



Multi-Image Retouching Techniques

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The topic of retouching is really broad, and we have already covered some retouching techniques in other videos. In this video, we're going to talk about how to retouch using multiple images. The key to utilizing these techniques is foresight... meaning you have to be thinking about your retouch work while you're out shooting. If I know I'm going to end up retouching an image, I will evaluate the scene and determine whether there is anything I will want to retouch out. When I'm shooting, I look at the surroundings for things that I may be able to use in my retouching. For example, if I am shooting a vintage service station (like in the video example) and there are modern cars and trees next to it, I will want to retouch out the cars. Knowing this, I will look around the scene for something I can photograph to use in my retouch work. Often times, I will photograph some trees in the scene and use those trees in my retouch work to cover up the modern cars.



Above are the before and after versions of the image we'll be retouching in this lesson.

Retouching Run-Down

There were a lot of retouching steps involved in the image we're using in this example. In this lesson, we are focusing on those steps which involved the use of multiple images, but here is a rundown of the initial steps that were taken to enhance this image. All of the techniques were covered previously in other videos.

1. Weeds be gone: This is the retouching layer I use to remove small things like telephone lines, litter in the scene, *actual* weeds, etc. (Most of it was done with the Spot Healing Brush.)

2. Sidewalk patches: I used the next retouching layer to clean up an ugly patch in the sidewalk. I did this by using the Clone Stamp Tool and then the Healing Brush.



The sidewalk was cleaned up a bit with the Clone Stamp Tool and the Healing Brush.

3. Paint chips on building: Part of the red paint was peeling and looked a little ragged, so I removed the paint peel with the Healing Brush.



The peeling paint was cleaned up using the Healing Brush.

4. Removed painted sign: I wanted to eliminate the modern painted sign on the window and I did so using the Clone Stamp Tool and the Clone Source Panel.
5. Removed gas meter: There was an ugly gas meter on the side of the building that was removed using a combo of the Clone Stamp Tool and Healing Brush.
6. Misc: The next retouching layers were used to fix some smaller details such as a dented sign, removing modern bulbs from the top of the light post, etc.

Retouching with Multiple Images

Now comes the hard part ... the part that requires the use of another image. As I mentioned above, this is something you need to think about while you're out in the field. If I know that I'm going to be retouching items out of the image, I will take additional photos with the retouching job in mind. For example, I knew I wanted to retouch out the building to the right of the service station. Because of that, I took another photo at a different angle to include more of the trees. These trees were then later used to cover up the building.



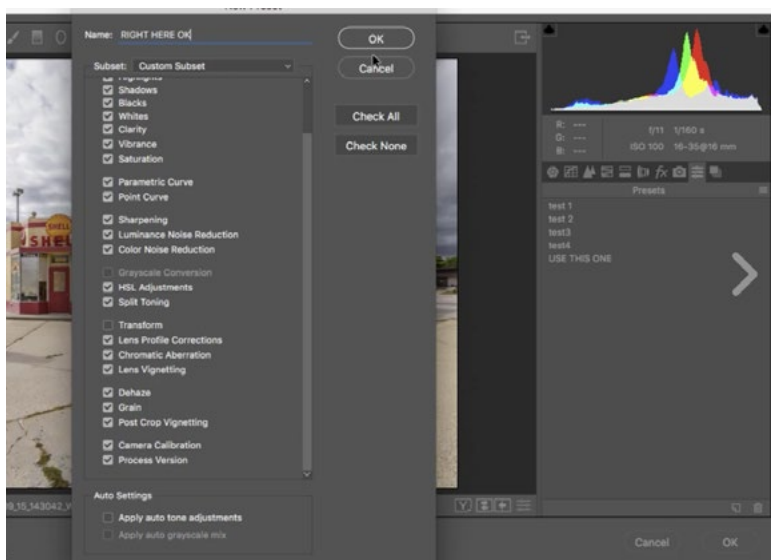
In the image above, you can see the building I want to retouch out. I captured the image at left at a different angle, which incorporated more trees and empty concrete area.

Tip: Embed a Raw File in a Layer

In this video, I have some raw files embedded into the document. The way that you do this is to embed the raw file as a Smart Object. You can achieve this from Lightroom by selecting the image, going to the Photo menu and choosing Edit in > Open as Smart Object in Photoshop. Alternatively, you can drag a raw file directly from your hard drive (or Bridge) right into Photoshop. To get the original raw file out of a layer that's a Smart Object, click on the layer, go to the main menu and choose Layer > Smart Objects > Export Contents.

