Take the Shot

notes

Out of the Depths

Photos of dimensional artwork need to have more than just the correct exposure. There also needs to be adequate depth of field, and it can be a challenge to get it—out of the depths.

Depth of Field

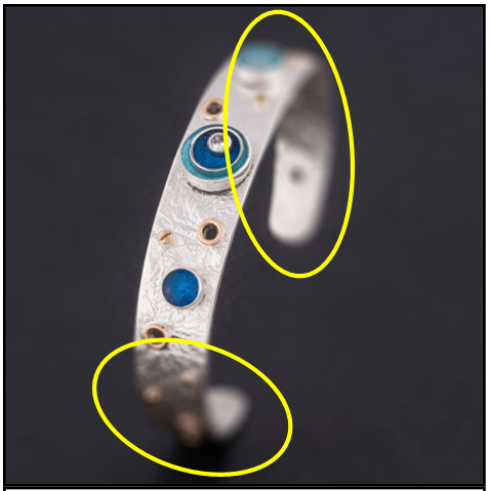
OK…so what is depth of field? It simply describes how much of the image—front to back—is in focus.

Let's use this ruler as an illustration. What you see is an example of a short depth of field. The ruler is in satisfactory focus for about the first one and a half inches. Beyond this point, it goes quickly out of focus.

But with a long depth of field, the front of the ruler is in focus—and the back is in focus, too.

Why Depth of Field Matters

Depth of field matters for photos of dimensional artwork because you want most or all of the piece to be in focus for the best presentation.



Not Enough

Better

I see a lot of this kind of photo on Etsy. The short depth of field means that the surface of the bracelet nearest the camera is in focus, but quickly goes out of focus on the surfaces further from the camera. As a result, much of the detailing is indistinct—which ruins the look of the piece and distracts the viewer. There's just not enough depth of field in the image.

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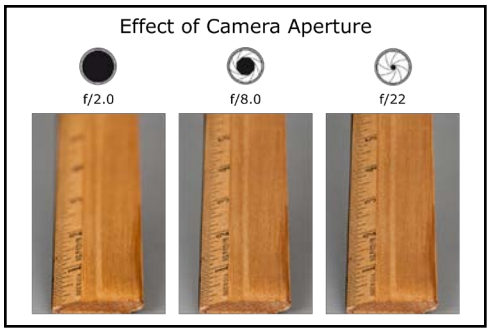
With more depth of field, all the surface detail is in sharp focus for the viewer to see. A little softness at the back of the piece, though, is OK because it keeps the viewer's eye to the front.

If depth of field is a problem in your images, there's a solution.

Aperture & Depth of Field

Put simply, it's the camera's aperture that determines the depth of field. But instead of giving you a lesson in optics and how the camera's lens and aperture interact to create depth of field, here's a practical illustration.

This photo was taken at f/2.0 with the aperture wide open. You can see that the focus falls off very quickly. At a middle aperture of f/8.0, more of the ruler is in focus. And with the aperture nearly closed at f/22, the depth of field is at its maximum and almost all of the ruler is in focus.



This is where you want to be—the smallest aperture setting on the camera for the maximum depth of field. But how do you do that with automatic exposure?

Aperture-Priority Mode

Fortunately, most cameras have a way for you to set the aperture and still use the automatic exposure—it's called aperture-priority mode.

Aperture-priority means the camera will use the aperture you set, and automatically adjust only the shutter speed and ISO speed for the correct exposure. Here, it's the "Av" setting.

Once in aperture-priority mode, I'll use the dial to set the aperture to the highest value—which on this camera is f/8. Now when I take a photo, I'll get automatic exposure combined with the maximum depth of field. And the exposure compensation setting is still available to fine-tune the exposure, if needed.

Using aperture-priority mode will go a long way toward solving a problem with depth of field, particularly for jewelers and other makers photographing small objects.

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Depth of Field and Aperture-Priority Mode

1. Locate the instruction manual or user guide for your camera. Look in the Index for "A" or "Av" or in the Table of Contents for a section on shooting modes. Write the page number where the instructions for aperture-priority mode are found here: _____.

2. Turn on your camera and follow the steps listed in the instructions to set the camera to "Aperture-Priority" mode.

3. Set up and light a small piece of jewelry or dimensional artwork, and mount the camera on a tripod. Position the camera for a close-up photo of the piece.

4. Follow the steps listed in the instructions to adjust the aperture to the smallest f-stop value (widest aperture) and take a photo. Write the f-stop value here: _____.

5. Examine the focus in different areas of the image. Are there any where the focus is unsatisfactory? ☐ Yes ☐ No Describe them here:

6. Now adjust the aperture to the largest f-stop value (smallest aperture). Take another photo (the exposure time may be long). Write the f-stop value here: _____.

7. Examine the focus in different areas of the second image. Are there any where the focus is unsatisfactory? ☐ Yes ☐ No Describe them here:

8. Open both images in your photo editing software and position them side-by-side. Do you see a difference in depth of field? ☐ Yes ☐ No

9. If you see a difference, which f-stop value has the shortest depth of field: _____. Which f-stop has the longest depth of field: _____.

10. Make any other notes about using aperture priority mode here: