

## A Guide to Photographing Bonsai and Kusamono

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By Carl T. Bergstrom



When showing a bonsai, the little details make a big difference. When taking photographs of bonsai, the details matter too. My aim in this article is to share what I've learned about the technical aspects of photographing bonsai. None of the techniques that I've discussed here require expensive equipment or technical sophistication. If you have a cheap point-and-shoot camera (or better) and \$25 to spend on a tripod, you can do just about everything I've suggested here without further expense.

Eight tips for better bonsai photography:

- [Use a backdrop](#) to isolate your image.
- [Plan your lighting](#) to bring out depth and detail.
- [Shoot from a tripod](#) for a sharp image.
- [Create depth-of-field](#) and minimize distortion.
- [Prepare your tree properly](#) before taking its picture.
- [Provide a visual baseline](#) in your composition.
- [Use a digital photo editor](#), but use it sparingly.
- [Don't blame the camera](#) - even a cheap camera can give great results.

### Tip 1: Use a backdrop

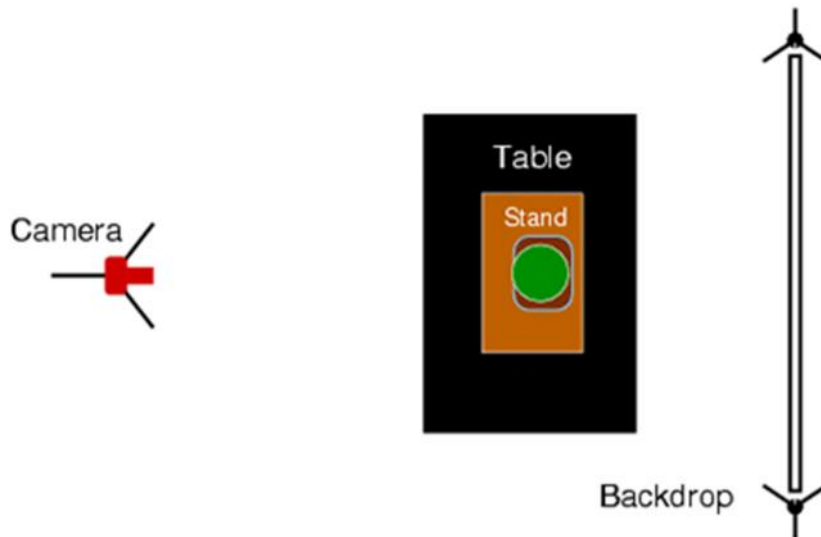
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To show your bonsai to the best of its potential, you need to remove distracting elements from the background. The best way to do this is to use a backdrop. I usually use black velvet so I'll focus on that here --- but other colours or fabrics may be equally appropriate. Photek makes nice backdrops in a range of colours; duvetyn fabric reportedly provides very nice light-swallowing black at a relatively low price.



Colour. A black backdrop makes the tree "pop" out, whereas light colours provide a softer, more balanced look. In the Kofuku albums, black backdrops are used primarily for flowering trees, and occasionally to highlight the white bark of deciduous trees such as beech or the white deadwood of junipers. An off-white backdrop is used for most of the trees.

Position. I position the backdrop at least 5 feet behind the tree, for two reasons. First, the distance makes it easier to keep my reflectors or light sources from throwing light on the backdrop. Second, the backdrop will be out of focus when the tree is in focus - and thus little lint marks, creases, etc., are less likely to be visible.



Exposure. Using a black backdrop confuses the light meter on most cameras; the meter expects a scene to be roughly 17% grey instead of the much darker value of a black backdrop. If you don't correct for this, you'll end up with a photograph where the tree and background are too bright, or "washed out." To compensate underexpose the image by using a shorter shutter time (or small aperture) than expected. I typically get good results by under-exposing by 1.3 to 1.7 stops.

