



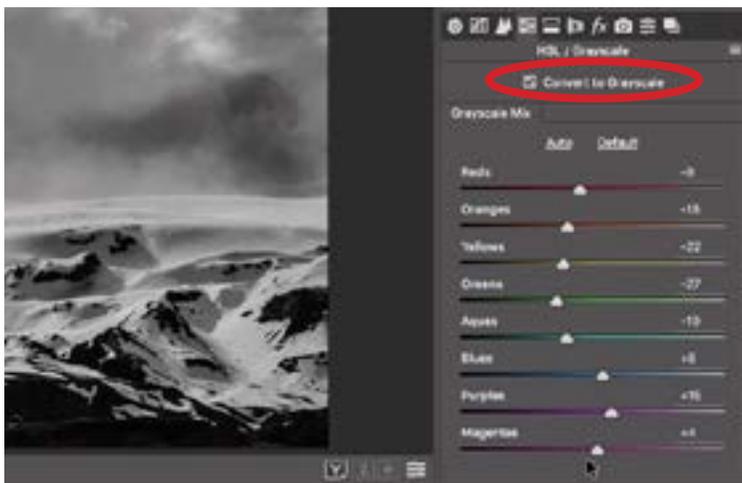
Coloring Black & White Images

# Coloring Black & White Images

In this lesson, we're going to cover a few techniques for adding color to our black and white photographs. We'll first demonstrate how to add a hint of color, or a tinting effect, and then we'll learn how to realistically add coloring to a black and white image.

## Split Toning in Lightroom

We'll begin in either Adobe Camera Raw (ACR) or Lightroom's Develop Module. We'll open the HSL/Grayscale panel, which can be found on the right side of the interface, and turn on the "Convert to Grayscale" check box. Then, we can fine tune the image by adjusting the individual color sliders, which will lighten and darken the areas of the image that used to contain those colors.



In ACR, we turned on the "Convert to Grayscale" check box located within the HSL panel.

