



Welcome to the ABS Newsletter for December, 2016. Since the next newsletter isn't until January, I would like to wish each and every one of you a most wonderful holiday season – in whatever way that means to you.

We've still got our hands out for newsletter content. (I suspect that'll be a perpetual state.) Even if it's only an idea for an article, please don't hesitate to drop me a note: [dave.paris@w3works.com](mailto:dave.paris@w3works.com) We're here to bring a fresh perspective and solid information to everyone, so your input is invaluable. This issue is a little thin due to a lack of content in the vault, but I'm sure we'll rectify that together soon enough.

...and now, on with the newsletter!

### The Bonsai Garden – Andrew Robson

There's something magical about a garden that's hard to put into words, it's like a little slice of Elysium in our own backyard. The great impressionistic painter Claude Monet once referred to his garden as, "my most beautiful masterpiece." British actress Audrey Hepburn said that, "to plant a garden is to believe in tomorrow." Thomas Jefferson loved returning his gardens at Monticello, saying, "though an old man, I am but a young gardener." Historically, gardens have been a pillar of human life, once serving as a indispensable place for growing the food necessary to survive, and evolving through time, to now being a place of enjoyment and delight.

Sadly, in my experience the American bonsai enthusiast pays little attention to the place in which their trees reside. The bonsai garden for the average American enthusiast often serves as only a functional place, rather than an aesthetic one as well. I've had the honor of being Michael

Hagedorn's full-time apprentice for the last six months, and one thing that Michael has taught me is the importance of a beautiful space to enjoy bonsai. In Michael's yard, we try to give as much attention-to-detail to the yard as we do the trees we work tirelessly on.



One important part of bonsai gardening is cleanliness. As an apprentice, I spend the first hour of every work day cleaning the yard. This involves weeding the bonsai, sweeping the studio, and making sure the space around the bonsai benches and posts are kept very tidy. Michael's garden consists mostly of benches over gravel, and several display posts in small moss gardens. The gravel creates a clean state for one to view the bonsai scattered throughout the yard.



The bonsai are thoughtfully arranged on the benches. A tree on the end of the bench will flow in the direction of the other trees on the bench, rather than flow out into the yard, leading the viewer to the other bonsai. The trees on the benches are spaced out so they can breathe, and so the viewer can appreciate each tree individually. Each tree is free of weeds and other debris, allowing the viewer to only focus on the bonsai. In Michael's yard, there are a few elements of display sprinkled about. A small clay hut resides next to his giant mountain hemlock clump, suggesting a small dwelling next to an ancient wood. A natural pool stone, refilled with water every morning, sits next to an ancient Rocky Mountain juniper, suggesting an alpine lake near the mountain tree. Though these elements are subtle and sparse, they bring a piece of traditional display outside and into the bonsai garden.



Michael sometimes refers to his yard as a sanctuary, and one of the very special services we offer at Crataegus Bonsai is a space for people who have experienced recent loss or trauma to come be around trees. We recently had a fellow come by the garden for this no-fee service. He had been dealing with some stress from a taxing legal battle he was involved with, and he came over one sunny, autumn afternoon to relax among

the trees. With a cup of tea in hand, and some gentle music exuding from the studio, his day was made a bit brighter being around the elegant and graceful trees of Michael's yard. It was then as I sat in the studio, wiring an Engelmann spruce and watching this stranger experience the backyard sanctuary my teacher had built, that I realized the importance of having a special place for our bonsai. A place that is not just functional for our trees to reside, but one that can soothe our soul and exude the peace and happiness we experience by having these little trees in our lives. A garden, as beautiful as the trees themselves.



“Everything that slows us down and forces patience, everything that sets us back into the slow circles of nature, is a help. Gardening is an instrument of grace.” May Sarton



**The Price of Dogs, and Other Bonsai Mysteries  
- Andrew Smith**

Anyone know what “forsooth” means? Shakespeare used that word now and again but, in truth, I can’t quite put my finger on what he was getting at.

Doesn’t matter, really. I’ve got by without it so far, and I don’t foresee a big need for it in the near term. Even so, I’ve suddenly got the itch to use it somehow.

“Forsooth!” said my wife one morning. “That juniper you brought in the house sure has a pungent smell.”

“I didn’t bring a juniper in the house,” I said, and went back to lacing up my boot.

“But I, forsooth, smell one,” she said. “It’s very strong.”

“Now that you mention it,” I agreed, “I smell one too. Oh wait; it’s just my boot. Rats, I think your forsooth cat peed on my boot.” And I pulled on the other one.

“The cat peed in your boots? And you’re forsooth wearing them!” She sounded horrified.

