

3D Conversions Demystified

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METHODS of Conversion

- *Depth Map (Gradient tool)*: advantage = fast; disadvantages = gaps & smears
- "*Slicing*" = shift concentric 'deeper' selections (not good for smooth surfaces)
- "**Storybook**" *method* = 'lay down' the landscape first, then 'pop up' the features
- A COMBINATION of methods is usually required to utilize all their strengths
- Anaglyph "*Live View*" lets you make adjustments while seeing the *final* image
- compare "perspective shift" vs "gradient tool + displacement filter" ('Hallway')

THINGS to USE or LEARN for greater efficiency

- Clip-on Lanyard for anaglyph glasses
- TrackBall (with programmable buttons)
- MASKING techniques & SELECTION tools (*most* time is spent here)
- TOOLS: Color Picker/Eyedropper, Eraser, Move, Blur, Paintbrush etc

CREATE default file, if you wish (always use same Name if recording any Actions)

- If using a Grayscale image, Convert it to RGB (PShop: 'Image > Mode')
- Double-click on a background layer to make it 'editable'
- Try to improve on *The Four C's* = Clarity, Color, Contrast & Content
- DO any Clean-Up work to the mono image FIRST so you don't do it twice
- COPY the mono image to another layer & NAME them 'Left' & 'Right'
- MAKE Canvas Width wider than original image (around 110% or so)
- ONLY work on Left or Right side (I know which one should be '*left* alone')
- USE a 'Channel Mixer' on each layer for a custom RGB blend on each side:
 - Red side (Left) is almost colorless; work on matching contrast with Right
 - BOOST Green channel on Left (Red) side, and add some Blue in as well
 - ADD some Red in to the Green & Blue channels of the Right-side image
 - TOTAL values (R+G+B) per channel in the mixer should not exceed 100
- GROUP all Left & all Right files together (respectively) in a Vertical 'stack'
- Set LEFT layer group from 'Pass Through' to 'Lighten' or 'Screen'
- ADD Levels Layers to each Group to adjust individually:
 - BOOST the Red's (Left layer) Midpoint Level

ADJUSTING a Selection or Layer *without changing height* (PS: 'Edit > Transform')

- SCALE Transform moves Left or Right edge forward or backward
- PERSPECTIVE Transform moves Top or Bottom edges forward or backward
- ONLY use middle of sides in Scale, and middle of top or bottom in Perspective
- BOTH these Transformations are needed when moving / anchoring a Corner
- All Transformations can be performed on a Group *or* Layer, but not a Channel
- Try to 'Stretch' selections, not 'Shrink' them; this leaves fewer 'holes to fill'

SELECTION Tools: Lasso, QuickSelect, MagicWand, polygon, magnetic, etc

- ADDITIVE (+Shift) and SUBTRACTIVE (+Option) selections make this easier
- SAVE all selections as you go! You can Load them later, or FEATHER edges
- Expand a tight selection by one pixel, then Feather it by one for a clean effect
- 'Separation' selection should be sharp, while 'Fill/Fix' ones should be feathered

1st 'Landscaping' Move: look at edges to determine which way to go / side to use

- How far you move it sets the basic 'interocular spacing' for the whole image
- Adjust the 'Perspective' Transform to where the farthest point should be

COPY layers (Command/Control+J) to work on them non-destructively

MERGE layers (Command/Control+E) together to save space & CPU power

GROUP layers (Command/Control+G) together to separate them from others

Moving an object in the Left image to the Left 'pushes' it toward the Background

Moving an object in the Left image to the Right 'pulls' it into the Foreground

Leaving an object completely alone puts it at screen depth (window level)

MOVE selections ONLY Horizontally (use SHIFT key to help with this)

USE "Option + Command(Control)" while dragging to make a COPY of material:

- Copy & Drag in *one move* (leaves hole) vs going in *increments* (leaves smear)

OVER-SELECTING, opposite from move direction, helps hide resulting errors

ZOOM to 100% to move only a single pixel's worth with a tap of the arrow key

'SHIFT + ARROW' keys = movement in 10x greater increments

FILL HOLES with a duplicate layer beneath, OR copy & transform selection on top

The OCCLUDED areas can be filled with anything, since it's only seen by one eye

Keep the 'filler' material within the realm of reality, and preferably on the 'dark side'

USE a 'Mat Layer' to adjust Stereo Window (& avoid extra conversion work)

- make a Selection & Invert it, then Fill it with Black (can Move layer around too)
- examine Window (at screen level) by moving cursor around nearest object
- Moving Left image layer (or group) to the Left puts it further in the background

USE "Shadows & Highlights" on COPIES of layers AT END to get HDR-like results
SBS versions of the file (parallel or cross-eye) can easily be made using 'Actions'
You might choose to SWITCH SIDES to make a particular move or repair easier
Thin objects (wire, rope, etc) and Transparent ones (glass, water, etc) are difficult
REFLECTIONS on surfaces should always be DEEPER than the surface itself
When Zoomed in, use the Spacebar to 'grab' the image & 'move' it around
Use temporary layer to Fill (black, gray, etc) 'fixed' areas - helps identify problems
Use HISTORY list, and the UNDO key, for quick A/B comparisons
Use 'Guide Lines' (snap guides) for temporary 'windowing'
How to do Spheres, Cylinders & Rounded surfaces (gradient vs math)
How to Do a Tree: 1) Lay down 2) Pop up 3) Round out
TURN OFF Channel Mixer layers BEFORE doing any painting, color sampling, etc
FLIP glasses around to 'recharge' your eyes!

Ways to Enhance your Stereo 3D Photos, too

- REPLACE a sky (or lack of) with a new one & add depth to it
- CONTROL depth of Foreground, Background & all objects *independently*
 - increase your background depth, since we lose depth with distance
 - you could also reduce depth of foreground objects in a hyper shot
- REMOVE, ADD, MOVE or CHANGE offending items anywhere in the image
- REMOVE flash shadows, like the dreaded Fuji 'double shadow'
- Enhance the Four C's... Color, Clarity, Contrast, & CONTENT
- 'Open' someone's closed eyes with those from another shot