

'Fractal Relief' Images Tutorial 2

A tutorial on methods used by GIMP CHAT's OldManGrumpy to create a variety of fractal relief images

Tutorial 2 - fractal relief image with sculpture framed foreground objects

This tutorial is geared specifically to producing what I call a *sculpture framed fractal relief* image that should look something like these -



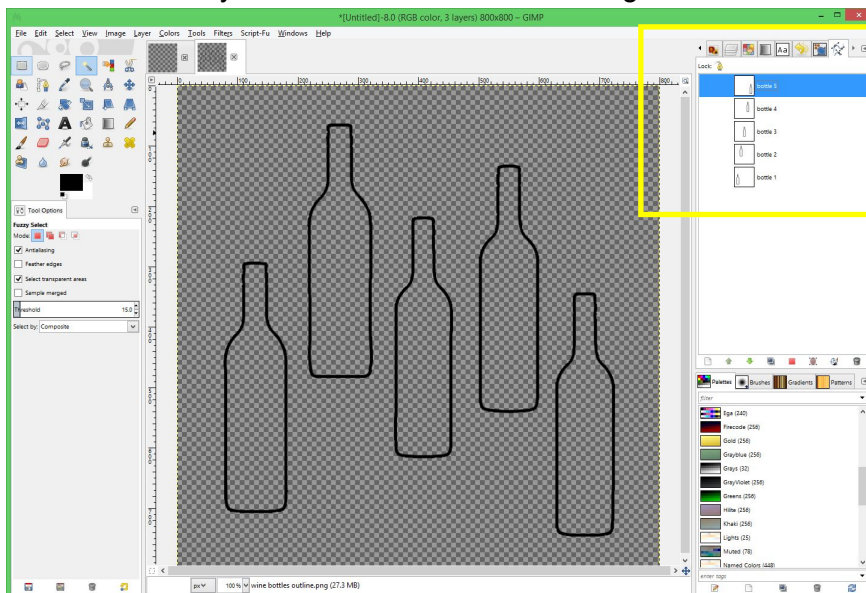
Whilst using 5 separate objects for effect in this tutorial, the process works for one or multiple objects. I like using line art shapes but you can of course import or create any shape(s) you desire as the foreground subject matter, for example -



When I refer to the 'magic wand' it is synonymous to the 'fuzzy select tool'.

