

Bradley Evans

Learning from Bonsai

In these unpreceded times, a small number of Arboretum staff are meeting the challenges and tending to essential duties on site, such as watering the plant collections. One “Small Team” staff member is Bradley Evans who normally manages the Introduction Garden and is now also assigned to the Bonsai care team. While he has a wealth of knowledge about plant culture and maintenance, Bradley is enjoying this foray into a new realm of plant care.



I am a horticulturist at the Arboretum and my primary work for the past 15 years has been managing the Introduction Garden that surrounds the Visitor Center and pool, growing plants and designing landscapes, both seasonal and permanent. I focus on myriad different plants, from orchids to cacti, tropical plants to succulents, along with perennials, trees, and shrubs. Even though I work with a variety of plants and have to contend with all of their different seasonal needs, I was beginning to get a bit complacent, maybe a little too comfortable, since their needs are fairly predictable.

Being chosen to help out in the Bonsai & Penjing Museum piqued my interest and inspired me to learn as much as possible about these small, mysterious old trees in pots. I had some of my own bonsai in high school and college, but now I realize that I was never fully invested in maintaining them nor had I researched the intricacies of pot media, care, and plant training for bonsai. At that time, I was infatuated with orchids and their care and maintaining a saltwater reef tank filled with fish, coral, and various other invertebrates. Bonsai was merely a side interest.



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WATERING

Being immersed in bonsai and helping to water them on a daily basis has been a real eye opener. For the first week, I mostly followed Michael James, the Museum Curator, around and watched him do his work. Bonsai may need to be watered two or three times a day, depending on the season, which initially seemed crazy to me. For the plants in the Introduction Garden, I water them heavily in the morning and move on. But as I learned with the bonsai, the aim is to have them start the morning thirsty and give them a heavy watering early in the day. That watering can involve up to 10 passes of the hose to see water coming out of all the holes in the bottom of the pot. In the afternoon, usually around 2:00 p.m., a touch-up watering is necessary to carry them through the rest of the day until the following morning. If the bonsai are dry at 2:00 p.m. and they don't get a touch-up watering to carry them through, they could lose branches over time. Having that knowledge was important, as was knowing when certain recently repotted bonsai just need a morning touch-up of water since their roots are just beginning to grow into the fresh *akadama*, a very specialized porous bonsai potting medium.

MOVING FORWARD

It's hard to believe there's so much to learn about watering and pruning and the eccentricities of each bonsai plant, since care can vary greatly among individual plants. What I have learned about watering, I want to apply to the plants I grow for the Introduction Garden. For the bonsai, a lot of times, the potting media may be wet, but the plant would benefit from having just its leaves watered. I found this to be especially true in the tropical greenhouse portion of the bonsai collection. Watering only the leaves can help get rid of pests like mites and knock out old dead leaves.

As for pruning, I never really paid attention to the direction of dormant buds on plants unless I was pruning roses. Pruning branches back to dormant buds in specific directions can really help with the long-term shape and evolution of the form of all sorts of plants. In the future, I will not be afraid to severely or more frequently prune back plants with especially vigorous growth. Some tropical plants can benefit from relatively hard pruning more than once a year. In general, bonsai are heavily pruned to maintain their shape.

I have learned about potting media, too. Bonsai are often potted in mixes of *akadama*, granite grit, or *kanuma*. They really benefit from having the additional aeration these ingredients provide. I thought it was particularly interesting that the majority of our azalea bonsai are potted in mostly *kanuma*, which is a soft, highly acidic, crumbly media that's ideal for azaleas because of its moisture retention and drainage properties. I'm thinking this media might make a good soil amendment for growing healthy azaleas or any other acid-loving plants before they are planted in any collection.

My journey into the world of bonsai has been one of learning and appreciation, of being much closer to these ancient and revered plants than I had ever been before. Being a temporary caregiver has led to a certain feeling of bliss and the joy of quiet contemplation while doing my work and thinking about all the other people who previously engaged with these plants with such passion and care. I plan to use the experience and knowledge I've gained from working with Michael James to better and more thoughtfully care for my Introduction Garden plants. 

PRUNING

Along with helping to keep the bonsai properly watered, I have also been learning how to prune them. It's fascinating and a bit stressful to prune a tree that has been in training for 200 or 300 years. Each new sprout has to be cut back to the first internode. From what I've learned so far, if the fresh spring growth isn't pruned back sufficiently, the shape and training of the tree can be lost. And since the bonsai are planted in pots with limited root space, trimming back the sometimes vigorous branches helps achieve a delicate balance between branch growth and the very limited amount of roots in the small soil volume to support that growth. I am very lucky that Michael has been close by and open to questions. To immeasurably ruin the form of a bonsai is a burden I could not easily live with.

BRADLEY EVANS normally manages the gardens surrounding the Administration Building and parking areas, collectively known as the Introduction Garden. This spring, he is also assigned to the Bonsai care team.

