

Making a Fine Art Black & White Image

Converting from Color to B&W with Style

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Digital SLRs and digicams are capable of taking exquisite color images. They can deliver images loaded with highly saturated colors, true-to-life skin tones, and even the most delicate natural hues.

Most digital SLRs and digicams take only color images. Few offer the option of B&W images. If you read on, you will see that you will almost certainly get a better result when you shoot in color and make the change to B&W yourself. Digital cameras take the quick and easy way from color to B&W.

Great B&W Starts with Excellent Color

Converting from color to B&W is a challenge for both film and digital photographers. Film photographers have to struggle to get as much contrast in a B&W print from a color negative as they expect to get from a B&W negative. Polycontrast papers help. Special filters or a color head can counteract the contrast degrading effects on B&W prints from the orange mask used with color negatives.



Figure 1. The original color image of an old barn in Sneads, AL.

Before you convert your color digital image to B&W, you need to start with a carefully corrected color image. Color variations in your image will translate directly into local variations in contrast in your B&W image.

Figure 1 shows the original color image for this article. The histogram for the image was well-balanced, indicating there were no significant exposure problems.

The color workflow for this image involved the following three steps:

1. a light sharpening was applied to the image to restore detail lost during image capture by the digital camera (a Canon 10D digital SLR, in this case);
2. a levels adjustment layer made slight adjustments to the shadows, highlights, and overall contrast of the image;
3. a hue/saturation layer made adjustments to the overall saturation, altered the cyan hues in the sky, and boosted the saturation of the yellows, greens, and reds.



Figure 2. The resulting image after sharpening and color adjustment.

When to sharpen is a subject of considerable debate. I will typically apply an overall sharpening early in the workflow to restore just the sharpness lost through digital signal processing. In this case, the Unsharp Mask filter was used with settings 350,0.8,2. This was applied on a duplicate copy layer with the blend mode set to luminosity. Always, try to work non-destructively with your digital images. Photoshop CS supports 16-bit layers. Use them!

The levels corrections were subtle. The exposure started with a histogram that had maximum dynamic range without clipping any shadows or highlights. The shadow and highlight sliders were set to 8 and 251 respectively. The gamma slider was adjusted from 1.0 to 0.95 to darken the middle tones slightly. Output sliders were also adjusted to retain as much shadow and highlight detail as possible when the image goes to print, with settings of 5 and 245.

The hue/saturation corrections were more significant. Added saturation can bring out more contrast following the conversion to B&W. The master channel received a +10 saturation adjustment. The cyan color of the sky in the original was altered with +25 for hue and +15 for saturation. Yellows were enhanced +20, greens +10, and reds +20. Augmenting the reds was crucial to bringing out B&W detail in the barn wood.

The resulting image in *Figure 2* has more “pop” than the original image in *Figure 1*. More “pop” in the color image helps ensure more “pop” in the B&W image.

Going from Color to B&W

Photoshop offers lots of flexibility when converting from color to B&W. The quick and easy way is to flatten the color image and then apply Image|Mode|Grayscale. *Figure 3* shows the result after doing a grayscale mode conversion on the image in *Figure 2*.



Figure 3. The resulting B&W image after conversion with Image|Mode|Grayscale.

The result is OK, but appears to be a bit flat. We can certainly do better! Photoshop uses your color and ink preferences to blend approximately 30% red, 10% blue, and 60% green information into a single grayscale channel when you use Image|Mode|Grayscale. When you handle the conversion details, you can be more judicious in the use of available color information.

Before you begin the conversion from color to B&W, you should save your color image as a separate file with all of the layers intact. Then, working on a copy of the image, you can flatten the layers to keep your B&W working file to a reasonable size. We will be adding two hue/saturation layers. If you prefer, do all of the work in one file, but realize that a 16-bit file with lots of layers can get quite large.

One of my preferred methods for B&W conversion employs a Selective Color adjustment layer paired with a Hue/Saturation adjustment layer. The first is used to mix the color information in a controlled way to emphasize desired tonal relationships in the resulting B&W image. The second desaturates the image, leaving you with a B&W image that has all three RGB channels intact.

