

Help by Foolishlens

How to create a pseudo 3d image from a
single flat image without using layers
-- the quick method.

Introduction

The method I use to convert 2d to 3d, is very time consuming, and depending on how detailed you wish to create the anaglyph, the overall work may take hours. The act of selecting an object, producing a layer, filling in the hole from the removed object, creating a shift mask for that one object, and shifting the resulting object into a 3d field, for each object in the picture, can be a test of patience. In fact, I have one anaglyph that I needed to create over 30 layers in order to finish the 3d field. Hopefully you can see the pleasure in creating an anaglyph in less than 5 minutes. However, increased speed diminishes quality and utility.

The result of the quick method, rarely creates the presence of discrete objects in 3-space. Rather, it produces a bevel effect that bubbles the closer parts of the image towards the viewer. This is because, in order to see a discrete object, the observer must also see some imagery that exists behind that object. The quick method does not define what is behind things; thus the frieze effect.

Also, the quick method relies on the premise that the closer an object is to the viewer, the sharper the object's edge. Obviously, this method will not work where the foreground is blurred or the focal length is too high. You may work around this shortcoming by masking out the blurred foreground or applying Gaussian blur to more distance objects as needed.

In some cases, this shortcoming has an interesting side-effect. I was able to clearly see the modified areas of an image due to an anomalous beveling of the GTS or other altered zones within the image. This anomaly exists because the newly incorporated layer may not match the level of blurring within the focal-length continuum. This anomaly may be the result of an oversight on the part of the compositor, or simply the use of the method on various elements of the image (motion blur, defused light, soft texture, etc.) Here, the quick method can aid the compositor in determining the level of blurring required to place the GTS in focal-length space, and improve the integrity of the finished product for a normal 2d image. However, I feel that the compositor is the final arbiter of his/her own work, and thus I offer this possible litmus test as a suggestion, to add to their toolbox, but I discourage others from using this test as a metric of quality, in judging the work of others.

Quick Method

1. Find an image that has a good focal space.

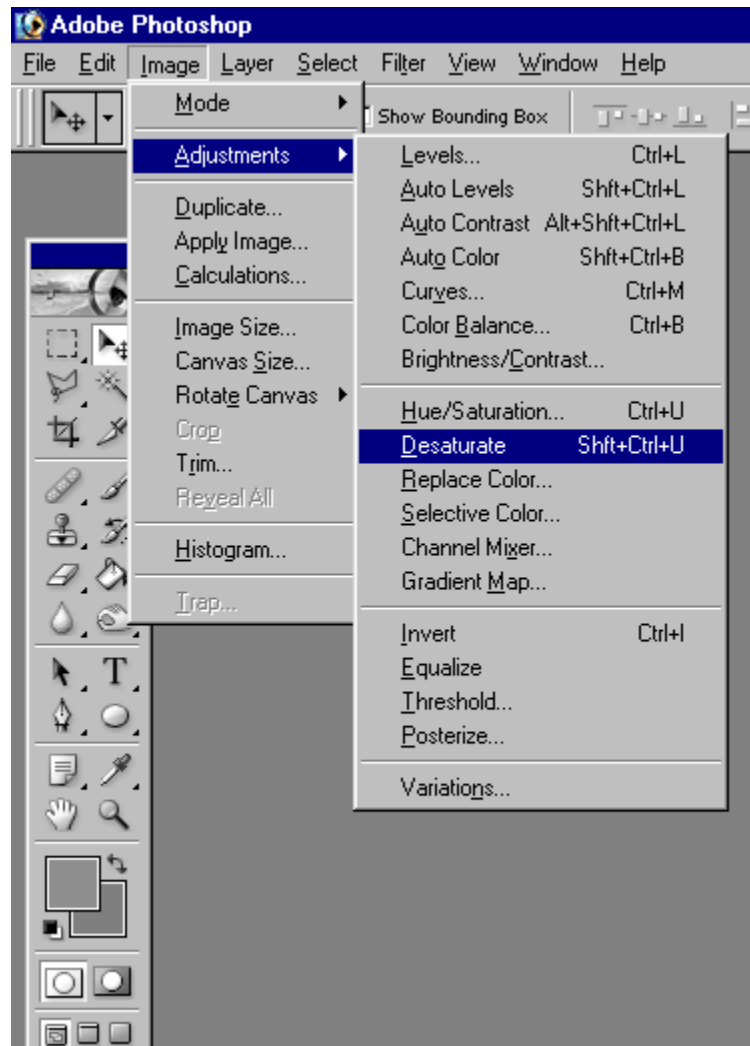
Notice that the foreground is well defined and the GTS in the background is slightly blurred.