Apply the same Camera Raw settings to all images being used

You'll first need to bring the additional images you shot into the original document. To bring them in as raw files, follow the tip above. In my case, I selected the additional image in Lightroom and chose Edit in > Open as Smart Object in Photoshop, and then I moved the image into my main document. When combining multiple images, it's important that the images have the same adjustment settings applied to them (white balance, contrast, exposure, etc.). To be sure of this, you will need to copy the adjustment settings from your original image and paste them into the image[s] you just added to the document. To do this, double-click on the bottom layer containing the original raw image. This will open the image



Here, we are creating a new preset in Camera Raw.

in Camera Raw. Go to the Presets Tab in the panel on the right, click the New icon at the bottom and save a new preset, giving it a name that you'll remember. Click ok. Now double-click on the raw image you just imported to open it in Camera Raw. Again, go to the Presets tab and apply the preset you just created. Click ok. Now, both (or all) images should have the same adjustment settings applied to them.

Develop a plan

Now that my Camera Raw settings match, I'm going to look at the image and decide what needs the most attention. To me, it's the messy concrete. I can see a seam in the concrete that was probably pristine back in the 1950s but is now broken, dirty and messy overall. This is my target area. Now, I'll look at the additional image I shot which included more of the concrete in the scene. In it, I found a clean area with a seam in it that we can use to cover up the messy area in the original image.



In the screen shot at left, you can see the messy concrete with the seam in it. In the image at right, we found an area with a seam that can be used to replace the messy area.

Replace Problem Areas

On the layer for the original image, select the problem area with the Lasso Tool. (tip: If you hold down the Option Key (Alt on Win) while using the Lasso Tool, it will be confined to using straight lines. When you let go of the Option key, it will go back to allowing you to create free-hand, curved lines.)



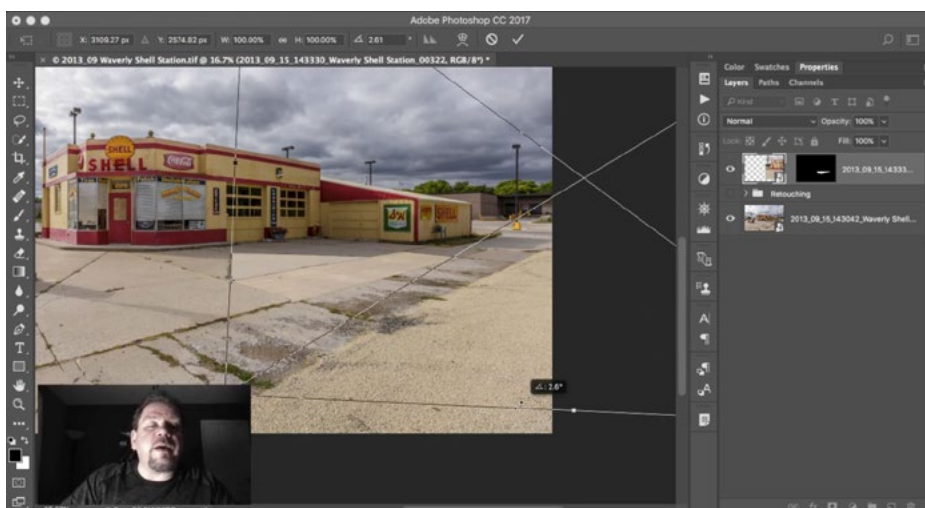
A selection was made around the problem area.

Activate the top layer (the additional image you shot to help with retouching) and click the Layer Mask icon. When you create a new layer mask when there is a selection active, it hides everything but the area that's selected. Now, we'll have to move the image around within the mask so that the content matches up as closely as possible. To do this, we must unlink the mask from the layer it's attached to by clicking on the little link icon between the layer thumbnail and the mask thumbnail. Make sure the image is active (it will have brackets around it to indicate that it's active). If it's not active, simply click on the image thumbnail so that you see the brackets appear around it. Drag the image around inside the mask so that the target areas line up as closely as possible.



The image layer was unlinked from its mask and was dragged around so that it lines up with the target area as closely as possible.

To more closely align the two image layers, we'll need to free transform the top image. We'll go to the Edit Menu and choose Free Transform. Free Transform handles will appear around the layer, which will allow you to both rotate and scale the layer. The tiny dot in the center is the pivot point for rotating the layer. You can move this dot to change the pivot point. To rotate, you need to click and drag somewhere outside of the Free Transform handles. We're going to do that here, so that we can more accurately line up the seam in the concrete. When you're done with the transformation, either hit the Enter key or click the little check box in the Options Bar.

