

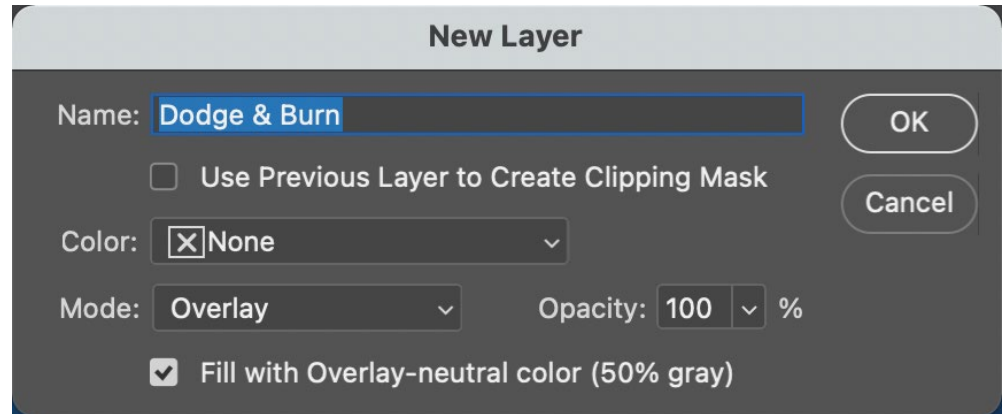


**Maximum Control in Photoshop**  
with

**Tim Grey**

## Dodging and Burning

One of my favorite techniques for fine-tuning the overall tonality of an image also provides a good foundation for more sophisticated targeted adjustments. That technique involves lightening and darkening selective areas of an image, and is often referred to as “dodging and burning” based on a technique that was commonly used in the wet darkroom when printing from a negative.



There are actually Dodge and Burn tools in Photoshop, but I prefer to use a different approach that involves the Brush tool, in part because this approach enables you to more easily switch between lightening and darkening various areas of the image.

I recommend working on a separate layer for this technique for maximum flexibility, so the first step is to add a new layer. However, we also want to adjust the settings for that new layer. First, click the thumbnail for the top-most image layer on the Layers panel so that layer will be active, and the new layer will be placed directly above it. Then hold the Alt key on Windows or the Option key on Macintosh while clicking on the “Add New Layer” button (the square with a plus symbol icon) at the bottom of the Layers panel.

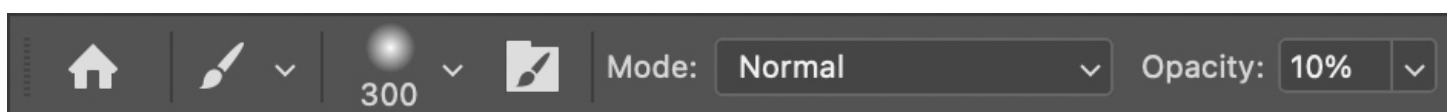
Because you were holding the Alt/Option key while clicking the “Add New Layer” button, the New Layer dialog will appear where you can adjust the settings for the new layer.

Enter a meaningful name for the new layer, such as “Dodge & Burn”. Then set the Mode popup to Overlay, which is one of the contrast blend modes that makes this technique possible. Finally, turn on the “Fill with Overlay-neutral color (50% gray)” checkbox, so that the new layer will be filled with middle gray, making it easier to see where you’ve painted with the dodge and burn technique. Click OK to create the new layer.

Next, choose the Brush tool from the toolbar. On the Options bar click the brush settings popup and make sure a soft-edged brush is selected, or that the Hardness is set to 0%. This will enable your lightening and darkening to smoothly blend in to surrounding areas of the image.

Make sure the Brush is set to the Normal setting on the Mode popup. While we are using the Overlay blend mode for the layer we created, we want the brush to behave normally. Set the Opacity for the brush to a value of about 10% to 15%. Then press the letter “D” on the keyboard to set the default colors of black and white. You can press the “X” key on the keyboard to exchange the foreground and background colors.

With all of the settings configured, you can now paint with white in areas of the image you want to lighten, and paint with black in areas you want to darken. For a stronger effect paint over the same area more than once. You can also adjust the Opacity setting as you’re working if you want the effect to be more or less strong.



## Painting an Adjustment

A great way to get started with targeted adjustments is to paint the adjustment into the image. The technique is similar to dodging and burning as above, but involves the use of an adjustment layer.

Start by clicking the “Add Adjustment Layer” button (the half-black/half-white circle icon) at the bottom of the Layers panel, and choose the type of adjustment you’d like to apply from the popup. On the Properties panel apply an exaggerated adjustment so it will be easier to see the effect of making that adjustment targeted to specific areas of the image.

At this point I also recommend inverting the layer mask, which is the thumbnail to the right of the adjustment layer thumbnail on the Layers panel. That layer mask serves as a stencil, defining which areas of the image will be affected by the adjustment versus not affected.

