Bonsai the tree or shrub will have to live within the confines of a pot or container of some sort. To a certain extent the pot has the same function as the frame of a picture; it must show and display the tree to its best advantage. It must not clash or tend to draw one's attention away from the tree. As it must last for at least a year or two, it should be chosen with care. For an example of the types of pots that I have used to rear my bonsai successful [click here](#).

It must have at least one good drainage hole in the bottom to allow stale water to seep away and to encourage good air circulation round the roots of the tree.

Generally speaking, the colour of the pot is usually subdued. Shades of brown, dark blue, green, black or off-white, are most popular. Lighter colours are sometimes used with flowering trees but again the colour must be chosen with care. A Japanese quince would look out of place in a pink or orange pot because of its bright red flowers.

The pot may be glazed or unglazed on the outside but it should not be glazed inside as this removes the rough texture of the clay on which the soil grips and holds the tree steady.

A strong wind could literally blow a tree completely out of such a pot.

If one has difficulty in deciding on the right colour for a particular tree, play safe and pick one that is neutral. For instance, dark brown is suitable for almost any tree. It can always be changed at the time of the next repotting.

Apart from the question of colour there is the shape and size to take into account.

The basic shapes are round, rectangular, oval, and hexagonal. Others can be more fancy: ponds, petals, etc. Choose the shape of the pot bearing in mind the tree for which it is intended. An upright *Cryptomeria* would look odd in a pot like a lotus flower, but perfectly at home in a plain rectangular one. Some pots have curved sides, some straight; the top lip may be turned in or out, or it may not have a lip at all; the feet may be "cloud" shaped or completely plain. The height of the container can vary from a flat piece of slate, on which groups of small trees are often planted, to the tall pots, twelve inches or more, used for trees trained in the cascade style. A tall heavy pot would not suit the lightness of a group of maples, being completely out of proportion. In the same way, a cascade tree would give the impression that it was about to fall over if it has been planted at the edge of a very shallow pot. It can be seen that the size of the pot also depends on the tree and its character, as well as the size of the root ball. The rule of thumb is that the cubic capacity of the pot will be approximately a half to one third that of the tree.

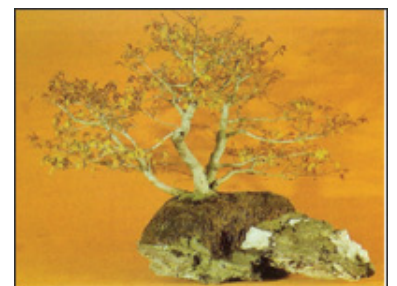
Front or Back

When looking at a bonsai tree it is essential to determine the front. This might sound obvious, but looking at the back of a tree will simply lessen one's pleasure. There are a number of simple ways to ascertain the front. Look at the top of the tree. It is often trained to incline slightly towards the front, giving a certain depth to the tree.

The branches will always be at their longest when breaking from the sides of the tree. There will also be well-defined branches growing at the back, though few if any at the front, except near the top. This is simply to allow the form of the trunk to be seen.

Very formally trained trees often have branches in sets of three. A tree of this type will have one branch to either side of the trunk and a smaller one at the back: each set going up the trunk and none at all at the lower front. When a planting consists of a number of trees the front is the position from where the viewer gets the best impression of depth and distance. The major trees, always taller, will be planted towards the front of the group.

When considering the question of front and back be sure to have the tree at almost eye level; looking down on it can be very misleading.



This magnificent 50 year old Mountain Maple clings strongly to a rock



Display

The majority of bonsai trees are hardy and their natural habitat is the open air. Those that have to be protected from the frost and are looked on more as indoor bonsai will also benefit from a holiday outside in the warmer months. As this is the case, it is worthwhile making a permanent display stand in some quiet corner of the garden. The ideal spot would be against a westerly heldge or fence where they can be seen and are out of reach of inquisitive pets and small children. Having the trees on a stand also makes it easier to tend them and keeps some of the more earthbound insects at bay.

