

## LAYERS

One of the most powerful features of Photoshop is the ability to use layers when editing images. Layers allow you to build up an image in a series of adjustments, each building on the previous. Layers can also be adjusted to reduce the strength of their effect; they can be blended with other layers, and once you are satisfied with the ultimate effect you can flatten all the layers into a final image. At first glance this might not sound very revolutionary but with a few examples you will be able to see why it is such an important approach for the imaging professional.

### Creating a Layer

Shown below is an image that requires a little adjustment to bring out its best and to remove the top of the mountain that has entered the frame. The editing that follows will demonstrate how layers can be used to achieve a more pleasing result.



The first step I take is to duplicate the image so that I am working on a copy. I do this by creating a duplicate layer through the “Layers” window. If your Layers window is not visible select it from the “Window|Layers” menu option or alternatively press F7.

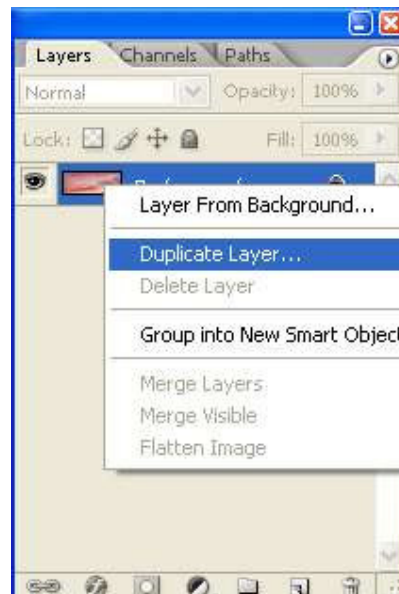
In the Layers window you will see the “Background” layer. This is the default layer that is present in all images. To create a duplicate of the layer right click on it and select “Duplicate Layer...” from the menu. This can be seen in the illustration to the right.

Selecting the “Duplicate Layer...” option will cause a dialog box to be displayed allowing you to name your layer. I usually call my first duplicate layer “Working Copy” so that I am clear this is the layer that I need to work on.

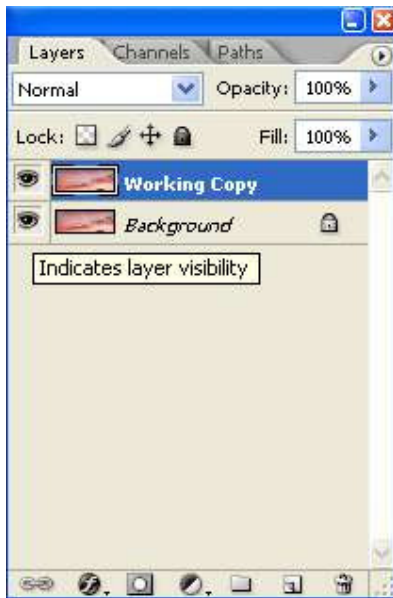
An alternative approach to duplicate the Background layer is to select “Layers|Duplicate Layer...” from the menu which also displays the “Duplicate layer” dialog box.

Having created your duplicate layer you can see it displayed as a new icon in the “Layers” dialog.

When working with layers it can be a little confusing at first. Sometimes changes don't seem to take effect as expected. This is often due to not having the correct layer selected when making adjustments. A good



tip is to constantly check which of the layers in the “Layers” window you have selected. Clicking on a layer in this window will cause it to be selected, which is indicated by the layer being highlighted.



If you are new to layers take a moment to create a few layers in a test image and then select each in turn. Another feature you need to be aware of is the “eye” icon that appears to the left of each layer in the Layers window. This can be seen in the illustration to the left.

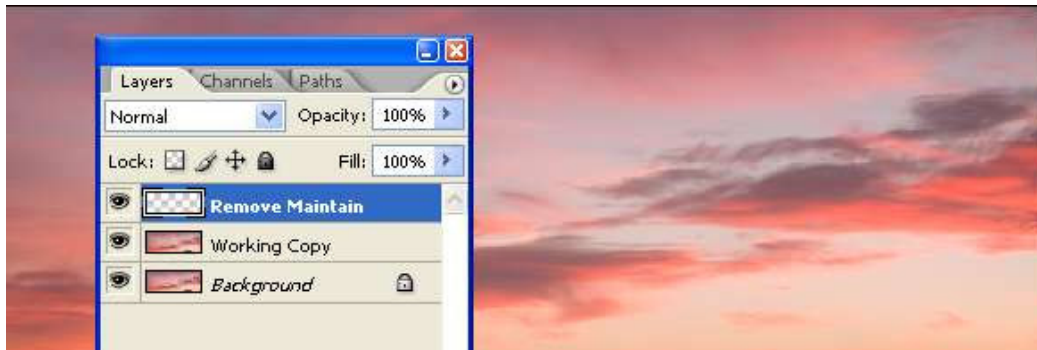
The eye is used to indicate whether the layer is visible in the image on the screen or hidden. When the eye is shown the layer is visible in the image on the screen. Clicking on the eye causes it to be removed and the layer becomes hidden. Clicking it again causes the eye icon to be redisplayed and the layer is visible once more.

