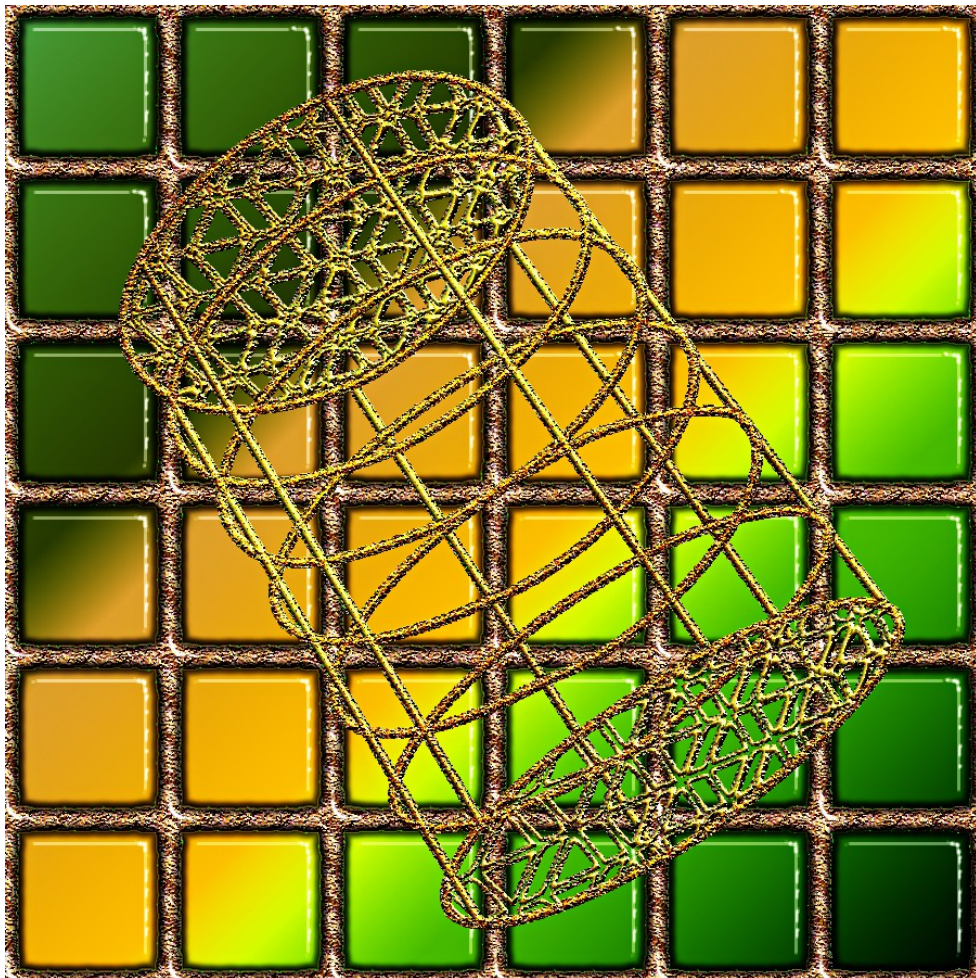


Playing With Shaped Wire & Framed Wire Art - Part 1

A tutorial on various methods of creating shaped wire grids or patterns and identification of some filters to use with them in GIMP to produce framed wire artworks



By OldManGrumpy



Playing With Shaped Wire & Framed Wire Art – Part 1

Introduction

This tutorial has been created to support a number of requests from members of the Gimp Chat forum in a thread that I originated with the same name – Playing With Framed Wire Art.

As usual this tutorial set reflects my own journey and the experience I gained along the way, when learning to use GIMP/GMIC tools to create my recent wire artworks. There are many ways to create wire and the possibilities, as always, are endless. So all I am really doing is providing some hints so that others can achieve their own outcomes, explore further options and have fun on their journey.

Normally my tutorials are geared specifically for **start-up** GIMP users and therefore are quite detailed. However, this tutorial does presume some knowledge of GIMP and offers less detail but is still offered on a step by step basis.

