

# Layers and Layer Masks in PhotoShop CS

By Gary Ford

Photoshop can work on images in layers. Using layers makes it much easier to track what you are doing and to reverse any actions that you might have taken. Not all layers are created equal. The background layer that is opened when you open a document in PhotoShop CS is the original image and on its own does not have any mask properties. On the other hand, all adjustment layers are in effect layer masks. A Mask allows you to place a protective mask over portions of an image to prevent a certain adjustment or modification of an image that is being done in a given layer from affecting the masked part. This article is going to address layers and layer masks.

The layer palette manages layers. In this example you will see that there are four layers, all of which are visible when looking at the image because the eye is showing on each layer in the layer palette. To turn off the visibility of a layer, click on the eye ball and the effect will disappear. Click on the blank box where the eye was, and the effect will reappear.



The background layer is the original image as long as no changes have been made to it. It is recommended that you do not actually edit the background layer. Always make a copy of that layer if you are going to make any adjustments. There are several ways to make a copy of a layer. First make sure that the layer is highlighted by clicking on it. Then to duplicate that layer you can go to the top menu bar, click on Layer, Duplicate layer.



When you click on Duplicate Layer a small window opens up that allows you to name the layer. The default name is the name of the layer you are copying followed by the word copy. If you make several copies, the layer manager will also add a number. To keep yourself highly organized, it is recommended that you name a layer according to what you intend to do to the layer. For example, if you intend to make patches to portions of the layer, name the layer Patches. If you intend to use the layer to Sharpen the image, name the layer Sharpen.

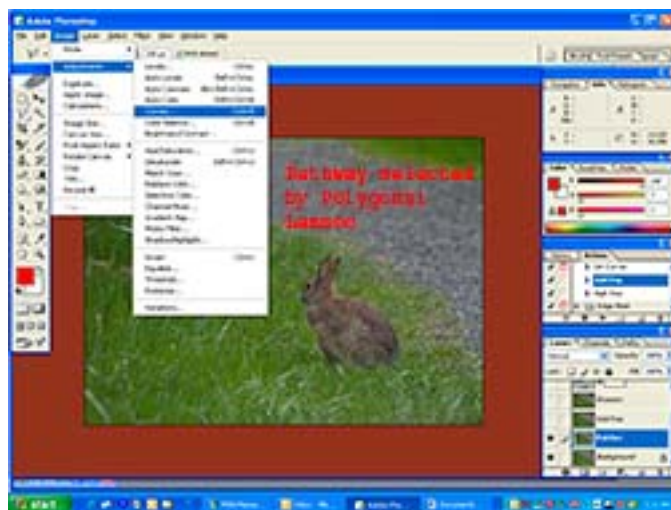


If you wish to create a blank layer placed above another layer, then click on the existing layer and click on the small icon at the bottom of the layer palette that looks like a sheet with the lower left corner turning up.



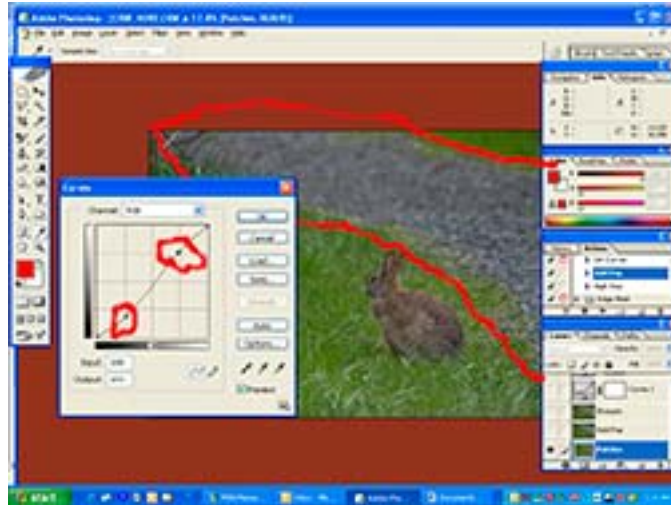
If you make changes to a layer then duplicate the layer, the changes will be copied into the duplicate layer. This means that changes made to layers should be somewhat planned out in your work flow before doing the work. For example, it is recommended that you patch a copy of the original (using the tools that actually change the image such as rubber stamp, paint brush, and any image adjustments you do to an actual layer. Image adjustments are different from using New Adjustment Layer.