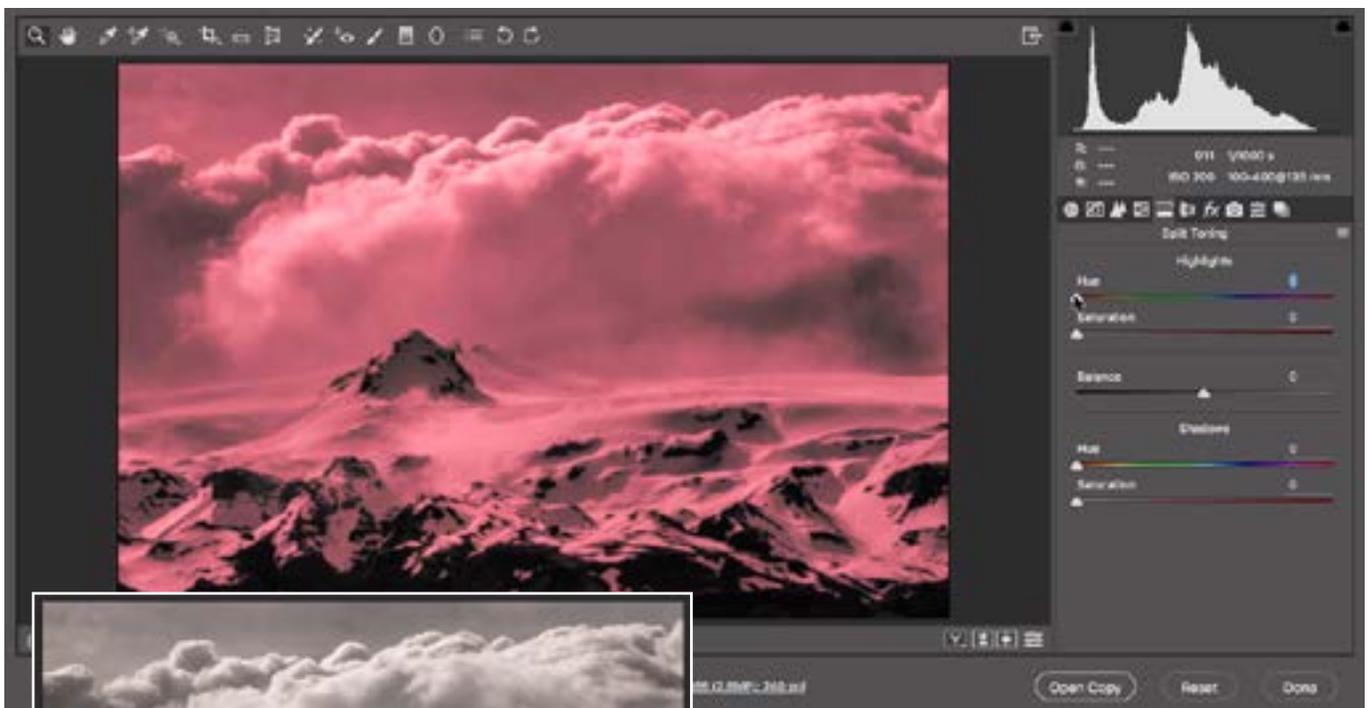


The Split Toning settings in the ACR interface.

In order to add color, we'll go to the Split Toning panel, which can be found in both ACR and Lightroom's Develop Module. In this panel, we'll find separate settings for the highlights and for the shadows. Whatever we do with the highlights settings will only affect the light parts of the image and whatever we do to the shadows settings will only affect the dark portion of the image.

We'll work on the settings for the highlights first. The Hue slider will allow us to choose the basic color that will be applied into the image. However, just moving the Hue slider will not immediately change the look of the

image and that's because the Saturation slider is set to 0 by default. It's the Saturation slider that determines how strong the color change will be. Now I don't usually set the saturation until after I've chosen the hue, but there's a hidden feature that will allow us to preview the color. If we hold down the Option key (Alt on Win) and move the Hue slider, it will temporarily act as if the Saturation slider is set to 100. This will give us a very saturated view as we move the slider, but it will allow us to decide what color we'd like to use. When we let go of the Option key, we'll return to the view that accurately reflects the position of the Saturation slider. Then, we can gradually move up the Saturation slider, introducing as much color as we'd like into the highlights of the picture.



**Above: The Option key is being held down while moving the Hue slider. This gives us a preview of what the color would look like with the Saturation slider set at 100.**

**Left: We released the Option key and then gradually moved up the Saturation slider, subtly introducing the chosen color into the highlight areas.**

Next, we'll use the shadow sliders to determine what color should be added to the darker parts of the image. Again, I'll hold down the Option key (Alt on Win) as I drag the Hue slider in order to see a preview of the color at 100% saturation. Lastly, I'll use the Balance slider to specify how far the highlights or shadows should extend into the midtone areas of the image. If I drag the slider to the left, the color designated to the shadows will dominate and if I drag the slider to the right, the color designated to the highlights will dominate.



**A before and after view of the split toning effect we can create in Lightroom or ACR.**

## Split Toning in Photoshop

The split-toning effect is something that can also be accomplished in Photoshop. With the image open in Photoshop, we'll first need to make sure that it's not in the grayscale color mode. To do that, we'll go to the Image menu and choose Mode. If the image is in the Grayscale mode, we'll just need to change it to RGB.



**A Gradient Map adjustment layer was created.**

Now, we'll create new Adjustment layer by clicking the Adjustment Layer icon (FX) at the bottom of the Layers panel and choosing Gradient Map. The Gradient Map adjustment will replace all the various brightness levels in the picture with different colors. Initially, it will not

make the image look very good. That's because whatever used to be black in the picture will be replaced with whatever color is on the left side of the gradient bar in the Properties panel. Whatever used to be white will be replaced with the color on the right side of the gradient. In order to make the image look good, we'll first need to change the blending mode of this adjustment layer to Color. The Color blending mode will allow the layer to affect only the color of the image without affecting the brightness.

Next, we can change the gradient by clicking on the little arrow to the right of the gradient bar. This will give us a menu of Photoshop's default gradient options. The default options won't be great for toning images, but we can access a set of gradients that will be. We'll click on the little gear icon located at the top right of the gradient list and a menu will pop up, giving us options for different types of gradients. The Photographic Toning gradients work well for this purpose, so we'll choose that from the menu. When we choose an option from this menu, a box will pop up asking us if we want to replace the gradients that are currently available with the chosen set. We could click OK to do this, or we could add the gradients to the current list by choosing Append. I usually choose Append so that the gradients that are currently in the list stay in place. Clicking through the different Photographic Toning gradients, you can see that they are much more appropriate than the overly colorful default gradients. After choosing a gradient, we can always lower the opacity of the adjustment layer if the effect is too strong.

