Movie 8 (Chapter 10 extract)

Lens Blur Filter

Lens Blur

The Gaussian Blur is a popular choice of filter for most blur tasks. But if you want to make a photograph appear realistically out of focus, it is not a simple matter of making the detail softer. This is where the Photoshop CS Lens Blur filter comes in useful, as it has the potential to mimic the way a camera lens forms an optical image. Consider for a moment the way a lens works. The camera lens will focus an object to form an image made up of circular points on the film/sensor surface. When the radius of these points is very small, the image is considered sharp. When the radiuses are large, the image will be out of focus. It is particularly noticeable the way bright highlights blow out when this happens and how you can see the shape of the camera lens iris in the blurred highlight points. The Lens Blur filter is able to mimic this effect. The best way to understand how it works is to look at the shape of the bright lights in the nighttime scene in Figure 10.5, after I had applied the Lens Blur filter. You will also find this image on the CD.

You can also create a mask to define the areas you wish to selectively apply the Lens Blur to. This will allow you to create shallow depth of field effects. Using the Lens Blur dialog you can then load this mask under the Depth Map section in order to define the plane of focus. There is an example showing you how to do this on page 286 that shows how to throw the foreground and background out of focus and keep the main object of interest sharp.

1 I wanted to blend this photograph of the model with the New York street scene above. Now the model has been lit in such a way that the lighting matches the outdoor daylight. But if I merge the two images together, the background detail would probably be too distracting.

2 To make the background appear out of focus, I selected the New York street scene and chose Filter ⇨ Blur ⇨ Lens Blur. I first adjusted the Specular Highlights Threshold setting, bringing it down just enough until the highlights started to bloom. I then adjusted the Specular Highlights Brightness setting to create the desired amount of lens flare. The Iris Radius controls the width of the blur and the effect of this adjustment will be particularly noticeable in the specular highlights. Further adjustments can then be made to the iris shape, the blade curvature of the iris and the rotation. These minor tweaks will allow precise control over the iris shape.
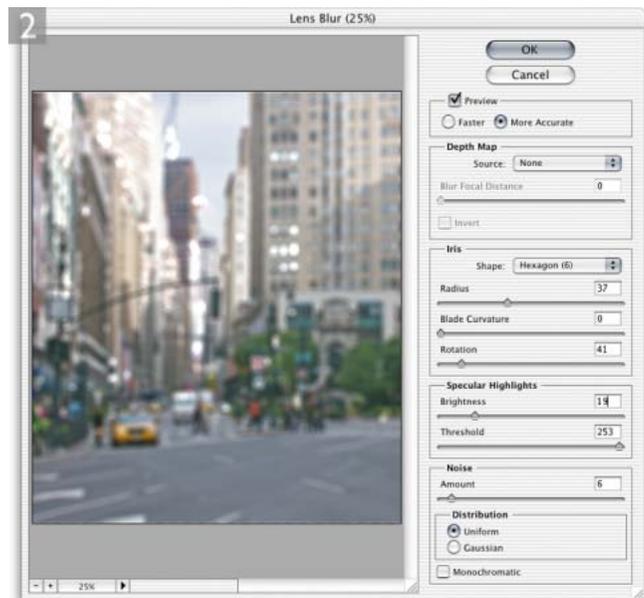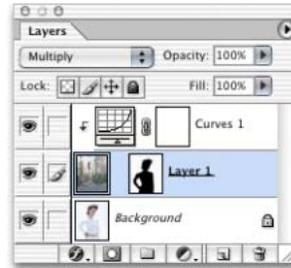
3 I combined the two images together using the montage technique described in Chapter Seven. As you can see in the layers palette dialog, the street scene image is hidden by a mask I had prepared earlier and is blended with the Background layer using the Multiply blend mode. I also added a curves adjustment layer which was grouped with the street image layer beneath it. The curves adjustment was added in order to lighten the blurred layer and match the lightness of the model in the picture.