I am, though, sure that that both GIMP neophytes and more experienced users can gain some benefit from it and will be able to create images like that shown on the title page and also those to be found in the Gimp Chat thread at:

<http://gimpchat.com/viewtopic.php?f=11&t=14359>

This tutorial series comes in three separate parts as follows:

1. **Part 1** – deals with a ways for '*manual*' creation of wire (or at least wire lookalike grids!!) in various shapes, such as hexagon, triangle, rectangle and circular, that can be used individually or as GIMP patterns. I also identify other ways of creating wire from these grids patterns.
2. **Part 2** – covers wire grid creation using simple paths stroked with brushes.
3. **Part 3** - deals with ways of creating framed wire artworks using the previously created wire grids in both their initial form and also in a variety of restructured/distorted shapes obtained from GIMP and GMIC filters.

Assumptions

Given that we are using some GMIC filters in this tutorial, then you must have already installed GMIC in your GIMP plug-ins folder. For more information if required please visit:

<http://gmic.eu/gimp.shtml>

Other Scripts Used In/Required By This Tutorial

In this script I will at sometime use guides at set intervals to help create the objects that form our pattern. It is possible to create these guides manually and I cover that aspect in the tutorial. However, my preference is to use a very useful script called '[New Guides Every X Pixels](#)', a download for which can be found at:

<http://registry.gimp.org/node/13774> ^^

We will also use a number of other popular scripts as follows:

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Shine ^^ – by Graechan; this is a special, simple version which Graechan has provided for me that does not require the beautify plug-in. It is included in the tutorial package ZIP file and I use it to give an attractive finish with shiny wire.

Hexagon or Triangle Grid ^^ – by SambrookJM

<http://registry.gimp.org/node/25244>

Bevel Reflect Logo ^^ – by GnuTux

<http://gimpscripts.com/2014/02/bevel-reflect-logo/>

Note also the comment on that page concerning a possible need for a scrolling Script Fu interface and the pointer to its source at post #8:

<http://gimpchat.com/viewtopic.php?f=9&t=9824> **

^^ These scripts must be loaded into your [Users/username/.gimp-2.X/scripts](#) folder.

** These scripts must be loaded into your [Users/username/.gimp-2.X/plugin-ins](#) folder.

Additional Tools Used In this Tutorial

Some [rope brushes](#) are included in this tutorial ZIP package. I *cheat* a little by using them to stroke 'paths' and then make them look metallic. These brushes will need to be loaded into your [Users/username/.gimp-2.X/brushes](#) folder.

I have also included two of my own plastic coated [twisted wire](#) brushes. Again they should be loaded into the above folder.

Conventions used in this tutorial

Instructions on accessing and using various GIMP functions and filters are expressed in the following format:

Image>Guides>New Guide (by Percent)...

This means that the user with a mouse, firstly left clicks on **Image** from the main GIMP menu, which then shows a drop down list of Image options available.

From this list the user with a mouse then left clicks on **Guides** to show the Guides options available. From this list the user then left clicks on **New Guide (by Percent)...** to display the form for completion.

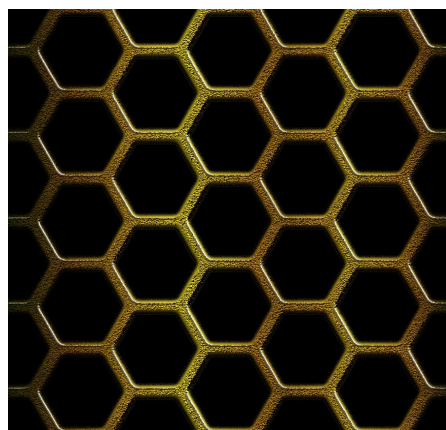
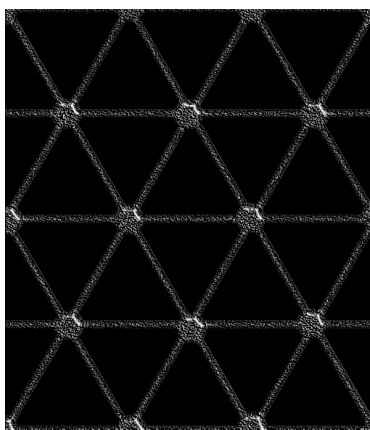
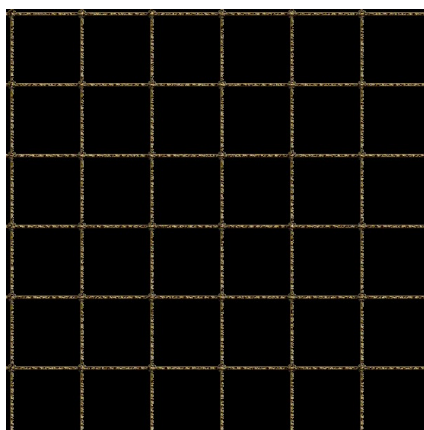
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TUTORIAL OVERVIEW