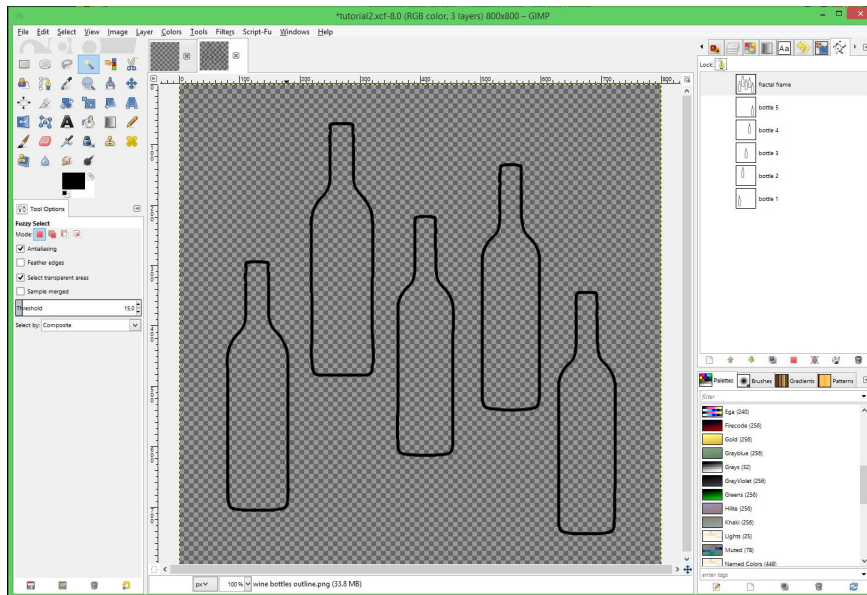
Step 1 - creating paths for each bottle

1. Open a new image 800 x 800 pixels
2. 'Open as layers' the two 'png' images provided with this tutorial zip file - a wine bottles image and a wine bottles outline. Move the wine bottles image below the white background layer and click on the 'eye icon' to make it invisible - we might need it later
3. Click on the 'eye icon' of the white background layer to make it invisible - we may need it later
4. Select the 'wine bottles outline' layer - 5 outline bottles on a transparent background
5. Select the 'magic wand' selection tool
6. Click inside the shape of the left side bottle to select it
7. Click on GIMP menu **Select>Grow**; in the window that opens, grow the selection by 5 pixels; click 'OK' (This eliminates any transparent gaps in the image later on)
8. Right click the mouse and from the menus perform a 'Select to path' then 'Select none'
9. Repeat steps 6 through 8 for each of the next four bottles in turn
10. Click on the **Paths** tab to show all of your current path selections - there should be 5
11. Select the the bottom listed path, double click the 'selection' name and rename the path as **bottle 1** then press 'enter' to confirm/apply the name change
12. Then move in succession up the path list one by one, renaming them as **bottle 2**, **bottle 3**, **bottle 4** and **bottle 5**; you should now have something like this -



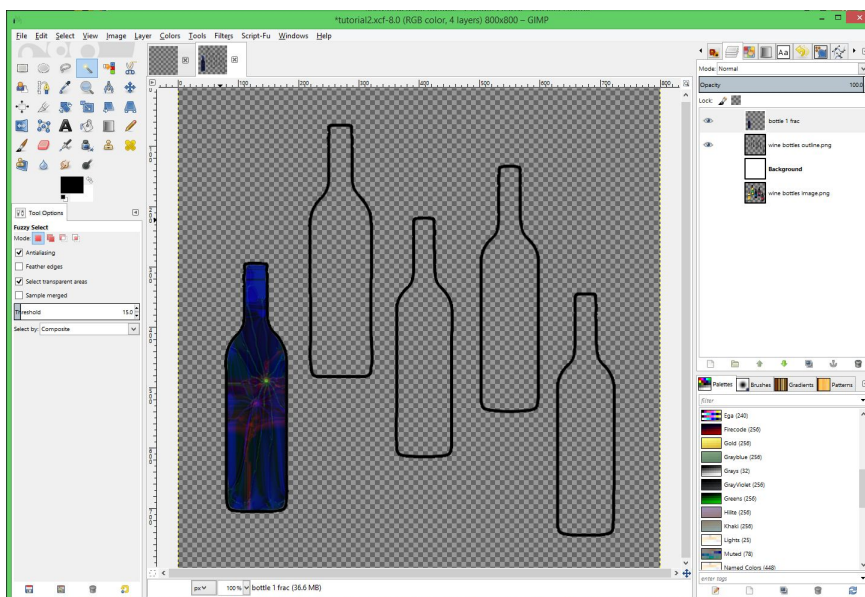
Step 2 - creating a path for the fractal frame

13. Select the 'layers' tab and select the 'wine bottles outline' layer
14. Select the 'magic wand' selection tool
15. Click on the transparent layer OUTSIDE of any bottle shape to select what will be the fractal frame for the image
16. Perform a 'select to path' for that selection then 'select none'
17. Click on the **Paths** tab to show all of your current path selections - there should now be 6
18. Select the the top listed path, double click the 'selection' name and rename the path as **fractal frame**; press enter to apply the new name; you should now have something like this -



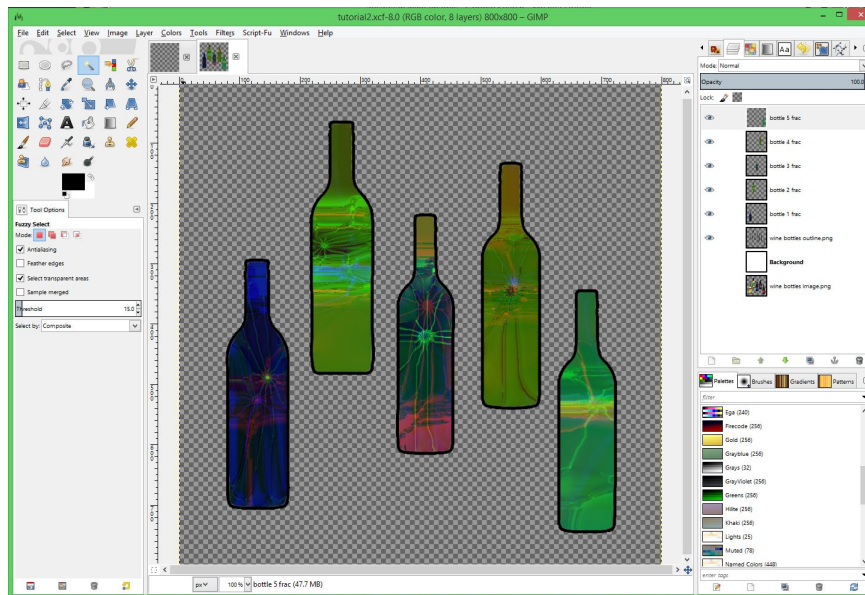
Step 3 – creating the bottle 1 fractal image

