THE DIGITAL PRINT

Preparing Images in Lightroom and Photoshop for Printing

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The Basic panel adjustments of Highlights, Shadows, Whites, and Blacks are image-adaptive. Their ranges adapt to be optimal for the image, and they tend to be more conservative in their actual approach, less twiddly and fiddly. Tone Curve is an actual tone-curve mapping with no image-adaptive mapping to alter the behavior. It's a direct application, giving you a little more flexibility but a stronger effect.

After all these global toning adjustments, I applied a local adjustment using a graduated filter. With the tone changes, the top of the image had started to get too bright, so I wanted to darken the top of the image. Rather than fuss and fiddle with global changes, I darkened the Exposures, darkened Highlights, and increased Clarity in just the top portion using the gradient. **Figure 3.14** shows the Graduated Filter pin.

As you can see in the final image, the contrast and vibrance of the image have been punched up. I made the overall white balance temperature a little cooler, but did not make a huge adjustment. If you look at the histogram of the final image, you'll see that the only thing notable is that I did introduce some shadow clipping with the extreme tone-mapping adjustment, but I didn't introduce any highlight clipping. Instead of a narrow bell-shaped curve, it's now an overall rounded top curve. **Figure 3.15** shows the final image and the histogram.

FIGURE 3.14 The Graduated Filter local adjustment.

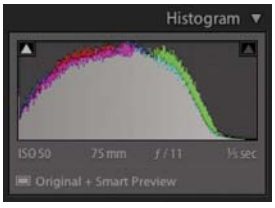


FIGURE 3.15 The final image and histogram.

DODGING AND BURNING

To photographers who've never worked in a darkroom, the terms *dodging* and *burning* may seem odd. But those of us who remember the way developer smelled like eggs know what they mean. When developing film in a darkroom, you literally moved your hands underneath the negative in the enlarger to affect how the image was projected onto the paper. If the image was too dark, you'd move your hand underneath and cast a shadow on the exposure. You can lighten an area a specific amount by dodging for 5 or 10 seconds. Conversely, if an area was much too light, you'd hold your hands together underneath to cut out the light everywhere except in a small area: burning. To burn an image is to constrain and continue the exposure longer.

TIP You can process scans in Lightroom and Camera Raw. For Camera Raw, they must be flattened TIFF files. Lightroom can import either TIFF or PSD files, but PSD files must have the Maximum Compatibility option checked when saved. I often use Lightroom for processing scanned images that don't need extensive retouching or masking and selections.

Adjusting tone and color in Photoshop

If you've captured photos digitally, you can make tone adjustments on raw data in either Camera Raw or Lightroom and optimize the image pretty well. However, if you're scanning film as TIFF images or if you need to mask beyond the capability of Camera Raw or Lightroom, you'll get better results adjusting the tone in Photoshop. **Figure 3.16** shows the original film scan.

As with making corrections in Camera Raw or Lightroom, when you're working on your RGB master image in Photoshop, you want to make the appropriate corrections while preserving the textural detail that might be useful later. This image (**Figure 3.16**) was scanned from film and has a dingy yellowish highlight that I find unpleasant. The shadows also have a kind of blue-magenta cast. I didn't try to fix this in the scanning software because the only tone and color corrections available are global. So, I scanned somewhat flat and didn't worry about nailing color correction. I started correcting the tone with a Curves adjustment layer in Photoshop (**Figure 3.17**). There are some tricks to using the Curves panel.

FIGURE 3.16 The original film scan opened in Photoshop.

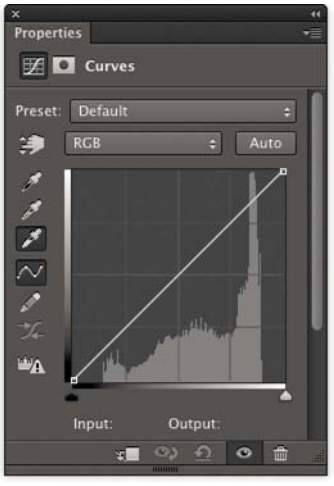
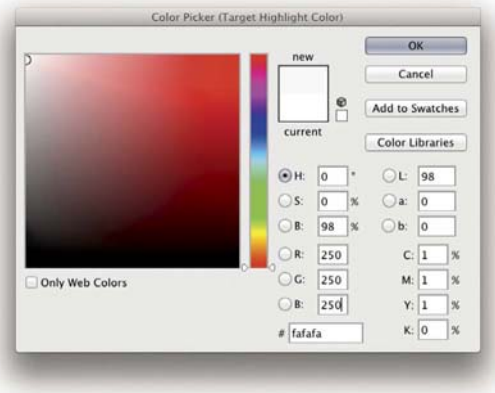
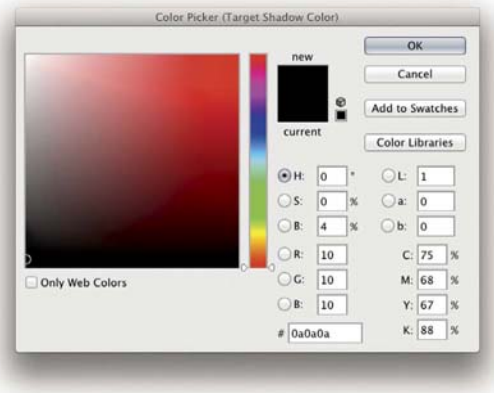


FIGURE 3.17 The Curves panel in Photoshop.



▲ THE HIGHLIGHT COLOR TARGET COLOR PICKER



▲ THE SHADOW COLOR TARGET COLOR PICKER

FIGURE 3.18 Adjusting the white point and black point clipping colors.