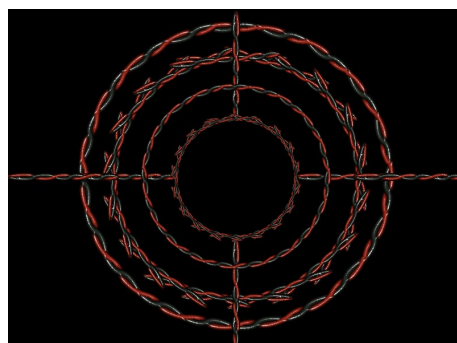
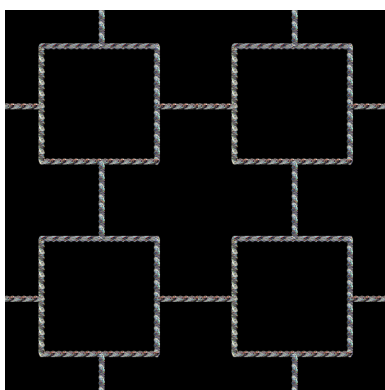
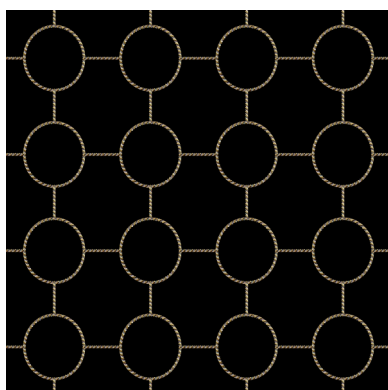
In **part one** separate **sections** are devoted to each of four different shaped wire mesh grids you will create as follows :

- rectangular 1- a quadrilateral with all sides of same length i.e. **a square**
- rectangular 2 - a quadrilateral with all angles of 90°, opposing sides parallel, but top and bottom sides of a different length to left and right
- triangular
- hexagonal

Each of these shapes will be created initially by using scripts/filters and we will apply metal textures in a couple of ways to get a thin wire or thicker metal grid effect, depending on the thickness we choose at the time. We will also cover a quick way to turn these grids into tileable GIMP patterns, which we can save and use in **part three** of the tutorial. Some examples of our outcomes are shown below.



Part Two (separate document) has **sections** covering use of some simple 'paths' to create slightly different circular and rectangular shaped grids, which we will then 'stroke' using the brushes contained in this tutorial package. In some cases we will end up with a metallic effect wire and in others a plastic coated twisted wire effect. Some examples are shown below -



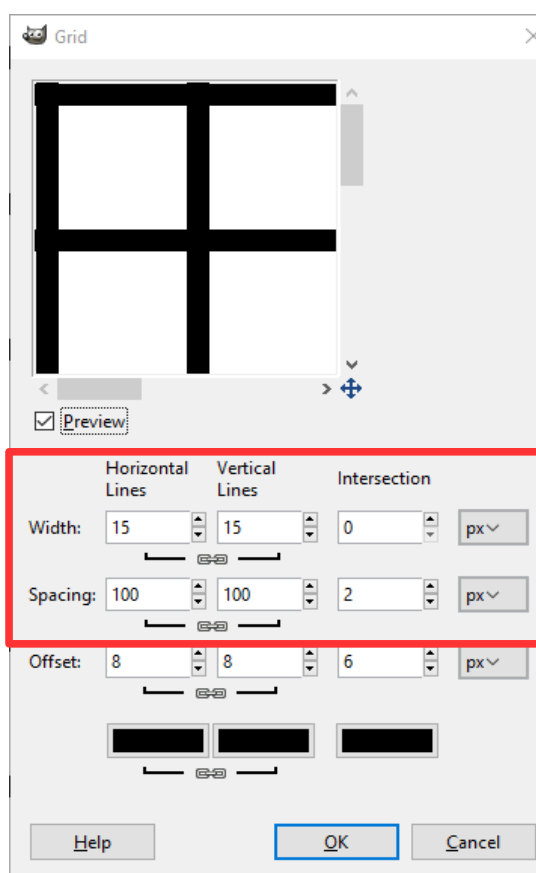
In **Part Three** (another separate document) we will create some framed wire art images using scripts from both GIMP and GMIC to produce 'deformed' (but attractive!) outcomes that we can frame/decorate again using some other popular scripts or just by your own hand.