For example, lets say that you want to darken a specific part of an image – you would use the selection tools to select just that part of the image, then click on Image in the menu bar, Adjustment, and select a function. Let's use Curves to darken that part of the image. If we do so, then the adjustment is actually done to the image. On the other hand, if we create a New Adjustment Layer, then select curves, the adjustment is done to the mask and not the image. To illustrate this, we are going to darken the pathway using the two methods. First, we will actually modify the duplicate of the background layer that we called patches:

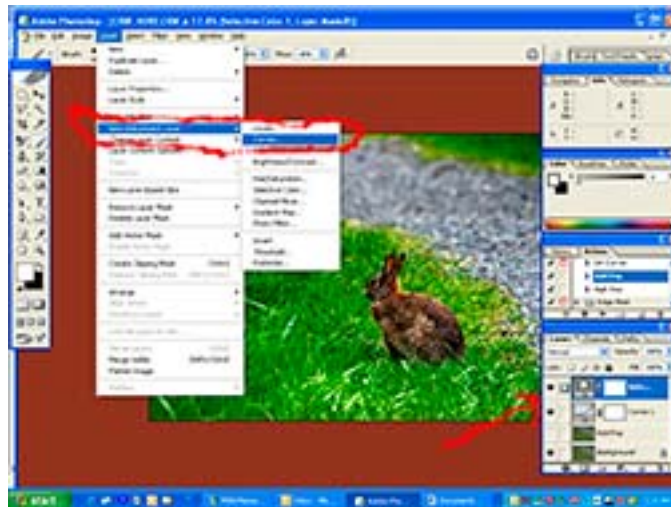


We selected the pathway using the polygonal lasso tool from the toolbar. (Click on the small black square of the marquee tool and select polygonal lasso). We then pointed the

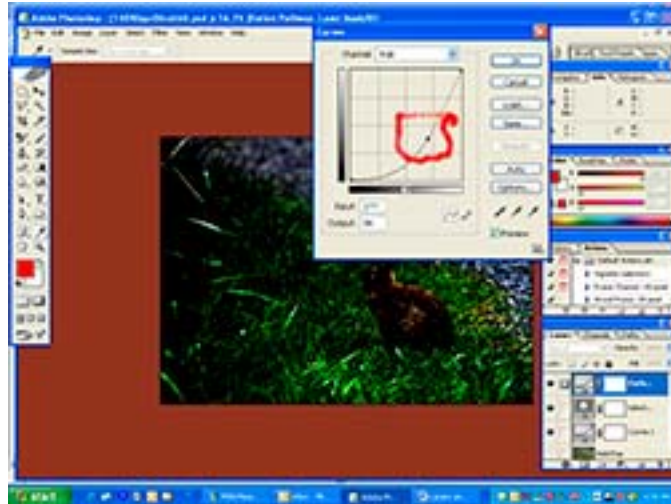
mouse cursor on image, selected adjustments, selected curves and a curves window appeared. We then clicked on the curves line and dragged it down in the lower left and upward in the upper right till we had the effect we wanted and clicked okay. That layer is now permanently changed in this manner.



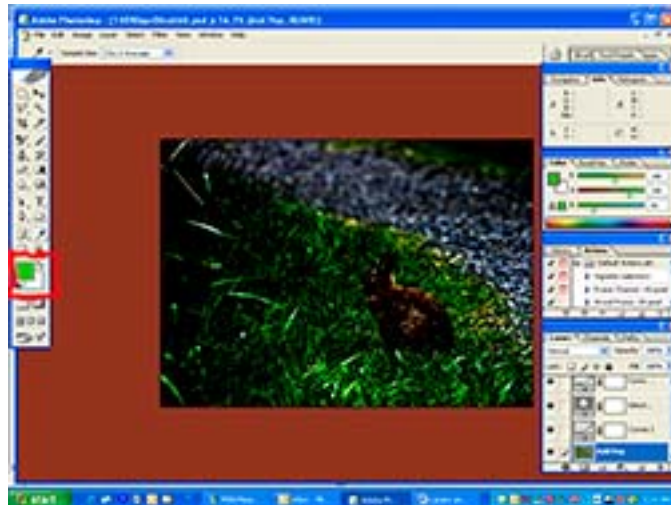
Alternatively, we can make a change using a layer mask and the change will not be a permanent change to the full content layer. To do this, instead of working on a duplicate layer, we are going to work on a New Adjustment Layer called curves.



Create the layer called curves by clicking on Layer in the top menu > New Adjustment Layer > Curves and name that layer “Darken Pathway” as that is the main intent for this edit, by typing over the default layer name in the small window box that appears then click okay. Then, you can modify the diagonal curve line to darken the entire image by clicking on the line and dragging it downward and to the right. The entire image will get darker – do this until the portion of the image that you want to darken (the pathway in our example) looks the way that you might want it to look. Click okay when done.