“ON my boots,” I said, “not IN them. And besides, it’s just the left one. The right one is fine. And she’s your forsooth cat.”

“You brought that forsooth cat home!” she said, “Not me.”

“I brought her home as a present for you!” I said.

“Don’t you try and give her to me! And get those forsooth boots out of the house!”

“Alright, I’m going!” And I headed out the door to Wyoming. My left boot smelled like a juniper, and that’s exactly what I was going to look for. I took it as a lucky omen.

I got to the mountain the next morning. From a distance it looks like an uninspiring low ridge of rocks lying on top of the prairie. But the closer you get, the bigger it gets, and once you start climbing it becomes enormous. And you realize that there are hidden worlds in this tiny looking mountain.

I’d been to this mountain before, many times. I’d come back to look for junipers, but especially one magnificent juniper that had somehow gone missing years before.

Me an’ the boy and dog used to come camping here sometimes. The boy loved climbing around on the rocks and the dog liked chasing rabbits and I just followed along. One summer day we were climbing around up there when I stumbled on a magnificent, ancient Rocky Mountain juniper. It was the most twirling, twisting deadwood dragon I had ever seen, with a few tufts of live green foliage sticking out of the top. It was fantastic. And, when I looked at the root pad, I thought it was possibly a collectable tree. But it was the middle of summer right then and much too hot and dry to try transplanting such an old tree. So I just wished it luck, snapped its picture with my new half-megapixel camera, and planned to come back another time.

That was years ago. The boy is grown and married now and the dog no longer bounces beside me through mountain and forest. And though I clearly remember where I left that juniper, I can’t seem to get back to it again.

When we got the dog, the boy and I were working together marking timber. The boy had his learners permit and was scaring me to death driving us to work in my pickup every morning. One day we went by a place and there was a sign that said Free Puppies. “Let’s stop,” I said, and I sent the boy in to pick one out.

He went around behind the house and came back a few minutes later carrying a pup that was as floppy as a bathroom rug. “Why don’t you get one with some air in it?” I said. But the boy had chosen, so that’s the one we took.

And that turned out to be the best dog. I couldn’t even begin to say.

That was years ago. I think gas costs the same, or less, right now than it did then. But the price of dogs is through the roof. Whatever happened to Free Puppies? I’ve been looking through the classifieds in newspapers all across

the country and the price of dogs is astronomical. \$600, \$800, \$1,200, \$2,000; it's crazy.

It's runaway dogflation is what it is, and it's hurting America. A country where the average Joe can't afford a dog is in trouble. Who else will remind us that there's always time to play? Who else will offer us a paw even if we've been bad? A world without dogs? A life without dogs? Forsooth that.

But the dog was gone now and the boy was grown. So it was just me heading up that mountain to find that magical old juniper. Before me was a mountain of memories, and a mountain of stone.

Just the year before I'd come back here to find that old juniper at the urging of a bonsai lover, who offered to buy it if I could find it and collect it. I wasn't sure it was collectable, but I was sure I could find it, and after repeated requests I went over to see.

I spent a whole day crisscrossing the hidden ridges and canyons of that mountain, but I didn't find the juniper. I found some rock slabs the boy and I had stacked up that long ago day and then left behind because we couldn't carry them all. So I knew I was on the right track. I put a couple on my pack frame and took them home instead.

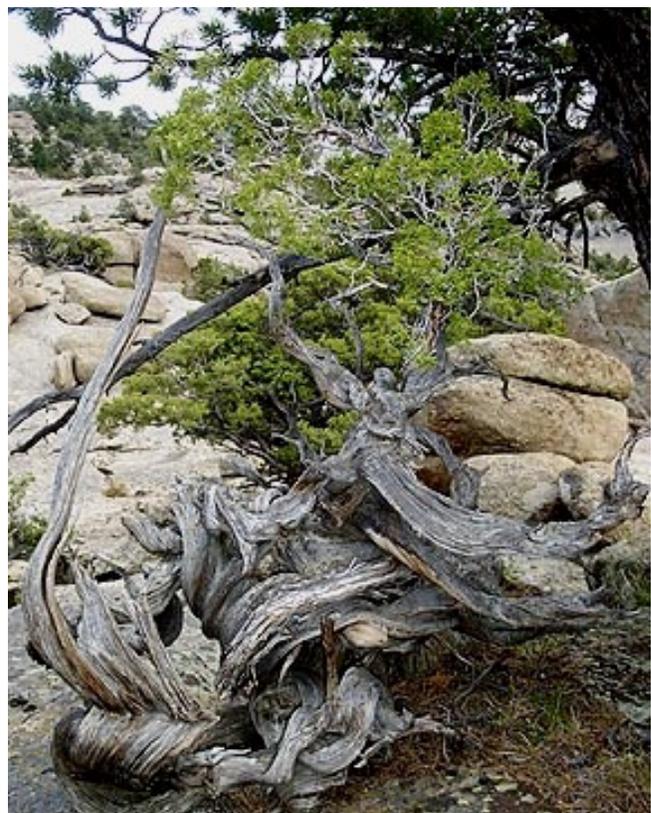
But where was the juniper? The mountain encompassed several square miles and probably had well over a half-million junipers growing on it. Finding any given one might be difficult.