Playing With Shaped Wire & Framed Wire Art – Part 1

Part 1 - Section 1 – a square wire grid

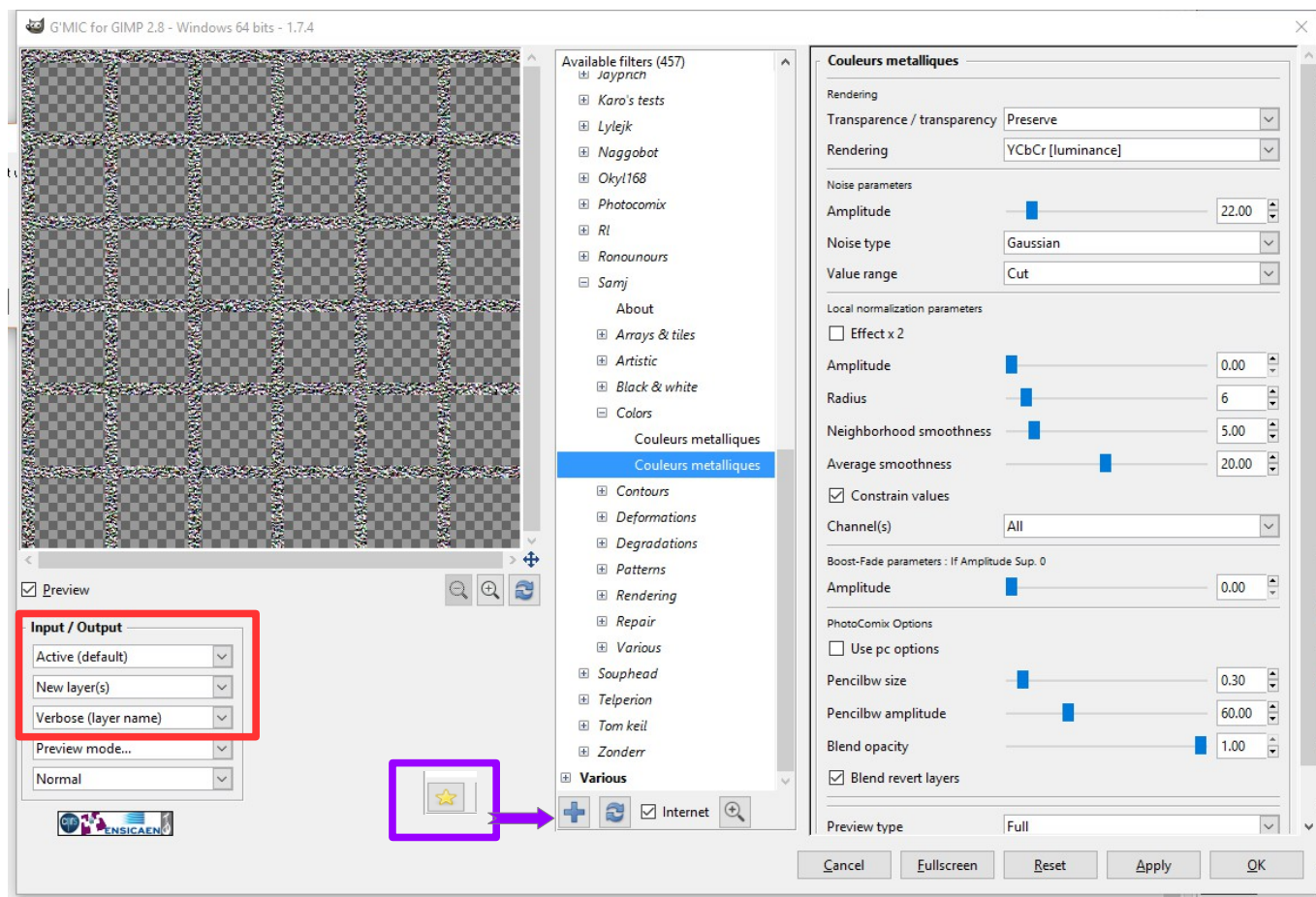
Our objective here is to create a square grid outline then turn it into a metallic wire pattern; this should only take about 10 minutes. OK lets start; but remember to save your xcf file regularly.