By default a layer mask is filled with white. When it comes to layer masks the key thing to keep in mind is that “black blocks and white reveals”. In other words, in areas where the layer mask is black the adjustment will not affect the image, and in areas where the layer mask is white the adjustment will affect the image.

With an all-white layer mask, the adjustment will affect the entire image. I generally prefer, however, to start with an all-black layer mask so I can then paint the adjustment into the image, rather than painting to block the adjustment. This step is optional, but I do tend to prefer it.

To invert the layer mask, first click on the thumbnail for the layer mask to make sure it is active. Then go to the menu and choose Image > Adjustments > Invert. This will invert the white layer mask to black, so that the adjustment is no longer visible in the image.



You can now select the Brush tool from the toolbar. On the Options bar you can adjust the settings for the brush as needed. In general, you'll want to use a low Hardness setting, so your adjustment will blend into the image smoothly. Pressing the letter "D" on the keyboard will set the default colors of white and black. You can then press the "X" key as needed to exchange the foreground and background colors, depending on what color you need to use.

At this point you can paint with white in the image to reveal your exaggerated adjustment. Continue painting with white in any areas that you want affected by your adjustment, and painting with black in any areas that you do not want affected. When you're finished defining the layer mask you can click on the thumbnail for the adjustment layer and return to the Properties panel to refine the adjustment settings.

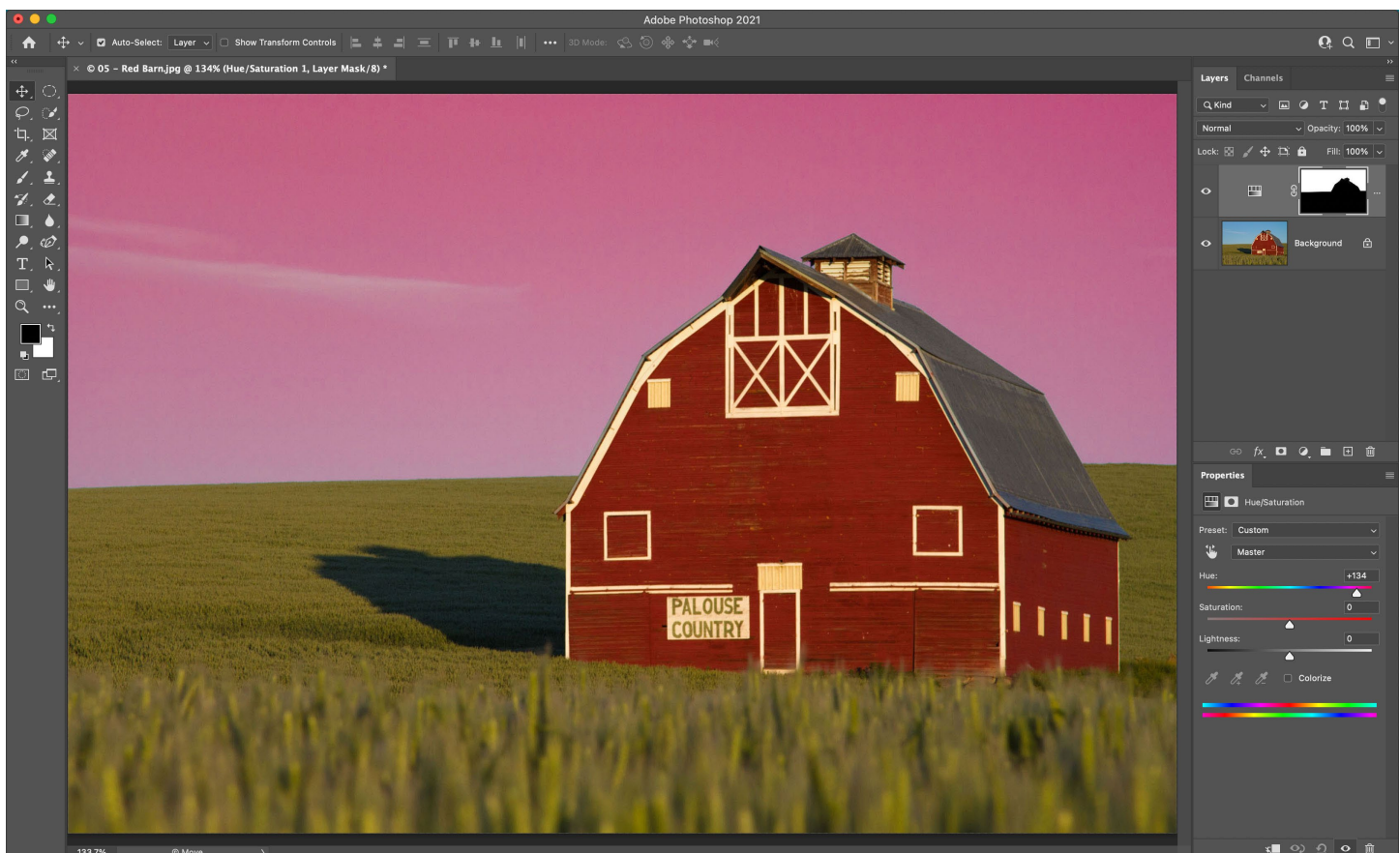
With this combination of an adjustment layer and the associated layer mask, you can simply paint to define which areas of the image will be affected by your targeted adjustment.

