DEPTH MAP METHOD --2D TO 3D CONVERSION
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Additional information (cards, anaglyphs, etc.)
http://chicagostereocameraclub.org/photo.htm

QUICK PROCEDURE
1) Open image (crop and make any adjustments) (3" square for card)
2) Duplicate for L and R (2 new images)
3) On original, create depth map, save as (name)_map.psd
4) On RIGHT, FILTER->DISTORT->DISPLACE 20/0/tile/repeat in popup choose map On LEFT same as above EXCEPT -20
5) You are now ready to create a card or anaglyph print

FOR SPECIAL CUSTOM MAPPING….
1) Do the above procedure to get a "map", but make 3 duplicates
2) New layer, and on the "map" copy into it the original photo and set Layer 1 to about 30% opacity.
3) Make sure the paintbrush icon is on the background layer (the map)
4) Either burn or paint white and areas you want to bring forward/ dodge or paint darker any areas you want to send back
5) Delete the layer 1 and save map
6) Process to make anaglyph or card

BASIC PROCEDURE details
1) Take an image, and create 2 additional images – name L & R
2) Using the Gradient tool, foreground=grey (127), background=black, design is circular. Draw a line from the near point to the far point. A black and white image will appear with white in the center, this is the near point.
3) Save the black/white image a (name)_map.psd (a PS file type).
4) On the (name_R) image, select FILTER-DISTORT-DISPLACE and the following settings Horizontal = 20**, Vertical = 0, Displacement=tile, undefined areas=repeat edge pixels – OK. In the popup window, choose the (name_map) image.
5) Repeat for the (name_L) file but change the horizontal number to the same but negative.
6) Save both images
7) Process the two images for stereo card or anaglyph print using either photoshop or stereo photomaker. You don't need to align because the vertical is correct. You can to adjust the window.

** Experiment with different horizontal displacement settings.
** White >126 - in front of the window, back <126 - behind, and grey (value 126) neutral is at the window.

PROGRAMS FOR CREATING CARDS OR ANAGLYPHS

PHOTOSHOP (almost any version from 4.0)
For creating anaglyph in Photoshop
    Left – highlight only red channel, copy
    Right – highlight only red channel, paste
    Click eye icon 👁, click move tool and adjust window if necessary with
    arrows. If you click the RBG you can't make adjustments.
For creating a card in Photoshop
    Right – Image, Canvas size, change width from 3" to 6"
                    Click arrow pointing to the right
    Left – copy
    Paste left image into the canvas area and then move it to the left of the
    right image.
    Flatten the layers
    Choose background color
    Canvas size, increase the width to 7", height to 3.5",

PHOTOSHOP ELEMENTS
        Process the same as Photoshop from 2D to 3D but save the pairs
and process in Stereophoto Maker.

STEREOPHOTO MAKER (free program)
For creating a card or anaglyph in StereoPhoto maker
    Load left and right align, etc.

GIMP program (little slow to open) (free program)
Load a 2D photo then make 2 additional duplicates (control D)
Set foreground/background color: grey 50% = 126 RGB/ Black.
        Do mapping on one image * Use gradiant tool, (either circular or
        linear or radial). Draw a line from the close (light) to the far point
        (darkest). Custom mapping also possible
Right image --Filters/Map/Displace use 20 or 30 and select the image
        map created above, with these settings - Cartesian, Wrap
Left image -- Repeat the same process but use the negative of the
        number used for the right image
At this point you have two options.
        1)Save left and right image, then load them into StereoPhoto Maker.
        2)Inside GIMP
Left image, highlight only the red channel, select all, copy
Right image – highlight only the red channel, and paste
Save the image, you will be asked to Export, click yes or OK

CONVERTING 2D IMAGE TO 3D

1. Load flat photo #1 (for card crop to 3"sq)

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2. Duplicate photo twice #2 (right) #3 (left)

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3. Photo #1 make image map save as PSD

Using the Gradient tool, foreground=grey (127), background=black, design is circular**. Draw a line from the near point to the far point. A black and white image will appear with white in the center, this is the near point. **use circular or linear or create custom map

↓

4. Photo #2_R, filter, distort, displace 20, 0, tile, use Photo #1 image map

On the (name_R) image, select FILTER-DISTORT-DISPLACE and the following settings Horizontal = 20**, Vertical = 0, Displacement=tile, undefined areas=repeat edge pixels – OK. In the popup window, choose the (name_map) image
** horizontal shift value can vary for different depth.

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5. Photo #3_L, filter, displace, distort NEGATIVE 17, 0, tile, repeat edge, use Photo 1 image map

You now have 2 stereo pairs which can be used for digital, anaglyph, or stereo cards

TO MAKE ANAGLYPH **

6. Photo #3_L Red channel, copy

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7. Photo #2_R Red channel paste

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8. Turn on all channels and adjust Anaglyph done *

* Click eye icon , click move tool and adjust window if necessary with arrows. If you click the RBG you can't make adjustments.

** Only Photoshop and Gimp have channel control, if using PSElements, use SPM step 6 to create anaglyph.

TO MAKE CARD

6. Photo #2_R Increase canvas size to 6" on left. *

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7. Copy and paste #3_L into #2

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8. Increase canvas size 7 x 3.5 Card done

* Right – Image, Canvas size, change width from 3" to 6"
Click arrow pointing to the right
#3_Left – copy
Paste left image into the canvas area and then move it to the left of the #2_Right image.
Flatten the layers

Choose background color
Canvas size, increase the width to 7", height to 3.5",

TO USE SPM

6. Load Photo 2 and 3 into SPM

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