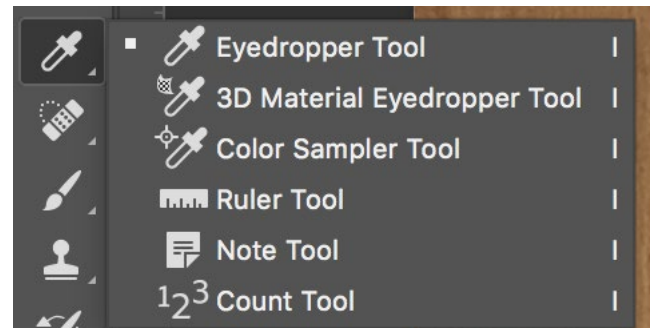


The image is being free transformed (within the mask) so that the seams in the concrete more closely line up.

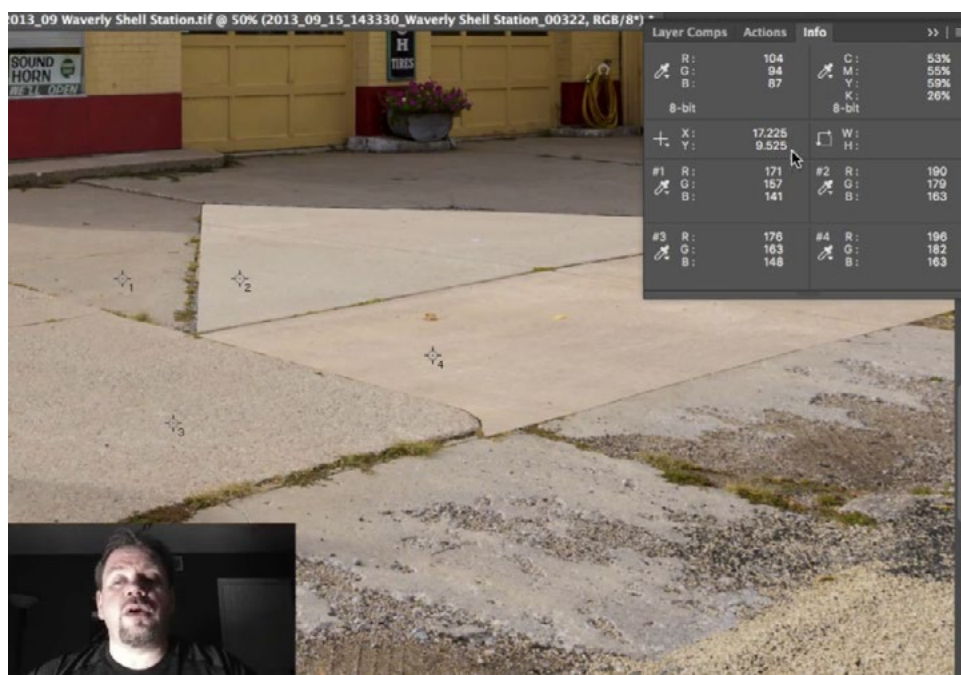
Match Color & Tone

After aligning up the layers, things don't look quite right because the colors of the concrete don't match and there used to be a shadow on that area of the concrete and now there is not. To make the result look realistic, we'll have to match the colors and create a shadow in the correct spot.

Match Color To match the color of the newly-inserted pavement to the surrounding pavement, we'll use the Color Sampler Tool (which is hidden behind the Eyedropper Tool in the Toolbar) and the Info Panel. With the Color Sampler Tool active, first make sure that the Sample size in the Options Bar is set to something other than Point Sample. (5 or 11 should work fine.) We'll click on an area of the concrete that we want to match (the desired color). A #1 point will appear on the image and values for that #1 point will appear in the Info Panel. We'll add another point in the area that we want to adjust. Because there are multiple patches of pavement, we'll actually do this again, creating points #3 and #4, for another area we want to match (#3) and the area we want to adjust (#4).



The Color Sampler Tool is hidden behind the Eyedropper in the Toolbar.