## Selection-Based Adjustments

While the ability to paint an adjustment into specific areas of an image can certainly be helpful and powerful, in most cases you'll want to use a selection as the basis of a targeted adjustment. The process is very straightforward.

To get started, create a selection using any of the available tools or commands in Photoshop. For example, to quickly create a selection of the sky you can simply choose Select > Sky from the menu.

With an active selection you can add an adjustment layer based on the type of adjustment you want to apply to the selected area of the image. The layer mask that is included automatically with the adjustment



layer will automatically reflect the selection, so that the adjustment layer will only affect the area of the image that had been selected when the adjustment layer is added.

As explained in the previous section, you can paint with black or white directly on a layer mask as well. This enables you to refine the layer mask after it is created, if for example your original selection wasn't quite perfect.

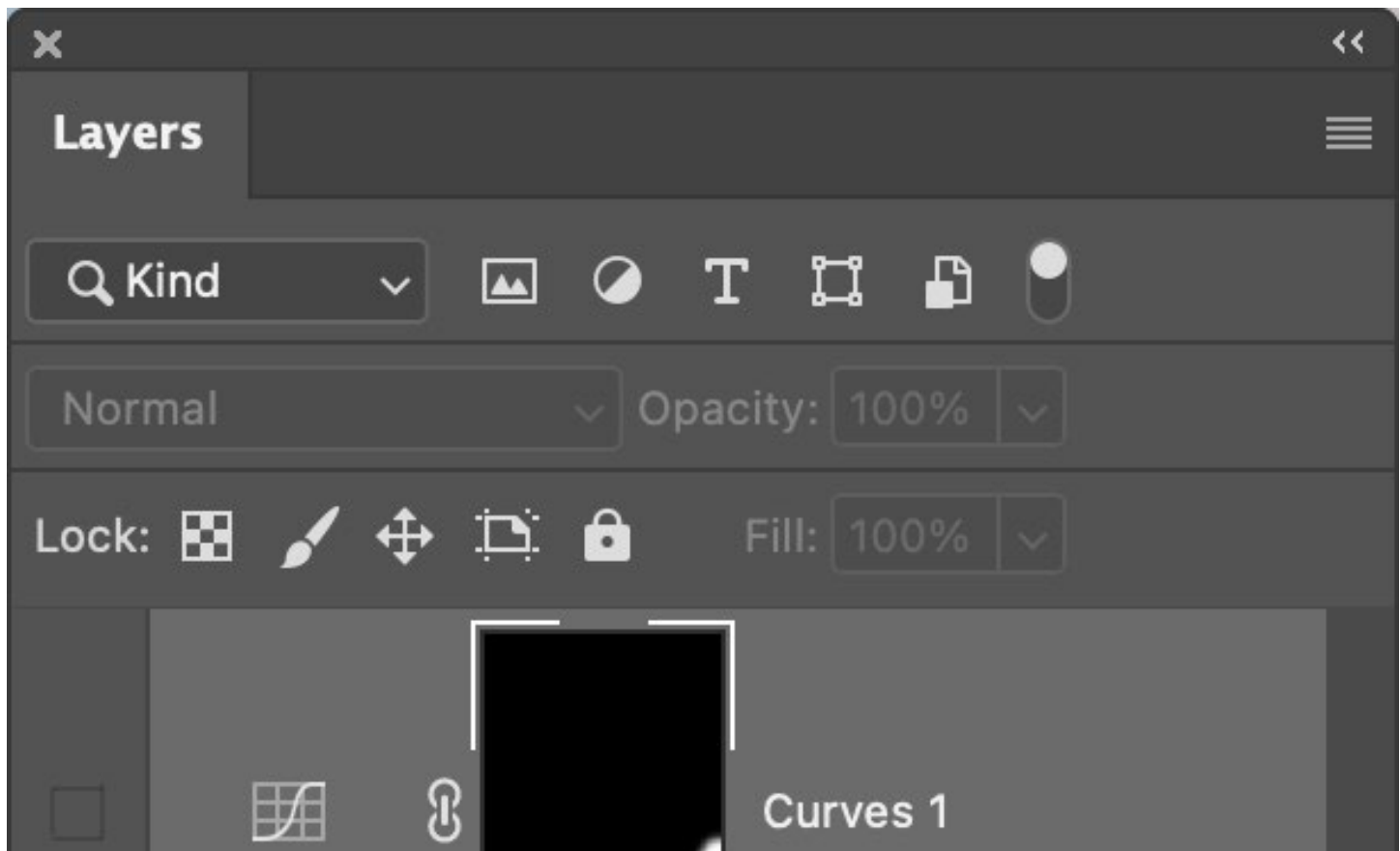
## A Gradient Adjustment

Another common type of targeted adjustment involves a gradient. For example, you could create a layer mask with a white-to-black gradient from the top of the image toward the bottom of the image, so that the associated adjustment layer would affect the top of the image, would not affect the bottom of the image, and would transition smoothly between those areas.