19. Select the **layers** tab and ensure the **wine bottle outline** layer is selected
20. Create a new transparent layer and name it 'bottle 1 frac'
21. Select the **paths** tab and select the 'bottle1' path
22. Right click on the mouse to display the available options and select 'path to selection' - you should see the marching ants on the left most bottle
23. Select the **layers** tab and ensure that layer 'bottles frac' is selected; click on GIMP menu **Filters>GMIC>Artistic>Fractalize** then click "OK" to apply the effect; the GMIC window will close and there may be a few seconds while the fractal image is completed (*Tip - if you wish you can apply a gradient blend shape inside the bottle outline before selecting the GMIC Fractalize function*)
24. 'Select none' to release the bottle 1 path selection; you should now have something like this -



Step 4 – creating layers and fractal images for the other 4 bottles

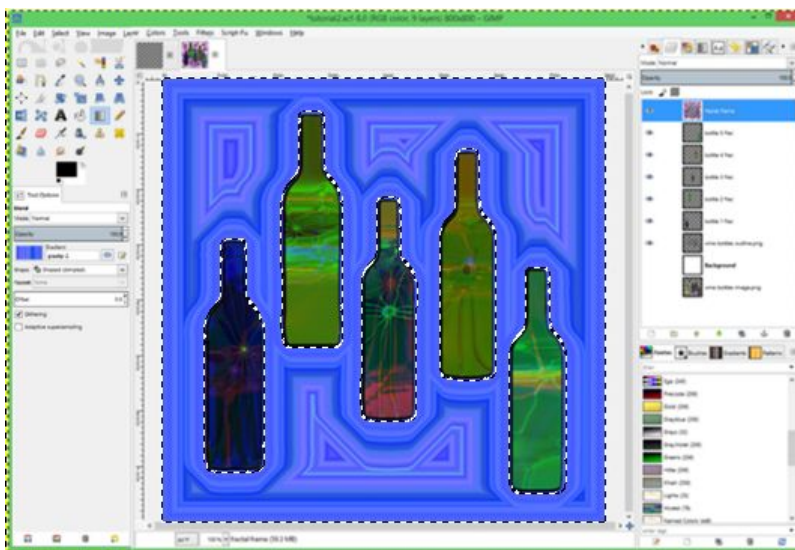
25. Repeat steps 19 through 24 four times to create new transparent layers and individual fractal images for each bottle # in turn, progressively moving up the **path selections** in the **paths** tab for each bottle. You should now have something like this -



26. In the layers tab click on the 'eye icon' of the wine bottle outline layer to hide it

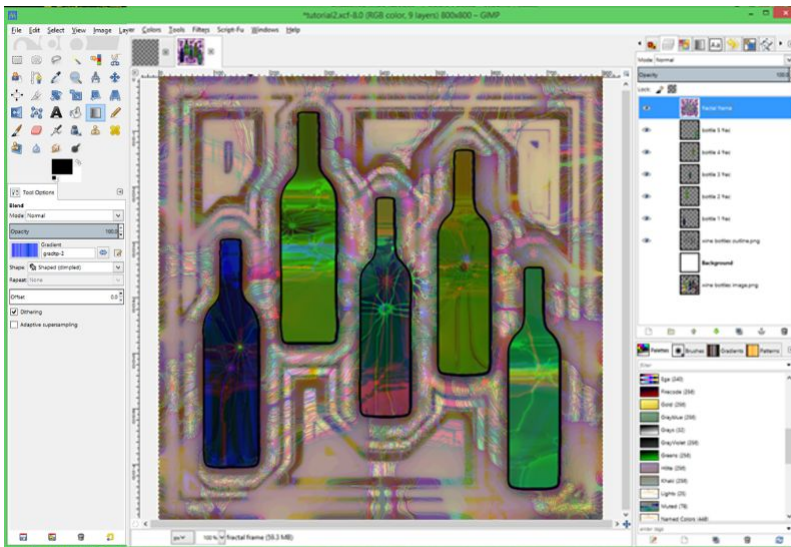
Step 5 - creating the sculptured fractal frame