2. Desaturate the image.

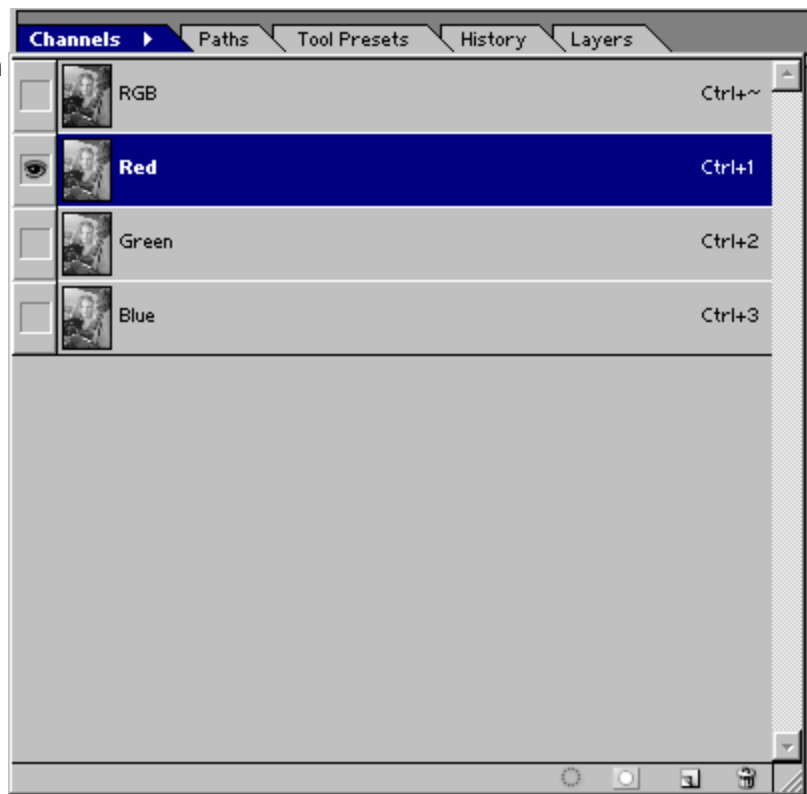
Go to Image.. Adjustments.. Desaturate.

I prefer to remove the color data from the image because I feel that the pure red/blue anaglyph has less of a change of ghosting, an effect that shows unwanted images through the glasses. If you wish to try a color anaglyph, skip this step.



