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Overview

This week, we are looking at the second of the three parameters of photography — aperture.

Adapted from: http://www.digital-photography-school.com/aperture

APERTURE SETTINGS IN DIGITAL PHOTOGRAPHY

Aperture is the size of the opening in the lens when a picture is taken.

When you hit the shutter button of your camera, a hole in the lens opens up that allows your camera's image sensor to catch a glimpse of the scene you're capturing. The aperture you set changes the size of that hole. The larger the hole, the more light that enters the camera. The smaller the hole, the less light that enters the camera.

Aperture is measured in f-stops. The increments look like this:

f/2.8 f/4 f/5.6 f/8 f/22

Moving from one f-stop to the next doubles or halves the size of the opening in your lens (and the amount of light getting through). F/2.8 is twice as much as light as f/4. F/4 is twice as much light as f/5.6, and so on. That means that f/22 is half as much light as f/8.

Keep in mind that a change in ISO from one setting to the next doubles or halves the amount of light that gets in also – this means if you increase one and decrease the other you let the same amount of light in – very handy to keep in mind.

One thing that causes a lot of new photographers confusion is that large apertures (where lots of light enters the camera) are given smaller f/stop numbers and smaller apertures (where less light enters the camera) have larger f-stop numbers. So f/2.8 is in fact a much larger aperture than f/22. It seems the wrong way around when you first hear it but you'll get the hang of it.

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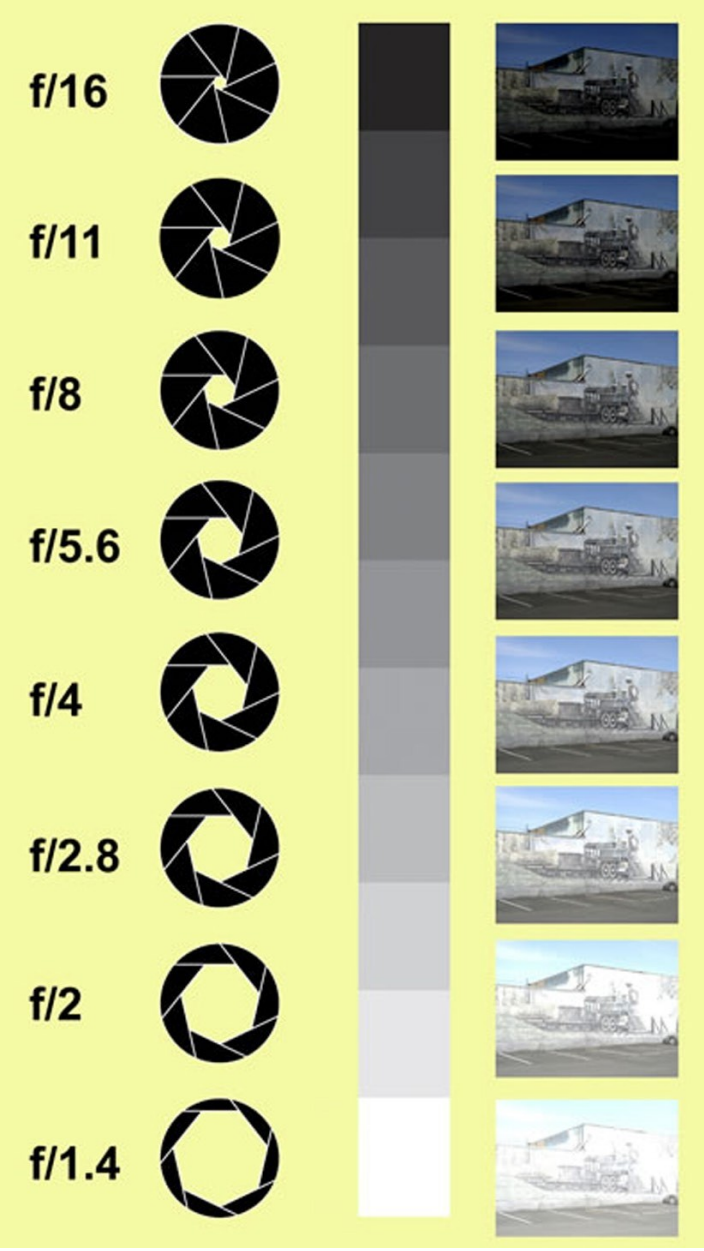

This chart shows the f/number next to its corresponding hole in the lens.

As the aperture number gets smaller (for example, from f/16 to f/11) the aperture opening gets larger and the image gets lighter. The reason you don't usually see this effect in your images is because when you or the camera adjusts the aper- ture, the camera adjusts the ISO or shutter speed to keep the exposure constant.

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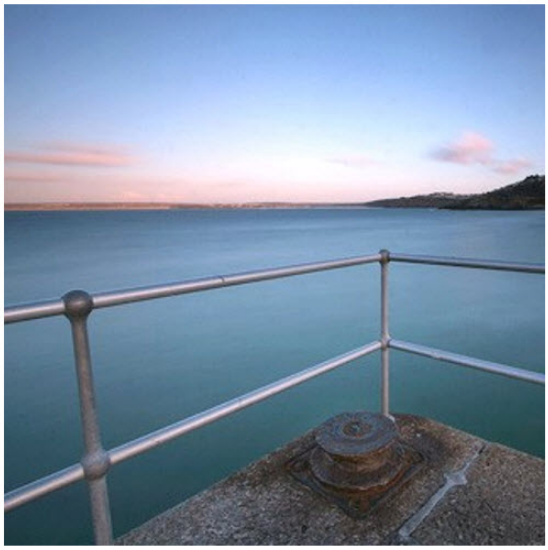
Depth of Field and Aperture Changing your aperture on your cam- era will also change the **depth of field** in your image.

