

All About Aperture

Practical Photography Magazine

Last month we learned about shutter speed and how to make water blur with a longer shutter speed. Have you gone out and tried that yet? It's springtime and the crocus and daffodils are out - time to get out and try these methods and improve your skills.

Aperture

Aperture governs your depth-of-field, and it determines where the viewer's eye is drawn to in a picture. Impact in our images - impress those judges. This is why we need to learn about aperture.

What does the aperture do?

The aperture refers to how much light the lens lets through. Inside the lens there's a circle of blades called the iris (similar to the eye) that opens and closes to let more or less light through. The different sizes are given numbers (f/numbers) to tell you how much light it is letting through.

As well as controlling the amount of light, the aperture also influences the amount of the images that's in focus, known as the depth-of-field. A wide aperture (f/2.8 to F/4) gives the smallest area that's in focus, while a small aperture (f/11 to f/22) ensures the greatest area is in focus.

Although the aperture has a major effect on the depth-of-field, it's not the only factor. Longer focal length lenses have less depth-of-field than shorter ones, so if you want the greatest amount of your image in focus use a wide-angle lens.

Depth-of-field also decreases the closer you are to the subject. The advantage of the digital camera is that you can experiment without wasting film, so if you have a digital camera, find yourself some subjects and just practice.

How do I control the settings?

You'll find an aperture-priority mode on your camera, most commonly accessed via the Av or A setting on the mode dial. This mode allows you to set the aperture and the camera will automatically set the appropriate shutter speed.

You can change the aperture setting by turning the control dial on the camera, with the value displayed on the LCD screen and also in the viewfinder display. You'll normally find that, as well as traditional settings, your camera also allows you to choose intermediate values.

Aperture Settings

F/2.8 F/4 F/5.6 F/8 F/11 F/16 F/22

F/2.8 - large opening - think of it as 1/2 or one-half and that is bigger than 1/22 so it is a larger opening.

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F/2.8-Tiny or shallow depth-of-field

This setting is only available on more expensive lenses, but the tiny depth-of-field makes it great for throwing the background right out of focus. You need to be especially precise with your focusing though, as it's easy to find that the main part of your subject is blurred. A tripod would be helpful with this aperture.

F/4- Very shallow depth-of-field

This setting allows you to blur the background while keeping as much of the main subject in focus as possible. An aperture of f/4 is also good for lowlight situations, allowing you to shoot without having to increase the ISO setting, but you need to focus carefully to ensure the main subject is sharp. When you get really close to your subject, even a small aperture will give very little depth-of-field. But this can be used to give your close-up shots loads of impact. A macro lens can be useful with the f/4 setting.

F/5.6-Most useful setting

This is one of the most useful settings you can use. With longer focal length lenses, this aperture will give limited depth-of-field, whereas with a short focal length, there will be plenty of the image in focus. It's also wide enough to allow you to handhold the camera in a variety of lighting conditions.

F/11-Middle-ground

The middle-ground of the aperture settings, f/8 and f/11 are great when you want to make sure all your main subject is in focus. When your image has a background that is distraction, then this large depth-of-field will not be the one to choose. But these are useful settings for more general shots, and using them on a wide-angle lens will allow you to keep most of the scene in focus.

F/22-Maximum depth-of-field

With tiny aperture settings like f/16 and f/22 you get the maximum depth-of-field, which is great for some subjects. Remember that using such small apertures can mean slow shutter speeds, so you may need to steady your camera, ideally by putting it on a tripod.

Now that you understand aperture, go out and try it. Take the same image with different aperture settings. Record in a notebook what setting you used. Then next time you will know what aperture is best for the conditions. Bring your images to camera club and show us. We would love to discuss this over the summer.