1. Open a new image of 600 x 600 pixels with a white background
2. Create a new transparent layer and ensure it is the active layer
3. Now select **Filters>Render>Pattern>Grid** to display the Grid filter window and enter the parameter values as outlined in red and you should see an image like that below, then click **OK** to creat that grid. Later on you can play with the other parameters like **Intersection** value and the **Colours** for the grid.

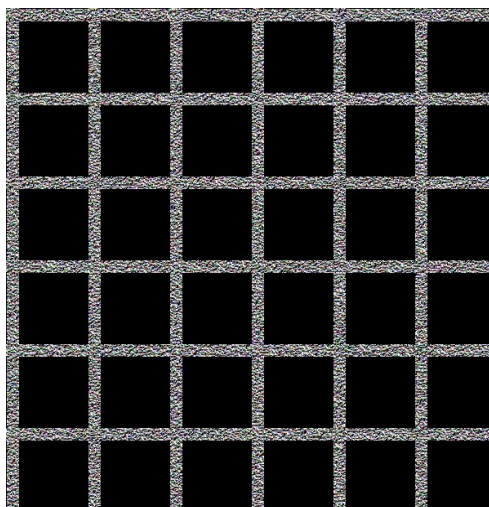


4. Now with that new 'grid' layer active, select **Filters>GMIC** to display the GMIC window then select **Testing>Samj>Colors>Couleurs metallique** to see the filter, its parameters and an effect preview as exemplified below. First of all make sure that you have the **Input/Output** settings as shown highlighted in red – *otherwise strange things can happen*. We will leave those parameters at their default settings and so click **Apply** to action the filter and create a new layer, Then close the GMIC window.
5. *A point to note here is that because of frequent usage I have assigned this filter with 'favourite' status (note the blue plus sign). You can do the same by clicking on the star icon highlighted in purple below. It will then appear in Faves at the top of your GMIC filter menu and appear with the blue plus sign as arrowed below.*

Playing With Shaped Wire & Framed Wire Art – Part 1



6. You will also note that because of your Input/Output settings, GMIC has already explicitly named this new resulting layer for you.
7. I find these metallic images show up better against a black background, so now with the original white background layer active and the **foreground colour** in the **Tool Box** set as **black**, create a new layer.
8. You should now see a canvas looking like my example below -

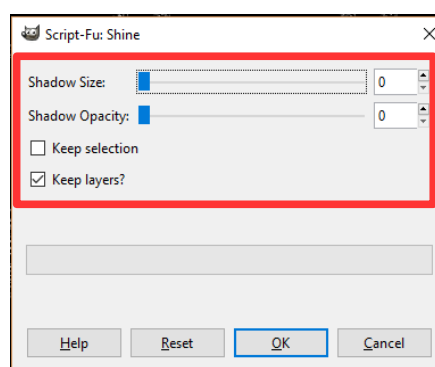


9. Now that is a somewhat 'flat' looking wire so lets make it look much better. With the **couleurs metalliques** layer active, choose the **Select by Color Tool** from the **Tool Box** and

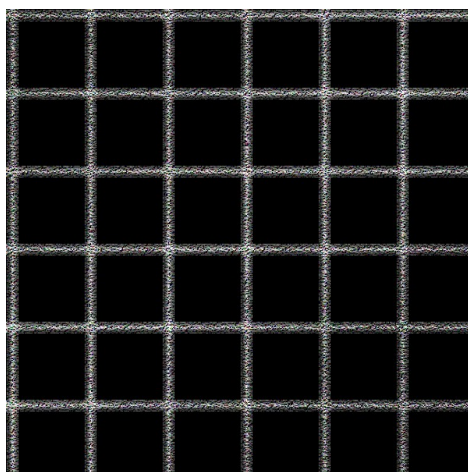
Playing With Shaped Wire & Framed Wire Art – Part 1

left click on a transparent part of the canvas to make a selection. Then right click and **Select>Invert** to select our metal grid ready for our next steps.

10. Firstly create a new transparent layer immediately above the **couleurs metalliques** layer and with it active, select the Blend Tool from the Tool Box. From the **Tool Options** choose the gradient **Brushed Aluminium** and select **Linear** as the **Shape**. Now on the canvas, with left mouse button held down drag the cursor from top left to bottom right and release the button. Make the **blend mode** for this layer **Overlay**, which will just add a touch of lighter colour to our outcome.
11. Select the filter **Script-Fu>Effects>Shine** to display the relevant window as below and change the parameters to those I have set and outlined in **red** then click **OK**. Note that the filter will close the selection for us given these settings.