The gradient presets that Photoshop provides are great, but in order to have the most control

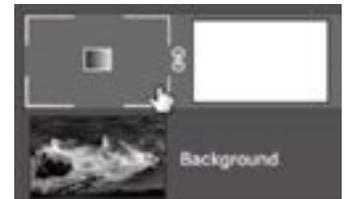


**The Photographic Toning presets were added to our gradient preset list.**



**One of the Photographic Toning presets is applied to this image.**

over your colors, you might want to create your own presets. Before doing so, make sure that the adjustment layer is active in the Layers panel, and not the mask attached to it. You can tell which is active because it will have a set of square brackets surrounding it. If the mask is active, simply click on the icon for the adjustment layer to activate the layer instead. This will allow us to select colors from within the image when using the Color Picker. Now, to create your own gradient preset, I recommend starting with a preset that has only two or three colors. Then, click on the gradient bar to open up the Gradient Editor. In the Gradient Editor dialog, you'll again see the



**You can tell that the adjustment layer is active (and not the mask) because it has brackets around the icon.**

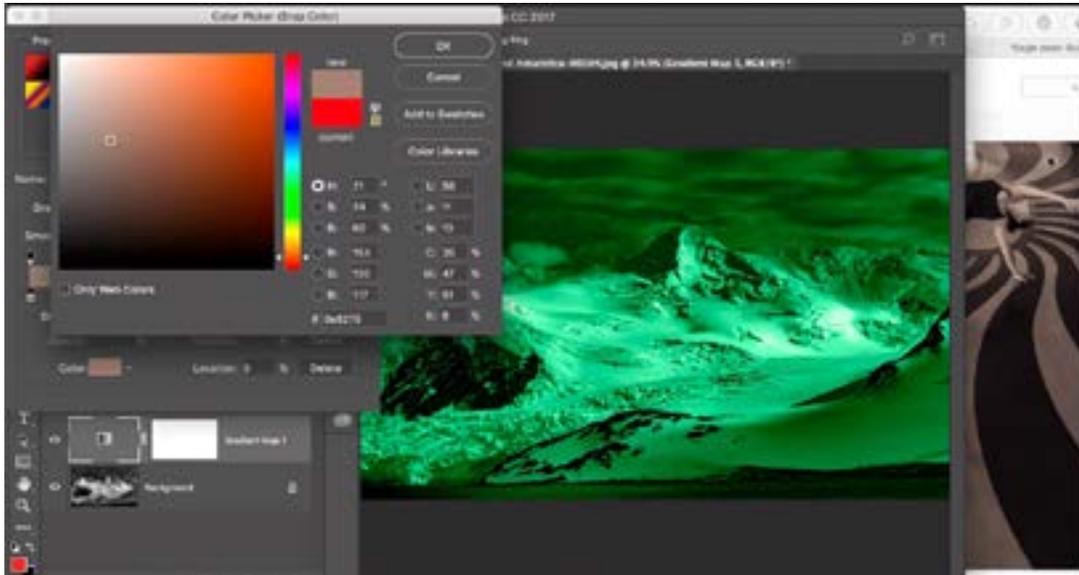


**Click on the gradient bar within the Properties panel to call up the Gradient Editor.**

presets at the top, but you will also see the gradient bar with sliders beneath it. Each slider represents a color stop in the gradient and you can change the color by double-clicking on the little swatch square to call up the Color Picker. With the Color Picker open, you can either use gradient settings within the dialog

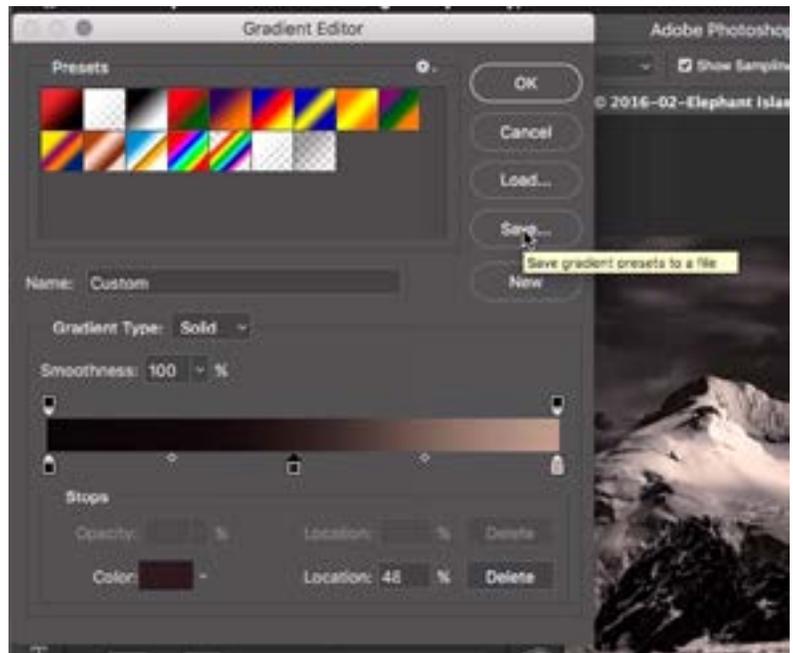
box to choose a color, or you can hover your cursor over an area of your document that contains the color you desire. When you move your mouse over your document, you will see that the cursor changes into an eyedropper. Use this eyedropper to click on your color.