If you are using a white backdrop, the light meter also gets fooled, but in this case the problem is reversed. If you don't correct for it, you'll end up with an image where both tree and background are too dark. To compensate, you'll need to slightly overexpose the image by using a longer shutter time (or larger aperture) than expected.

If you'd rather avoid the problem than compensate for it, you can use a neutral grey or blue backdrop. These colours are usually close enough to the expected 17% grey that you will not need to adjust your exposure time.

A cheap alternative. For those of you who don't want to invest in a stand and photographic backdrop, there are cheap alternatives. The picture below was taken using a one-dollar piece of blue poster board, bent into a rounded curve.

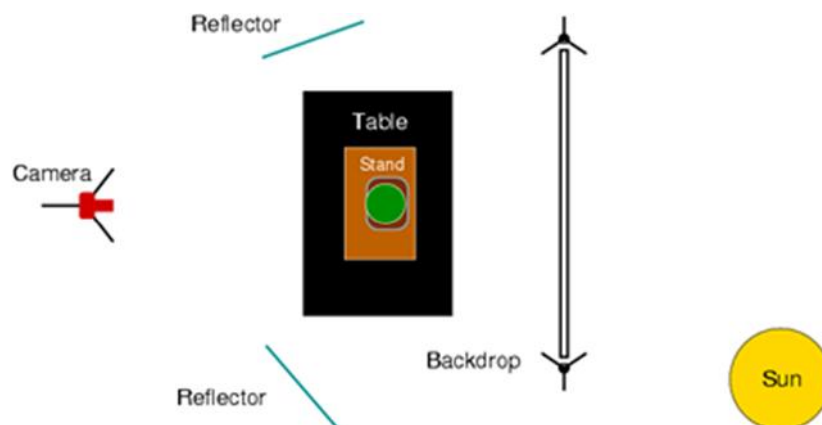


## Tip 2: Plan your lighting

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Good lighting makes the difference between a mediocre photograph and a good one. I like to use natural light, though with a high-quality artificial lighting setup I could probably do even better. Under natural light, I find that I get my best results when I position the tree in the shade on a sunny day or a bright overcast day. I bounce light back onto the tree with a set of reflectors; this creates a sense of depth. You can either buy a set of reflectors at any good photography store, or you can make your own by taping crumpled and re-flattened aluminium foil to a piece of poster board.

Accounting for natural light, our previous setup diagram might look something like the following:



(To avoid lens flare, be sure that the camera lens is shaded from the direct sun.)

Some enthusiasts suggest shooting at night by flash, with nothing in the background. While this works in a pinch, I find that the flash-by-night approach creates an image that is too flat and too high in contrast. Compare the photographs below. The top one was taken with a black backdrop under natural daylight; the bottom one was taken at night with a flash and no backdrop.



Look at how much the lighting affects the texture of the tree. In the upper photo, the tree is soft and lush. You could almost nap among the boughs. In the lower photo, the foliage is spiky and harsh. The photos were taken 12 hours apart, and the tree hasn't changed at all --- it's all in the lighting. Sometimes you may wish to achieve something closer to the spiky appearance of the latter photograph, for artistic effect. Even if you do, direct light or strong reflected light is probably preferable to a head-on flash.

### **Tip 3: Shoot from a tripod.**

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To get a crisp, sharply focused image, you'll do best by shooting from a tripod. This is particularly important in that it will allow you to take the longer exposures necessary for small apertures (higher F-stops) as we'll discuss on the next page.

A tripod is of limited value if you jostle the camera while pressing the shutter. To avoid this, get yourself a cable release or a remote shutter-release. They're inexpensive and they make a world of difference. If for some reason you can't use a remote release, experiment with using your camera's timer, or with

shooting bursts of 3-5 shots with a digital camera or motor drive. The movement that you cause when depressing the shutter will dissipate somewhat by the time the later shots in a burst are taken.

