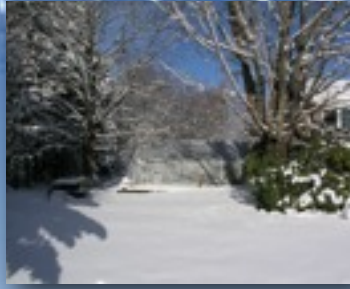


pfm bonsai studio ramblings



December 2013 Volume I

Here it is the middle of December and I realized I had not written this month's issue. Things have been extremely busy here. Finally all the bonsai and stock are in their winter quarters and seem to be happy. In a couple of weeks, days will start lengthening and spring will start in the greenhouse. So potting season will begin.



A new venture for pfm bonsai

This year my good friend, David Hodgetts formed a bonsai stock growing nursery here. The idea is to provide Northeast USA grown stock for bonsai. If you have visited this summer and fall, you may have seen the giant cold frame greenhouse rise behind my outdoor growing area. This is the beginning of the new growing area. Plans are to set up a growing field next to the green

house next summer. This should give Dave plenty of growing room. At this point we are choosing the species to develop. Should you have some suggestions, let us know.

Of course we are starting with seeds and seedlings so the process will take a few years. To have materials for use during the next several years, we will be obtaining stock that will be available at the nursery beginning this summer. Our first buying trip will be in early February so if you have a species wish list, let me know soon.

Although we are concentrating on small bonsai, if you have a wish for larger material we will be happy to search for that special tree for you.

Pine Bonsai in the Midwest USA

by Douglas K. Hawley MD, Cincinnati, Ohio—Reprinted by permission *Ed. Note: this works for us too!*

It is with good reason that the Japanese have sometimes referred to pine as the king of bonsai. They respond very well to training techniques, and adapt well to bonsai culture (so well, in fact, that they may live longer as bonsai than they do in the wild!). Their appearance is majestic. And the ancient pines in nature have served as models for the development of the classic rules and stylistic tendencies in bonsai in general.

Specifically, pines have served as the style models for bonsai, with downward sloping lower branches alternating from outside curves with well- defined foliage planes eventually culminating in a broad rounded apex. Uh-oh, I can already see some of you bonsai naturalists with fumes coming out of your ears, thinking man, that's the worst thing that ever happened to tropicals and deciduous; I'd rather get a root canal than see another pine-styled maple! My only response is that if you prefer lollipop or shrub-in-a-pot style, there are plenty of models for this in most of our Midwestern back yards. But when I really want to see a tree that looks like an ancient humanesque caricature-like piece of art, give me a pine!

Pines are evergreen needle conifers of the genus *Pinus*. There are over 100 species of *Pinus*, essentially all from the Northern Hemisphere. Although some will grow in subtropical or warm climates, none are truly tropical; thus, as bonsai, they are all outdoor plants. Although all will survive in bonsai culture, some are much more suitable than others due to needle length, response to pruning/ pinching, internode length and growth rate. Almost all pines can survive throughout most of the Midwest area, but some may require pampering.

My discussion will include both the classic Japanese pines as well as the pines of the western world most suitable for bonsai; but all will be pines that we can easily keep alive as bonsai in the Midwest.

GROWTH PATTERNS

First, a few basics are in order, with no intent to insult all of you experts. All pines grow in the same pattern. New buds turn into candles, which then open up into shoots covered with needles. These shoots are arranged in whorls, i.e. one to a dozen or more shoots arising all from the same point. The tip of each shoot puts out more buds which develop into candles for the next year's whorls of growth. Some pines will backbud if pruned into the last one or two year's branches, but not always reliably. They will never

break back if cut back into old wood beyond where needles are present, but rather that branch will simply die.

The needles themselves grow in groups called fascicles. Most pines have fascicles of two needles, three needles or five needles. Those which have five-needle fascicles are often referred to as five needle pines, white pines, or soft pines. Those with two or three needles per fascicle are sometimes generally referred to as hard pines or black pines.

Most pines display considerable apical dominance, i.e. the tendency for the portion of the tree at the top or the end to have the most vigorous growth. This is important to realize in bonsai culture, as much of what we try to attempt to do is to equalize the strength in all parts of the tree. Thus, we constantly have to be more brutal to the upper and outer portions of our trees.