Having created a working copy of the image my first task will be to remove the top of the mountain that can be seen in the bottom right of the image. The immediate reaction of most Photoshop users is to reach for the clone tool and clone out the object directly on the image. This however is destructive so instead I will clone the repair onto a separate transparent layer that will cover the image below it.

To create the transparent layer select the “Working Copy” layer in the layers window select “Layer|New|New Layer...” from the menu or alternatively press “Shift-Ctrl-N” on the keyboard. When the “New layer” dialog is displayed I call the layer “Remove Mountain” as this is meaningful. The new layer is created on top of the existing layer stack.

I now select the “Working Copy” layer again by clicking on it in the Layers window and then select the clone tool from the toolbars. I then select the area that I want to clone from by holding down the Alt key whilst clicking on the image with the mouse.

The next step is to click on the “Remove Mountain” layer in the layers window. I then clone onto the new transparent layer just as if I were cloning out the mountain on the actual image. If I need to adjust my clone tool sampling location I need to be sure to reselect the working copy layer before setting the sample location.



Having completed the fix it is possible for me to make a quick before and after comparison by hiding the “Remove Mountain” layer.

If I don't like my fix I can permanently delete the Remove Mountain layer. To do this right click on the layer and then select "Delete Layer" from the pop up menu. Alternatively you can drag the layer and drop it on the trash can icon in the bottom right of the Layers window.

## Adding Adjustment Layers

Another common application of Photoshop is to adjust aspects of an image such as the tone and contrast. This tends to be done using tools such as Levels and Curves, often applying the effect directly to the image. Layers offer a much better approach to using the same tools.

For example, if I want to use the "Autocolor" feature on my image I can create a layer that will do the same as follows.

Select the top layer in the Layers window and then select "Layers|New Adjustment Layer|Curves..." from the menu.

In the displayed dialog enter the name "Autocolor" for the layer. A standard Curves dialog will then be displayed".

Click the "Auto" button to make the Autocolor adjustment and then click OK.

A new Autocolor layer will then be added to the Layers window as shown in the illustration to the right.

If I am unhappy with the Autocolor effect on my image I can hide or remove the layer. If however I simply think the effect is too strong for the image I can reduce its strength. This is done using the "Opacity" control in the Layers window. The effect of the Opacity control is to vary how transparent a layer is from 0% (totally transparent) to 100% (no transparency).

Other types of layer than I will typically add are a "Contrast" layer which I apply through the Curves tool. A Brightness layer which is again applied using Curves and a Tone layer which is achieved using Levels. My preferred option is to apply the effect at 100% and ensure it is too strong. I then reduce the Opacity to reduce the strength of the effect to the desired level.

Take care if you follow my approach as it is easy to overdo the effect. When you have the layer opacity set correctly its worth checking by temporarily hiding the layer and then making it visible again.



## Blending Modes

A further advantage of Layers is that they open up the world of "Blending". Photoshop offers a range of options to choose how to blend the various layers together to create a final effect. Blending is a very complex subject so for now we will just examine the concept.

Each layer has a blending mode that determines how it will be blended with the layer below it in the layer stack. The blending mode is selected in a drop down list located in the top left of the Layers window, with the default blending mode being "Normal".

If you have been following along with an example image and have added an Autocolor layer, try changing the blending mode to "Multiply". The effect on colour saturation can be quite dramatic and often has to be reduced through the Opacity setting. An example is shown below where the Opacity has been reduced to 65%.



A further blending mode that you might like to experiment with is "Screen". This is the opposite of Multiply and causes dark areas of the image to be lightened substantially. This can be useful if you want to bring out some detail in areas of shadow. In such cases you would create a new layer by copying the shadow areas of the image. Setting the blending mode to Screen would cause them to be lightened. The Opacity setting can then be used to blend the changes seamlessly.

## Putting it Together

Described above are some of the basic layer techniques that I regularly use. This is a huge area of Photoshop which could probably fill an entire book. My basic process is however the same for all images and follows below:

- Create a duplicate "Working Copy" of the background layer
- Make and Clone or Healing Brush fixes to a new transparent layer e.g. to remove a car or person from the shot
- Add an Autocolor layer using the Curves adjustment layer
- Add a Contrast layer using the Curves adjustment layer
- Add a Brightness layer using the Curves adjustment layer
- Add a Tone layer using the Levels adjustment layer
- Make the necessary strength adjustments to each layer to fine tune the image

Once I have my final image I will save it as a PSD format file. This format supports layers so that if in the future I am unhappy with the adjustments I made, I can perform further fine tuning quickly.

I might also choose to flatten all the layers into a final image. Doing this at the end helps preserve the image information contained in the histogram, another advantage of layers. To flatten your image select "Layers|Flatten Image" from the menu.

If the above sounds time consuming it's not as I have created an Action in Photoshop to automate the creation of all the basic layers.