The number and size of the trees will determine the size of the stand. For the collector with some six to a dozen trees it would be eight to ten feet in length and about four feet in height. It should be made of good quality wood treated with a wood preservative, or a metal framework and wooden top. It is inadvisable to put them on a gravel bed as the roots will grow into the gravel through the drainage holes. Incorporating a shelf at the back will increase the surface area and allow smaller trees to be displayed. Above and at the back of the stand a weather shade can be made from strips of thin timber, such as plaster laths or a medium to small grade plastic netting that can be bought from most good garden shops. This will stop hot summer sunshine scorching the leaves of deciduous trees and heavy rain washing the tree from the pot. It will also provide protection from a certain amount of frost. The bottom of the stand can be utilised as a winter storage area by either burying the trees to the rim of the pots or by building another shelf for them just off the ground. The back and sides of this lower part should be enclosed with plywood or some other suitable material. Sliding glazed panels cover the front or a double curtain of heavy-grade clear polythene secured at the bottom. On fine sunny days the front should be opened to allow the circulation of air but closed again before evening. This winter protection will only be found necessary in the more exposed parts of the country, or if the less hardy varieties are kept, such as members of the Prunus family.

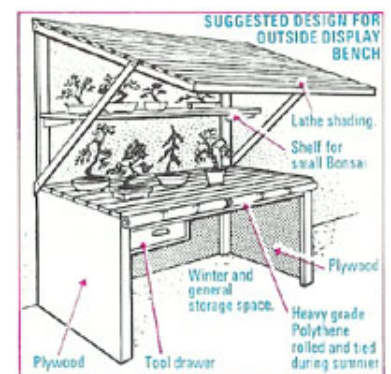
A tool rack might also be incorporated under one end, where it is easily accessible and does not interfere with the trees.

However much trouble is taken with the outdoor display the enthusiast will want to admire his trees in the home from time to time. As long as they are kept inside for no more than a few days they will not be harmed in any way.

In Japanese homes there is an alcove in the main living room called a Tokonoma. This is a narrow recess, slightly raised above floor level, against one wall. It is used for the display of scrolls, bonsai trees and ikebana flower arrangements, etc. It will be the only place in the room to hold an ornament of any sort—at least this is so in the more traditional homes.

If a specimen bonsai tree is the focal point then a simple scroll and either a small bonsai or an ornament—beautifully weathered stones are often used—are displayed with it. These subsidiary objects should not distract one's attention from the principal tree. They are carefully arranged to achieve the triangle the Japanese love so much: that of heaven, earth, and man (heaven is the scroll, the minor object is earth, and man is represented by the bonsai tree in this case).

In the West we relax by sitting in deep comfortable armchairs and not on a thin mat on the floor. Therefore we display our bonsai on a higher level. The height of the average table is ideal for most trees, though the smaller ones should be still higher. Apart from this minor difference, the basic spirit of the Japanese display can still be maintained. The essential point to remember is that the tree should be shown with as few distracting objects as possible. It will look out of place next to a cut-glass vase filled with roses, or on top of the television set. Avoiding competition also applies to the background. Heavily-patterned wallpapers can reduce the effect considerably. Natural colours are best: tan, off-white, ochre, etc. The use of secondary objects in the display is really a matter for one's own discretion. They can look extremely effective but large ornaments, or too many, will make a tree look out of place.





In Japan the trees are placed on a low display stand, and although genuine stands are hard to come by it is still possible to find the odd one tucked in a corner of an antique shop. Simple rafts of bamboo reeds and slices of tree trunk also make good stands. If one prefers something a little more elaborate, making a dark wood stand should not prove an insurmountable problem to the enthusiast. Although they should not be considered essential, they do provide a finishing touch.

*A 25 year old Cypress Bonsai
growing over a rock*



Styles of Bonsai

If one reads a Japanese book on Bonsai it might appear that the different styles are rigidly divided. However, it should be realized that they merely serve as a guide and general classification for shows and judging, etc.

The first classification is that of size, miniature bonsai up to six inches, small bonsai from six inches to one foot, medium bonsai from one foot to two and a half feet, and large bonsai over three feet. It might be of interest to know that in the Imperial Palace in Tokyo they do have bonsai up to six feet. This is because they are displayed in an extremely large hall, and the average size bonsai, say one foot to eighteen inches, would simply be lost and could not be appreciated.

The second classification of bonsai is the angle at which the trunk stands in the pot. Number one is the formal upright style, number two is from upright to approximately 25 degrees from the vertical; then there is the slanting in number three, and the semi-cascade in number four. The full cascade, number five, is trained so that the upper growth of the tree reaches below the rim of the pot.

