

Aperture: Light and Focus

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Oct 08, 2005

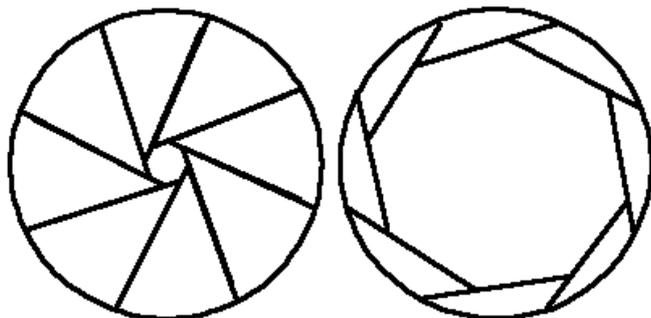
Do you want to have greater control over your pictures? Learning to adjust the aperture will give you freedom to perfect the light and focus of your photographs.

Think about the aperture of your camera as being the same as the iris in your eye. If it is bright out, it contracts, giving you a smaller hole and letting less light in, but if it is dark, it opens up wide to collect as much light as it can. Just as the iris in your eye regulates the amount of light getting to the retina, the aperture in your lens regulates the light getting to the film or CCD.

The aperture of your camera is actually a series of thin plates that look like an iris:

Narrow Aperture (f/16)

Wide Aperture (f/1.8)



Automatic-exposure cameras, like your eye, will automatically choose the aperture based on how bright it is when you are taking the picture. Manual-exposure cameras will allow you more control over the aperture to fine-tune the exposure and focus.

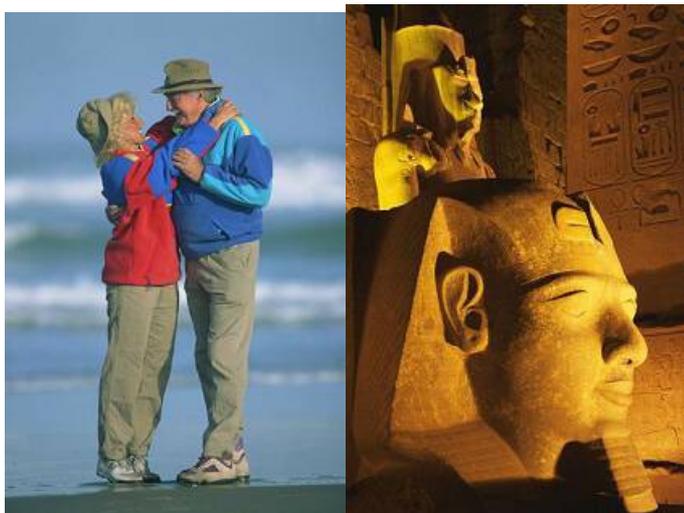
Have you heard of F-stops, but are uncertain of what they are? F-stops refer to the setting of the aperture. A common progression of F-stops is: 1.8, 2.8, 3.5, 5.6, 8, 11, 16 and 22. You will normally see these numbers on the barrel of the lens. The funny thing about F-stops is that the higher the number, the smaller the opening. For example, an aperture set to 16 would have a tiny opening, letting little light into the camera, but an aperture set to 1.8 would be wide open, letting the most light possible reach the film or CCD.

You can adjust this on SLR cameras by rotating the ring on the barrel of the lens where you see the F-stop numbers. On other cameras that allow you to set the aperture, you can adjust it using the LCD screen and menus on the back or top of the camera. Like the shutter speed settings, each increase in aperture will let twice as much light reach the film. A 1.8 aperture lets twice as much light through as a 2.8.

One of the most useful things about aperture is that it will let you choose how much of a shot is in focus. Using a narrow aperture such as f/22, you will increase the Depth of Field so that items both far away and close to you will be in focus. This is great for landscapes, and will let you add interest to your shots by including foreground objects. Using a wide aperture such as f/1.8 will let you isolate your subject against a fuzzy background by focusing on only a very small range of distances. This is great for portraits or subjects with a busy background when you want to direct attention to the subject.

Learning the ins and outs of your aperture settings will take some work and practice, but it's well worth your time to master it. Knowing how to use aperture to achieve the shots you want is key to becoming a talented photographer.

Examples of using wide and narrow aperture respectively to get specific and deep focus.



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