

HIGH PASS SHARPENING

Introduction

There are lots of different approaches to sharpening your images in order to bring out the detail however this is one of the most simple yet powerful. It also offers lots of control over the final result.

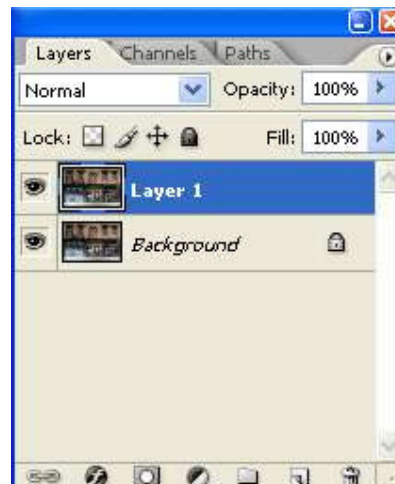
Process

High Pass sharpening in Photoshop is a simple method to use but you must be familiar with Layers. If not I suggest you download the Layers tutorial from my web site first.

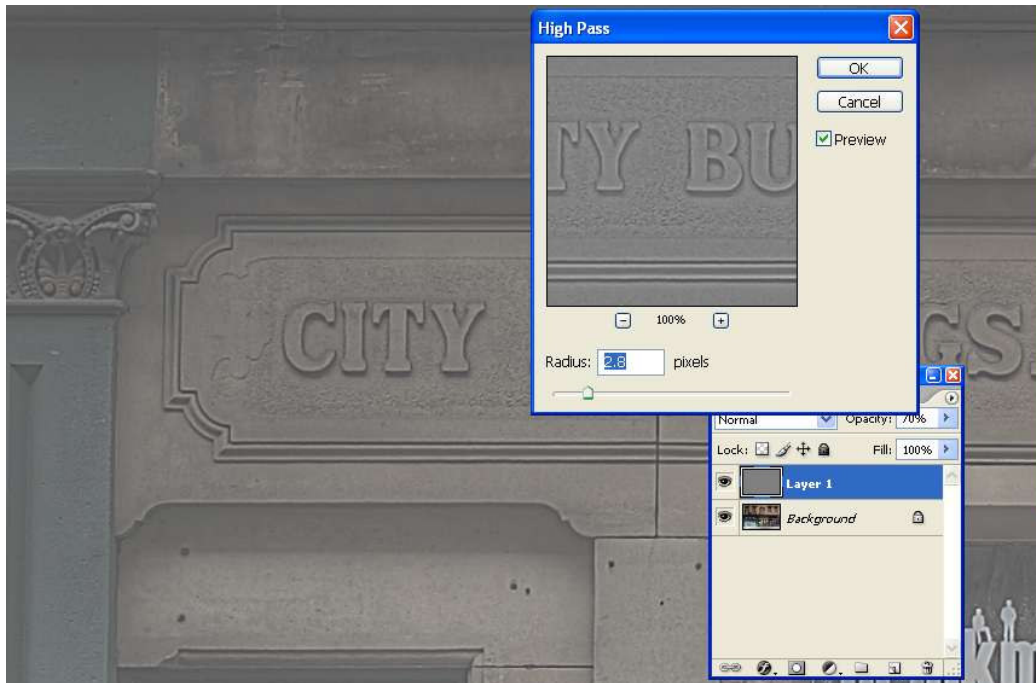
1. Select the image to be sharpened and open this in Photoshop. Here I am using one of my HDR images which already appears pretty sharp but as you will see it can be substantially improved. A section of the image is shown below.



2. Duplicate the image onto a new layer. I do this by pressing Ctrl-J on the keyboard but there are other methods such as selecting "Layer|Duplicate Layer..." from the menu.
3. You should now have two layers visible in the "Layers" window. If you don't have the Layers window open, open it now by selecting "Window|Layers" from the menu or pressing F7 on the keyboard.
4. In the Layers window select the new duplicate layer by clicking on it. This should highlight the layer as shown to the right.
5. Adjust the layers Opacity to 70%. The reason for this will become evident later.



6. Zoom in to 100% on the screen view. This will help you judge how much sharpening to apply to the image. This isn't a foolproof method for reasons that are beyond the scope of this tutorial.
7. Select the "High Pass" filter using "Filter|Other|High Pass..." from the menu. This should display the filter dialog and make the layer look very strange as shown below.



8. You can adjust the Pixel Radius in the dialog to alter how strong the effect is. Often people ask what is the best radius but this depends on a lot of factors such as dpi of the image as well as dimensions and subject matter. It's best to experiment and learn from experience.
9. Once you have made any adjustments click OK.
10. The final step is to set the blending mode for the layer in the Layers window to "Overlay". You should notice that the image becomes much sharper. You can see the effect by hiding the new layer by clicking on the eye icon in the Layers window.
11. If you would like to apply a little extra sharpening you can increase the Opacity value from 70%. Alternatively you can reduce the sharpening by reducing the Opacity of the layer.

Further Tips

If you want to experiment with different Radius settings for the High Pass filter, set the blending mode of the layer to "Overlay" before you apply the filter. In the above example you would probably do this at around step 6. Now when you apply the Filter you can adjust the Radius with Preview enabled and see the impact of your adjustments.

Whilst setting the blending mode to “Overlay” produces a good degree of sharpening you might want to experiment with some of the other blending options. You will find that “Soft Light” applies less sharpening than Overlay which “Hard Light” applies more. “Vivid Light” and “Linear Light” are even more aggressive (in that order). I suggest experimenting with these until you are happy with the results.

Finally, don't expect one method to be best for every form of sharpening and don't expect to optimally sharpen on image with only one method. The best sharpening is done using a number of methods and passes. If you want to know more I would suggest reading “Real World Sharpening” by Bruce Frazer.

In case you are interested, here is a before and after image to show what sharpening can achieve. It might not look as good on screen in a PDF however printed it's amazing.



Before Sharpening



After Sharpening