Depth of field (DOF) is the amount of your shot that will be in focus. Large depth of field means that most of your image will be in focus whether it's close to your camera or far away, like the picture to the left. Both the foreground and background are in focus. This shot was taken with an aperture of f/22.



This image has a large depth of field. Photo by Adam Clutterbuck.

Small (or shallow) depth of field means that only part of the image will be in focus and the rest will be blurry, like in the flower below. The yellow stamen are in focus but the petals are out of focus. This is a very shallow depth of field and was taken with an aperture of f/4.5).

This image has a shallow depth of field.

So what does this mean? Large apertures (remember it's a smaller number) will decrease depth of field while small aperture (larger numbers) will give you larger depth of field.

It can be a little confusing at first but the way I remember it is that small numbers mean small DOF and large numbers mean large DOF.

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F/22. This image has a large depth of field.

F/2.8. This image has a shallow depth of field.

The first picture on the left was taken with an aperture of f/22 and the second one was taken with an aperture of f/2.8. The difference is quite obvious. The f/22 picture has both the flower and the bud in focus and you're able to make out the shape of the fence and leaves in the background.

The f/2.8 shot, on the right, has the left flower in focus (or parts of it) but the depth of field is very shallow and the background is thrown out of focus and the bud to the right of the flower is also less in focus due to it being slightly further away from the camera when the shot was taken.

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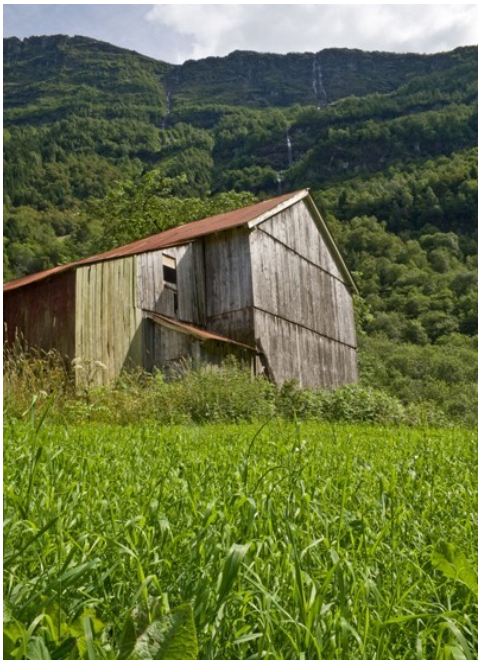
Why would you want to have control over depth of field? Let's say you are taking a portrait of someone. If they are standing against a visually busy background, you can isolate them by blurring the back- ground. You would use a large aperture (small number, like f/4).

There also may be times when you want everything in the frame to be in focus, like in this picture of the barn. The photographer wanted everything in focus, from the blades of grass in the foreground, to the mountins and waterfall in the background. He used a very small aperture (large number, like f/22).

http://www.photographyicon.com/aperture/index.html



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COMPOSITION — USING FRAMING AS A VISUAL DEVICE

Adapted from: http://www.digital-photography-school.com/creative-compositions-finding-framing

One way to make your images more interesting is to frame your subject(s) with another element of your image. All this means is looking through something to something else. A quick Google search of "framing in photography" brings up all kinds of examples. I collected some and put them on the following page.

You'll notice that the subject is always contained by other elements, and it may not be obvious right away. In the first image, the subject is the boys and the action of hitting the croquet ball. The subject is framed by the croquet wicket. In the third photo on the left-hand side, the subject is the couple kissing. They are framed by the edges of the mirror.

The next time you are out exploring the world with your camera, try looking for ways to sur- round your subject with another element in the scene. Framing your subject is a great technique to add depth and visual impact to your photography. Isolating your subject with framing draws the viewer's attention directly to the subject of your photograph, and makes the image more interesting.

When framing within your photos pay careful attention to your foreground and your back- ground. Remember that both elements are present in nearly every photo that you make. Try to find a way to frame the subject with an object in the foreground that relates somehow back to the object. Try to utilize elements in the foreground that may give the viewer more information about where the photo was taken, what the location was like, or even what event or activity is taking place.

To find framing, take the extra time to explore your surroundings when making photographs. Walk around the scene. Find different angles. Look for elements within your surroundings that you can use to fill the frame. Imagine objects as windows and frames to help isolate your subject and highlight what you are trying to show. It's sometimes the simplest techniques that help take your images to the next level.

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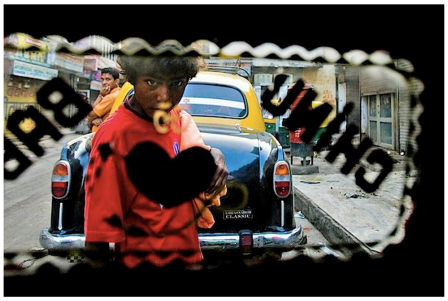

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