27. Select the 'bottle 5 frac' layer and create a new transparent layer
28. Select the paths tab and select the 'fractal frame' path
29. Right click on the mouse to display the available options and select 'path to selection' - you should see the marching ants around all bottles and the canvas edge
30. Select the layers tab and ensure that the new transparent layer is selected then rename it 'fractal frame'
31. Select the Blend tool
32. Select a Gradient with multiple vertical stripes
33. Select any one of the gradient shapes 'Shaped (angular)', 'Shaped (spherical)', 'Shaped (dimpled)'
34. Ensure the 'fractal frame' layer is selected, position the cursor at about 400x400 pixels, hold down the left mouse button and draw across to the canvas edge to create the shaped blend; you should now have something like this -



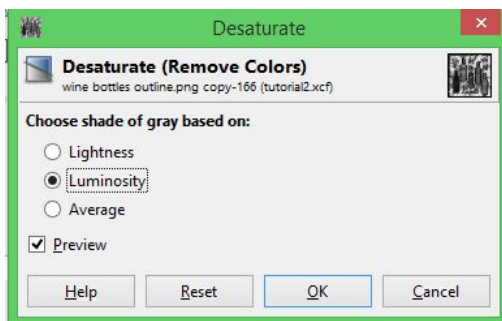
35. Duplicate the 'fractal frame' layer, rename it from 'fractal frame copy' to 'fractal frame blend' and move it to below the 'Background' layer - we might use it later; click on the 'eye' to make it invisible for now
36. Reselect the original 'fractal frame' layer. We now have a shaped frame ready to fractalise so ensure that the fractal frame path (all those marching ants) is still **active** - if not you can easily reselect it.
37. Now click on **Filters>GMIC>Artistic>Fractalize** then click "OK" to apply the effect; the GMIC window

will close and there may be a few seconds while the fractal image is completed (*tip - if for some reason you do not like the resulting fractal frame image just repeat the action (i.e. Click on 'repeat GMIC' under the Filters menu).* You should now have something like this -