TYPES OF PINES

Pinus thunbergiana - Japanese Black Pine - Kuro matsu. A two-needle pine. Hardy zones 5-7(8). Needles naturally around 5" but reduce dramatically in bonsai culture. Excellent response (perhaps the best and most predictable of any pine) to classic Japanese pruning and needle reduction techniques. Fissured bark. Back buds modestly well. Needs moderate winter protection - medium sized bonsai will survive 0-10 degrees F if temperatures are steady and there is complete protection from wind and sun. Will do well in warmer areas too.

Pinus thunbergiana var *corticosa* - Cork bark Black pine - Nishiki matsu. (2 needle) Cork bark varieties, actually a large number of different variants. The ones with thick white candles are much more vigorous than ones with reddish teardrop shaped candles. In Japan these varieties are classified according to the pattern of the cork bark, with those developing angled wings being more desirable. Some varieties, notably Kyokko and Fuji can be rooted with cuttings, unlike any other pines. These pines are somewhat more difficult, being fragile, less hardy, and more susceptible to fungal diseases than regular black pine, however can be grown very successfully in the Midwest. They require very significant winter protection e.g. cold frame or unheated garage kept in low to mid thirties or higher.

Pinus parviflora (*pentaphylla*) - Japanese white pine, Japanese five-needle pine - Goya matsu. (5 needle) - small attractive needles, probably the smallest and most attractive needles of any five- needle pine. Dense but somewhat slow growth. More vigorous when grafted onto black pine roots, and most specimens available in this country are grafts imported from Japan. A few cork or rough bark varieties exist but are rare. All varieties require some winter protection but prefer colder climates overall.

Pinus sylvestris - Scotts pine. (2 needle) - popular in USA and especially in the Midwest. Trunk is attractive and thickens rapidly. Needles are much smaller than black pine. However it does not reliably respond to candle pruning with new growth, and new shoots

grow horizontally instead of upright, giving it a somewhat unkempt appearance. Tolerates cold in general, more so than Japanese black pine, but there are varieties developed to grow best in each of zones 3-6.

Pinus rigida - Pitch Pine - Amerika sanyosho. (3 needle) - An underused pine. Native to our area. Hardy zones 4-7, three needle pine. Buds back extensively, even on old wood. Needles not quite as dense as Japanese black pine, but responds exceptionally well to needle reduction techniques and can be induced to put out several or more generations of new growth in a season.

Pinus virginiana - Scrub pine. (2 needle) Native to our area. Two needle pine with characteristics otherwise very similar to pitch pine. Trunk thickens more slowly. Responds extraordinarily well to pinching and needle reduction techniques. Slightly warmer natural habitat than Pitch pine so requires moderate winter protection.

Pinus ponderosa - Ponderosa pine. (3 needle)

Many fabulous ancient twisted trunk collected specimens have made this a popular pine in USA. Grows fairly well in this area but very prone to borers, which may cause death of tree without warning. Buds back with actual cutting needles in half, but does not respond well to candle removal, and candles are almost two short to pinch. Thus, it is difficult to control the balance of vigor and weak branches tend to become weaker. Large trees require little or no winter protection.

Pinus mugo - Mugho pine. (2 needle) hardy to zone 2 which grows very well here. Has natural bush like growth, so it has very little apical dominance. Older trees tend to have long arms and younger trees don't thicken up quickly, so really good mugo bonsai are rare. Responds poorly to candle removal. Needs almost no winter protection. *Pinus densiflora* - Japanese red pine - Aka matsu. (2 needle) Similar to Japanese black pine but with weaker growth, looser arrangement of needles, and less ability to tolerate vigorous pruning techniques. Appearance considered more feminine or delicate. Requires winter protection.

Pinus banksiana - Jack pine. (2 needle) Native to the northernmost parts of our area, but will grow well as bonsai in zones 2-6. Very short needles, somewhat more widely spaced than Scotts pine but similar. Response to Japanese black pine techniques is not reliable. Needs only wind/sun protection in winter.

