

Mastering Depth of Field

Creativity with selective focus

Understanding depth of field and mastering selective focus has the potential to unlock your creativity in photography. Proper utilization of this principle helps, in many cases, to create depth and three dimensionality in a photograph. It allows one to isolate a subject in an otherwise busy background and show the viewer just what it is that he/she wants them to look at. Controlling depth of field is one of the fundamental principles of creative photography.

What exactly is depth of field? Depth of field is the range of distance from the lens that is rendered in acceptable focus. In many portraits, rendering the background out of focus will simplify the composition and allow the subject really stand out and become dominant. Landscape images, on the other hand, often will be more impressive if everything from the foreground to background is in sharp

focus. Knowing what you want as far as depth of field, and how to get it will make a huge difference in creating images that match your personal vision.

Aperture, lens length and lens to subject distance are the three things that factor into the equation determining the depth of field of a photograph. Understanding how each of these affect the image will allow you the ability to make creative decision behind the camera. It is a necessity to being able to pre visualize successfully your final image.

Aperture

Aperture setting is the first thing that needs to be considered when determining depth of field. If you want a shallow depth of field, then you want to select a larger aperture, like $f/2.8$ or $f/4$. Some lenses don't have that large of opening, so

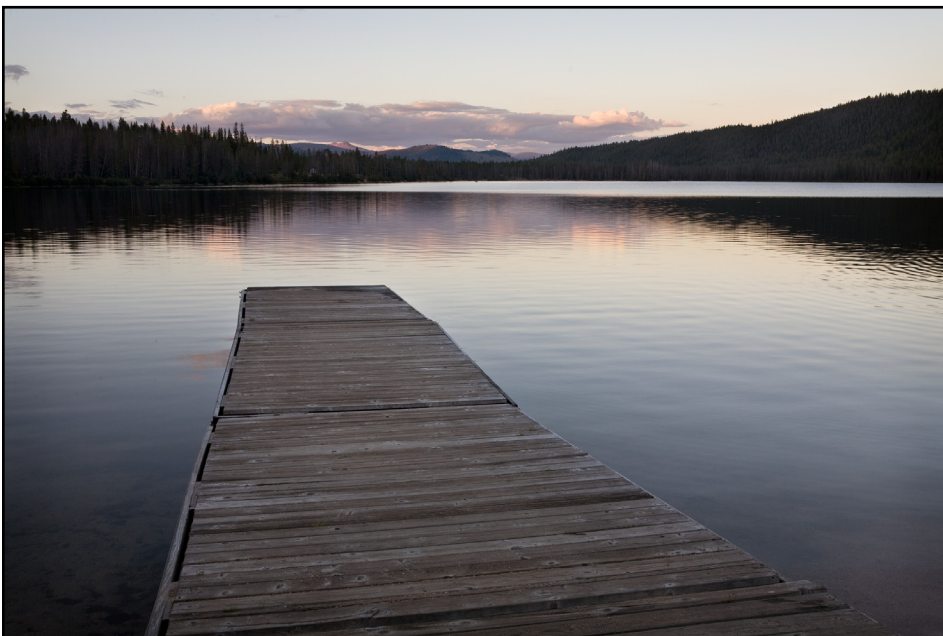


The background is blurry at $f/4$ and helps bring the emphasis to the couple.

use the largest that you have. If you want a long depth of field, then you want a small opening, like $f/16$ or $f/22$. Remember that the sharpest aperture generally is not the widest or smallest opening, so try to not use those settings unless you absolutely need it to get the acceptable DOF (depth of field) that you are looking for.

Lens Length

Lens length also affects how long or shallow your depth of field is rendered. Use a long lens and the depth of field is more shallow. Change to a wide angle lens and the apparent DOF increases. For this reason, it is easier to isolate your subject from the background in a portrait when using a long lens.



Everything, from the nearest point on the dock to the distant clouds are all rendered sharp in the above image, shot at $f/16$ with a 35mm lens.

Lens To Subject Distance

Distance from the camera is the last thing that needs to be considered when determining the settings to use for a photograph. The farther away the camera is from the subject the greater the area of acceptable focus will be. Contrarily, when you are very close to the subject, even with a short (wide angle) lens, the DOF will be diminished.

Putting It All Together

The best way to really start to understand DOF is to get out and experiment. Take notes while you are shooting and evaluate the images upon return. If you are shooting with a digital camera, the camera settings are imbed in the file, and you should be able to see those settings when you open the image. Jot down what you think will happen, then shoot, then evaluate. If you take these simple steps, you will soon be shooting like a pro! The concept is simple, but mastery takes time and practice.



Only the near subject is in clear focus and the background blurry, due to shooting at $f/4$ with a 70mm lens and being very close to the dead flowers.

Assignment

For this assignment, you will need to shoot many images at different apertures. To really see the difference, it is best to shoot at the extremes, some wide open and others fully stopped down. Even shooting the same subject at both extremes will help to illustrate how

depth of field works. You will need to have at least 20 images, however I recommend that you shoot at least twice that many. Remember, with digital cameras it costs no more to shoot 100 images as it does to shoot 1, so if you really want to learn this concept, shoot a lot! It will do nothing but help.

To meet the minimum requirements for the assignment, I must see 20 photographs, ten showing shallow DOF and ten with long DOF. Ideally, I would like to see 20 of each. You will then need to select your best image of each set, one shallow and one long DOF and edit them using Photoshop. I am not looking for over-editing. Keep the images believable. Show good technique using adjustment layers and layer masks to edit exposure, contrast, color and saturation. Nearly all digital images need some sharpening as well, so using your method of choice, apply proper sharpening. Save your files in your finals folder as well as in the assignments folder.



In order to maintain sharp focus from the nearest foreground to the farthest background with a 35mm lens., an aperture of $f/20$ was selected.