To get started, add an adjustment layer of the desired type, and initially make the adjustment somewhat exaggerated so it will be easy to see the effect of the graduated adjustment.

Next, choose the Gradient tool from the toolbar, and press the letter "D" on the keyboard to set the colors to the default values of white and black. On the Options bar, click the popup that shows a gradient preview, and select the first thumbnail in the Basics folder. This is the foreground color to background color gradient, which in this case will be white to black.

To the right of the gradient popup is a set of five buttons representing the gradient styles. Choose the first of these buttons, which is the linear gradient. Make sure the Mode is set to Normal and that the Opacity is at 100%.





You can then click-and-drag across the image to define the gradient. The direction you drag will determine the direction the gradient transitions across, and the distance you drag will determine how small or large an area the gradient transitions across.

Holding the Shift key on the keyboard while dragging to define the gradient will constrain the gradient's direction to one of the principle 45-degree angles. This is a convenient way, for example, of achieving a perfectly vertical gradient transition.

If you need to change the gradient, you can simply click-and-drag again to replace the existing gradient for the layer mask. When you're happy with the gradient itself, you can click on the thumbnail for the adjustment layer and return to the Properties panel to refine the overall settings for the adjustment.

## Evaluating the Layer Mask

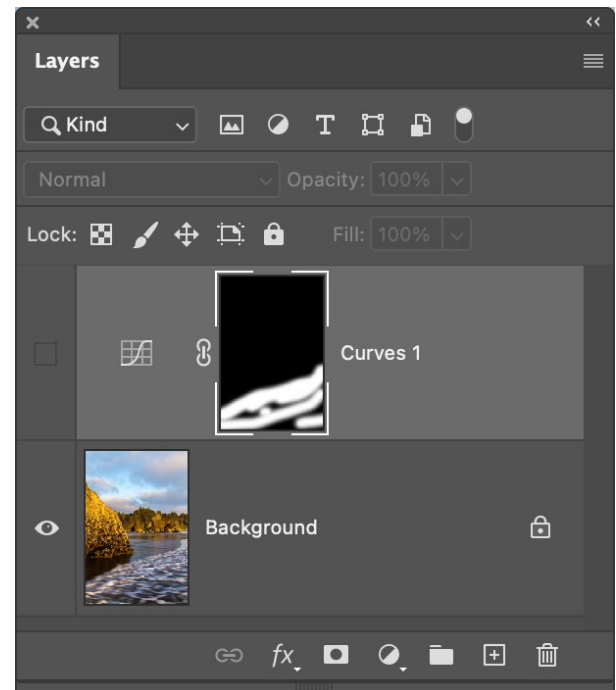
Especially when you paint directly on a layer mask to define which areas of the image will be affected by the adjustment layer you may want to review the layer mask to make sure it is accurate. There are several techniques that can be helpful for this purpose.