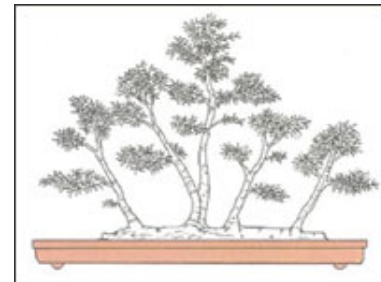
Naturally enough, one can plant more than a single tree in a pot; this is a third classification. It might be noted that the Japanese do not plant an even number of trees in a pot, such a four, six, or eight. Apart from two, they prefer to plant odd numbers, such as three, five, seven and nine. After one has planted more than eleven trees in a pot this odd and even difference can be ignored. Although this insistence on planting odd numbers might sound finicky, trying to plant four trees in a group is extremely difficult; the whole planting tends to look unnatural. Apart from this, four is regarded as an unlucky number in Japan.

Then one can have more than one trunk emerging from one set of roots; in other words, you can have two or three coming from one root. One can also lay a tree flat in the pot, training the branches to represent a forest. This is called the raft style.

The only essential difference between rock plantings and the other styles is that the tree is planted in a cavity of the rock-using the rock as a pot-or with the roots trained over the rock and into the soil. The most important thing about any particular style is that the end result must look natural and balanced.



1. Upright; 2. Literati;
3. Slanting; 4. Semi Cascade
5. Cascade



Groups can be trained as a raft; they can be planted individually, bearing in mind perspective, and thus forming a group or forest planting



Acquiring a Bonsai-buying a trained tree

With the increasing demand for bonsai trees it is not surprising that more and more garden centres and florists are stocking them. Most of the trees being sold are of an excellent quality, but there are few points to bear in mind when buying. Although bonsai trees imported from the Far East are thought to be expensive, a small tree, say a Mountain Maple or Fig of eight to ten years, can be bought for approximately £20 fully potted up. Naturally enough, one can pay almost anything for a Bonsai, the record price being over £100,000 in Japan for an exceptionally beautiful tree over five hundred years old.

Apart from the age and the shape of the tree, its general health is of the utmost importance. The soil should be damp but not sodden unless it has just been watered-certainly not rock-hard and dry. The leaves should look bright and healthy-not burnt around the edges or spotted. If one buys a deciduous tree in the Winter, examine the last year's growth to see that it is smooth and plump, with no sign of the bark wrinkling. The tree should be steady in the container in which it is growing. The container must have at least one drainage hole. Moss growing on the surface can either show that the tree has been in its pot for a number of months or years, or that the dealer has taken some trouble in its repotting. When buying a tree from a shop during the Summer, be sure to give it at least two weeks outside, avoiding heavy rain and high winds, before displaying it inside again.

If a tree has been bought from a shop or the show house of a Garden Centre during the Winter, do not allow it to be exposed to the frost for the rest of the season as it will probably have begun to shoot. This is most important with deciduous trees, and whilst varieties of Junipers are very hardy, it is, as well not to take any chances. They will, of course, benefit from the fresh air during milder weather.

Trees can be propagated by any of the normal methods; in other words, by seed, cuttings, layering, dividing, air-layering or grafting. Grafting, however, is not used very often as it tends to leave a scar around the trunk for a number of years. To reduce scarring I use [Kiyonal Sealant](#). Kiyonal is the perfect substance for healing wounds on Bonsai. It forms a skin but stays liquid underneath so will not crack away from parts of the wound. It will expand and contract with the different seasons.

Natural free

In Japan, the most admired bonsai trees are those that Nature has trained herself. Wherever growing conditions are a struggle, the tiny tree that has fought for decades to survive the storms and droughts might be found high in the mountains clinging to a cliff, or yen on a grassy moorland constantly being pruned back by wild deer. When collecting from nature, there three essential rules.

1. Find a suitable tree.
2. Always have the owner's permission before removing it.
3. Be sure that it can be looked after; trees from nature, nlcss little more than seedlings, need almost constant care for the first few months, as the shock of transplanting will be considerable.

The best season to lift a wild tree is early Spring-March/April time. The tools needed re a small spade or strong trowel, [secateurs](#), [a saw](#), a strong knife, plastic bags or polythene heeting, Sphagnum moss, scissors, and string.

