

# Explaining Layers and Masks in Adobe Photoshop

## What is a layer?

Think of a layer as a sheet of paper that is placed on top of your original image. On this sheet we can add anything; it may be a copy of the layer beneath or we may want to draw something with a paint brush. Alternatively, it could be a completely different image.

Essentially, by adding several layers we create a 'stack' of papers. The more layers we add, the taller the stack gets. Additionally, the opacity of the layers can be changed so that we see all, some or none of it.

## Why use layers?

Layers enable us to make changes without affecting the integrity of the original image or the layers beneath the one we are working on. For example, if we create a new layer and then drew a squiggly line across it then all those layers beneath the layer that we are working on will not change.

Some photographs are comprised many layers, particularly composite images, however, it is possible, and quite usual to use just one or two additional layers to change the original quite drastically.

## Useful Keyboard Shortcuts

- cmd/Ctrl and 'J' (cmd for Mac, Ctrl for PC) : Duplicates a layer.
- D: Sets foreground and background palette colours to black and white respectively.
- X: Swaps foreground and background colours.
- Space bar and selection tool: Moves image focus around the screen.
- Left square bracket [ : Reduces the size of the paintbrush tool.
- Right square bracket ]: Increases the size of the paintbrush tool.
- cmd/Ctrl and '+': Zoom in.
- cmd/Ctrl and '-': Zoom out.

## The limitations of layers

Layers are useful for making certain changes, such as changing eye colour by using the paintbrush tool and opacity slider, however on their own, layers often only allow you to make global changes. For example if we create a duplicate layer of a landscape and then increase the exposure then the whole layer is changed and we may only want to increase the brightness of the sky. To get around this problem we can use layer masks.

## What are layer masks?

Layer masks are used to hide all, some or none of the layer to which it is attached. If we take our landscape where we want to change the brightness of the sky, we can create a new adjustment layer, increase the brightness and then paint over the mask to conceal the affects of the brightness layer where we don't want it. In other words we can paint over the foreground exposing the layer beneath. In this way only the sky will be affected by the increased brightness.

## **How do we use layer masks?**

There are two ways to do this. We can either create a new layer and then manually add a mask from the Layers Palette or we can create an Adjustment Layer, also from the Layers Palette, which automatically adds a mask that is attached to the new layer.

By using the paintbrush tool it is possible to paint in or paint out parts of the layer. Select the paintbrush tool and then set the foreground and background colours to black and white. We can use the keyboard shortcut of D to do this.

When the layer mask is created it will be completely white, which means that all of the layer mask is visible. To paint out the parts of the layer we don't want to see, select black as our brush colour then, using a suitable size brush paint over your layer. If we make a mistake change the colour of our brush to white and paint the mask back in again.

White Reveals, Black Conceals. Sometimes it is easier to conceal the whole of the layer and then just paint in the bits that we want to reveal. For example, if we have a picture of a bird in flight and we just want to lighten the eyes and the feet then it makes more sense to hide the affects of the layer mask and just paint over these eyes and feet. The way to do this is to change the colour of the mask from white to black (remember, black conceals the whole of the layer mask) and then paint over the eyes and feet with a white paintbrush.

Make sure that the mask (not the layer itself) is selected and key in cmd/Ctrl and 'I'. This will change the colour of the mask.

## **Using the Quick Mask**

Quick mask is a useful way of refining selections. If we have a still life image where we want to separate a flower from the background we can use the quick selection tool to make a selection. The problem with this is that we probably won't get all the bits between the petals and leaves where the background shows through.

After using the selection tool, select 'Q' on the keyboard and you will see that the area outside that selected will be shown in red. Again, by using the white and black brushes we can select and deselect those areas that you want to include or exclude in the selection. The beauty of this method is that if we make a mistake then it is easy to correct by just changing the colour of the paintbrush rather than having to hit 'undo' several times.

Once we are happy with the selection we can save it with a suitable name, say 'flower', ready to be used later.

If we want to add a different background to the flower, we can drag in another background image so that it sits over the top of the original image, load our saved 'flower' selection and then add a mask over the top of this. We can then see that the mask hides the flower but shows the background.

As an aside, if the mask has selected the wrong part of the image to hide then just change the colour of the mask from black to white, or vice-versa.

Once we have mastered these basic techniques it is possible to create quite complex composite images.