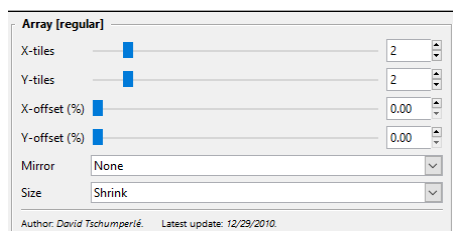


12. After the actions taken in step 10 and 11 above your canvas should now resemble this example -

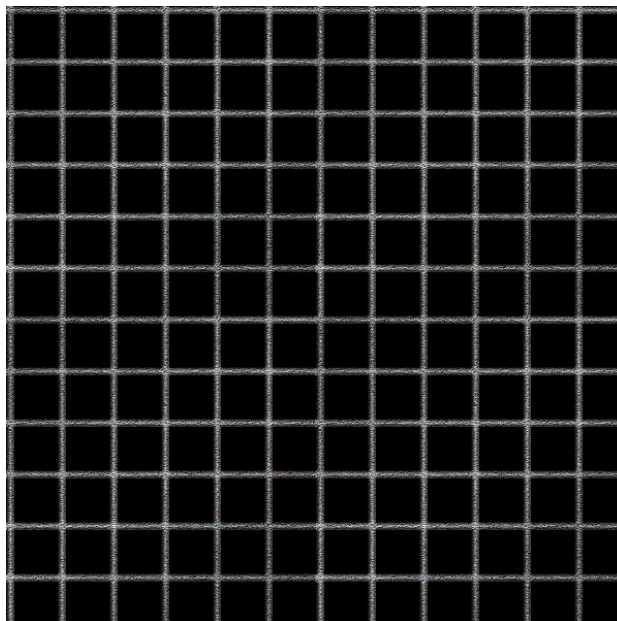


13. Now we have a shiny metallic grid (not quite wire yet) so let's take the final steps. Firstly make the two bottom black and white background layers invisible. Then with the **Shine-layer** as the active layer, right click in the layer dialogue and from the menu select **New from Visible**, to create a new single layer from the multiple contributing layers. Make all other layers invisible.
14. With the new **Visible** layer active select **Filters>GMIC Arrays & tiles>Array(regular)** leaving all parameters at their default settings, with a 2 x 2 matrix as exemplified below, then click **Apply** and close GMIC. A new tiled layer will be created called **[G'MIC] Array [regular]: -gimp_array 2,2,0,0,0,0**.

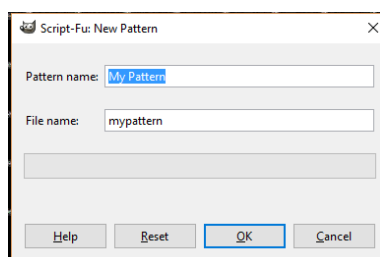
Playing With Shaped Wire & Framed Wire Art – Part 1



15. Make that **Visible** layer invisible, make **layer 1** (the black background) visible and you should be left with canvas showing a square wire grid pattern just like this example -



16. With the **[G'MIC] Array [regular]: -gimp_array 2,2,0,0,0,0** layer active, right click on the canvas and select **Edit>Copy**. Then right click again and select **Edit>Paste as>New Pattern** to display the window shown below -



17. Give the pattern an appropriate pattern and file name such as **'omg_square_wire'** and click **OK** to save your new wire pattern.

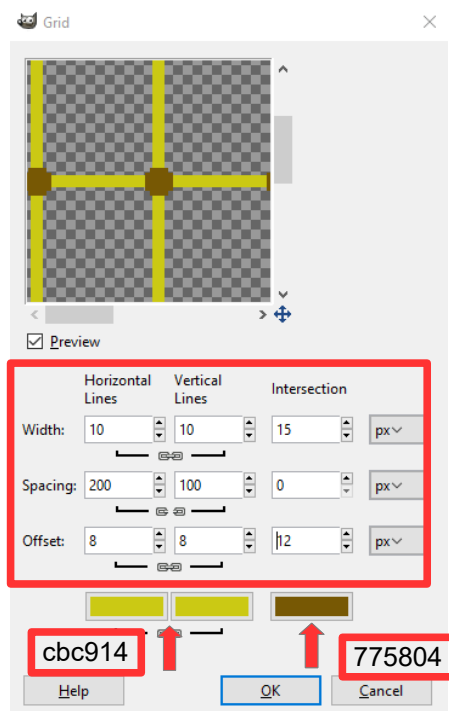
And that is it; congratulations you have completed your first wire tutorial.