Dig a trench around the tree at the furthest extent of the branches (normal trees usually have roots extending this far; dwarfed trees will often have roots that have been forced to seek out nourishment much further from the main trunk). Avoid cutting roots over half an inch in diameter until the trench has been completed. All roots will be cut so that the cut plants in at the bottom helping to stop moisture lying on the wound. Once the trench is dug, cut all the roots over half an inch in diameter. If the soil is firm, grasp the root ball in both iands and gently rock it to and fro. If there is no tap root the tree can be lifted almost straight out; otherwise the tap root should be cut down as low as possible.



*A "split trunk" Needle Juniper,
about 90 years old*

Inside or out?

The idea that bonsai trees can be permanent house guests is a fallacy that should never have arisen. Most of them are hardy trees and shrubs whose natural homes is the open air. Others, that come from the tropics and sub tropics. need protecting from the frost and these should be kept in a warm environment during the winter months. This can either be your house or a warm greenhouse. However even these need to go outside as much as possible during the summer months. Hardy bonsai trees should never be brought in the house for longer than a few days at a time. To extend the tree's stay inside for longer than four or five days can cause injury to the tree. In the Summer the plant must be able to carry out the process of photosynthesis: this is the production of plant food and oxygen from carbon dioxide when the sun activates the chlorophyll in the leaves. During the Winter the plant is resting and building up reserves of energy for the coming growing season. Too long in a warm room will persuade it to start shooting as though it were Spring. But this does not apply to trees from the tropics that need an approximate minimum winter temperature of 5degrees F or 1 degree C, although temperatures in excess of 70F or 2C can be detrimental. If a normally hardy tree is then exposed to a hard frost the results can be disastrous - serious dieback of the new growth and possible death. Apart from this immediate danger. if a tree is persuaded to grow earlier than it should do in each successive year, there is every possibility that it will simply die of exhaustion.



Wisteria Bonsai Tree approx. 11 years old

However, bonsai trees are not cultivated just to be admired outside, and they can be brought into the house quite safely if a few simple precautions are taken. The ideal spot is where the tree gets plenty of light and is not subjected to too high a temperature. such as on the top of a radiator or television set. A little sunlight is beneficial but being too close to a window might scorch the leaves.

Spray the whole tree once or twice a day. In centrally-heated houses it might be necessary to do this more often. Check the soil for dryness every day and water when required. Obviously this will be more often for a Maple in a relatively shallow pot than for a Juniper in a deep pot Don't stand the pot in a saucer of water unless it is a Wisteria or Willow as it will rot the roots.

In the Winter it is a good idea to put hardy trees in a cold room at night and when returning a hardy tree outside to be sure it does not get frozen for at least two weeks after being indoors.

As the natural habitat of most bonsai trees is the open air it is worthwhile reserving a small corner of the garden for their display and care. Apart from aesthetic considerations of display they should be off the ground, protected from strong afternoon sunlight, be close to a source of water, and near the potting shed. The first two points are for the health of the tree and the second two for one's own convenience. The constructing of a suitable display bench has been dealt with in the chapter on display.

Watering

Never let the bonsai tree dry out. In the Summer it might be necessary to water twice a day. In the Winter one might only need to water every fortnight or every month. This depends entirely on the dryness of the soil.

As with other plants, bonsai prefer to be watered with rain water, but tap water, that has been allowed to stand over night adjusting its temperature and giving off any chemical content, is perfectly adequate.

Use a watering can with a very fine rose or [watering nozzle](#); heavy droplets will tend to wash the soil from the pot and also form a skin over the surface of the soil, which will inhibit the circulation of oxygen to the roots. The best times to water are early morning and late afternoon, avoiding the heat of the an. In the Winter and up to the middle of day, when late frosts sometimes occur, I always water in the morning. It is not a good idea to water in the evening at this time of the year as the tree will not have had time to assimilate the moisture before the frost comes, and too much water in the soil will freeze solid, sometimes fracturing the pot. During the Summer and early Autumn one an switch the main watering to the evening or late afternoon. This is more convenient than the morning. However, try to maintain rhythm of watering; in other words, if you water in the morning, stick to watering in the morning; if you water in the evening, stick to watering in the evening. Believe it or not, a plant almost expects its regular watering; if it doesn't get it, its health can be affected. At the height of the Summer it might be found necessary to water more than twice a day, in which ase the third watering will take place about mid-day. If this is the case, do not water with a watering can as the droplets of water on the leaves of deciduous trees will form a magnifying glass through which the sun will scorch the leaves. To avoid this use a [watering nozzle](#) or immerse the pot to the rim in water, allow the soil to assimilate the moisture and then allow the tree to drain off. This method of watering is also very useful for trees that have just been potted as it does not disturb the soil. It must always be remembered that a thorough soaking is better than a few drops given more often. After each watering, the water must be seen to run out of the drainage holes at the bottom of the pot and only then can one be sure that the moisture has) penetrated to every part of the root system. The only exception to this is if the tree has been allowed to dry out completely; the soil will then crack away from the sides of the pot, and imply watering overhead with a watering-can will allow the water to slip straight down the ides of the pot and out of the drainage holes. In this case again the method of immersing he pot to the rim should be used, and the soil should be pressed down around the edges so hat it again forms contact with the pot.