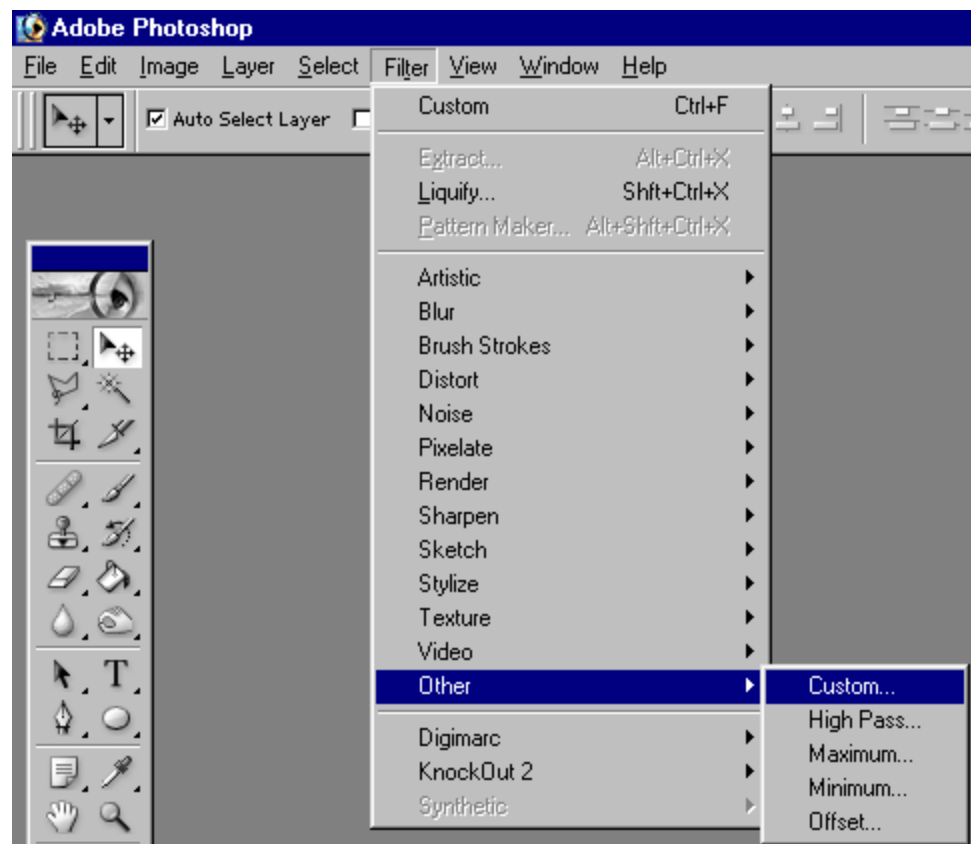
3. Select the Red Channel.

From the Channels menu, click on the Red image.

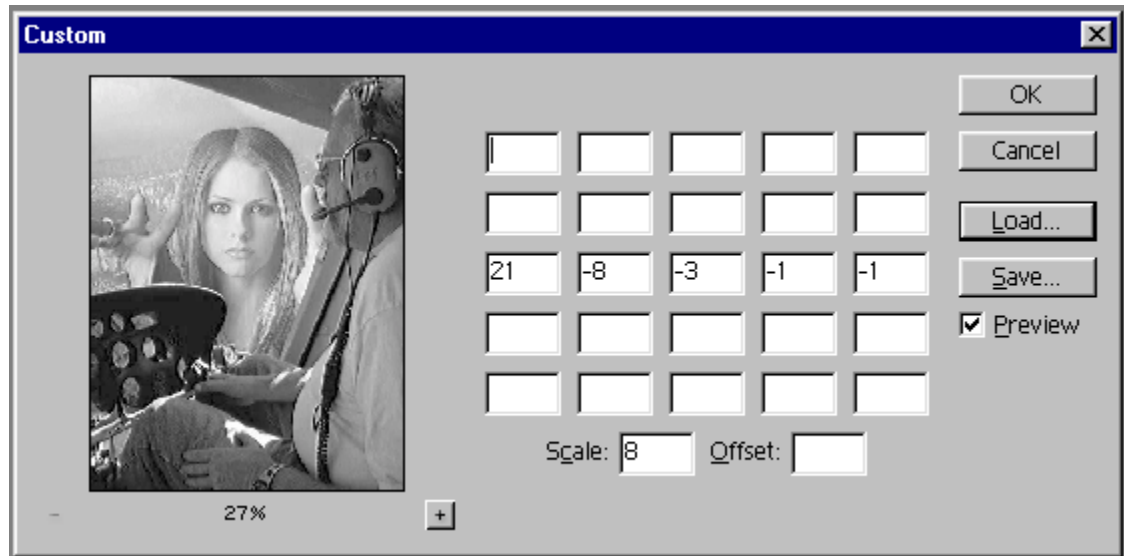


4. Launch the Custom filter.

Goto Filter...Other... Custom.