#### **Tip 4: Create depth of field and minimize distortion**

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Under most circumstances, you'll want the entire tree to be in focus: the leaves or needles on the front branches, the bark at the base of the trunk, the back branches, the pot, even the stand. To achieve this, you need to maximize the depth of field that you can achieve. You can do this in two ways:

- Shoot with as small of an aperture (as large of a f-stop) as possible. As you go to smaller and smaller apertures, you get a broader zone of focus - but this comes at the expense of letting less light into the camera and thus requiring longer exposure times. Hence the importance of shooting from a tripod as discussed on the previous page.
- Shoot from relatively far away with a relatively long lens. For photographing bonsai, I get good results using a 70mm lens on my D70 digital SLR; this is the equivalent of using a 120 mm lens (short telephoto) on a regular 35 mm camera.

You get an additional advantage when shooting with a slightly longer lens. As you go from a shorter lens to a longer one, you can increase the camera-to-subject distance without increasing the field of view. As a result, you get a better (less distorted) perspective. When the distance between camera and subject is small, as when using a 50mm lens, parallel lines appear to converge rapidly into the distance. When the distance between camera and subject is larger, as when using a longer lens, parallel lines appear closer to parallel in the image. This is usually preferable for bonsai photography.

#### **Tip 5: Prepare your tree properly**

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When you photograph your tree, you are exhibiting it. Whether you are taking pictures to share on the internet, to enter in a contest, to publish in a magazine, or to hang on your wall, you should take the care to show your tree at its best. Basically, you should prepare your tree as if you were preparing for a show. This is much too involved a subject to treat fully here, but a few initial suggestions include the following:

- Wipe down the pot with a damp cloth to remove splashes of mud and other debris.
- Put on a clean layer of top-dressing or add moss to the soil surface.
- Remove any weeds that have sprouted.
- Trim stray and out-of-place shoots.
- Make sure your wiring is as tidy as possible.
- Place the tree on a display stand if possible. Take care with the overall image, not just the tree.

The basic principle is simple: Respect yourself, your tree, and your audience enough to take a few minutes to present your bonsai properly.

Preview your photographs. If you are using a digital camera, go check your photographs on the computer before taking down your photo setup. I always do this --- and almost always find at least one thing that I want to correct and re-shoot.

Camera height. Set up your display so that you are photographing the tree head-on, directly from the front. The camera should be level with the lower trunk, so that the soil surface is just barely visible. The first picture below is taken from too high (and in the wrong season, and in distracting direct sunlight.)

The second picture shows the same tree photographed from the proper height. This tree is part of the Pacific Rim collection.

Too High!



Just Right



### **Tip 6: Provide a visual baseline**

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The eye is accustomed to seeing natural forms in the context of a full landscape. Trees and flowers and grasses are all grounded by a visual baseline that is provided by the horizon. Under most circumstances, bonsai and kusamono photography will be more successful when they too provide a visual baseline to ground the subject.

Look at the picture below: the (already unattractive) Hosta appears to be floating in a black void.



Adding a stand or base helps a little bit. But the now that stand, along with the planting, appears to be floating.





Here I've allowed enough light to fall on the cloth under the stand that it provides a baseline. I prefer this look. A tatami mat - as is the standard in the Kokufu show albums - would probably be even better, especially if the backdrop was other than black.



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**Tip 7: Use a photo editor (but use it sparingly!)**

You will dramatically improve your photography if you use a photo editor to crop your images and to adjust the image slightly. I use [the Gimp](#), a freely distributed photo editor that rivals expensive commercial products such as Adobe Photoshop. The gimp offers advanced features including layers, masks, filters, scripting, cloning, colour correction, and more. The Gimp is available for [Unix](#), [Macintosh OSX](#), and Windows operating system; I've found that it works smoothly on all three platforms. The on-line book [Grokking the Gimp](#) provides a detailed tutorial covering many of the Gimp's features. What can a photo editor do for you? Here's a rather extreme example. I've started with an unusually bad initial photograph and corrected it with a few simple steps.