General care

Contrary to a popular misconception, the first principle of bonsai culture is to maintain the trees in a healthy state. The dwarfing of a tree is not achieved by soil starvation or by having the tree the minimum water necessary. Nor is it necessary to perform strange rites before a bonsai tree. Bonsai trees have similar needs to the oak or the tiny daisy. The essence of their care is continuity and regularity; a few minutes a day is infinitely better than a couple of hours every two weeks.

Fertiliser and humus

Adding humus to the tree should not be necessary as this vital element in the soil is added then the tree is repotted.

Fertiliser should be given at regular intervals from Spring to Autumn. Inorganic fertilisers are not often used with bonsai trees as their action is too sudden. Organic fertilisers have a low continuous action. However, if a tree needs a quick lift then inorganic is preferable.

One of the easiest methods of fertilising is to use an organic liquid feed that can be bought from a Garden Centre or a garden shop; it might be added that it is not essential to use Japanese fertiliser such as soya bean mash, rice bran etc. Dilute the liquid feed to the minimum suggested.

One generally fertilises at 10-day intervals but this is not to be regarded as exact; if the weather is very wet and one continues to fertilise, it will tend to produce a lot of long sappy growth which will have to be removed from the tree. In this particular instance the fertiliser should be cut down to about every two to three weeks. Watching the tree and applying when it is necessary is much the best. One can also use solid fertilisers, again organic, but as a lot of these tend to form moulds on the soils, or to give off an offensive smell, one will probably find that liquid feeding is the most convenient. If the tree is to be leaf cut (see notes on Training), it should be given a little more fertiliser for three weeks before and after it has been cut. One can also slow down the frequency of the application between the middle of May and the end of June as the trees should be growing vigorously during that period.



A 155 year old Needle Juniper with characteristic "Jins" on the top



A gorgeous 12 year old pink flowering Crab Apple Bonsai

Soil

The tree might be beautifully trained but the effect will be greatly marred by careless treatment of the soil surface. Moss should be encouraged to grow or planted at the time of re-potting. This cuts down excessive evaporation from the soil surface during hot weather, and also stops the soil being washed from the pot during heavy rain. However, it should be thinned out every few months by pulling up a tuft here and there to stop the moss from becoming too packed. All weeds, especially liverwort, should be removed immediately and any small under plantings of rockery plants should be thinned out from time to time.

When adding compost be sure that it isn't too fine. If compost is too fine it then cakes up and the Bonsai tree cannot get air and water to the roots. If this happens it can die. Try using a [scoop and sieve](#) when applying the compost to avoid this potential problem.

Rotting leaves, twigs and general debris should be removed from the soil surface. Not only do they look unsightly but they provide an excellent breeding ground for insects. Apart from moss, one can also decorate the soil surface with small rocks, gravel, pebbles, etc.

Fungus and mildew

As with other plants Bonsai trees are subject to attack from fungus and mildew. They should always be kept in a light airy position where there is plenty of air circulation and ventilation is good. Immediately one sees either fungus, mildew, or rust on one's trees they should be treated with a proprietary brand of fungicide mixed to the manufacturers' instructions.

Insects

All insects are not committed to the utter destruction of expensive bonsai trees. Ladybirds, for instance, feed on the young of the aphids. In the soil centipedes-thin and yellowish with a host of legs-are beneficial, whereas wireworms-thin and yellowish with few legs-are enemies; as are millipedes-dark grey with many legs.