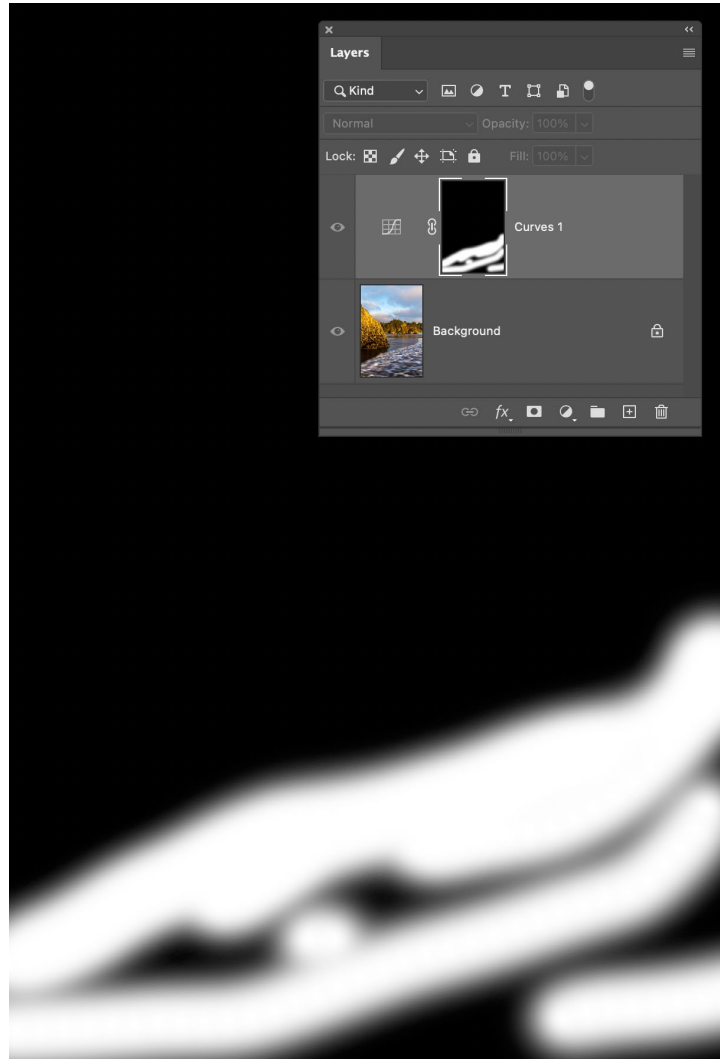
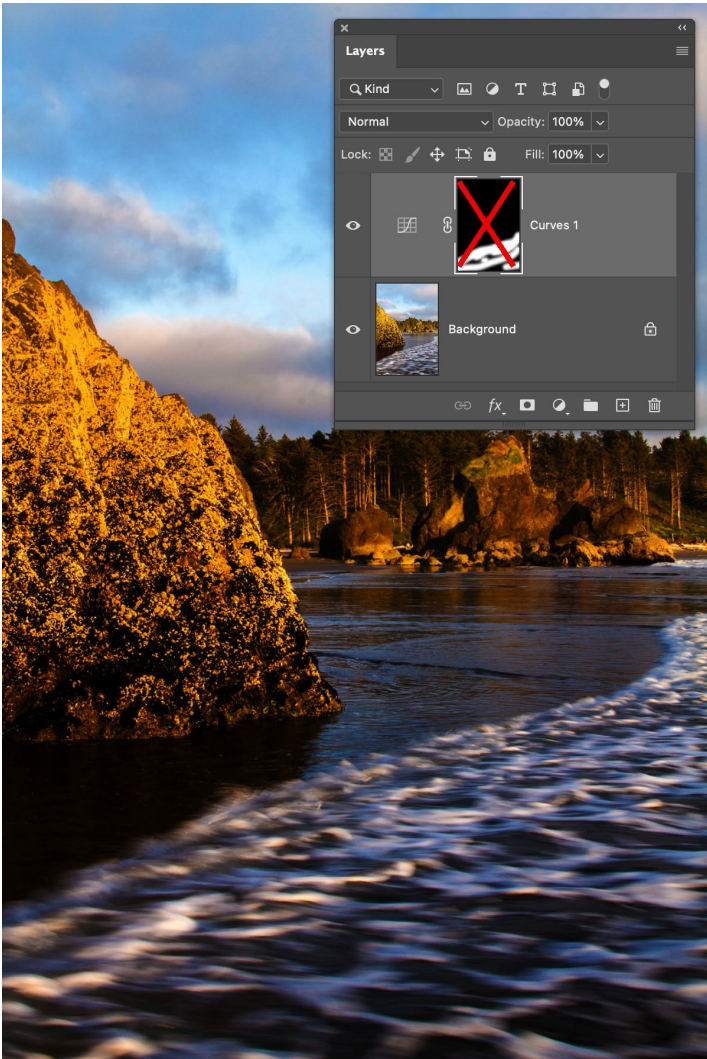
The first option is to turn off the visibility of the adjustment layer representing the targeted adjustment you want to evaluate. Simply click the eye icon to the left of the thumbnail for the adjustment layer on the Layers panel, which will hide the effect of the adjustment layer. Click in the empty box that appears in place of the eye icon to reveal the adjustment again. By toggling the visibility of the adjustment off and on you'll see the targeted adjustment disappear and reappear, which can help you identify any areas of the layer mask that aren't accurate.

Another option is to disable the layer mask temporarily. Hold the Shift key while clicking on the thumbnail for the layer mask on the Layers panel and a red "X" will appear over the mask. That means the mask is disabled, so that the adjustment will affect the entire image. Shift-click on the thumbnail for the layer mask again to enable the layer mask.

By toggling back and forth between having the layer mask disabled versus enabled, the adjustment will switch between affecting the entire image and affecting only the area defined by the layer mask. This too can be helpful for spotting areas of the layer mask that aren't completely accurate.

Finally, you can view a full-resolution version of the layer mask directly on the image. To enable this display, hold the Alt key on Windows or the Option key on Macintosh while clicking the layer mask thumbnail on the Layers panel. With this view enabled, areas of the layer mask that hadn't been filled in completely with black or white will stand out quite well. You can even paint with black or white directly on this view of the layer mask within the image area to refine the layer mask based on your evaluation. When you're finished you can once again hold the Alt/Option key while clicking on the layer mask thumbnail to return to the normal display of the image.





## Basic Mask Refinements

Especially when you have used a selection as the basis of a targeted adjustment you may find that the transition between areas being affected versus not affected by the adjustment are too abrupt. At least a slight degree of transition is generally needed so the edge of the targeted adjustment blends into the rest of the image smoothly.

