## STEVE CAPLIN'S A TO Z OF DESIGN

# M: Masks in Illustrator and Photoshop

Steve Caplin walks us alphabetically through the concepts essential to success for any jobbing or aspiring designer.


**ABOUT THE AUTHOR**

**Steve Caplin** is a designer and illustrator working for a range of national newspapers. His best-selling *How to Cheat in Photoshop*, now in its third edition, is published by Focal Press.

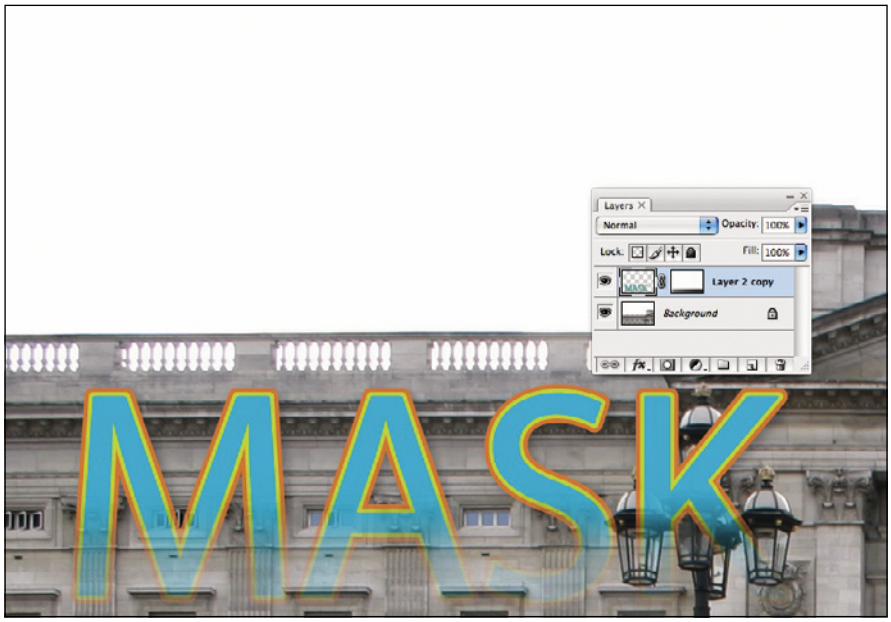
**The easiest way to remove sections of a** layer in Photoshop is simply to delete them. But this is an irreversible process: once something is deleted, it has gone forever. Far better to use a Layer Mask, which hides the unwanted region: the advantage is that hidden areas can always be shown again.

To make a new Layer Mask, select Layer > Layer Mask > Reveal All. This will create a new, empty mask with nothing hidden. Then choose any of the painting tools, and paint in black on this mask. Wherever you paint, the layer will be hidden. Use either a hard or a soft-edged brush, depending on whether you want the unwanted parts to be removed cleanly or to fade smoothly out of view. If at any time you want to reveal the hidden areas, swap the foreground colour from black to white and paint it back in. A useful shortcut here is the X key, which swaps the foreground and background colours over. This is particularly handy when fine-tuning a mask, as it allows you to paint regions in and out without having to reach for the toolbar.

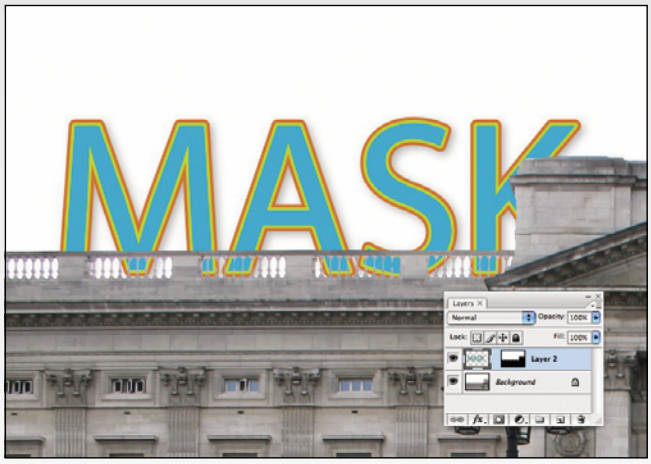
Any of the painting tools can be used on a Layer Mask, not just the Brush. So if you want to create a smooth fading transition over a large area, for example, use the Gradient tool set to black to white: this can be a simple way to add a new sky seamlessly to the top half of an image. For hiding large areas, use any of the selection tools – the Marquee, Lasso and so on – and then use alt-delete to fill that area to Mask with the foreground colour, or command-delete to fill with the background colour. If either of these is black, that area of the layer will be hidden more quickly than by painting it out. Filling an area with grey rather than black will lower its opacity without hiding it completely, and this can be useful for, say, giving the impression that the layer is behind a window or other transparent surface.