Pinus strobus - Eastern white pine. (5 needle) Native to our area, and extensively planted as landscape in Midwest. Hardy zone 2-7, and the most shade tolerant pine. Unfortunately, this is one of the least satisfying pines for bonsai. Needles do not reduce, it does not like to be pruned at all, and it retains a juvenile appearance to the bark until it is

literally ancient. It is sensitive to overwatering but not tolerant of under potting. Key branches may die without reason, spoiling the design. Good luck.

Many other pines can be grown as bonsai in this area including loblolly pine, sand pine, lacebark pine, Austrian limber pine, Mexican white pine, Swiss stone pine, etc etc. All these have some different features. Paradoxically, bristlecone pine, twisted and century-old in nature, does poorly as bonsai.

PRUNING, PINCHING AND DE-CANDLING

There is a major difference in the response to pruning and pinching between the five needle pines and the others. They bud back less easily, tolerate candle removal poorly, and do not reduce their needle size as readily. Thus, among five needle pines, types which already have dense growth patterns short internodal spaces and short needle length, such as *Pinus parviflora* (Japanese five needle pine) are much preferred over those with the opposite characteristics, such as *Pinus strobus* (Eastern White Pine).

The primary method of pinching five- needle pine is to reduce the candles to 1/2 to 1/3 of their initial length in mid spring, just before the needles begin to open. This should be done over a two or three week period, starting with the strong (upper) candles, and ending with the weak (lowest and inside) candles. Note that this sequence is the opposite as with two/three needle pines, described below.

Among the two and three needle pines, there is a fairly wide variation in the response to needle reduction and pruning techniques. With some, such as *Pinus thunbergiana* (Japanese Black Pine) *Pinus rigida* (Pitch pine), and *Pinus virginiana* (Scrub pine), marked needle reduction and multiple generations of stimulated new growth can occur in a single season in response to pruning and pinching. In contrast, others, such as *Pinus ponderosa*, *Pinus nigra* (Austrian Black pine) and *Pinus leucodermis* (Bosnian pine) simply stop their growth until next season in response to pinching.

With all two and three needle pines, candle work is usually done over a two to three week period. Unlike five needle pines, start with the lowest/weakest branches, and end with the upper/ strongest. This gives the weaker candles a head start. The exception is *Mugho*, which has no apical dominance and therefore can be done all at once.

First, candles may be pinched by 1/2 to 1/3, just before the needles open. Typically this will be in April or May. If you also plan to de-candle, don't pinch back the weakest at all.

De-candling is exactly what it sounds like: Remove the entire new candle; all of them! Right down to the point of the previous years growth. Do not leave even a stub from this year's candle. This should be done when the needles have completely opened, from mid

June to early July, and should be done sequentially, weakest to strongest as noted above. This may be done with the following pines: Japanese black (corkbark only every other year); Japanese red; pitch; Virginia (scrub); sand; and vigorous lacebarks and loblollies. You can try it on all the other two and three needle pines safely, but in most cases they just put out buds, which do not open into candles until the following year.

The result of successful de-candling is that the pine then puts out a larger number of brand new candles at the cut tips. All of which will have more compact growth and shorter needles. These should be reduced in number to two per tip once they are large enough to accomplish this. Occasionally, these new candles will be long enough that the strongest need to be cut back. Pines should be fertilized heavily the autumn and spring before decandling.

Note that the length of the needles can actually be controlled to some extent by the timing of de-candling. Early de-candling (e.g. mid-June) yields stronger, longer needles; later (e.g. early July) yields shorter needles. Watch out with doing it too late, though. I've had Japanese black pines with no needle longer than inch. They look great through the fall and winter, but put out dangerously weak growth the following season, precluding de-candling for two years.

None of these methods necessarily applies to Ponderosa, nor does anyone really know what to do with them!

Incidentally, I have read articles suggesting that withholding water and fertilizer should control needle length. This is a poor method, especially if you are still trying to develop your pine.

BRANCH PRUNING AND WIRING

Most of the major styling manipulations are best done in the winter. Major branch removal should always be done during dormancy. Also create jin and Shari. Wiring should be carried out any time between mid-September and March. Wiring in the later spring causes slippage of cambium (not good!), and Spring/Summer branch removal can cause sap leakage for months!

Precede wiring with needle pruning, i.e. removing last year's and some of this year's needles. This opens up the interior to light and circulation, as well as markedly improving the appearance and ease of detail wiring. By leaving a somewhat greater number of needles on low/weak branches, you can also contribute to your goal of equalizing the strength of the branches.

Detail wiring brings out the finest appearance in pines. Use copper wire if you are comfortable with it. Carry the wiring out to each shoot.

Some masters suggest pointing the tips straight outward, others suggest turning them all upward. Who's right? Actually, either can be done, depending on your goals. Turning them upward improves the immediate appearance and actually improves the strength of these tips (auxin production is increased by geotropism). On the other hand, wiring them straight out promotes more back budding, improves the vigor of small weak inner growth (both by decreasing the auxin production in the stronger end tips), and places the branches in proper position for next spring's new candles to arise in the proper foliage plane. You can actually mix the two, wiring tips from weak branches pointing upward and strong branches straight outward.

GENERAL CARE

Pines like well-drained soil, and prefer being too dry than too wet. Feed them in the spring and fall, unless you have a finished tree (is there really any such thing?), in which case you should hold back on Spring feeding a bit as long as you are not planning a major candle removing. Excessive Spring feeding and watering will lengthen needles but this is irrelevant if you plan to de-candle. Pines should always be kept in full sun. They prefer a slightly acid soil, so adding Iron or feeding with an acid fertilizer will be beneficial.

Repotting should be done every other year in very young pines, and about every five years in mature specimens. Be sure all field soil is removed. This can be done immediately with young black pines, but spread over at least two repotting's with others. Miccorhiza should be added or saved and spread back into the lower soil layers.

Pines are relatively pest free. The main pest culprits are pine needle scale (treat with winter oil and with a general insecticide in late spring and August) and sawfly (spot treat with any insecticide or soap in late Apr/May). New growth turning yellow usually indicates diplodia, a fungal disease. Last years needles turning yellow in bands or in entirety usually indicates needle cast, another fungal disease. Daconil is effective for both if applied early. Borers can be fatal to mostly collected trees; if you see holes in the trunk apply lindane into the holes and pray.

Pines are extremely rewarding bonsai, literally magic! By the way, I have to admit enjoying undulating but rising branches in deciduous, and canopies on tropicals!

A Bonsai Technique: Literati or Bunjin Style

By Pauline F. Muth



In China a group of scholars called the literati were the first to do this style. To be Literati a scholar in China had to pass exams given by the government. These men were interested in Literature, History, Philosophy, and the Arts. They were adept at intellectual games and puzzles. When they passed the exam, they became "Men of Books" or "Literati". These men of study were skilled in arts like calligraphy and often painted the trees in the mountains that barely hung on to life. These paintings became the models for the bonsai style we call literati today. During the Song dynasty (960-1278) these scholars were called "wenjen." They wanted to depict nature as it existed in reality.

We think of the trees found along the seashore or in areas where the tree has to reach for meager light.

When the paintings came to Japan they were known as "Bunjin-ga". The bonsai that resulted from these paintings gained a Japanese flavor. In Japan the style is called bunjin. The foliage pads became more trained and stylistic under Japanese influence.



This is a style that is simple yet shows perfect balance and form. It is a form that is best attempted after the artist has mastered the shapes and rules of bonsai for it is in the full understanding of rules that the artist is able to bend and break them and achieves masterful results.

The characteristics of each species will affect the resulting literati and thus determine the final design. Conifers are good for this design or deciduous trees that grow rugged with age.

Although it is a style that bends the normal rules, there are characteristics common to the style:

- It is often a single tree but group literati do exist as twin trunk, forests, or clump styles.
- The trunk is the most important feature ...it has a wonderful line
- Terms used to describe literati are elegant, simplistic, clean, tall, slender and flowing.

- The trunk is often thin and long with no significant taper
- The bends in the trunk have no definite pattern.
- The trunk may be straight, curved or angular has often has a major change in direction. This may occur in the middle or near the apex.
- Mature literati have a trunk that shows aged bark.
- The design must show all dimensions and not be flat
- From $\frac{1}{2}$ to $\frac{3}{4}$ of the trunk should be bare and without foliage
- There should be few branches and they show be in proportion to the height of the tree
- Each branch should be sparse of foliage
- The branches may even cross each other and even the trunk
- A branch may have an acute dropping angle as it leaves the trunk
- The design is asymmetrical
- The resulting bonsai is planted in a shallow container no more than 25% of the height
- Literati shows the spirit of nature.