A simple approach to addressing this issue is to apply feathering, which will slightly blur the edge of the layer mask. Start by clicking on the thumbnail for the layer mask so it is active. Then on the Properties panel increase the value for the Feather slider. This will blur the layer mask edge to provide a degree of blending.

In many cases simply increasing the Feather value a little will provide a nice smooth transition for your targeted adjustment. However, in some cases it may also cause problems, such as a visible halo along the boundary of your targeted adjustment. In those cases, I recommend resetting the Feather value to zero and using Select and Mask Mode instead.



## Select and Mask Mode

Select and Mask Mode provides a set of powerful options for refining a layer mask. With a layer mask active simply click the “Select and Mask” button at the bottom of the Properties panel to enter the Select and Mask workspace. I then recommend setting the View popup at the top of the right panel to “On Layers” so you can see the actual effect of the targeted adjustment on the image while you’re working.

I generally prefer to start in the Global Refinements section of the right panel. There, you’ll find a Feather slider, which gives you the same control as the Feather slider noted in the previous section. Even if the prior feathering didn’t work out very well, you’ll likely want to increase the value for Feather here. If the selection used as the starting point for the targeted adjustment had previously been feathered too much, you can also increase the value for Contrast, which is the opposite of feathering.

If there is a visible halo caused by the Feather setting that doesn’t necessarily mean you need to disable feathering. You can likely improve the result using the Shift Edge slider to push the targeted adjustment further with a positive value or to pull the targeted adjustment into a smaller area with a negative value. With a combination of the right settings for Feather and Shift Edge you can get a smooth transition for your layer mask edge that is positioned properly along the edge of the area you want the targeted adjustment to affect.

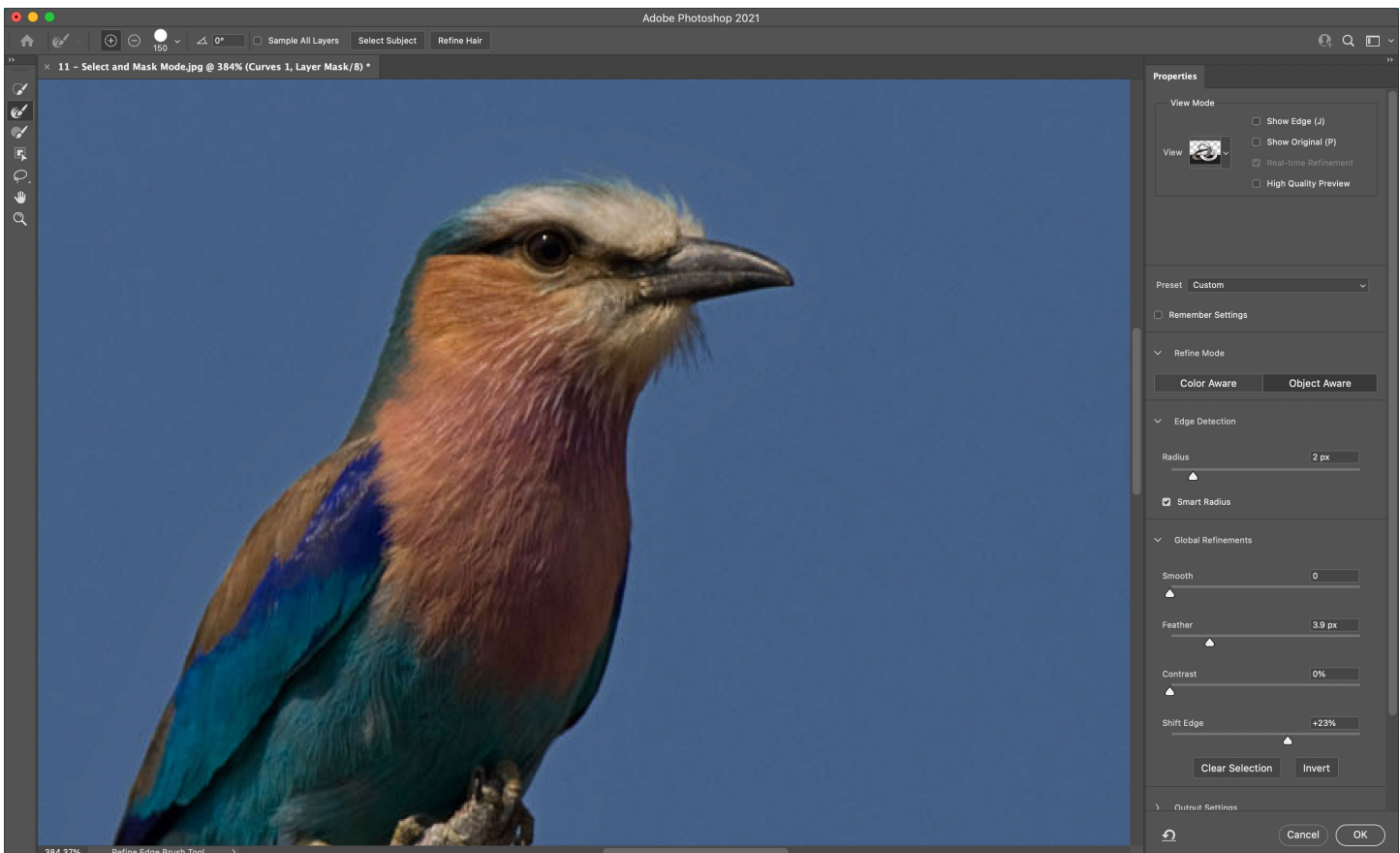
You can also increase the value for Smooth to literally smooth out jagged edges of the layer mask. However, if you use this adjustment be very careful that you don’t use too high a value, which can cause the layer mask edge to no longer follow the intended area of the image accurately.



