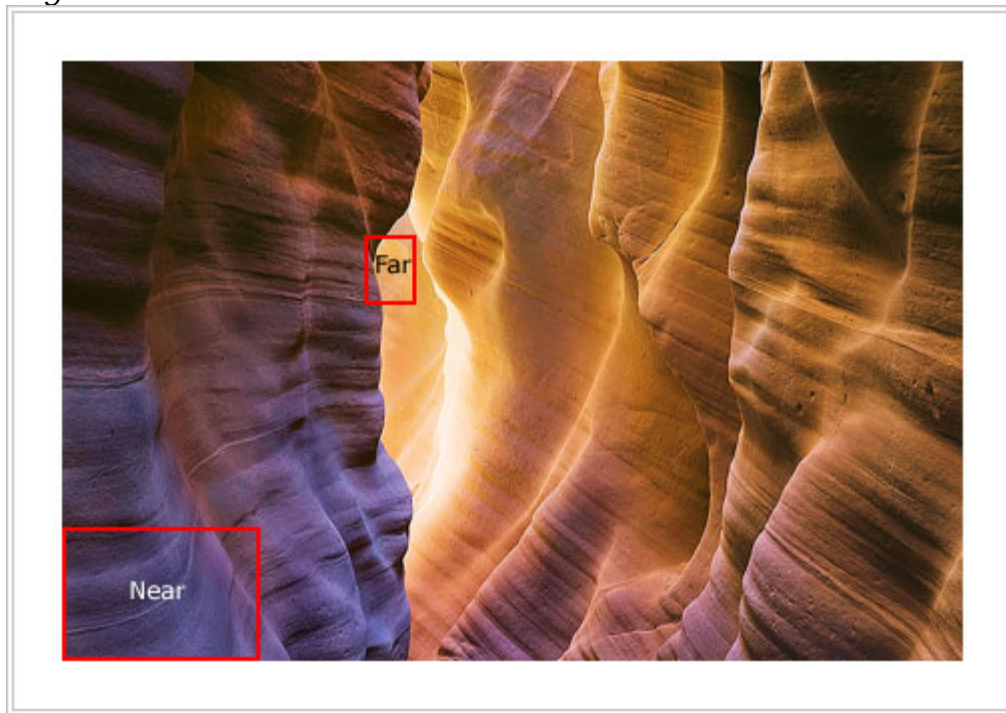


## Seeing the Difference

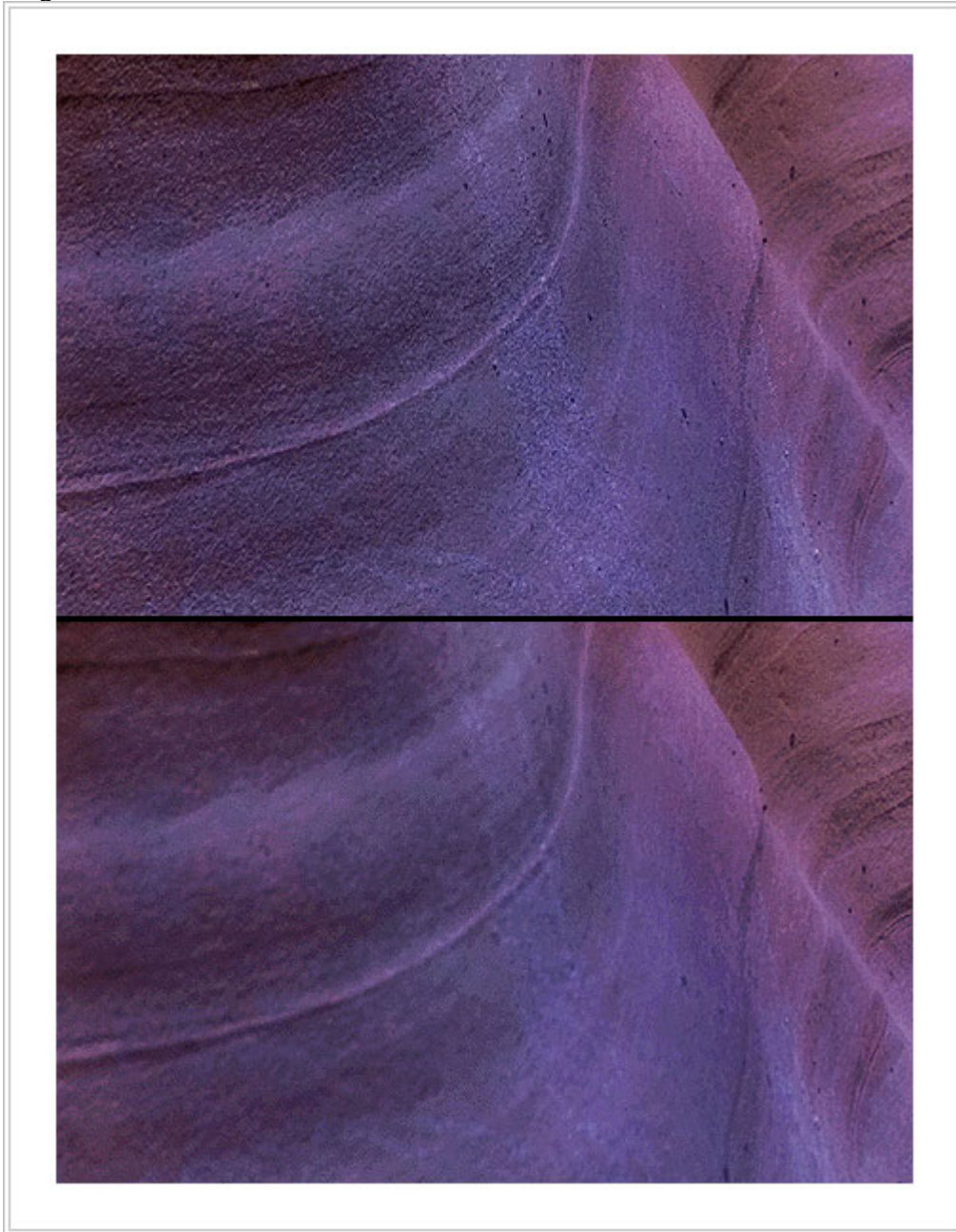
While even poorly-focused images can look OK when downsized and sharpened for the Internet, enlarging tells a different story. The out-of-focus areas of an image become more obvious as the size of the image increases. The difference that digital Scheimpflug makes can be quite dramatic, especially in the sharpness of foreground elements when working with a normal or telephoto lens. The red, bracketed areas of *Figure 16* show parts of the image in the "Near" and "Far" focus planes. *Figure 17* and *18* enlarges these areas to show the improvement digital Scheimpflug makes.