Literati offer some challenges in long term growth:

- Their height causes them to be top heavy so you may need to tie they to their stands outdoors.
- Care must be taken to keep the foliage sparse and yet keep the tree alive...periodically you may wish to grow the tree in more soil for the health of the tree.

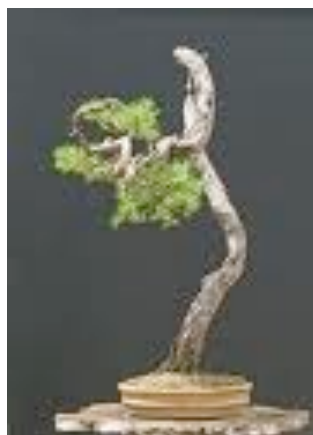
illustration from John Naka



Pottery for literati

Traditional pots for this style are round or square. Unusual container reflecting the conditions of nature are often used. Stone is also suitable. The containers are small and shallow for these creations.

These are examples found on the internet. **NOTE: THERE WILL BE A LITERATI WS WITH COLLECTED LARCH AT PFM BONSAI THIS SPRING**



What is Happening in the Bonsai World?



http://www.internationalbonsai.com/store/1708315/uploaded/national_exhibition/index.html

The **4th US National Bonsai Exhibition** will continue with the presentation of some of the finest bonsai masterpieces in the United States.

Shohin in California

1/31-2/2 2014

Santa Nella

this is my favorite event

<http://www.calshohin.org>



MidAtlantic Bonsai Societies

The 31st annual Spring Festival of the MidAtlantic Bonsai Societies will commence Friday April 25, 2014 through Sunday afternoon, April 27, at the Ramada Hotel in East Hanover, NJ.

<http://midatlanticbonsai.freesevers.com>

A poster for the 27th National Bonsai Convention. The title "Sunrise on Australian Bonsai" is at the top in blue. Below it is a photograph of a bonsai tree in a pot, set against a background of a sunrise with rays of light. The text below the photo reads: "27th National Bonsai Convention 21 - 24 August 2014 QT Gold Coast, Queensland, Australia Registration, Headliners, Demonstrators, Venue and Accommodations Click here".

<http://goldcoast2014.bonsai-bci.com>



**ABS/GSBF
October 31, 2014
Sacramento, CA
Save the Date
Details coming
soon.**

DECEMBER EVENTS

AT PFM BONSAI STUDIO. Also Available MOST weekdays...call to check before coming out
CALL OR EMAIL TO REGISTER FOR ANY EVENTS 518 882 1039



Monday Bonsai Study Group

WE ARE BREAKING FOR THE HOLIDAYS....HOPE TO SEE YOU IN JANUARY

PREVIEW OF 2014 WORKSHOPS AND EVENTS.

NEW TEN WEEK ABS BEGINNER COURSE: Let me know if you are interested. We are setting up possible dates beginning in March.

THE SECOND TEN WEEKS OF THE INTERMEDIATE COURSE BEGINS IN JANUARY. You may start with this set and then take the first sessions next cycle. Contact the studio if you interested. 1/4, 1/25, 2/8, 2/22, 3/8,3/29, 4/5

The following workshops are planned for the new year (others may be added):

- Developing your bonsai from cuttings and airlayering in spring
- Shohin Clump Quince (orange flowering)
- Cotoneaster shohin (nice sized trunks)
- Blended trees
- Forests
- Collected larch and collected Thuja
- Land and water penjing with kingsville boxwood
- Raft bonsai

We will be hosting some great guest artists. Reserve your place now.

Ted Matson May 10 Frank Mihalic TBD Andy Smith (MHBS event) Oct. 26

pfm bonsai studio supports

Mohawk Hudson Bonsai Society <http://mohawkhudsonbonsai.org>

MidAtlantic Bonsai Societies - www.midatlanticbonsai.freesevers.com

American Bonsai Society - www.absbonsai.org

Bonsai Clubs International - www.bonsai-bci.com

National Bonsai Foundation - www.bonsai-nbf.org

please visit www.pfmbonsai.com for current happenings at the studio

pfm bonsai studio
7 Western Avenue
West Charlton NY 12010