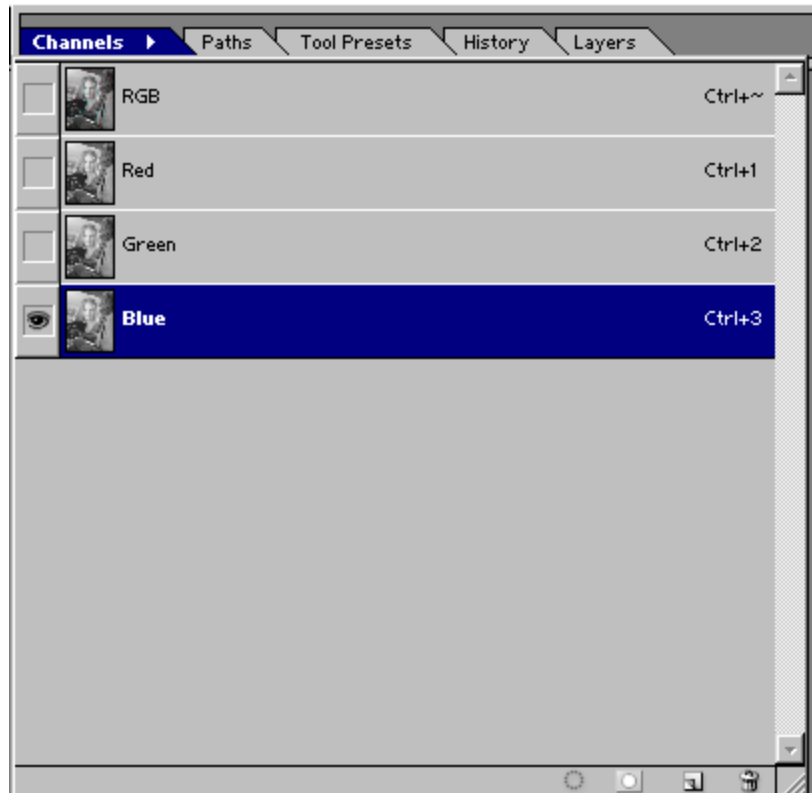
6. Enter the following data for the Convolution Matrix.



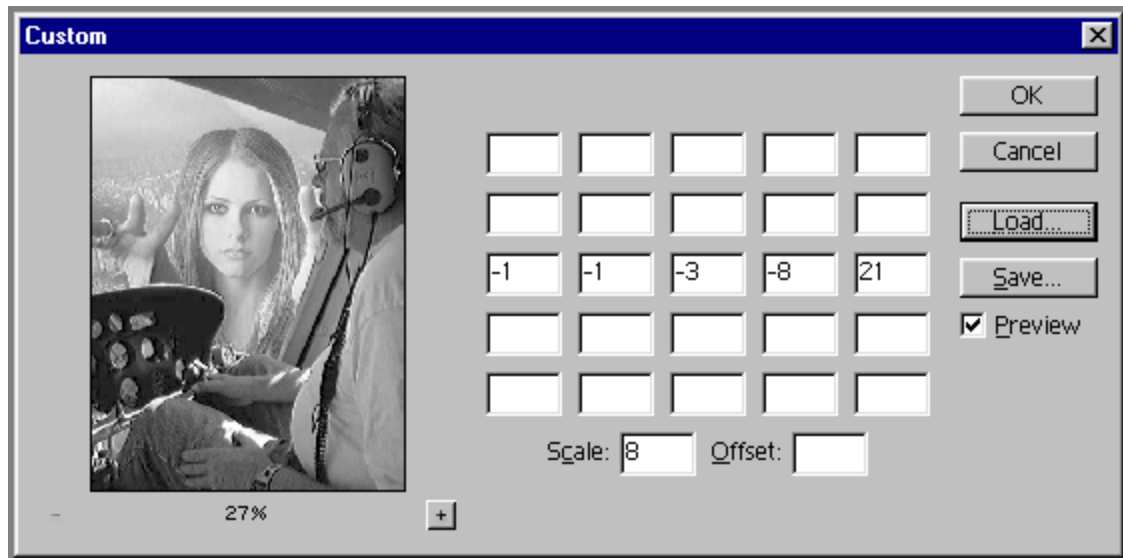
I find that you can experiment with the numbers in the matrix, just as long as the number to the left is positive and the numbers to the right are not positive, and the number to the left is larger than the sum of the absolute values of all the numbers on the right. Also, keep all the numbers in one row. The scale is the absolute value difference of the two sets of numbers. I used Fibonacci numbers, you don't have to.