*Figure 16*



*Figure 17* looks at the "Near" section. It is zoomed in on the lower left corner of the image. This is the nearest element to the camera in the composition. In the top picture, the digital Scheimpflug layers and masks are in place and normal sharpening was applied to the image. There's very good detail here, almost to the point of seeing the grains of sand in the canyon wall.

Figure 17



In the bottom picture of *Figure 17*, the "Near" exposure layer has been turned off and the pixels from the "Middle" exposure layer are used instead. It's quite obvious that a considerable amount of detail has been lost. That's because the "Middle" focus layer was focused deeper into the scene (farther from the camera) at  $f/16$ . This wasn't adequate to bring sharp focus to the parts of the image closest to the camera and a blurry foreground is the result.

Figure 18 provides the same comparison for the most distant element in the scene. The left side shows this area with the digital Scheimpflug layers and masks in place and normal print sharpening. All the orange areas are pixels revealed through the layer mask for the layer of the "Far" focus point. Detail and sharpness are once again pretty good, though because of the distance from the camera, individual grains can't be resolved like in the close up section above.

Figure 18



The right side shows the same section, this time with the "Far" focus layer turned off so that the pixels forming the most distant features (the orange areas) come from the "Middle" focus layer. The same sharpening was applied. Again, it's easy to see that detail and sharpness have been lost when the pixels from the "Far" exposure are removed.

What these two examples demonstrate is that an exposure at  $f/16$  focused somewhere between the nearest and most distant parts of the scene is unable to bring either the nearest or the most distant features into sharp focus.  $f/16$  doesn't provide enough depth-of-focus to give sharp focus throughout the frame, even though it is a very sharp aperture for this lens. However, by taking exposures focused on both the "Far" and "Near" elements in the scene and merging them with the "Middle" exposure using digital Scheimpflug, it is possible to create an image that is sharply focused everywhere. The depth-of-focus is significantly enhanced over what is available through aperture size alone.

While it takes quite a few words and pictures to explain it all, with a little practice, the whole process goes much faster. Compared to setting up and

adjusting a view camera, the actual shooting is a breeze, and digital Scheimpflug works with all lenses and at all focal lengths. The Photoshop maneuvers take a little more practice, but after two or three images, the steps become easy to remember and the right masks are quickly put into place. The real payoff is in seeing the prints after digital Scheimpflugging. They are crisp and detailed throughout the frame, even when enlarged, with the expanded depth-of-focus being readily apparent. The process will raise the quality of your images to a new level and hopefully provide new excitement to experiment with your camera and the digital darkroom. I hope you'll give it a try. You can [contact me](#) if you have any questions. I'd love to hear how it goes.