

Fun Topics...

Selecting POTS for your Bonsai - Horticultural Basics, Part 1

Adapted from BCI study notes; Principles of Bonsai Design, D. DeGroot; Bonsai, Its Art, Science, History and Philosophy, D. Koreshoff; Bonsai Masterclass, P. Chan

In the past when discussing “the pot” for our bonsai, there has been an analogy to a “frame for a picture”. However, without the frame, it is still a picture. Quite literally, without a pot there is no ‘bonsai’ since ‘bon’ translated is container or pot. This concept goes back to China roughly 2000 years ago. At this time the ceramic process, glazing and firing, was advanced and high-fired pots were being made to plant “artistic representations of nature”. This evolved into what we now call bonsai and so, by tradition and definition, there has to be a “pot” of some kind that is ceramic in nature. But this concept is more related to the aesthetics of the pot and tree combination. And while this is important to the “art of bonsai” we also need to be aware that container culture can have serious ramifications on the health of the tree. So first, let’s discuss how the container can affect our trees...

...**Horticulturally**, there are some principles to keep in mind when moving a tree/shrub into a pot and out of the ground or growing box.

First, let’s imagine your yard as one big pot, maximum everything: root protection, temperature control, drainage, water availability (if roots go deep enough, even in a drought!). As soon as a plant is transplanted to a Bonsai Pot (assuming larger to smaller or of equal size) all of the above is no longer automatically controlled and each horticultural need becomes your responsibility.

We can also say that actual care may become problematic depending on the plant you are trying to grow since needs can be more troublesome than when in the “ground”. Also, the growth rate will slow down. Just how much will be somewhat age and species dependent. If it is a young plant, it may slow but if it is healthy and well fertilized it will be actively putting on growth. If it is an older plant its growth rate may be more similar to a mature landscape plant, with less but adequate growth. More importantly, if you are still developing the trunk or primary branches, you might want to reconsider moving to a bonsai pot. Since a pot will significantly limit growth area, wait until you have achieved the girth/size you prefer. And remember, growing “in the ground” is most always the fastest way to develop trunk and branches. Growing beds are what are used by the many growers in Japan for fast development. Keeping all this in mind, **horticulturally**, there are some POT basics to consider when choosing pots.

> **“Pots always [must] have drainage holes; wire-tie-down holes are helpful but not mandatory.”**

Bonsai pots should have at least one large drainage hole, but preferably more. Also, check the bottom, inside of the pot. **It should be flat**. If it is warped and/or slightly convex the water may not drain out of the pot properly, but will puddle in corners or sides. This can cause water build up and soggy soil, eventually causing reduced oxygen and root issues. Concave MAY work to your advantage, but it is a

“testing” situation. If there is doubt don’t use a “warped” pot, unless you check the drainage, and preferably with your soil mix!

Also, look for wire holes as these are an added plus. These are used to “tie in” your tree to prevent excessive movement after repotting, or from moving when there is wind, OR it keeps the tree with the pot if it takes a tumble off your bench. (This could quite literally save your tree’s roots on a summer’s day.) If no wire holes, the drainage holes can do double duty.

If the pot has feet, it should have at least three. If the pot lacks feet, arched cuts (in the clay) are usually made at the base to help with air circulation. However, feet are best for lifting the base up so that excess water flows freely out of the pot and away from roots. IF no feet, and there is excessive rain or multiple rainy days, raise up and/or tilt the pot to help with drainage. Remember that air circulation around the pot is important. Placing your pot/tree on a solid, flat surface (and no feet) will greatly reduce evaporation and could promote root rot issues. A slatted surface will offer the best drainage, plus feet, better yet. This is ideal for species that do not want a prolonged soggy soil.

> **“Pots are glazed or un-glazed, but should not be glazed ‘inside the pot’ or ‘on the bottom outside’.”**

The container should be made of a **solid clay body**, without chips or cracks and with minimum warpage. Terra-cotta (low-fired) pots may be used for training pots. Keep in mind that there will be an active exchange of water “through” the walls of this type of pot and will be affected by wind. They also must be protected in winter. If there is moisture in the clay, and it freezes, it is possible that the pot will break apart when it warms up. (But, this may also take several years before it breaks apart depending on the manufacturer.) If the clay has been high-fired, such as stoneware, this will not be an issue.