An 18 year old Chinese Elm with dignified tiny leaves

The insects to be discouraged above the soil are as follows: the Aphid family, green black and woolly (usually seen feeding on the sap of young growth), mealy bugs (tiny scraps of cotton wool in leaf axils), red spider (occasionally seen on warm days on the underside of leaves; leaves attacked turn bronze and drop off), thrips (thunder bugs, small holes and silvery marks on leaves), boring insects (the leopard moth is one; the pupal case might be seen adhering to the trunk or branch attacked), leaf miners (silvery or irregular lines appear on leaves). Other more easily recognised pests are caterpillars, slugs, snails, earwigs, etc.

Ants, worms and woodlice do not cause as much damage as the above but they should not be encouraged. Ants disturb soil, encourage aphids, and remove seed from seed trays. They may also disturb soil and block drainage holes. Woodlice live under debris and rubbish and attack seedlings and young growth close to the ground. Neither worms nor woodlice are likely to attack trees if they are kept off the ground. Ants can be discouraged by immersing the whole tree in water for twenty-four hours. For specific information on Pests and Insects try "[The Art of Indoor Bonsai](#)" or if you want to know which pests are attracted to which trees check out "[The A-Z of Bonsai](#)".

The best way of discouraging attacks by insects is to maintain the health of the trees and by regular spraying with cold water during the Spring and Summer. Occasionally, however, insecticides are needed, but when these are used they should always be applied at their weakest to avoid damaging young growth.



Seasonal care and protection

Varieties of bonsai trees that come from tropical and sub tropical climates will have to be protected from even the slightest frost. As such they can be kept indoors during the winter months, but they will benefit from periods outside during the summer.

Most trees from Japan are hardy and a light frost will not affect them at all. However, continuous severe frost will stop the translocation of water from the roots to the trunk and branches and might also fracture the pots. To avoid this some protection can be given (please refer to chapter on Display). If a display bench, such as the one described in the chapter on Display, is used one should have little need to worry about the extremes of weather that occur throughout the year. However, always be on the lookout for excessively heavy rain, high wind, burning sun, snow, etc., and take the necessary precautions to ensure the health of the trees.

Re-potting

When re-potting most plants one chooses a larger pot to allow for the expansion of the root ball. When Bonsai trees are re-potted the same pot is used unless the tree has been allowed to develop out of proportion to the pot. Generally speaking, trees should only be re-potted when they have become pot-bound. In other words, the roots will have thoroughly penetrated the compost and will be growing out of the drainage holes. If allowed to remain in this condition they will eventually die through simple starvation.

The best time for re-potting is in early Spring, through March and early April, though some trees such as Winter Jasmine can be re-potted at almost any time of the year. It is still safer to re-pot in the Spring just before the tree has started to grow. The materials used are (1) small pieces of [plastic mesh](#) to cover the drainage holes, (2) [garden wire](#) to tie the tree into the pot, (3) gravel or flint chips to act as drainage in the bottom of the pot, (4) sterilised sand, (5) peat and/or leaf mould, and (6) sterilised loam.

It is suggested that soil mixtures are made up for three basic types of trees: evergreens, deciduous trees, fruiting and flowering trees. For evergreens a mixture seven parts sterilised loam to three parts sharp sand is ideal. For deciduous trees, use eight parts sterilised loam to two parts sharp sand. For fruiting and flowering trees, use eight parts sterilised loam, one part sharp sand and one part peat or leaf mould. Naturally enough, for individual species in any group, the suggested mixtures might have to be altered to a certain extent: Pines for instance, need faster drainage than Junipers. Therefore an extra part sharp sand would be needed.



This graceful Japanese Stewartia just coming into bud is 40 years old.



Cherry Bonsai Tree coming into flower, approx. 8 years old

To remove the tree from the pot, run a sharp knife around the sides of the pot, knock the sides of the pot with the heel of the hand; the tree can then be lifted from the pot. Clean the pot completely, cut pieces of plastic netting to cover the drainage holes, insert the holding wires through the holes, put a layer of flint chips or sterilised gravel on the bottom and a thin layer of compost. Remove all dead roots from the tree and cut back the remaining roots from the sides and the bottom by approximately one to two thirds. This will depend on the age of the tree: the older it is the fewer roots are removed. Position the tree in the pot, moving it gently backwards and forwards to ensure a firm grip with the soil underneath. Tie the tree in with the wire (not too tight), pour the soil mixture in around the sides of the root ball until the pot is full up. Work the soil in around the roots with fingers or a small stick-this is to ensure that there are no air pockets. After putting in the main soil and tamping it down a thin layer of top soil can be used; this can be of a finer grade than that used in the main potting. The tree can then be watered by immersing it to the rim of the pot in a bowl of rain water. When it has been thoroughly soaked, remove it from the water, allow it to drain and protect it for two weeks from harsh sunlight and heavy rain. This will give it a chance to get over the shock of re-potting. During this time do not fertilise it at all. For detailed instructions on how to re-pot your bonsai see "[The Art of Indoor Bonsai](#)"