Let's say that you want to sample a color from a different image, whether it be in a web browser window, in your finder, etc. There is a trick for doing this. First make sure that the image you want to sample from is visible on your screen, behind the Photoshop interface. You need to be able to see the Photoshop interface and the other image at the same time. Then use the Color Picker eyedropper to first click and hold within your active document and, without releasing the mouse button, move your cursor over the area outside of the document window that you'd like to sample. When you release the mouse button, the exact color that was under your cursor will be chosen within the Color Picker dialog.



We are using the Color Picker to sample a color from outside of the Photoshop document to be used in our custom gradient.

When you're customizing a simple gradient that has two colors, the color swatch on the left of the gradient bar within the Gradient Editor will represent the dark areas of your picture. Whatever color you choose here will be the color represented in the dark areas. The swatch on the right side represents the light areas in your picture, so the color you choose here is what will be pushed into the highlights. If you would like to add an additional gradient stop to represent the areas of medium brightness, click directly below the gradient bar in the area where you'd like to add the color stop, somewhere near the middle of the gradient bar. A new stop will be added and you can click on the little square swatch to choose the color that should be pushed into the areas of medium brightness.



The Gradient Editor dialog. You can save a gradient as a preset by clicking the Save button.

After you've created your custom gradient, you can save it as a preset to use in the future by clicking on the Save button on the right side of the Gradient Editor dialog. You'll be prompted to give the gradient preset a name and then click Save.

## Colorizing a black and white photograph

In the next technique, we're going to learn how to take a black and white image and color it. When doing this, you may want to use a reference photo to copy colors from and, if this is the case, you will want to first open the two images in separate Photoshop documents. Then, go to the main menu and choose Window > Arrange > 2-up Vertical. This will allow you to view the two images side by side.

Before doing anything, we need to make sure that the image we're working on is not in grayscale mode. We'll go to the main menu and choose Image > Mode. If the image is set to grayscale, we'll change it to RGB.

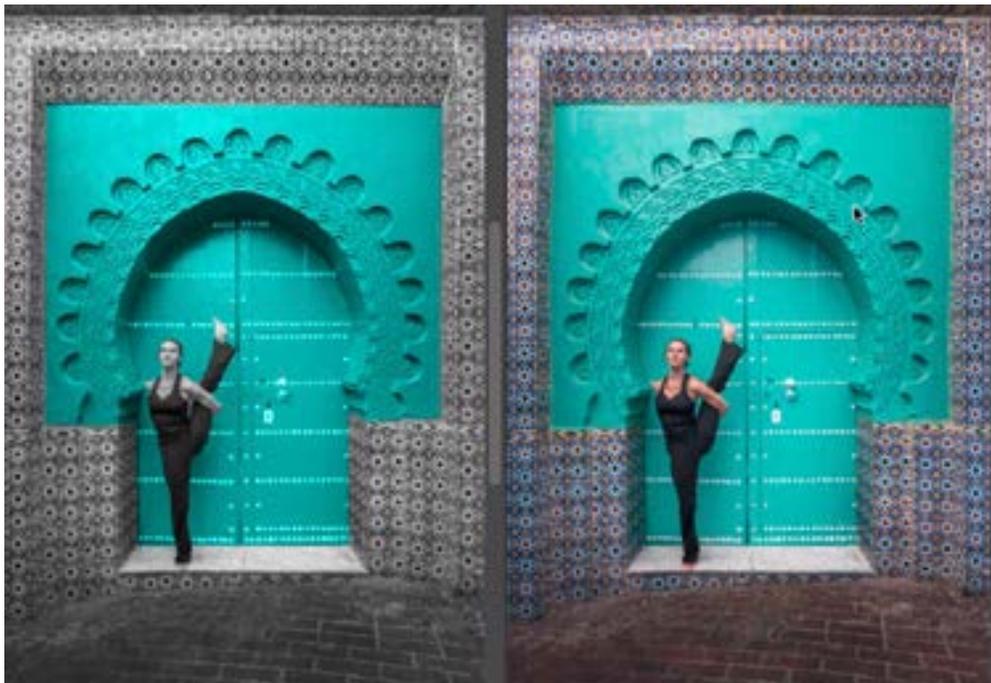
Now we need to make a selection around the first area we want to colorize. I'll use the Lasso Tool to do this, holding down the Option key (Alt on Win) when I want the tool to create straight lines and releasing it when I want to be making a free-form selection. In the example here, I made a selection around the doorway. I don't, however, want Karen to be selected, so I will switch to the Quick Selection Tool, choose the "subtract from" setting in the Options Bar and click over those areas I'd like to deselect. When using the Quick Selection Tool, you'll likely need to switch between the "add to" mode and "subtract from" mode until you have an accurate selection.