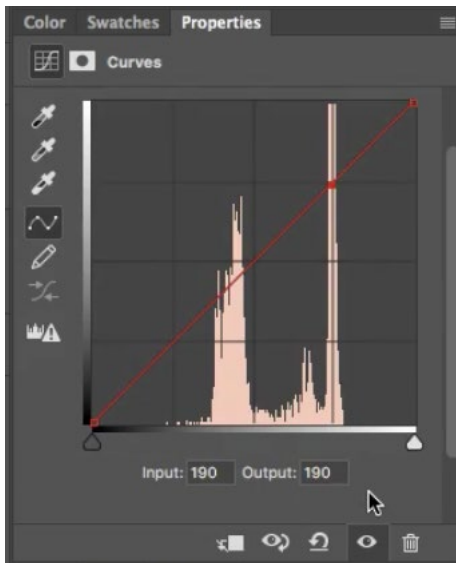
The Color Sampler Tool was used to place four points on the image, in areas we want to match and areas we want to adjust. You can see the color values for those points in the Info Panel.

Now it's time to make an adjustment. We don't want to adjust the entire image, so we'll make a selection around the area we want to adjust, which is the top, triangular piece of the concrete replacement.



A selection is made around the area we want to adjust.

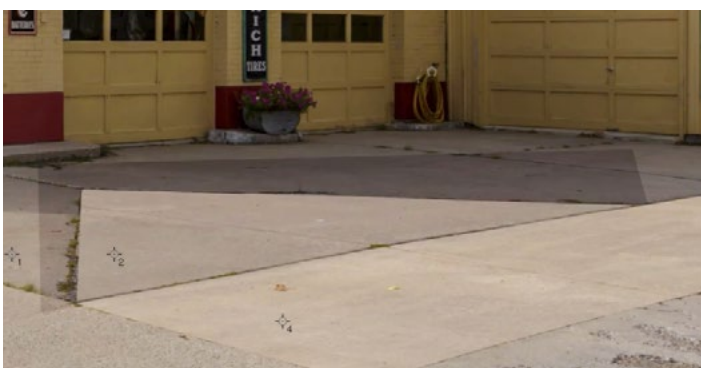
We're going to make the color adjustments using Curves, so we'll click on the Adjustment Layer icon at the bottom of the Layers Panel and choose Curves. In the Curves Properties Panel, we need to click on the little hand icon. Hover your mouse over the #2 point, hold down Shift and Command (Shift and Ctrl on Win) and then click your mouse button right over the point. Holding those extra keys down makes it so that points are placed on the color curves (red, green & blue).



The red curve after placing a point on the area we want to adjust.


When you look at one of the color curves (by choosing it from the dropdown menu in the Curves Properties panel), there will be two numbers under the curve: Input and Output. In our case, both are 190 for the red curve. That's the amount of Red that Photoshop measured in that area of the image. I want to shift that number to match the color values of the point we sampled from in the area with our desired color (point #1).

When you look at one of the color curves (by choosing it from the dropdown menu in the Curves Properties panel), there will be two numbers under the curve: Input and Output. In our case, both are 190 for the red curve. That's the amount of Red that Photoshop measured in that area of the image. I want to shift that number to match the color values of the point we sampled from in the area with our desired color (point #1).



The the values for red, green and blue were entered in and now the selection area matches the color of point #1.

To match the colors, we'll look in the Info Panel at the values for point #1. The red value is 171. That's the number we'll type into the Output field for the red curve. Then, we'll change the dropdown menu to green and enter the green value for point #1 into the Output field. Finally, we'll do the same thing with the blue curve.

The color change reflected the entire selection and we only want it to affect that triangular piece of concrete inserted from the other image. There is a way to make the adjustment only affect the layer right underneath of it, and that is by clipping it to that underlying layer. You can do this either by clicking on the clipping icon  at the bottom of the Curves Properties panel or by holding down the Option key while hovering your cursor on the line between the two layers in the Layers panel. When the cursor changes into a square with a down-pointing arrow next to it, click on the line to create a clipping mask.

Now, we're just going to repeat the whole process for points #3 and #4 so that the area under #4 matches the area under #3.

Replacing the Shadow Because there was a shadow in the area of the original image we replaced, we need to put the shadow back in so that the result looks realistic. We'll use the same general technique that we used to correct the color. To start, we'll turn off all of the layers except for the bottom layer and make a selection around the original shadow. Then, we'll turn the other layers back on and create a Curves Adjustment Layer at the top of the layer stack. Because there was a selection active, it will automatically be applied to the mask.

