## The Art of Bonsai

By Eugene Howell

Last month we took a break from discussing the environmental needs of bonsai to discuss the Spring jobs we needed to get out of the way before the end of March. Let's now get back to the discussion we had going in the February newsletter.

Many novice bonsai enthusiasts have a preconceived idea that bonsai are excellent for displaying in the house on a coffee table or shelf and want to keep them there indefinitely. Those that do this are totally ignoring the role that light plays in the health and growth of a bonsai.

Light is the second of four major environmental factors (temperature, light, water and soil) that determine the health of any plant: we discussed the first, temperature, in the last BSOB Newsletter. If you missed the last newsletter, let me know and I will email you a copy of the article.

Just as plants are genetically coded to grow within certain temperature ranges (discussed last month) so they are coded to thrive in certain light environments. From a plant's standpoint there are three types of light – full sun, partial shade, and full shade. You will frequently see the middle one called "partial sun" but they are the same thing (is the glass half full or half empty). A full sun location is one that receives six or more hours of direct sunlight each day. A partial shade location receives more than three and less than six hours of direct sunlight each day and a full shade location receives less than three hours per day (including no direct sunlight at all). It makes no difference when during the day the plant receives this amount of light. It can even receive it in one dose, or several short ones. Don't get confused! Lack of "direct sunlight" is not the same as "no light". You might be amazed at how many people have purchased a plant that preferred "no direct sunlight" and then went home and put it in a closet.

Generally, if a plant is placed in a one-step shadier location than it prefers e.g.., a full-sun-loving plant placed in a partial shade location, the plant will tolerate this for quite a while and probably will never die from this alone. However, it will not grow as robustly as it would in the proper light environment. It will have longer internode distances (not good for a bonsai), fewer leaves, and will probably never develop as good a ramification as it would in the correct amount of light. If however, it is placed in a two-step shadier location e.g., in full shade, then it is likely that it will eventually die, or lose virtually all its leaves. The opposite is also true. One step of more-sunlight can usually be tolerated but the leaves will probably burn and many will drop off. Two steps will probably eventually kill it.

So what does all this mean for our bonsai?

Here in central Florida there are few plants that we use for bonsai that are not full-sun-loving plants. Those that need to be placed in partial shade are generally ones from cooler hardiness zones (remember the discussion in the last newsletter) and because our summer sun is so intense and hot, they need protection from the mid-day sun. Those of us who have tried to grow Acer palmatum (Japanese maple) here in Florida have long since learned that the only way you can do it is to keep them in full shade. They don't like it, and don't grow well at all. They just "exist", so they are not good for bonsai in Brevard. Camellia is an excellent example of a partial-shade loving plant that is used for bonsai and which does reasonably well in our hardiness zone 9b.

If you have concern about whether the hot, mid-day temperatures of our summer will harm a particular tree, place it in a position where it gets full sun from sunrise until about noon and then again from 5:00 p.m. until sunset. This will provide enough direct sun to keep it healthy, but will avoid the hottest sun in early afternoon.

As I mentioned before, you must know the environmental needs of your tree. If you do, then your plant will never suffer from too much or too little of the correct type of light.