**A selection was made around the first area we want to colorize.**

Once I have the selection, I will create a new, empty layer in which to place the color. Then I will click on the color swatch for the foreground color (at the bottom of the Tool Bar) to call up the color picker and sample that turquoise color from the reference image on the right. With the new, empty layer active, I will use the keyboard shortcut Option+Delete (Alt+Delete on Win) to fill the selection with the foreground color.

I can now release the selection by going to the main menu and choosing Select > Deselect. In order to make the color realistic, we need to take the color of this layer and apply it to the brightness of the layer underneath. To do this, we'll use the Blending Mode menu at the top of the Layers panel to change the blending mode of the layer to Color.



**The selection was filled with the foreground color, which we set to match the door from the reference image. Then we set the blending mode of this turquoise layer to Color.**



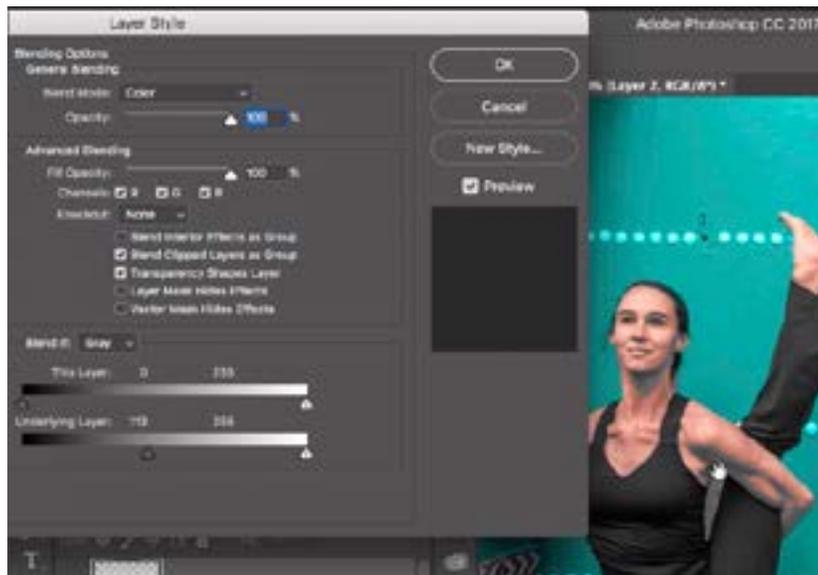
**We're sampling a color from the skin.**

Now I'd like to add some color to Karen's skin and I will do this on a new, empty layer that I'll position at the top of the Layers panel. I'll also change the blending mode of this layer to Color. I will use the Brush Tool to do this. I need to sample a color from the skin in the reference photo so with the Brush Tool active, I will hold down the Option key (Alt on Win) to change the brush tip into an eye-

dropper and then click on an area of the skin. The sampled color will be set to the foreground color. I can now release the Option key and the cursor will change back to the brush tip. I'll use the brush to paint this color over the skin area in my image.

As we add color to the skin area, the color looks correct but it still looks unrealistic. That's because there is too much color in the shadows. The Color blending mode adds an equal amount of color to all areas of the image, but in an actual photograph, the areas in the shadows naturally have less color. We need to somehow decrease the amount of color in the shadow areas of her skin.