If the layer mask doesn't align properly with the intended area of the image you can also make use of Edge Detection in an effort to improve the accuracy of the layer mask. Start by increasing the value for the Radius slider, watching the effect in the image. If the edge of the area you're applying the targeted adjustment to includes various areas that are crisp versus fuzzy, you can also turn on the "Smart Radius" checkbox. This will cause the edge size to vary based on the degree of contrast along the edge of the area you've applied the targeted adjustment to.

If there are still problem areas where the blending along the edge of the layer mask is not optimal, the Refine Edge Brush tool generally provides a great solution. This tool is the second down on the toolbar at the far-left side of the Select and Mask workspace. Simply select this tool, adjust the brush size, and paint in the problem areas of the image. Those areas of the layer mask will then have further refinements applied, which in most cases will provide a good layer mask edge in those areas.

In some cases you'll find that it is necessary to simply paint manually on a layer mask with a small brush, painting with white where you want to reveal the image or the adjustment, and painting with black where you want to block the image or adjustment. But the Select and Mask workspace will likely prove to be all you need to greatly improve the layer mask in most cases.



## Multiple Adjustments with One Mask

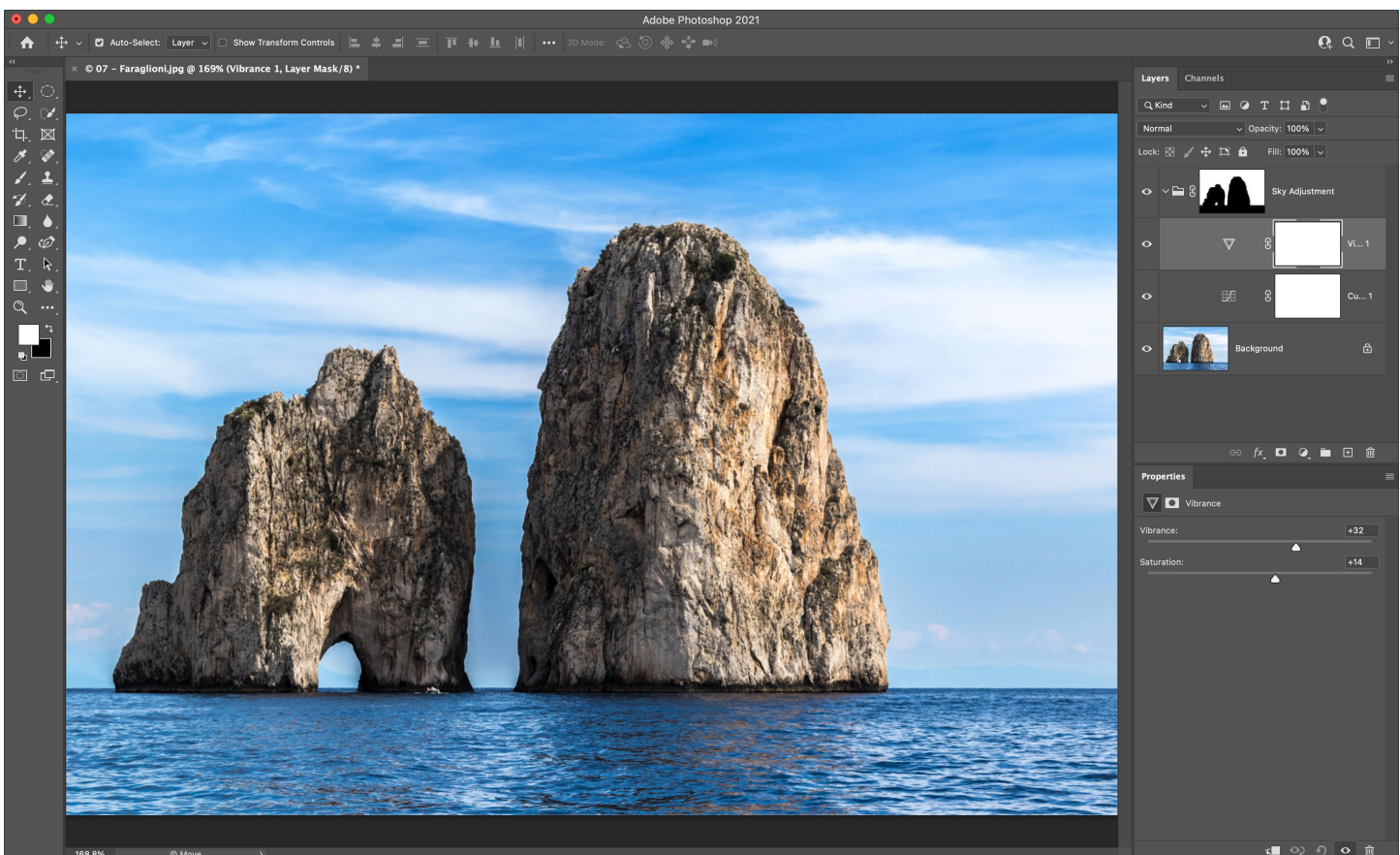
More often than not, when applying a targeted adjustment to a specific area of an image, I find that I want to apply more than one adjustment to that area. Rather than having a series of adjustment layers, each with their own layer mask, I prefer to use a technique that enables the use of a single layer mask for multiple adjustment layers. One of the primary benefits of this approach is that if you discover there is a problem with the layer mask you only need to fix that mask once, rather than performing the same corrections for multiple layer masks for individual adjustment layers.