Before



After



Let's go through these steps in detail.

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Adjust the angle. The original photograph is off from horizontal by about one and half degrees. I've rotated the image back one degree to compensate. The gimp offers a "corrective" rotation tool; you simply align the rotation grid with a strong horizontal or vertical line in the image:

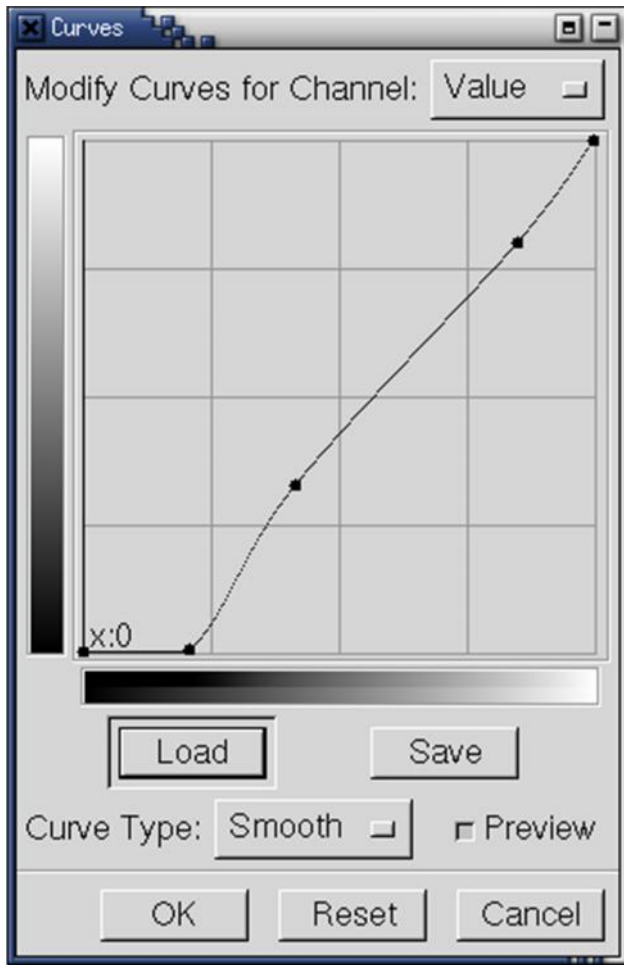


Crop the image. After rotating, I've cropped the image to a more appropriate size. I find it easier to shoot an overly large frame and then crop down than to try to select the exact frame when taking the photography. This also give me latitude for angle adjustments, as above.

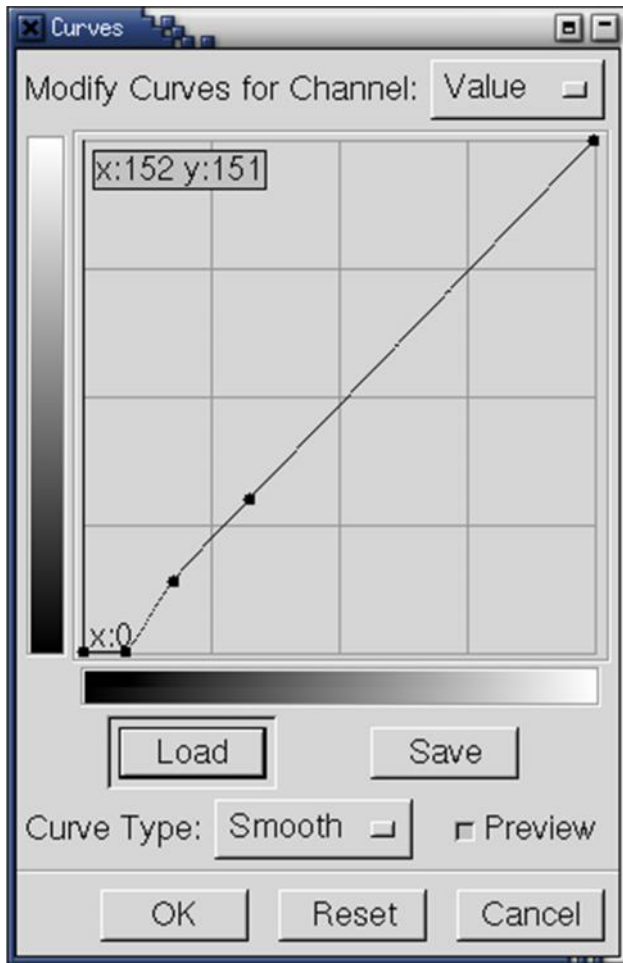
If you plan to share your image on the internet, crop relatively tightly, so that you can make best use of the photo size. If you are photographing a vertical display, crop to a vertical (portrait) frame. Crop a horizontal display to form a horizontal (landscape) frame. And always be sure to leave enough background around the tree that it feels balanced and naturally positioned within the frame.