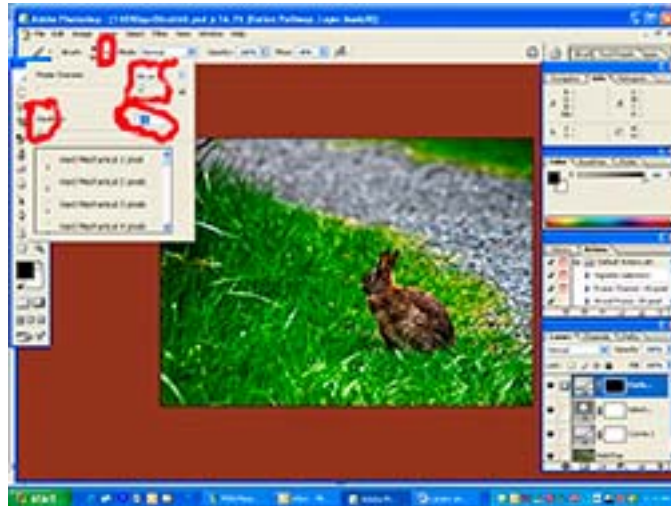


In the tool bar on the left, at the fourth layer from the bottom, there should be two larger colour swatches and two smaller black and white boxes.

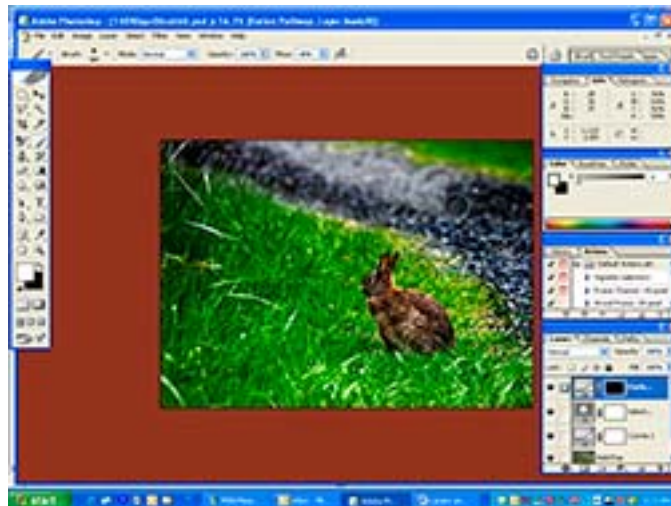


If the colour in the left most larger box is not black, click on the little black and white box and black should appear in the left most larger box so that both the larger boxes and the smaller boxes are black and white in the same order. We need this to now mask out the entire change that you just made. Look at your layers palette to make sure that the Darken Pathways layer is active (blue). If it isn't the active layer, click on the Darken Pathways layer to make it active. This may change the colours in the boxes in the tool box so you would have to reset the larger left box to black. If for some reason the left box is white and the right box is black, click on the curved arrow with two arrow heads just above the large right box. That will switch the colours. When the left most large box is black, go to Edit in the top most menu bar and click on fill. A smaller window box will open reading foreground colour, mode normal, opacity 100%, and preserve transparency unchecked. These are the settings we want so click okay. The image should look like it did before you darkened it with your modification using Curves. Click on the double headed arrow in the colour boxes portion of the tool bar and set the left large box to white

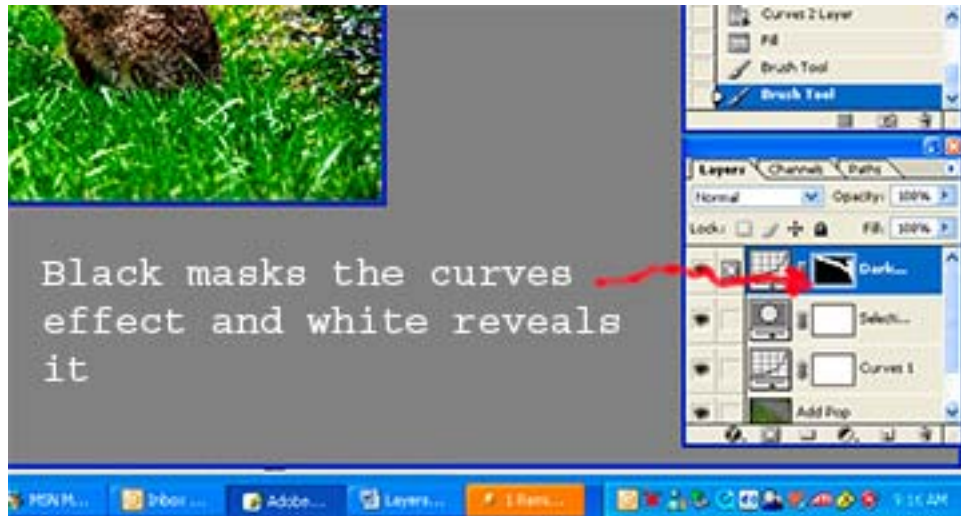
To apply the change only to the pathway, we are going to modify the layer mask of the Darken Pathway layer. Click on the brush tool in the tool bar on the left of your screen, and set your brush size to 300 by clicking on the downward arrow in the box beside the word Brush on the lower menu bar at the top – slide the top most slider until the brush size is 300 and set the hardness slider far over to the left at 0%.