First, it's important to know that when you're setting the white point, black point, and gray point in the Tone panel, you'll clip highlights and shadows if you use the default target highlight and target shadow colors. By default, the target highlight color has RGB values of 255, 255, 255, and the target shadow color is set to 0,0,0.

To change the target highlight color, double-click the White Point sampler in the Curves panel; I suggest setting RGB values of 250, 250, 250. With those values you can be conservative and not clip arbitrarily. Double-click the Black Point sampler to change the target shadow color; I suggest 10, 10, 10, so you won't clip shadows. There's no need to change the gray. **Figure 3.18** shows adjusting the white and black color samplers in the curve panel. To access the white and black color settings, double-click on the actual Curves panel eyedropper.

When you click OK in the Color Picker for the target highlight or target shadow color, Photoshop prompts you to save the values as the default. It's a good idea to click Yes, so that those values will always be in place and you won't have to think about it again. Just try to remember you've changed the defaults and alter them when needed.

The other factor that is important to understand is that the sample points for black, white, and gray are controlled by the Sample Size menu for the Eyedropper tool. By default, the sample size is set to Point Sample, which selects an individual pixel. It can give you unpredictable results because you can't control your cursor finely enough to be sure which color you're sampling; you may even end up sampling noise or other artifacts. I recommend choosing 11 by 11 Average or larger from the Sample Size menu. With 11 by 11 Average, Photoshop averages the color in an 11-pixel by 11-pixel area, so you have a much better idea of what you'll be sampling. **Figure 3.19** shows the Eyedropper Sample Size menu.

NOTE The sample size settings for the Eyedropper tool changes the options for all Photoshop tools that use an eyedropper. So, if you change it for one, all other tools will be changed. This isn't really a problem, just something to be aware of as you work.

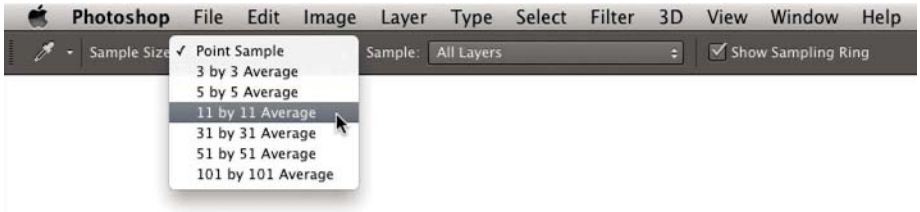
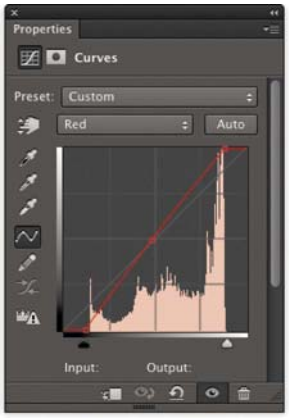


FIGURE 3.19 The Eyedropper Sample Size dropdown menu.

FIGURE 3.20 The result of the initial tone and color correction using Curves.

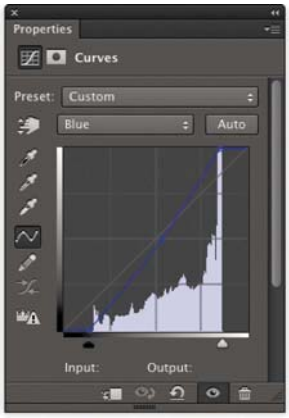
Once you've set the target colors and sample size, use the White Point, Black Point, and Gray Point samplers to make adjustments. In this image, I clicked the brightest area to neutralize the color cast in the whites, the darkest area to neutralize the color cast in the blacks, and a gray area to neutralize the middle. Just those three clicks produced a substantial improvement. **Figure 3.20** shows the result of the tone and color correction from using the White Point, Black Point, and Gray Point samplers in the Curves panel.

For this image, adjustments in the full RGB image gave enough correction, and that's often true. However, you can adjust each channel separately. Currently, the red, green, and blue histograms show that I'm just shy of clipping highlights and shadows. But sometimes having an absolutely neutral color cast is aesthetically less useful. For example, you might want to introduce a cast in the highlights for the same reason I introduced warming in the image of the Texaco station. If that's the case, you may want to adjust the curve for each channel separately. The samplers work the same way when you're adjusting separate channels. **Figure 3.21** shows the individual Curves adjustments for red, green, and blue.



▲ RED CHANNEL

▲ GREEN CHANNEL



▲ BLUE CHANNEL

FIGURE 3.21 The red, green, and blue channel controls in the Curves panel.

You can also make changes in the Curves panel using the Targeted Adjustment tool. Instead of clicking and creating a point on the curve, you hover the pointer over the image, and then click and push up or down to make the curve adjustment. The Targeted Adjustment tool lets you watch the image as you're making the adjustment instead of watching the actual curve point.

CURVES OR LEVELS?

Both Curves and Levels adjustments let you adjust the end point and the middle point for input and output, but Curves also lets you perform a per-channel adjustment anywhere along the curve line. Levels gives you control over the end points and the middle points only; the most that you can do with Levels is the adjustment of three points, with no intermediate point adjustments. Curves has greater precision on a per-channel basis. Generally, I encourage people to use Curves. I do use Levels a lot on channels, where I'm trying to lighten, darken, clip, or adjust an overall channel as opposed to an actual image. But the bottom line is that Curves gives you greater precision throughout the entire range.

The Curves adjustment removed much of the initial color cast, but the overall image still has some cast involved that I would have to adjust locally. In lieu of doing that, I've used Color Range to select all the noncolor portions of the image. (Note that whatever you chose from the Sample Size menu in the options bar also applies when you use Color Range.) Here, I clicked and dragged in the midtone and highlight areas of the image. In the Color Range dialog box, all the saturated colors are deselected