To limit the brightness range of where the color is applied, we'll go to the bottom of the Layers panel, click on the Adjustment layer icon (fx) and choose Blending Options from the menu that appears. In the dialog box that pops up, we will be working with the blending sliders at the bottom.



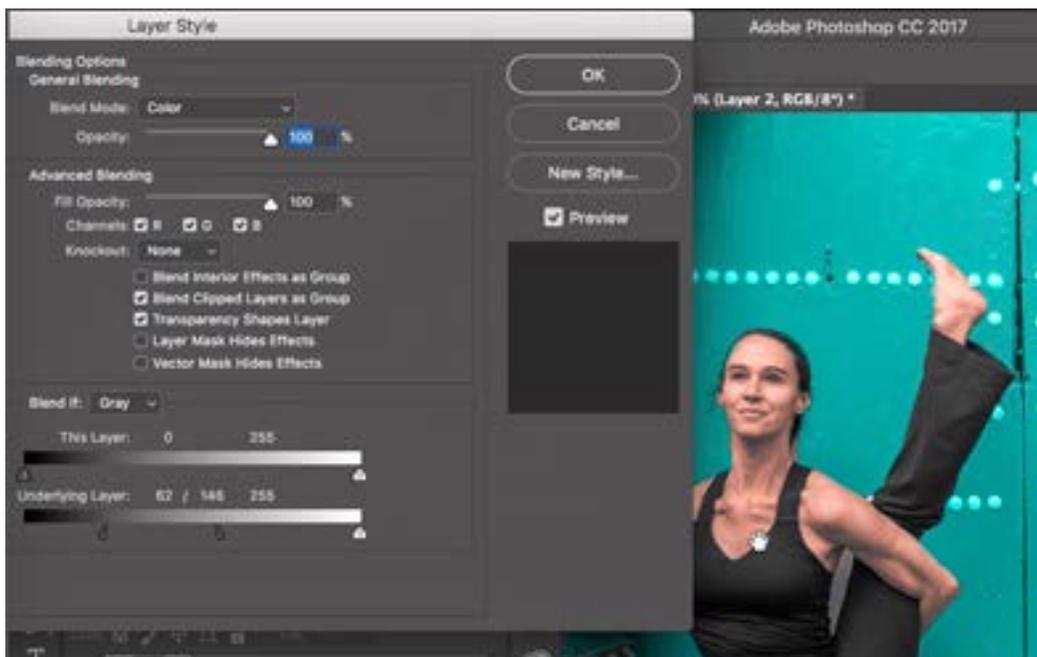
**The blending sliders are being used to reveal the shadow areas from the underlying layer.**



**The Brush Tool is being used to paint in the foreground color over the skin area.**

areas of the dark parts of the layer and dragging the right (white) slider to the left will bring in more and more of the light areas from the underlying layer. Because we want to make more of the desaturated shadows visible, I will slowly drag the black slider to the right until I can see the underlying layer showing through in the shadow areas of her skin. When we move the slider like this, however, we create an

abrupt and undesirable transition. In order to make a smooth transition, we need to split the little slider in half by holding down the Option key (Alt on Win) and clicking and dragging on one of the slider halves. Now we can move the two halves individually, separating them to mark the areas where the transition should begin and end. Everything to the left of the left half will completely reveal the contents of the underlying layer. Everything to the right of the right half will completely hide the contents of the underlying layer. The area in the middle is where the transition will happen.