Client: Reflections. Model: Lisa Moulson at MOT.
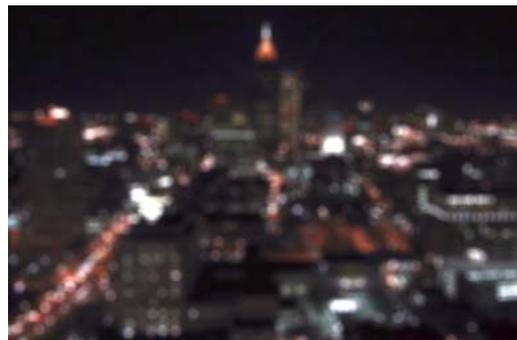
Figure 10.5 The best way to learn how to use the Lens Blur filter is to experiment with an image like the one shown here, which is available on the CD ROM. It is an ideal test image because this is a nighttime scene with lots of small points of light. In this example, you can get a clear idea of how the Specular Highlights and Iris controls work and how they will affect the appearance of the blur in the photograph.

1 The Depth Map controls in the Lens Blur dialog are designed to allow you to simulate a shallow depth of field focus effect. The image shown here is a good choice to demonstrate this with because the wall is photographed at an oblique angle and starts off with everything in sharp focus, which is one of the pluses (and minuses) of using a compact digital camera! I first drew a pen path to define the outline of the hydrant, I hit ⌘ *Enter* *ctrl* *Enter* to convert the path to a selection, and then clicked on the Save Selection as a Channel button in the Channels palette.
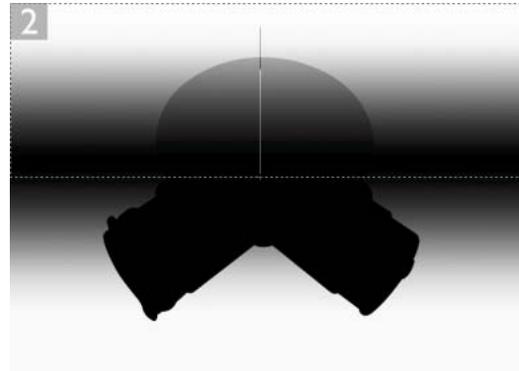
2 I then needed to modify the mask to define a depth of field map. I selected the gradient tool, in reflected gradient mode (circled in blue) and set the tool blend mode to Multiply mode and dragged vertically from the center. To get the fade at the top, I kept the gradient tool in reflected mode and changed the blend to Screen mode (circled in red). I made a rectangular marquee selection of the top half of the picture, selected the gradient tool again and dragged vertically from the middle again (as shown above).
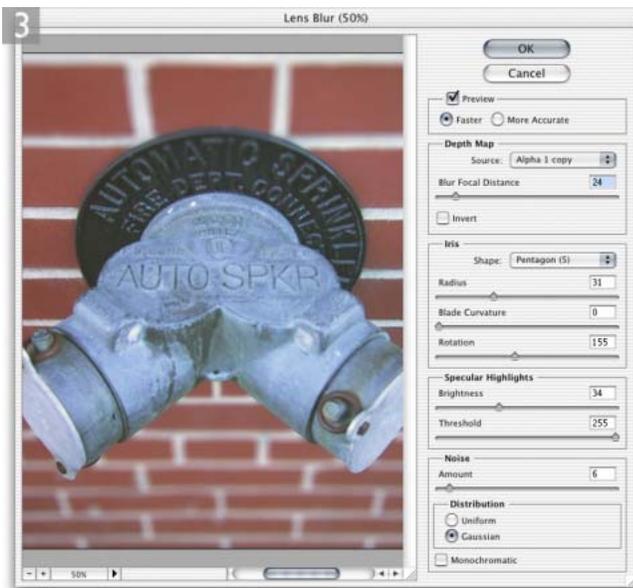
3 I chose Filter ⇨ Blur ⇨ Lens Blur. I went to the Depth Map section and moused down on the channel source menu and selected the channel I had just created, which in this case was named: *Alpha 1 copy*. If you try this out for yourself, try adjusting the Blur Focal Distance slider to adjust the amount of blur that is applied to the areas that are selected and partially selected by the depth mask channel.