IF it is a high-fired, glazed container it should not have glaze on the inside (except for the top edge) or on the bottom outside. Too much glaze can inhibit adequate air and water movement through the pot. Porcelain pots, although aesthetically pleasing, are fired at the hottest temperatures and air and water movement are almost non-existent. These pots should be used carefully by monitoring the moisture of the soil and observing your tree’s growth habit.

> **“Most often wider and shallower as opposed to taller and deeper.” However, the depth of the pot should be determined by the growing needs of the plant.**

First, is understanding the needs of the genus/species you are trying to grow. You may even have to go down to the cultivar or variety. Sometimes there are significant differences with hybrids.

Then, consider the pot size and its impact. The smaller the pot, the faster it will dry out. It has been said many times that in the Midwest, bonsai tend to be planted in pots “larger and deeper” when compared to “traditional bonsai design”. We can have many windy and/or hot days, and if you need to be away all day choosing the right pot can be your friend. Of course, soil can factor in here as well, but it cannot be the only safeguard for all situations. And as an example, for MAME and even SHOHIN deeper pots are always selected to retain moisture.

So, weather, tree, yard/exposure, watering habits and soil - all are your **first** and horticultural considerations for when you choose a pot for your tree!

Fun Topics...

Selecting POTS for your Bonsai...Part II, Aesthetic Basics

There are **two** general rules for selecting bonsai pots *aesthetically*:

Never select a container **before** shaping the tree, and **never** select a container which overpowers your tree, in regard to color, size, or shape. In other words, the pot should become a harmonious part of the design.

The first rule is easy; however, the second one will take some time to learn and put into practice.

Below we will focus on **Pot Aesthetics**– *Shape, Texture, Color, Size, Character and Quality (simplified)*.

SHAPE: The pot's form is essentially its overall shape, i.e. round, oval, rectangle, etc. and includes the lip and feet (if any). So how do we “match” the tree shape with the shape of the pot?

IF the tree has a strong angular trunk line, e.g. formal upright & slant, it will look “better” in an angular pot. Think rectangular, square or even multisided. However, if the tree has soft curved lines and rounded foliage pads, think oval, round, and lotus shape. Another aspect to consider is how to convey stability. For example, Literati are most often placed in a round pot giving the base stability and an anchor visually, so it doesn't appear like it is falling over. OR we can choose a pot that is **opposite** of the style. For example, asymmetrical pots, like rectangles and ovals feel more dynamic and add interest to upright stable trees. But a tree that has lots of movement such as a cascade or literati are best in a symmetrical pot which serves to “stabilize” the tree visually.

So, we consider trunkline, direction & movement with angles vs. curves, and asymmetry vs. symmetry for both tree and pot.

Another quality is **TEXTURE**: Often in landscape manuals a tree's appearance in the landscape is described as having anywhere from soft to a rugged or coarse texture. This is the combination of the branching pattern, the foliage, and bark. Considering this, a tree can appear powerful or graceful, rustic or refined. And so does a bonsai design: Refined features in a graceful, informal upright or coarse feature in a rugged formal upright. The former may be paired with a more refined pot, with soft corners, none or reduced lip, smaller feet and a smooth surface. The rugged tree can handle a strong pot with thick walls, a strong lip or even substantial feet, as well as a rough surface.

However, it is also quite acceptable to use contrast to emphasize the tree's character, but you should be careful regarding how much contrast you use. It can become more of a distraction and take away from your tree.

COLOR: Selecting a pot, based on color choice, can be simple or complex. The latter considers the same color attributes that are used in another art medium, oil painting, where color is actually expressed in multiple ways. First is the hue, or shade. It could be blue, blue-green, blue-red, etc. And, the primary colors, yellow, blue, red, when mixed together at varying amounts, can create many shades. The second is value. This can be simply explained as how dark or light a color is, e.g. dark blue vs light blue and all the values in-between. Another aspect used in art is the warmth or coolness of a color. A basic 6-part color wheel puts blue-green-purple on the *cool*

side and red-orange-yellow on the *warm side*. However, a brown pot can also be warm or cool: a warm yellow brown or a cool blueish brown. So how does this relate to our trees? When choosing a color combination to use with a tree the **bark, foliage, shari (if any), flowers, fruit, and spring or fall color** are all considered. Then it comes down to a choice of complimenting or contrasting the tree “color” with the pot color/value. Here is where we simplify, primarily because most times our very choices of pots are limited.