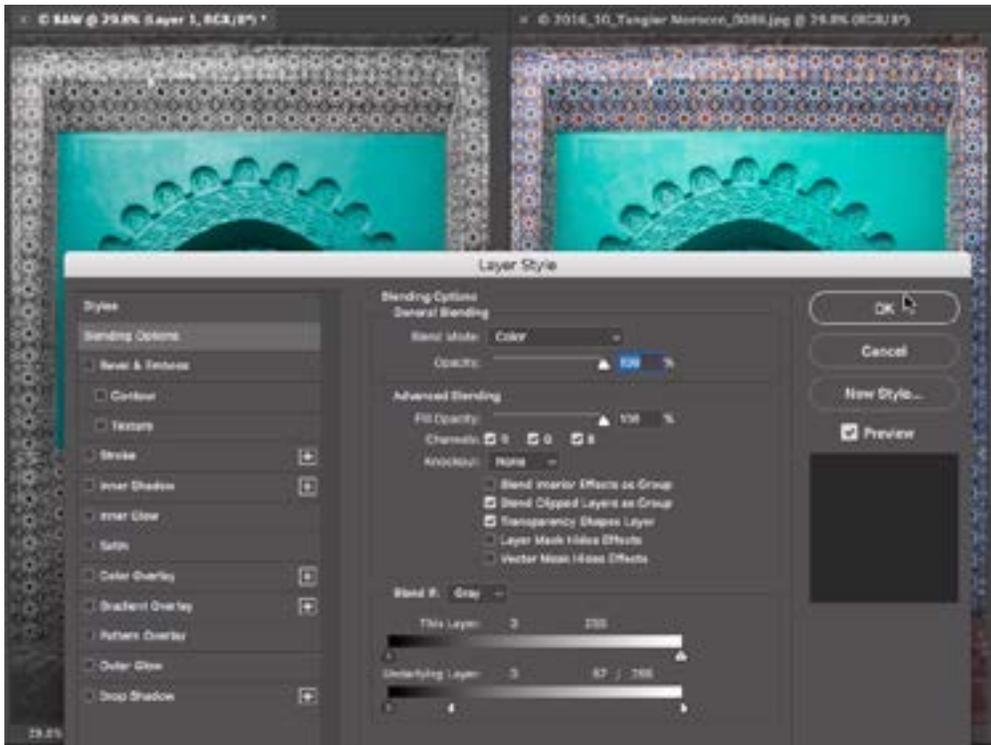


**The black slider was split in half in order to create a smooth transition between the active layer and the underlying layer.**

In many images, you will have to do the same thing with the bright areas of the image, using the white slider on the right in the same way as we just used the black slider in order to bring back some of the desaturated, underlying layer.

In the example image, I noticed that the layer we used to create the turquoise door was creating too even of a color effect, remaining just as colorful in the bright areas of the door and on the rivets, where the color should really be more desaturated in order to look realistic. To fix this, I'll activate the layer containing that turquoise coloring and then click on the FX button at the bottom of the Layers panel and again choose Blending Options from the menu that pops up.

Because I want to focus on the bright areas, bringing in more of the desaturated, underlying layer, I will work with the white slider under the Underlying Layer gradient bar, first moving it to the left until I can start to see the underlying layer in the desired areas. Then I'll hold down the Option key (Alt on Win) to click and drag on one of the slider halves in order to split it in two. Then I will move the two halves to create a smoother transition between the underlying layer and the active layer.



The white slider was split in half and adjusted to bring in some of the desaturated underlying layer in the highlight areas and to create a smooth transition between the highlights in the active layer and the underlying layer.

If I'd like to fine-tune one of the color layers, I would activate the layer and then go to the main menu and choose Image > Adjustments > Hue/Saturation. In the dialog box that appears, I can use the Saturation slider to adjust how colorful the effect is or I can use the Hue slider to fine-tune the color itself.

## Using a Hue/Saturation Adjustment Layer to colorize an image

With this method, we're going to use an adjustment layer to colorize a black and white image. We'll first make a selection around the first area we'd like to color. In the example here, we'll again make a selection of the doorway. Then, we'll click the FX icon (the Adjustment Layer icon) at the bottom of the Layers panel and choose Hue/Saturation. When you have a selection active at the time you create an adjustment layer, the selection will automatically be applied to the layer mask attached to the layer, with the selected areas white and all other areas black. The white parts of a mask represent the areas where the attached layer will be visible.