This wasn't just any juniper though. It would be instantly recognizable, to me at least. And I clearly remembered where it was. Clearly. But I went home without having found it.

And now I was back to look for it again. I had narrowed my search area and was confident I would find the tree this time. Trees, after all, are the ultimate homebodies. They never go nowheres. I climbed to the ridge and skirted along the north side of it, looking for the rocky plateau where I remembered finding the tree. I found the plateau, but after a couple hours I still hadn't

found the tree. So, I climbed up higher and found another plateau, kind of hidden right along the ridge. Aha! This is where it was. But time went by and I still couldn't find the tree. There were lots of gnarly, ancient junipers and broken, wind-splintered old pines; but the tree I was looking for, the real dragon, remained hidden.

I kept climbing up until I reached the ridge and crossed it. But now I was on the wrong side. I clearly remembered that the tree was on the other side. Clearly. So I crossed back over, then climbed down a little lower to look. But I still couldn't find it.



This is not the first tree I have lost in the mountains. It's really amazing how, without moving an inch, they can wander away from the spot where you think you left them. But they do, and I have sometimes looked for years before finding one again. And when I do finally relocate them they're always right where I left them. It's

hard to say how that works.

The sun began to drop. The old juniper was beginning to seem like a quest or a dream -even more magical and mysterious because I couldn't find it. It was in some shimmering place I could see in my heart, but no longer reach. I wanted to keep searching until I found it, but that would have to wait for another day. For I had to go, leaving mountain, memories and juniper behind.

Ah, forsooth!

## **Wire & Contorting Trunks - Tradition vs. Physics – Dave Paris**

In the beginning, there was rope and weights. The bonsai artist saw this and thought it was good. Some time later, man created copper wire, annealed to dead soft, and this was considerably better. At a later point, man realized that anodized aluminum wire also worked well and thus the debate of copper vs. aluminum was born and has remained a sticking point henceforth. Lo, the copper wire was considered only appropriate for evergreen trees, while aluminum was relegated to the domain of deciduous and tropical trees. And with that, the traditional domains of copper and aluminum wire were born.

Let's ponder an anecdote for a moment. Sue learned to roast the most amazing, flavorful, and deliciously perfect pork loins from her grandmother. (no offense intended to vegetarians or vegans, bear with me here, it'll make sense in a minute) The flavor, the juiciness, everything about them was as good as you could possibly imagine. The first step was to cut 1" off the each end of the roast, before rolling it in the appropriate spices and placing it in the roasting pan. one afternoon, Sue and her grandmother were in the kitchen and Sue was preparing one of these amazing roasts. She cut each end off first.

Her grandmother immediately took a step back and asked what Sue was doing. Sue replied, "well, you always cut the ends off the roast and it always turned out perfect!" Her grandmother laughed heartily, looked at Sue and said, "I trimmed the ends off because the roast wouldn't fit in my pan!!" What does this anecdote teach us? It teaches us that just because something was done a certain way, it doesn't mean there's a valid purpose for doing it every time.

Our selection of wire material is not wholly unlike Sue and her grandmother. Copper has traditionally held the role for conifers and aluminum for deciduous and tropical. What if I told you that there's no truly valid reason for this tradition and that the application of physics can actually provide proof to the contrary?

Now, before anyone labels me a heretic, blasphemous, or comes marching to my doorstep with torches and pitchforks, ready to haul me off to the town square to be put into the stocks and have tomatoes hurled at me, permit me to explain a couple instances where I follow tradition, and I'll explain why. If you are doing fine detail wiring of a conifer or a satsuki and you need to simple angle each terminal bud up slightly in order to present the most appropriate positioning and image, by all means, grab yourself a spool of 22ga or 20ga copper. It's the best tool for the job and will all but disappear into the branch when the tree is placed on its stand, ready to be presented for the world to see. I wholly encourage you to do this. Yes, it will take a considerable amount of time. Then again, we're talking about training trees for \*years\*, so this little extra time to present as perfect an image as possible isn't exactly a radical notion. The other instance - aluminum wire with deciduous trees. That's just fiscally responsible and appropriate by the standards of physics. Aluminum is both less expensive than copper, and you need a larger diameter wire to have the same holding strength

as copper. The spreads the point of pressure against the branch over a larger surface when bending the branch. Considering the wire will only be on for a few weeks, this is good for both cost savings and, more importantly, resistance to potential wire bite. Now, pin that last little bit about spreading the point of pressure in your head because it's about to become quite important.