In the Curves Properties panel, we'll make sure the hand tool is turned on and choose the red channel. We will hold down Shift and Command (Ctrl on Win) and click on the part of the image that should have a shadow but doesn't. Then we'll hover the mouse over the area that we'd like to match and look at the number that

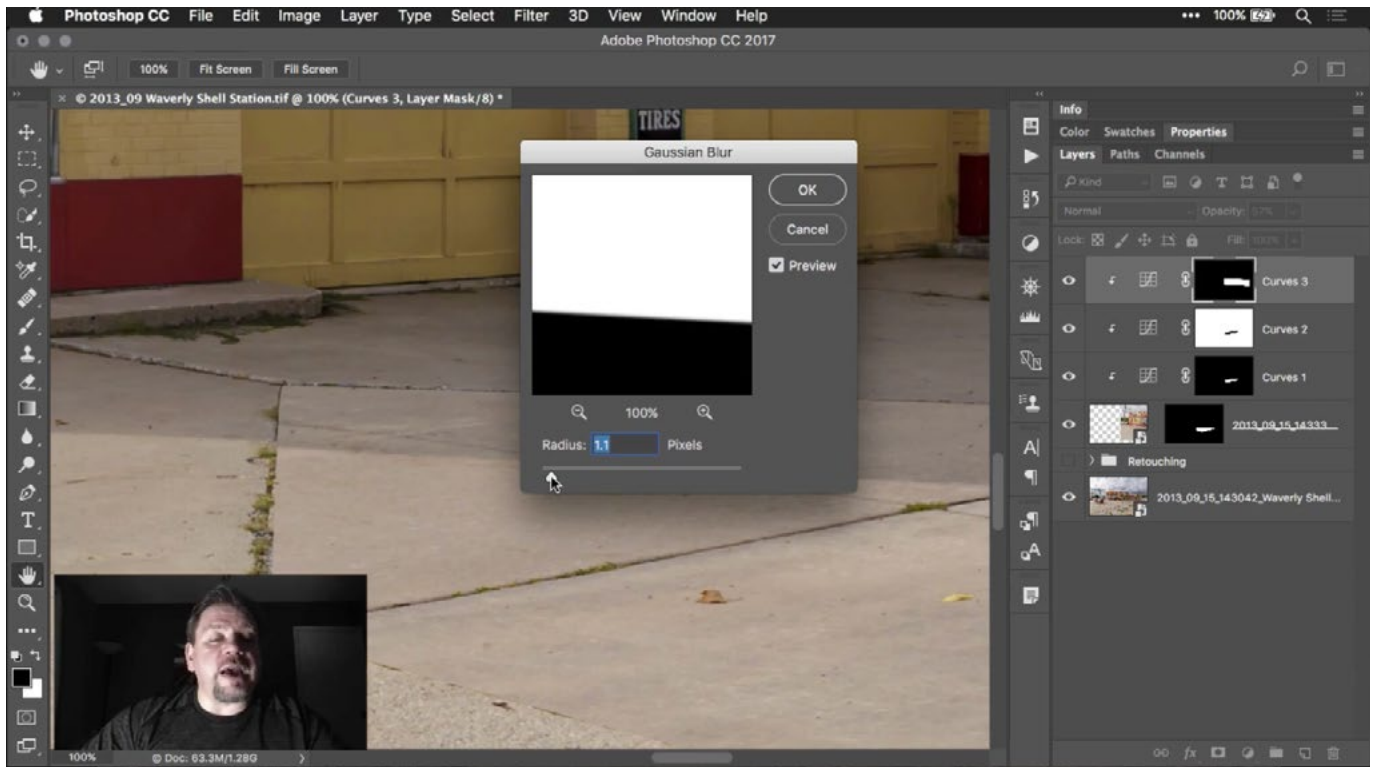


After matching all of the red, green and blue values in the Curves Properties panel, we have a new shadow. It will just need to be masked so that it only appears where needed.

appears in the Input/Output field (just hover, don't click). It's important to remember this number. Then we'll move the mouse back over the Curves Properties panel and enter that number into the Output field. Then change the menu from red to green and do the same thing for the greens, and then the blues.

Now, we'll create a clipping mask so that the color change only affects the replaced content. In the end, the shadow we created looks a little dark to me, so I brought down the opacity slider in the Layers panel.

The original shadow had a slightly soft edge, but the shadow we created has a hard edge, and we're going to want it to make it match. This is a pretty simple task. With the layer mask active, we'll go to the Filter menu and choose Blur > Gaussian Blur. Then we'll just drag the slider up and down until the softness of the shadow we created matches the softness of the original shadow.



A Gaussian Blur is being applied to the mask to give the shadow a soft edge.

Finally, I will compare the shadow in the original image to the final result, going back and forth to see if there are any differences. I noticed one area that was not covered with shadow in the original image, so I used a soft-edged brush and painted with black on the mask to hide our shadow in that area. This way, the shadow we created matches the original shadow as closely as possible.