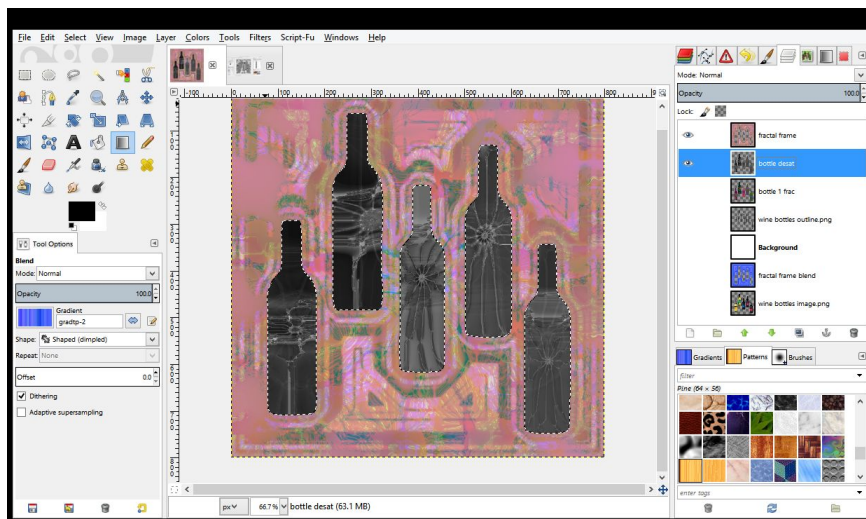


Step 6 - creating the Bump Map and the Smoothing layers for the bottles

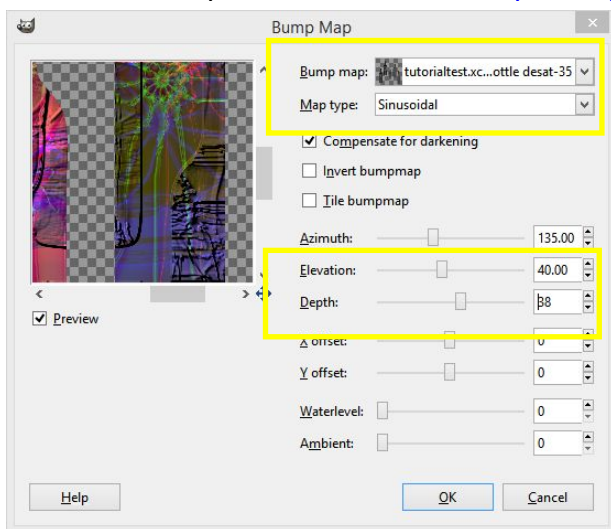
38. This is your last chance to redo any of the individual bottle fractals if you wish.
39. Now select the 'bottle 5 frac' layer' right click and select 'Merge down' from the menu
40. Repeat this action 3 more times until you are left with just the 'bottle 1 frac' layer containing all 5 fractalised bottles
41. The path selection should still be active; so now right click on the image and click 'Select>invert' from the menu
42. Ensure 'bottle 1 frac' layer is selected and duplicate it; rename this duplicate layer 'bottle desat'
43. Ensure the duplicated layer is selected and rename it 'desat' (for desaturated)
44. Select Gimp menu item **Colours>Desaturate** to open the Desaturate window
45. In the Desaturate window select the 'luminosity' option as shown below



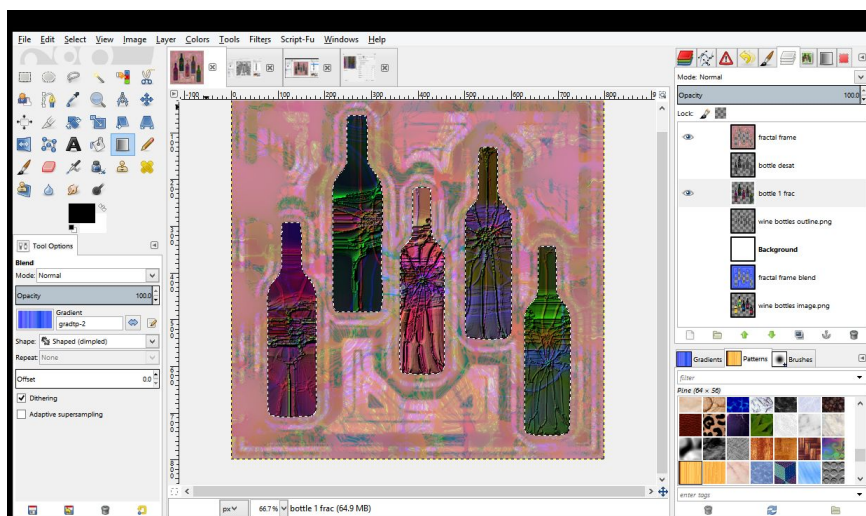
46. Click 'OK' to apply the effect and close this window - this creates your bump map; you should now have something like this -



47. Ensure the 'bottle 1 frac' layer is selected
48. Select Gimp menu item **Filters>Map>Bump Map** to open the Bump Map window as below -



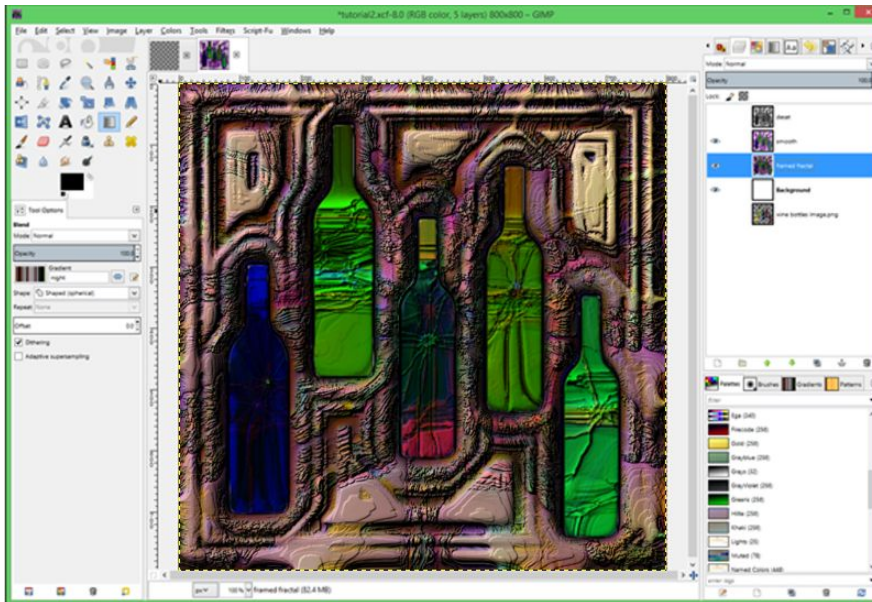
49. Select the layer 'bottle desat' from the Bump map selection drop down
50. Select 'Sinusoidal' from the 'Map type' selection drop down
51. Select '40' on the 'Elevation' slider
52. Select '38' on the 'Depth' slider
53. Click 'OK' to apply the bump map and close the window
54. Click the 'eye' symbol on the 'desat' layer to hide it and reveal the now bumped 'fractal frame' layer; you should now have something like this -