Groups



The planting of groups is essentially the same as that for one tree. However before planting is started, build up a mental picture of the group as it should look when finished. Avoid straight lines either front to back or side to side between two or more trees. In other words, do not have three trees in a row; the effect will be entirely unnatural. Position and secure the main two trees first, the lesser trees are planted to complement and give depth to the larger main trees, securing each tree as it is planted. One can tie in the whole group with string ; going over the whole of the pot. This is not very attractive but might be found easier with complicated groups.

This Trident Maple is trained in the clump style and is approx. 45 years old



Rock planting

Some rock such as tuffa, which comes from Derbyshire, can be drilled and chiselled away to form an almost natural pot within the rock itself. The soil mixture for planting a tree in a rock pot is exactly the same as that used for the same variety of tree.

If the tree is to straddle the rock-roots growing down the sides into the soil-use a mixture of 50% peat and 50% fine loam. Mix this with water to give a sticky mud. Dampen the rock and apply a thin layer of compost over the face of the rock. Clean and separate the tops of the tree, positioning it so that the main roots run down any available crevices in the rock. Bury the ends of the roots in the soil (the compost in the pot will be the same as when potting normally). If it is necessary to tie the tree in position this can be done with twine or elastic-covered garden wire, protecting the roots with thin strips of rubber. If it is difficult to secure the wire, small rings of copper can be cemented to the rock surface.

After tying in apply an ample layer of peat/loam mix over all exposed roots. To stop rain washing this off, plant moss over the whole planting, securing it with 'V's of copper wire. This will also help to stop evaporation. Always protect rock plantings from bright sunlight and heavy rain for at least a month, spraying the whole planting at least twice a day.



Training

Of the two basic methods for shaping a Bonsai tree, pruning is by far the most important. This is carried out throughout the life of every Bonsai tree where as [wiring](#) to shape is only done when the tree's shape needs to be corrected fairly radically. Even then, it might only be one branch that has moved away from its desired position.

A flowering Peach Bonsai
approx.
12 years old

Pruning

Pruning can be divided into three main headings:

(1) Heavy Branch Pruning:

This is a general thinning out of old, diseased, weak, or unnecessary branches that grew the previous year. This should always be carried out during the Autumn, early Winter or early Spring before the sap has begun to flow at full strength. I have used the [Samuri Stainless Steel Cutters](#) to great effect over the years

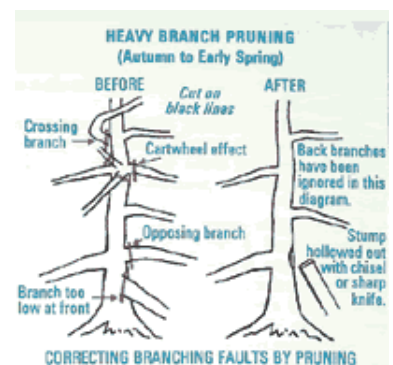
(2) General Pruning:

This is the pruning carried out throughout every growing season. It is designed to maintain and create shape, thin excessive growth, and produce an abundance of flower buds in flowering trees. Best to use [delicate trimming shears](#) to minimise and ancillary damage.

General Pruning is also needed to maintain the ever-important balance between the smallness of the root ball and the top growth; if the top is allowed to grow away from this balance the roots will not be able to maintain it in good condition; the roots may rot or die out and a vicious circle can be created-the end result being severe dying-back or even death.