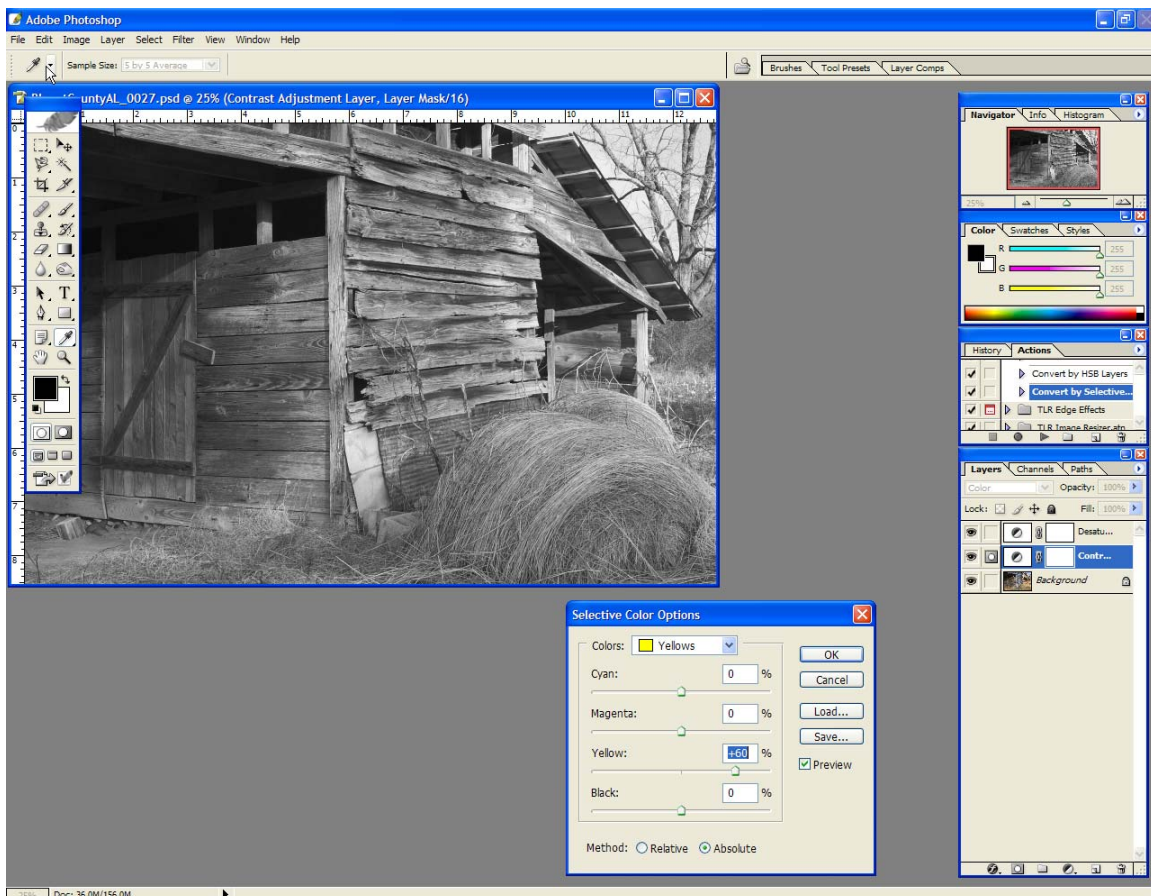


Figure 4. Conversion to B&W via Selective Color and Hue/Saturation adjustment layers.

The B&W conversion workflow includes the following four steps:

1. load a copy of the color image and flatten it;
2. add a Selective Color adjustment layer and change its blend mode to use “Color” blend;
3. add a Hue/Saturation adjustment layer and change the master channel saturation level to -100;
4. make desired changes for the individual color selections on the Selective Color adjustment layer (from step #2).

Using paired Selective Color and Hue/Saturation adjustment layers for B&W conversion provides a lot of flexibility. You can make both wholesale and subtle adjustments to the contrast variations in your image with the Selective Color dialog.¹



Figure 5. The Selective Color adjustments that will refine the conversion to B&W.

¹ Instead of using a Selective Color adjustment layer for your “Contrast Adjustment Layer,” you could instead use a Curves adjustment layer. If you tend to think in terms of B&W filters, where a green filter is used to lighten foliage or a red filter is used to darken skies, you might be more comfortable using Curves instead of Selective Color. Some Photoshop experts, such as Adobe’s Technical Evangelist, Dr. Russell Brown, prefer to use a second Hue/Saturation adjustment layer. You can get similar results by substituting either technique. (My TLR B&W Conversion action set for Photoshop lets you choose whether to use Selective Color, Curves, or Hue/Saturation for your contrast adjustment layer. You can download the action set at: <http://www.thelightsright.com/DigitalDarkroom/PhotoshopTools.htm>.)

If you turn off the visibility of the Hue/Saturation layer, be ready for a really strange image. As you can see in **Figure 5**, adjustments to the Selective Color layer typically result in a rather wild transformation of the color image.

Subtle changes to B&W contrast result when you adjust Blues, Cyans, Greens, Magentas, Reds, or Yellows with Selective Color. More sweeping changes are typically evident when you instead adjust Whites, Neutrals, or Blacks.

It helps to rename the adjustment layers. Since contrast adjustments are made in the Selective Color adjustment layer, my preference is to rename it “Contrast Adjustment Layer.” The Hue/Saturation adjustment layer is placed on top of the Selective Color adjustment layer, and I rename it “Desaturation Layer.” Unless you want to retain some color in your image, you do not need to alter the settings on the Hue/Saturation adjustment layer. Its only purpose is to desaturate the image.

Desaturating the image leaves us with a B&W image that exhibits better contrast and more “pop” than the grayscale mode conversion in **Figure 3**. If you leave visibility for both images turned on, you can see the contrast changes as you make adjustments to Selective Color adjustment layer (*i.e.*, the “Contrast Adjustment Layer”).



Figure 6. Resulting image after taking control over the B&W conversion.

If you compare the resulting B&W image in **Figure 6** with the rather pedestrian grayscale mode conversion in **Figure 3**, the differences are quite striking. The increased detail in the hay bale draws the eye. The rough textures of the weathered barn wood above the hay bale have more emphasis. When printed on fine art paper, the B&W print shows rich

detail in the three-quarter tones and half tones with contrasting quarter tones and highlights.

Conclusion

Adobe Photoshop provides the digital photographer with a lot of flexibility when converting from color to B&W, but it is important to start with an image that has been carefully color corrected. Wonderful B&W tonal transitions that draw the viewer into the subject begin with a well-crafted color image.

There are multiple techniques for converting from color to B&W. Photoshop provides three tools for the task: Image|Mode|Grayscale, Image|Adjustments|Desaturate, and Image|Adjustments|Channel Mixer (with the Monochrome option selected). The first two are completely automated and really only good for a quick and easy conversion. The Channel Mixer dialog allows you to combine information from the separate red, green, and blue channels.

The technique in this article, which uses Selective Color adjustment layer to refine the tonal transitions and a Hue/Saturation adjustment layer to desaturate the image, results in high contrast B&W images suitable for fine art prints.