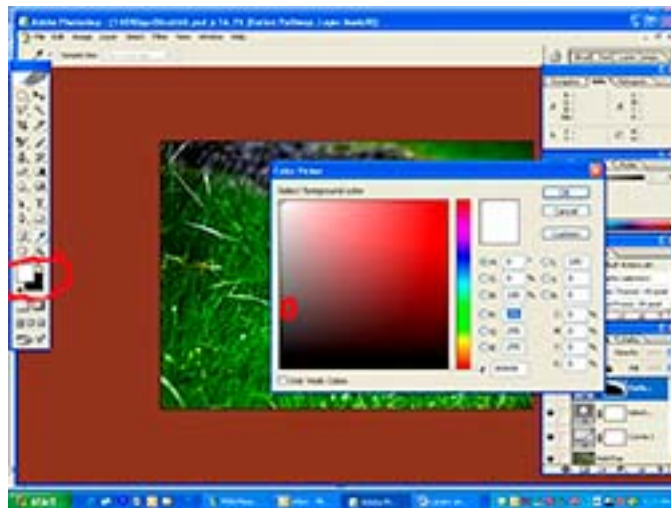
Once you have made those changes to brush size, you can move your cursor into the image editing portion of the screen and you will see a large circle that represents the brush size. Paint over the area of the image where you want the darker effect to be applied.



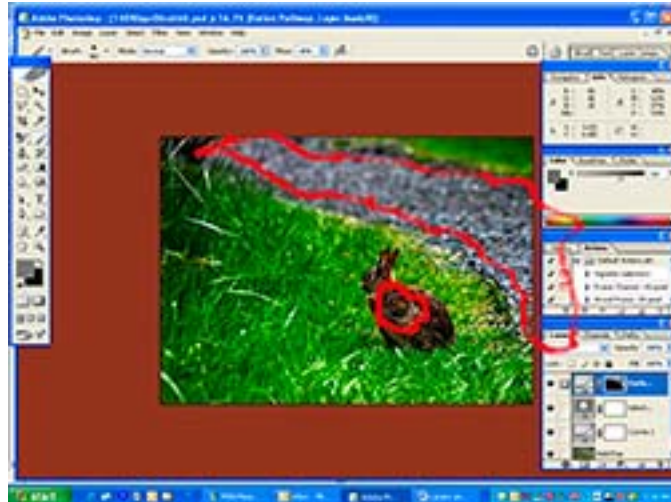
If you look closely at the image, you will see the round circle for the brush and the trail of darkness that has been painted on as we painted the effect on in the layer mask. We are doing this by using the white brush over the black that was used to turn off the curves effect. You can see this by looking in the layer palette and specifically looking in the right most rectangle in that layer – the black box will have white markings where we are painting in the effect.