The key to this technique is to use a layer group, which acts as a folder on the Layers panel to group together several layers. This can be used as an organizational tool for images with a large number of layers, but it can also be used to improve your workflow for applying targeted adjustments.

First, add a layer group by clicking the “Add Layer Group” button (the folder icon) at the bottom of the Layers panel. I recommend renaming the layer group so it will be clear what the purpose of the group is. To do so, double-click on the name of the layer group on the Layers panel, type a new name, and press Enter/Return. I generally rename the layer group based on the intent of the adjustment, using something like “Sky Adjustment” for example.

In most cases I use a selection as the starting point for a layer mask, so the next step would be to create a selection of the area of the image you want to adjust. Then add a layer mask based on that selection by clicking the “Add Layer Mask” button (the circle within a rectangle icon) at the bottom of the Layers panel.

Next, add as many adjustment layers to this group as you’d like, based on the specific adjustments you want to apply to the area of the image defined by the layer mask. Because the adjustment layers you’re adding are



contained within a layer group, and that layer group has a layer mask attached to it, the adjustment layers within the group will only apply to the area of the image defined by the layer mask.

You can then continue using any and all of the techniques presented above for fine-tuning the layer mask. And, of course, you can refine the settings for each individual adjustment layer to finalize the overall targeted adjustment.

### Multiple Masks

Taking the use of layer groups a step further, you can actually use multiple layer groups to constrain the effect of multiple adjustment layers with multiple layer masks. For example, let's assume you wanted to apply an adjustment that only affects the sky, but that affects the sky in a gradient fashion. Using two layer groups provides a streamlined solution.

Start with the initial layer group, as outlined in the previous section. For example, you might create a selection of the sky, add a new layer group, and add a layer mask to the layer group. Adding adjustments to that layer group will cause all of the adjustments to only affect the sky.

Next, select the existing layer group on the Layers panel and add a new layer group. This new group will appear above the existing layer group. Add a new layer mask by clicking the "Add Layer Mask" button at the bottom of the Layers panel. Because there is no selection active this layer mask will be filled with white.

Next, choose the Gradient tool, and draw a white-to-black gradient from the area of the image you want to be affected by your targeted adjustments, toward the area you do not want to be affected. This is the same approach covered in the section on "A Gradient Adjustment" above.

At this point, of course, the gradient layer mask you've added to the layer group won't have any effect on the image, because there aren't any adjustments inside this layer group to be constrained by the gradient layer mask.

What we want to do is effectively combine the effects of both the sky layer mask and the gradient layer mask. The adjustment layers within the layer group with a layer mask representing the sky will only affect the sky because they are within the layer group. But we can't move the adjustment layers themselves into the gradient layer group, because then they would affect the image in a gradient fashion, but they would not be constrained to only the sky.

Instead, we want to put the first layer group (for the sky in this case) into the second layer group (with the gradient in this example). To do so, simply drag the "sky" layer group and drop it onto the "gradient" layer group.

At this point the adjustment layers will be inside the "sky" layer group, which in turn will be inside the "gradient" layer group. Thus, the adjustment layers are now being constrained by both layer groups, so that in this example the adjustments only affect the sky, and they affect the sky in a gradient fashion.

It is actually possible to continue nesting additional layer groups, each with their own layer masks. You may very well find situations where more layer groups are necessary or helpful, but in my experience two layer groups are generally sufficient to achieve the desired targeted adjustment.



## Maximum Control

As you gain more experience and confidence with layer masking in Photoshop, you'll be able to exercise maximum control over your images. That includes the ability to apply sophisticated adjustments that only affect specific areas of a photo, as well as to combine multiple images into creative composite images.