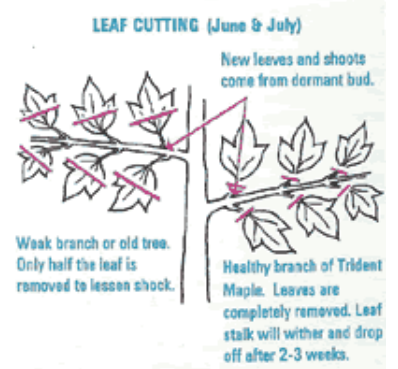
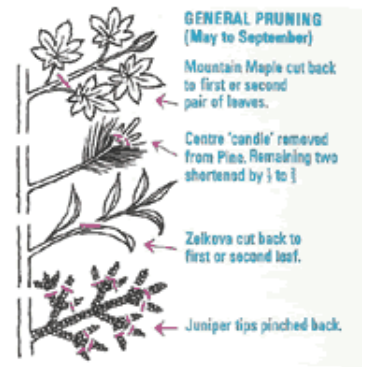
(3) Leaf Cutting:

Leaf cutting is one of the 'secrets' of Bonsai training. In June, providing the tree is in good condition and has been amply fertilised to promote strong healthy growth, some or all the leaves of most deciduous trees can be removed by cutting them away with sharp scissors or [defoliating shears](#). One leaves the petiole or leaf stalk on the tree which, in two to three weeks, withers and drops off. The tree has a false autumn and a new set of leaves and shoots appear. The effect is to produce bushy growth, smaller leaves and much better



autumn colouring.

The trees most suitable for leaf cutting are the Maple family, Elms, Beech, Birch, etc., but not fruiting or flowering specimens. To find out which trees are best suited for leaf trimming and get an overview of all the different varieties of Bonsai have a look at "[The A-Z of Bonsai](#)"



Wiring

Wiring is generally considered to be one of the most difficult techniques for shaping Bonsai trees. However, after a little practice on a small branch cut from an ordinary tree its mystery will soon disappear.



The most important point to bear in mind is that one mustn't rush—take your time. Before using wire consider the subject from all angles. If it is possible to achieve the desired shape by pruning alone then don't use wire. If [wire](#) has to be used choose the gauge that just holds the branch in position—if it is too stiff the wood will tend to bend in and out between the coils.

Copper wire (sizes 8 to 24 are generally used, 8 being the largest) that has been annealed in a slow fire is more suitable than iron wire. It does not rust or look unsightly on the tree.

Deciduous trees should be wired immediately after their leaves have attained full size when the sap is flowing freely. Wires should only be left on deciduous for a maximum of 6 months. Some trees have very soft bark and the wire should have paper wrapped round it to protect the tree.

Evergreen and coniferous trees take longer to become set in position and wires can be left on for 12-18 months. They must always be removed if they start cutting into the bark. Always start wiring from the base of the trunk, burying the wire in the soil to anchor it. After the trunk progress to the largest branches, continuing from large to small until finishing on the topmost smallest branches.



...A Final Word

I hope this booklet has stimulated your interest in Bonsai trees. Although all of us react differently it has been my experience that a hobby like Bonsai has almost limitless possibilities. One can spend hour after hour with them, moving a twig here, cuffing a shoot there. On the other hand it does not take a lifetime of dedicated patience to enjoy the beauty of Bonsai trees; it is certainly possible that the reader has little time to spare - then a few minutes a day can keep a small collection looking cheerful and happy.

One can also experiment with many different plants, not just trees and shrubs. The Japanese plant a lot of herbs, grasses, etc. to enjoy during the hot (we hope!) yellow summer months. Why not plant a small collection of so-called weeds in a shallow container? Weeds such as Couch grass, Mare's tail and dandelions can look very effective, either together or by themselves. Once again one can appreciate a part of nature that is usually ignored.

Finally the rules of Bonsai culture are not nearly as rigid as they might appear. One can roughly divide them into two categories: the health and vitality of the plant and the aesthetic reproduction of nature in miniature. The first is absolutely essential, it should never be ignored. The second category is basically personal - perhaps you feel the tree looks better with two branches opposing; aesthetically it might be wrong but if you like your tree that way then keep it like that. You can still appreciate the delicate tracery on a newly-opened leaf. Just enjoy the company and life of your Bonsai trees.

For further reading on the world of Bonsai [click here](#)

We are constantly trying to improve the products and services that we offer to you our customers and would welcome any feedback good or bad, it will all be taken on board and if possible we will take action to incorporate your suggestions into the site and this report. [Click here](#) to email me your feedback.



This is one of many types of Citrus Bonsai, it is 6 years old and stands 30cm tall