55. Select the 'bottle 1 frac' layer and duplicate it; rename the duplicated layer 'bottle 1 frac smooth'

process for the frame - you should now have a grayscale frame visible

62. Select the 'fractal frame' layer and repeat steps 48 through 54 to bump map the frame image; ensure that you select the 'fractal frame desat' layer as the bump map from the drop down in that window; leave all other settings as set previously
63. With the 'fractal frame' layer selected repeat steps 55 through 58 to create a new layer and apply the dream smoothing effect
64. 'Select none' to remove those marching ants! You should now have something like this -



You have now **completed the basic tutorial** and should have a 'fractal framed relief' image looking something like this (although with a different fractal pattern and colours!)

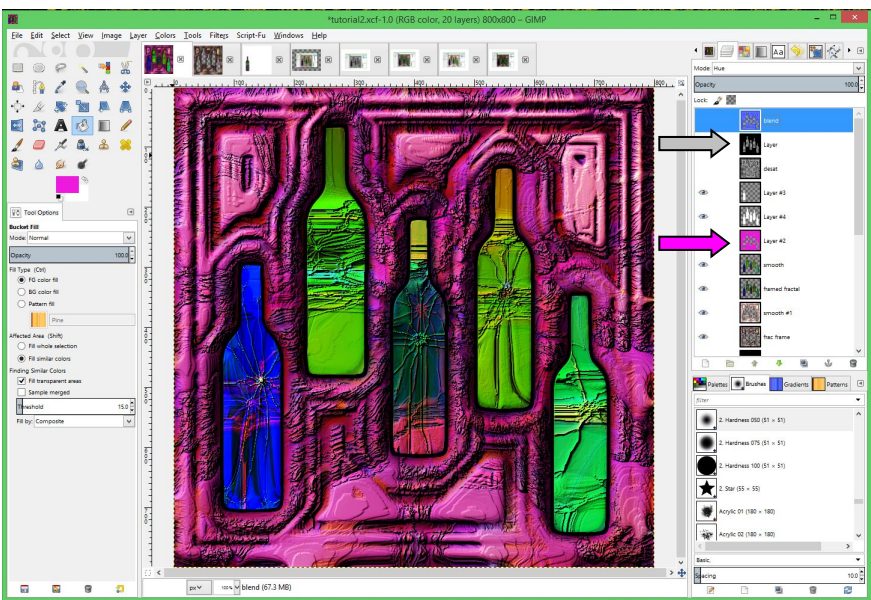
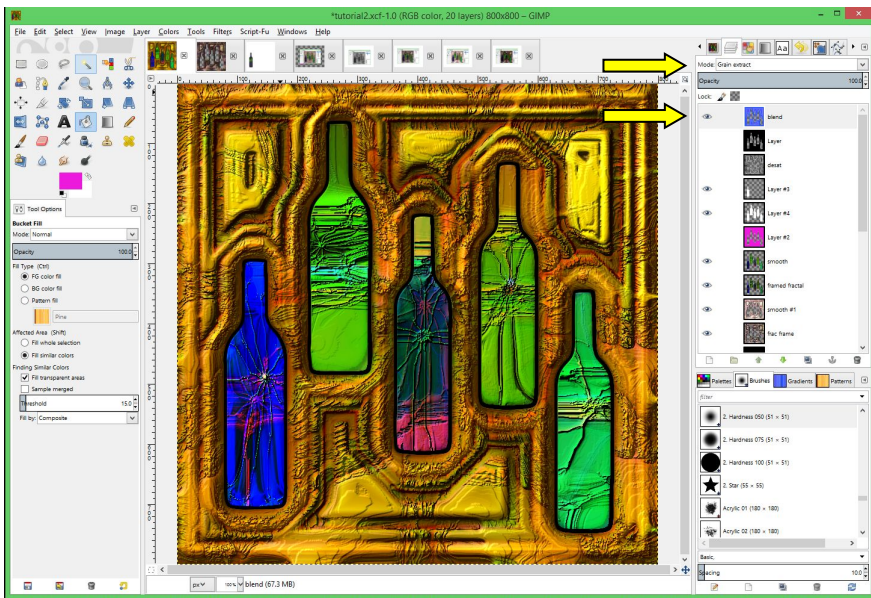
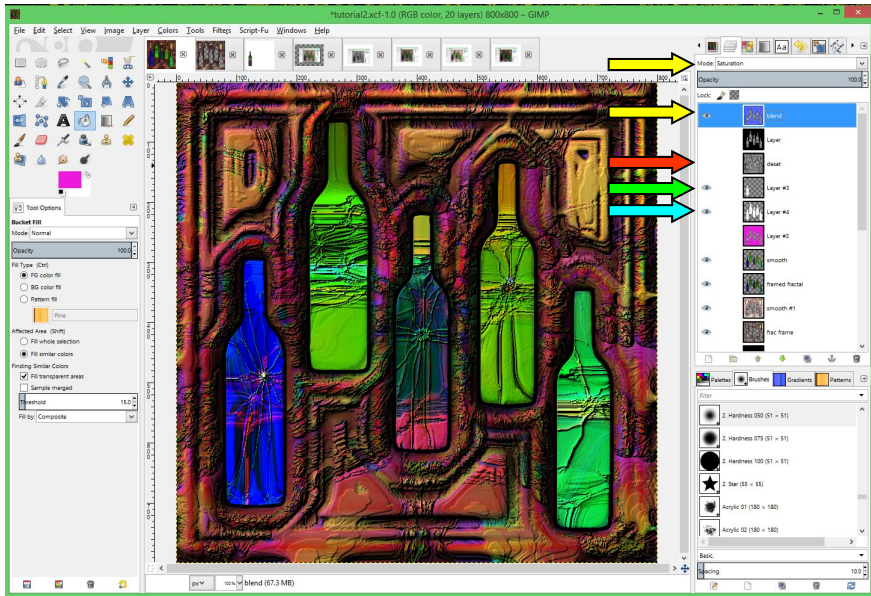
Step 8 - tweaking the fractal framed image to personal preference

Whilst we now have our final sculpture framed image, for me this step is the most important as it is where you the 'artist' impose your preferences on the automatically and somewhat randomly created components. It is not difficult to apply your preferred effects for colour, brightness or saturation.

GIMP has many tools for managing these attributes, but typically I use what I feel is a simple, non destructive method. It is also one reason why we used 'paths' in this tutorial, so that you can select any of the individual components and tweak them simply by adding new layers.

For example the above image has a dullish background and the left side bottle is too dark, but you will see from the next few images that I have made corrective adjustments just using what is available in our various layers and paths dialogue; refer to the related numbers on the images below:

1. Brighter, colour enhanced fractal frame - achieved by placing the original shaped blend at the top and changing the blend mode to 'saturation' - yellow arrows image 1 below
2. Or changing it to 'grain extract' to change its colour - yellow arrows image 2 below
3. The 'desat' layer can be utilised for similar effect in 'overlay' mode - red arrow image 1 below
4. A new coloured layer can be added, in this case a dark pink in 'overlay' mode - pink arrow in image 3 below
5. Brightened the dark left side bottle by using an additional white layer with a path selected bottle shape, having deleted outside the selection light green arrow image 1 below
6. Similar process for all other bottles too light blue arrow image 1 below
7. Similar process with a black layer to darken, emphasise the fractal frame if desired - grey arrow in image 3 below
8. You can easily use GIMP>Colors>Invert to revamp any path based selection with great effect too and that can easily be reversed if not acceptable.



So once again extend, experiment and enjoy.