Digital Darkroom Questions e-mail list
August 16, 2006

Enjoy today's questions...

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I understand that saving a jpeg file results in some deterioration in quality (due to compression), which is cumulative if the saved file is saved again (and yet again). 1) how significant is this for an initially very good image saved at highest quality (10-12)? 2) I assume that the file that remains active (say in CS2) is still the original, so that if you save it a second time there is no cumulative deterioration--correct? 3) I assume also that simply copying a jpeg (say to another folder) does not result in deterioration--correct?

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If the image is of very good quality to begin with, and the highest JPEG quality setting is used, then the quality loss is pretty minimal in most cases. There can be some edge artifacts in areas, and you'll also sometimes see the "grid" artifacts that are caused by the nature of how the data in the image is compressed (essentially the image is divided into blocks of 8 pixels by 8 pixels and the information within each block is "simplified" to reduce file size). In fact, I've had many images printed in books, magazines, and elsewhere that were printed from a JPEG image at a maximum quality setting. For most images it will work out great. I'd still suggest using a file without any compression (such as a TIFF) whenever possible, but know that you can still get great results from a JPEG.

You are correct in your other two assumptions. The file in memory can be re-saved many times, and each is a new instance, so you won't have cumulative data loss from re-compression. You will have that problem if the file is saved, closed, re-opened, and then re-saved again, because the data needs to be re-encoded from a source that has already been compressed and therefore lost some information. Copying the file does not cause any additional deterioration. Only decoding and re-encoding will cause that problem.

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I read some of your articles, but I'm having a hard time finding a solution to a problem. I set the resolution of my camera to 640X480 and in Photoshop the DPI says 72 and a document size of 8.8X6.6. My family went to England and none of the photos are printing out nicely. I'm using Photoshop 7 to try and fix this. I downloaded something from "Interpolate this" that increases photo size by 10%. All the articles I read seem to be about people wanting to increase resolution as they increase the picture size. But all I'm trying to do is get a nice 4X6 print. I tried changing the DPI by resampling to 300. That didn't do much. I tried increasing the picture size by 10% steps, but that didn't do anything.

Is there anything I can do to increase the resolution? Any software? Please help, my wife is about to kill me over this!

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When it comes to the actual amount of information in your images, what really counts is how many total pixels you have, not how many pixels (or dots) per inch. It doesn't matter if the image as it began was at 72 dpi or 7200 dpi. The fact is you only have 640x480 pixels (that's 0.3 megapixels) to work with. That's not much. It's enough to make a high quality print at about 2"x1.5". Small. No amount of magic is going to give you a good print much larger than that, because you simply don't have very much information there. The mistake you made was setting your camera to capture at 640x480. Set the camera back to it's native resolution and you'll get much better results. You really can't fix what you have because you're starting with too little information. The photos you're trying to enlarge will really need to be captured again with better settings, so hopefully they are images that can be re-created. In the meantime, I'd suggest taking your wife out for a really nice dinner.

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