It has always been accepted that unglazed earthtones, browns and grays (cool or warm), are good with any bonsai. This is especially true with our conifers that have the same “color” most of the year. A glazed pot that has a **matt** finish can also be used for many trees. It is the glossy glazed and colorful pots that are usually reserved for trees that have flowers, fruit or a seasonal color change. However, they are also used for the smallest bonsai to “grab your attention”.

Lastly, and if you have a choice, try to contrast the dominant colors. For example, if the tree bark is very dark brown, choose a lighter or red-brown pot. When you “match” the color, the look becomes monochromatic and you may “loose” the tree’s impact.

There are many other color considerations, but the simple rule above will lend itself to an adequate choice.

SIZE: (simplified) There are two general ways we consider size. Overall appearance with the tree and plant health. (In part one we discussed the horticultural need of the roots in relation to species and our backyard/climate.) Overall appearance can be further broken down into **proportion, visual mass and planting height**.

Tree design, as we know, uses the “rule of thirds”. The same can be used for choosing the pot size. Roughly the length of the pot is 2/3 the height of the tree and the depth of the pot is equal to the diameter of the tree. The latter however is what becomes problematic in our area or with some more sensitive species. So, a simpler and most often better way to think about this is to say “the pot has LESS **visual mass** than the tree”.

This allows for more variation in the look and feeling of the “design you create”. Such as a wider, shallower pot, feeling more like a tree in the landscape. This also brings attention to the crown. When the opposite is used, the focus becomes the lower trunk. So, when considering the “look and feel” of the tree, pot size affects the visual mass and how your eyes will interpret your design.

Our last thought on size and tree placement in the pot, is the planting height. For best, evenly distributed watering, a tree’s roots surface should be level with the lip of the pot and with the soil slightly tapering down inside the edge. This will help guarantee even and thorough watering of the entire root mass, but remember to also water the “back of your tree”.

CHARACTER: When we discussed pot shape, we also discussed the design or “shape” of the tree. That shape also has a character that can be described as masculine or feminine.

A few masculine characteristics are: a formal design, strong rootage, angular movement, rough bark, and with shari & jin. The pot would have the same qualities: prominent angles, feet and lip; be formal, rustic, dark or an earthtone color.

For the feminine characteristics we have the opposite: an informal design, graceful curves, slender tapering trunk, smooth bark, flowers and/or fruit. The pots mostly used are rounded,

informal with curved thin walls, artistic “feet”, smooth surface or with glaze and light colors.

Feet are a character that we discussed previously and how they can offer better “air exchange” around the pot. But feet can also have a prominent or subdued effect on the “look” of your tree. They can be inconspicuous and seamlessly add to the design by being short and squat. Or they can be ornamental, distinctive and uplifting, such as “cloud” feet. Using the latter, will definitely stand out. The one caution happens with round pots, used for literati. These are usually thought to be fluid and the front “flexible”. However, if there are feet, they must be considered WITH the front. Either, line up space between the feet with the tree’s front OR line up a foot with the front. Either will work (choose what you like best), but if you don’t choose one or the other and it’s somewhere in between, this will be totally distracting and will “stick out” when looking at the tree from the front.

And lastly, remember that trees have a “mix” of the above qualities and so should/can the pot.

QUALITY: This is not about price, although better pots tend to cost more, but about the clay and how a pot is made. Training pots can be virtually anything, but when our tree has developed a nice trunk and branching our goal is to move it into a “nice” pot. Choosing that pot uses all the guides we have discussed, FROM what you have available, and what you can afford within reason. Keep in mind that sometimes inexpensive pots are less only because of the manufacturing process and are fine if they meet the other criteria. And for less weight (and cost), consider quality mica pots. This is especially true for the larger pots.

As with all things bonsai, decide what you are trying “to say” with your tree and choose a pot that emphasizes what’s most important to you! In the end it’s YOUR choice and what looks good to you. That is always most important aesthetically. If possible, try holding multiple pots in front of your tree or if you can remove the tree from the pot (with the roots intact), set it in the pot. Sometimes taking a picture (using either technique) can really help you look objectively at your composition.

Still somewhat confused? It also helps to look at lots of pictures of bonsai. Sometimes, is just clicks and, “wow, I like that”, is your first thought! Good Luck!