Other tools can be used for special effects. Let's say you want to place an object on a grass background, and need to make it look as if it's part hidden by the grass. The best method is to hold the command key as you click on the layer's thumbnail in the Layers palette, which will load up the layer's content as a selection. Then choose Layer > Add Layer Mask > Reveal Selection. This will fill the area outside the object with black on the layer mask: you won't see any difference, of course, as you'll only be hiding the parts that aren't visible anyway. But if you now use the Smudge tool to smear the mask in from outside the object, you'll create a natural-looking mask effect that is far more convincing (and easier to create) than painting blades with the Brush tool.

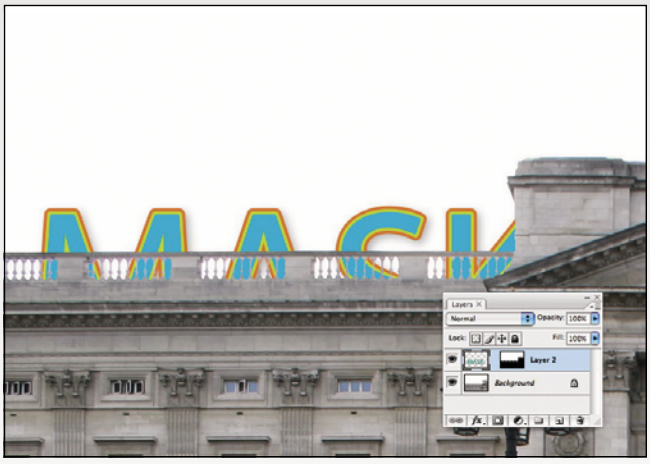
By default, a Layer Mask is linked to its layer, so when the layer is moved, the mask




**◄ Painting on a Layer Mask with a soft-edged brush will produce a smooth fade-off between fully visible and hidden, as the layer is masked rather than deleted.**




▲**The mask on this lettering matches the white of the sky in this photograph of Buckingham Palace, so the lettering appears to be placed behind the building.**



▲**With the mask unchained from the lettering layer, we can move the text around and the mask remains in place.**

moves with it. There are times, however, when you want the mask to stay in place – such as when you're placing an object behind an element in the background image. Click on the tiny chain that appears between the thumbnails of the layer and its mask in the Layers palette: the chain will disappear, meaning that the two are no longer linked. When you now select the layer rather than the mask by clicking on its thumbnail (you know which one is selected by the dashed thumbnail border), you'll be able to move the layer independently of the mask.

The alternative to a painted Layer Mask is a Vector Mask, in which the visible area of a layer is defined by a Pen path. These are created using Layer > Vector Mask > Reveal All, in a similar way to Layer Masks. The difference here is that when a path is drawn using the Pen tool, only the region bounded by the path is seen. Naturally, this kind of mask can only support hard edges, rather than the appearance of feathering offered by painted masks; but the smooth outlines and ease of editing that occurs as a result of using the Pen tool means that for many purposes Vector Masks are preferable. And, since a single layer can support both types of masks simultaneously, they can even be combined for greater ease of use.

Masks are supported in Illustrator as well, and can be used in two ways. The easiest way is to draw an outline of the area of an object or group that you want to remain visible, making sure it's the topmost object; select both it and the target object or group, and choose Object > Clipping Mask > Make. The area outside this masked region will now be invisible, but changing the shape of the masking object will bring it back into view. This is the equivalent of Vector Masks in Photoshop, producing hard-edged results.

It's possible to create masks in Illustrator that more closely match Photoshop's Layer Masks. Select an object or group, and open the Transparency palette. From the pop-up menu at the top of the palette, choose Make Opacity Mask. Anything drawn on here will now mask the target object; solid black objects will hide it completely, and those filled with grey will hide it to a greater or lesser extent, depending on the darkness of the fill colour. You can even create soft-edged masks in this way, by choosing Effect > Stylize > Feather; the greater the amount of feathering, the softer the edge of the mask will be. While the Mask is selected in the Transparency palette, any objects drawn will be added to the mask, so you can draw multiple objects on the same mask to create complex masking.

▼**The area outside this lettering has been filled with black on the Layer Mask: we see no effect, as the hidden area is empty anyway.**


▼**Using the Smudge tool to brush the mask into the object from below creates the illusion of it being partly hidden by the grass – a very quick solution indeed.**


▼**The topmost object in this Illustrator file has been turned into a Clipping Mask, and the underlying objects are visible only within the boundaries of the masking object.**


▼**This mask has been softened by feathering its edges using the Effects menu. A rectangle filled with grey and placed over the letter S adds a semi-opaque mask to just that area.**