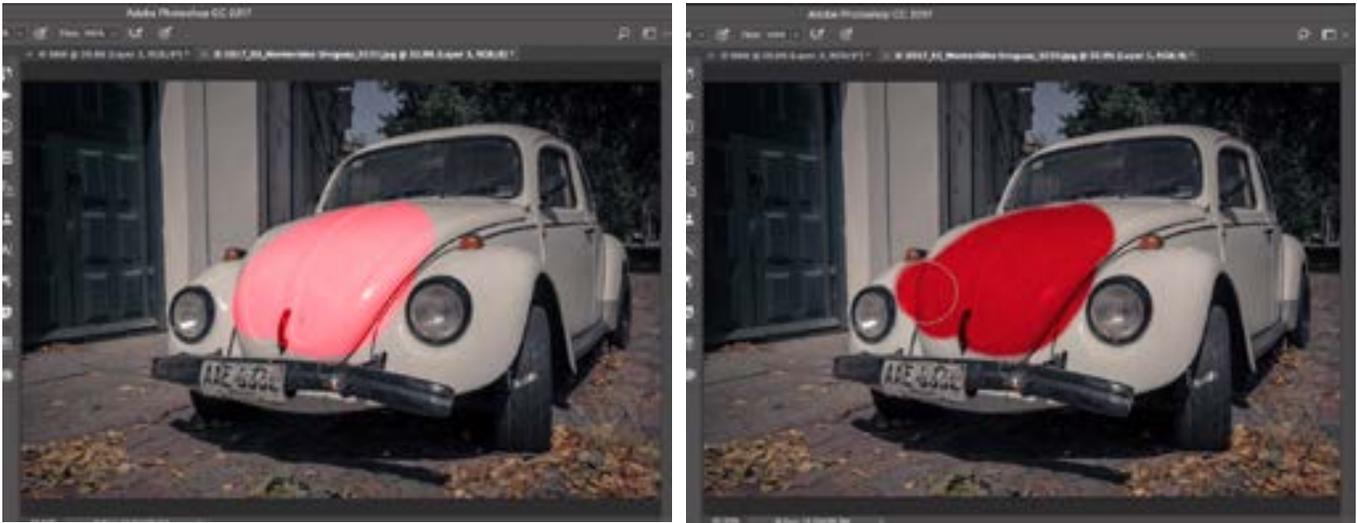
In the Properties panel for the Hue/Saturation adjustment layer, I will turn on the Colorize check box located near the bottom. Then, I will use the sliders to create the color I'm after. The Hue slider will determine the color and the Saturation slider will determine how colorful it is. We don't need to use the Lightness slider because the brightness of the image is being determined by the underlying layer. Finally, I can use the Blending sliders within the Blending Options dialog if I need to bring back the bright or dark areas from the underlying layer.



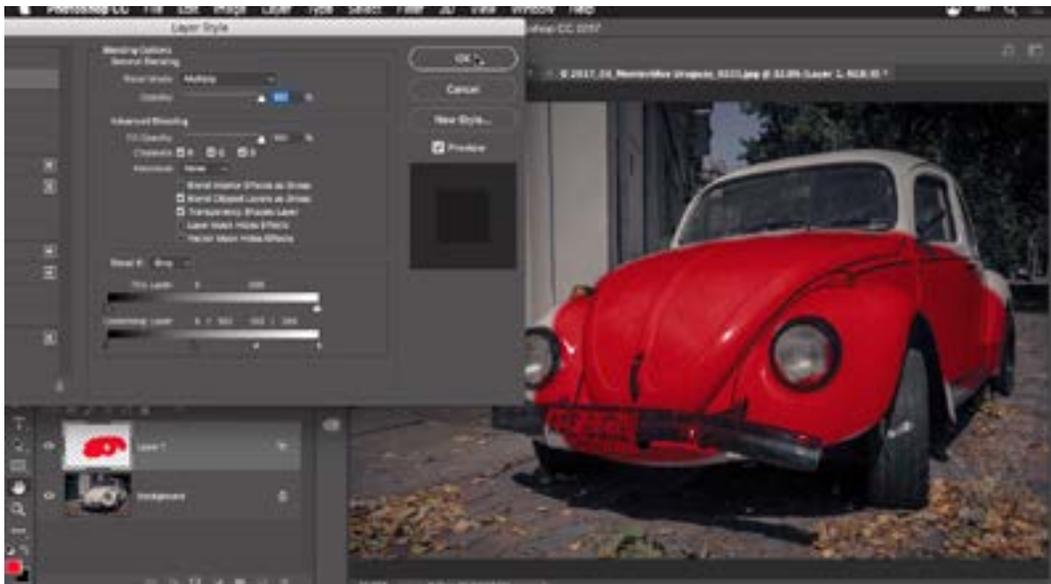
**To colorize a black and white image, a Hue/Saturation adjustment layer was created, the “Colorize” check box was turned on and the Hue and Saturation sliders were adjusted to specify the color.**

## Colorizing a white object

The techniques covered earlier in this lesson work very well for most images. The one exception would be white objects. The Color blending mode won't work the way we desire when trying to colorize white objects, so in these cases, we will use the Multiply blending mode.



**Left:** We're attempting to colorize the car by painting on an empty layer set to the Color blending mode. Because it's a white object, this technique is ineffective. **Right:** We simply changed the blending mode to Multiply to get a much better result.



After we painted to colorize the car, we are now using the blending sliders to bring back the less-saturated highlights and shadows from the underlying layer.