Adjust the intensity levels. The initial photograph is washed out, the backdrop is grey, and a lens flare glares on the right side of the tree. By adjusting the intensity levels of the image, I'm able to get a black backdrop and crisp, saturated colours that you see in the final image. (Because I started with such a bad initial image, this comes at the expense of a slightly unnatural colour to the base cloth. Had the initial image been properly exposed, much less correction would be required.)

To adjust intensity levels, select Image: Colours: Curves from the Gimp menus. This brings up a dialog box as shown below. Adjust the "value" channel. To correct the sample image here, I used the following curve:



For a properly exposed black backdrop, I use a more "neutral" curve such as the following:



Resize and compress the image. If I plan to share an image over the internet, I want to resize it and compress it to a small file size, with minimal loss of image quality. I don't want to lose my original large-size, uncompressed image files, so I always save under a new name when resizing and compressing.

For sharing on the net, you want the image to appear comfortably within a web Browser or email program. To ensure this, I typically resize an image to be no larger than 600-800 pixels along its longest dimension. (800 pixels is a bit too tall to fit onto most browser screens at 1024x768, so you might want to restrict the vertical size to 700 pixels or so).

When sharing photographs on the net, you also want to keep file sizes small, and this requires some compression. Most internet sites will accept photographs no larger than 50 or 70 kilobytes. To compress your image to this size, save it image as a JPEG file at about 75% quality; this automatically compresses the image file without too much loss of detail. Certain images may need to be saved a higher quality to look good; play around and see what works for you.

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Use your photo editor sparingly. I tend not do much else in the photo editing program. I don't like to retouch my images using the clone tool or to snip stray leaves using an airbrush. For me, that crosses the line from photograph to virtual image. Similarly, I don't like to augment the colour saturation or shift the colour balance. You can get stunning autumn colours that way, but I don't think it's worthwhile.

Partly, I want to record and represent the tree as close to accurately as is possible within the bounds are artistic necessity; partly, I prefer nature's subtlety to the pop of digital enhancement.

### **Tip 8: Don't blame the camera**

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Obviously, you'll do well to use the best camera that you can get your hands on. But if you don't have access to professional quality equipment, don't despair. You don't need high-end equipment to get very nice photographs that will be entirely adequate for sharing on the web. To illustrate, I'll conclude this article with a set of kusamono photographs taken with a very cheap one-megapixel point-and-shoot digital camera. These days, you can find a better camera than this for under \$100 on eBay or elsewhere. These are not my best photographs, but they show what you can do even using very basic equipment.









## Acknowledgements

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I owe a special thanks to [Reiner Goebel](#) and [Wolfgang Putz](#). They have been posting beautifully photographed bonsai and kusamono to the internet for many years. Their discussion-board posts and web sites inspired my efforts to follow their example.

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