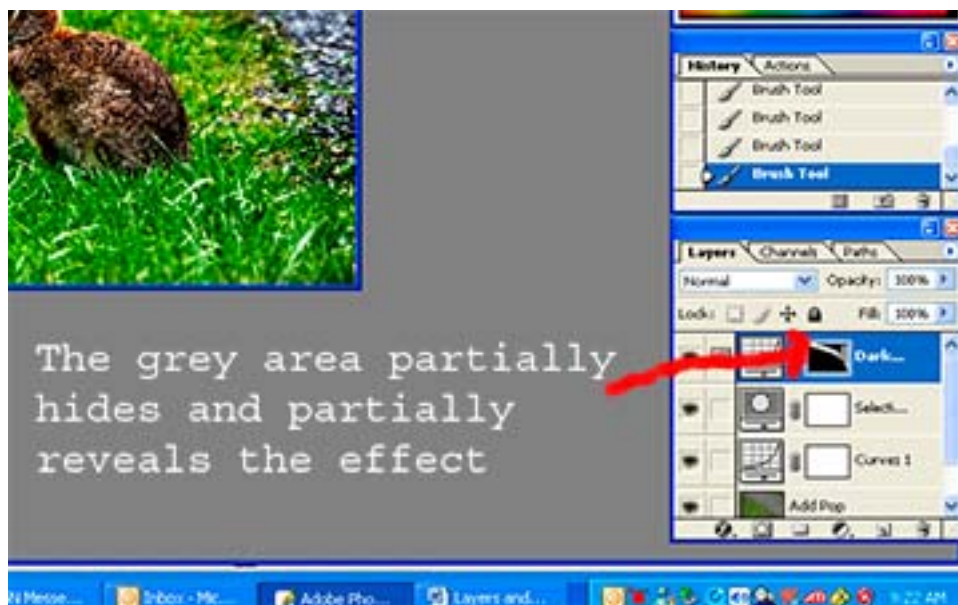
However, after doing this, we may realize that we made it darker than we might have wanted. To reduce the degree of darkness, we can paint over the effect with a grey brush. To make our brush grey, double click on the larger white colour box and a colour changing window will open up. Point your cursor in the coloured zone and it will change to a circle. Move the circle over a grey area and click, then click okay in the upper right for that window box. On the tool bar box, you will see that the larger left most box is now grey.



Once you have your grey, paint over the area(s) where you want to have only a low degree of the darkening effect applied. This could be on the pathway in our example or other areas of the image. Check the right most rectangle in the darken pathway box as you paint to see that you are applying the partial effect to only some areas of the layer mask.



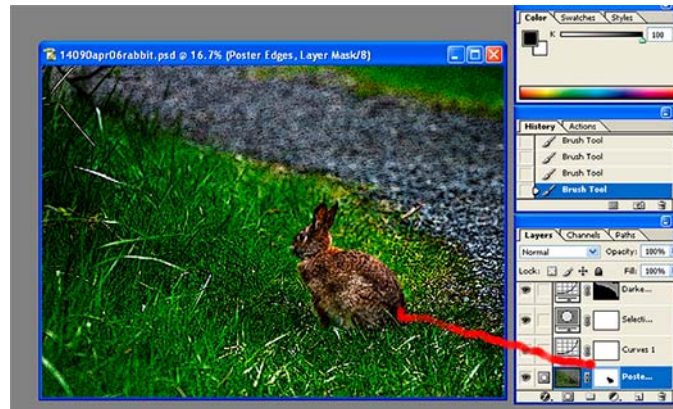
In this case, I lightened up the path so it is only half way darkened and I painted the body of the rabbit so that it darkened a bit. In the layer mask, when I was only part way to making the above change, you can see the grey replacing the white.



Following these principles, you can apply an effect to an entire layer and then paint out the effects where you don't want them on portions of your image or paint in the effects to the portions you do want to modify.

In any edit where you have created a duplicate layer, you can make it into a layer mask and modify the layer in the same ways. To do this in our example, we will create a duplicate layer and apply the Filter for Poster Edges. To make a layer mask for this layer, click on the duplicate layer called Poster Edges. Create a layer mask for the layer by clicking on the icon that looks like a washing machine in the bottom of the layers palette. Then click on the right most rectangle that appears on this layer, and then with the brush set to black and about 200 pixels in size, paint over the desired area (in this case the

rabbit) to mask out the change to the layer. As I do this in my example, the rabbit begins to look normal where I paint.



So in summary, you can apply an effect to a duplicate layer and it modifies the layer. You can apply an effect to a layer mask and it doesn't modify the layer, just the layer mask. If you apply a change to a duplicate layer, you can create a layer mask for that layer and mask out the effect by painting on the area you do not want to be affected. A Black paintbrush masks the area. A White paintbrush removes the mask. If you choose to use a shade of grey for your paintbrush, the effect is partially revealed and partially hidden. You can mask out an entire layer by setting your colour to black, going to Edit in the upper menu, and clicking on Fill. You can do this when you only want to reveal the effect for a small area. Having filled the layer mask with black, paint the small area with white to reveal the effect of the layer.

I hope that this article is helpful, adding more clarity and reducing confusion. However, if you have suggestions for how to improve the article, please e-mail me at [gford@interbaun.com](mailto:gford@interbaun.com).