When we have material we wish to put fairly extreme bends into, tradition dictates we grab a hunk of raffia, soak it well, apply a layer, then apply a spline of wire to the outside of each curve we wish to create, apply another layer of raffia, and finally put our copper wire over this. We can then proceed to bend manually, mechanically, or, for some, through the use of The Force. (Jedi bonsai artists are the bane of my existence. Really.) When you write it all out, it sounds like colossal PITA. If you've moved on from raffia to Vet Wrap [tm], it's still pretty much the same song, just a slightly shorter verse. There *\*is\** a time and a place for this. Fairly heavy branches that you want to move significantly - there's not much of a better situation for this application of wire, spline & wrap.

Now, let's talk about shohin, or even mame material. This presents a very different scenario. One where we can apply physics to achieve our desired result, flying squarely in the face of tradition (and, occasionally, at risk of bodily harm or at least a good rant against us online). As I do specialize in these smaller trees, I've experimented with various wiring techniques, imbued from reading, observation, and 3rd party anecdotes.

Before we continue, let's get some apples to apples comparisons:

10ga copper = 2.59mm  
12ga copper = 2.06mm  
14ga copper = 1.64mm  
16ga copper = 1.29mm

18ga copper = 1.02mm

So for diameter equivalency's sake (without regard to holding power), we can say this:

10ga copper = 2.5mm aluminum  
12ga copper = 2mm aluminum  
14ga copper = 1.5mm aluminum  
18ga copper = 1mm aluminum

Let's say we want to take a Japanese Red Pine (*P. densiflora*) and really twist it into some extreme shapes. Could also be a shimpaku, Japanese Black Pine, various satsuki or azalea whips, or other appropriate species that lends itself to extreme bends without cambium slip. We could easily accomplish these bends with 14ga copper. That would give us about 1.64mm of support on the outside of each curve. On the other hand, we could use a pair of 2mm aluminum strands, and support 4mm of the outside of each curve. That's about 2.4 times more surface area of trunk we're supporting, reducing the possibility of the trunk or branch breaking. That's considerably more support for a bit less money and significantly less possibility of wire bite.

That's only half the equation. The other half lies in how the bend is created. Most bonsai practitioners will ensure that the outside of the curve is supported by the wire. This is all well and good, but there's a better method we can employ. The primary stress on the heartwood is at the point of the bend. If we use a traditional bend, which is supported at the outside of the bend by the wire, we're concentrating all that bending stress at a single point. If we apply a twisting motion while creating our bend that's supported on the outside of the curve by the wire, we're also spreading the stress of the bend over a significantly larger section of heartwood, greatly reducing the possibility of creating a single point of stress, leading to a break. The direction of the twist is irrelevant. We may start out with the first curve being a clockwise twist and bend with the

subsequent bend being counter clockwise, rotating downward, then upward, and finally finishing with an additional counter clockwise twist. I would suggest that the more radical the bend, the more it be done in stages - with a few days between each bend to give the heartwood and cambium a chance to expand and stretch to the new curves. A truly radical bend in older material may take as long as two months to accomplish. Fortunately, bonsai is not a speed competition and the first priority is the health of the tree.

In a followup to this, either in the newsletter or the Journal, I'll include images to illustrate each point detailed above for those who consume new knowledge through images better than words. For now, believe me - wire choice shouldn't be dictated strictly by tradition, by what physics says is the better for the task at hand.

## Upcoming Events

December 18 – A Bonsai Solstice @ Pacific Bonsai Museum  
<http://pacificbonsaimuseum.org/events/>

April 7-9 2017 – MidAtlantic Bonsai Societies Annual Spring Festival  
<http://midatlanticbonsai.org/>

May 25-29 2017 – ABS / BSF Convention  
Moving American Bonsai Forward – ABS 50<sup>th</sup> Anniversary.  
[http://bonsai-bsf.com/?page\\_id=3103](http://bonsai-bsf.com/?page_id=3103)

## Newsletter Submissions:

Please send submissions, upcoming events, article ideas, raves, rants, and so forth to [dave.paris@w3works.com](mailto:dave.paris@w3works.com)

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