7. Select the Blue Channel.

From the Channels menu, click on the Blue image.



7. Enter the following data for the Convolution Matrix.

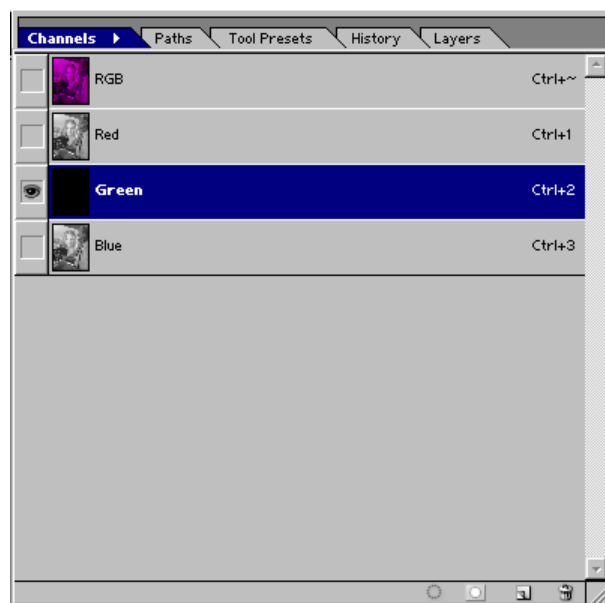
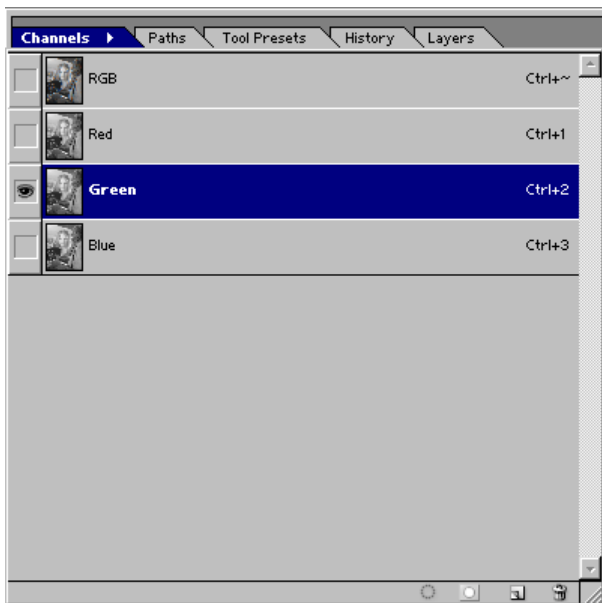


Reverse the order of the numbers.

8. Select the green channel and paint the channel black.

Go to the channels menu and select the green image. click on the select the black from the color well, click on the paint bucket, and paint the working canvas black.

If you are creating color anaglyph skip this step.



9. Notice that the resulting image bevels outwards.

Here you can select the Red channel from the Channels menu select the move tool from the toolbar and nudge the red channel over by pressing the left arrow keys on the keyboard. This pushes the image back. Likewise you should select the Blue channel and nudge the channel to the right the same number on nudges.