Playing With Shaped Wire & Framed Wire Art – Part 1

Part 1 - Section 2 – a rectangular wire grid

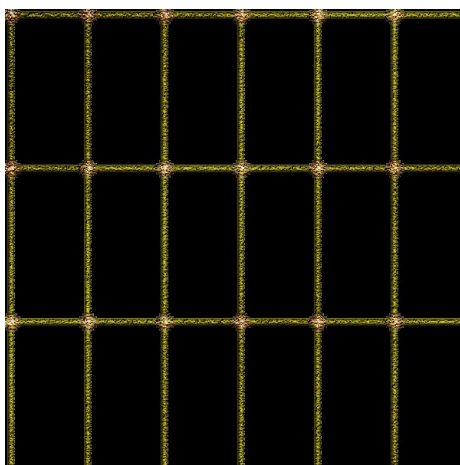
For this new wire grid/pattern, you should follow exactly the same steps as in Section 1 above except that:

In Step 3, use the following settings in [Grid](#):



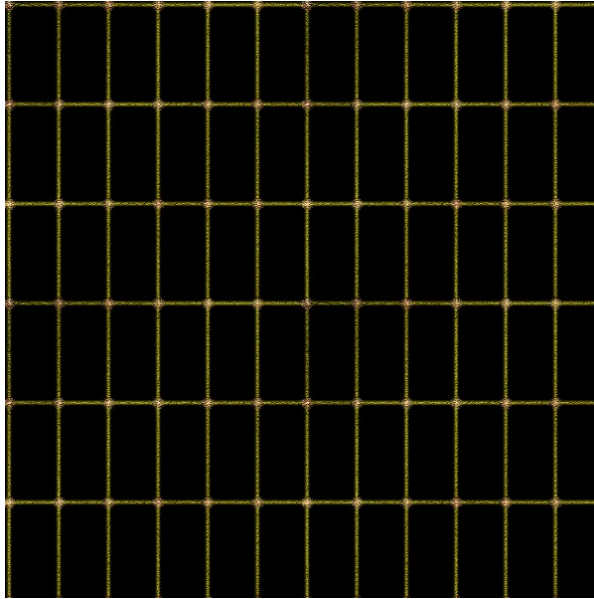
I have shown the html code for the colours I used but you can choose your own.

The settings for [Intersection](#) provide an extrusion around the wire crossover points, as shown in the brown colouring above. All things being equal you will end up after the [Shine](#) filter execution with something like this -



After completing the [Filters>GMIC.Arrays &tiles>Array\(regular\)](#) step you should have this wire pattern/grid from which to make your GIMP pattern -

Playing With Shaped Wire & Framed Wire Art – Part 1



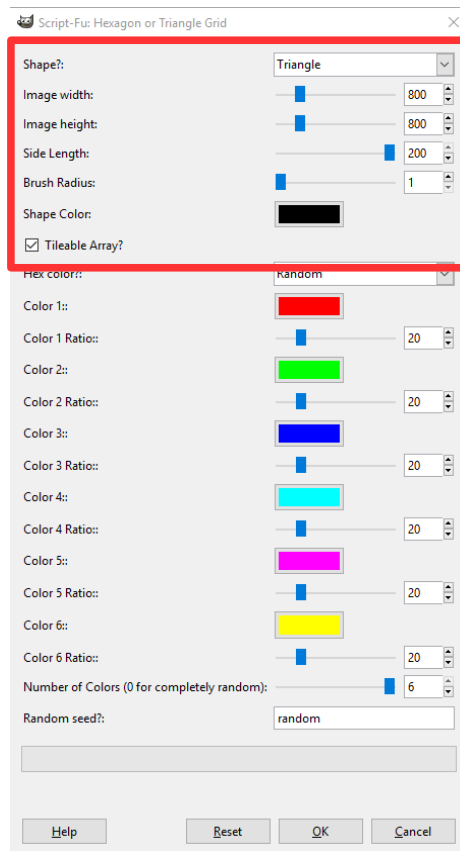
And that is it; congratulations once again you have completed your second wire tutorial.

Playing With Shaped Wire & Framed Wire Art – Part 1

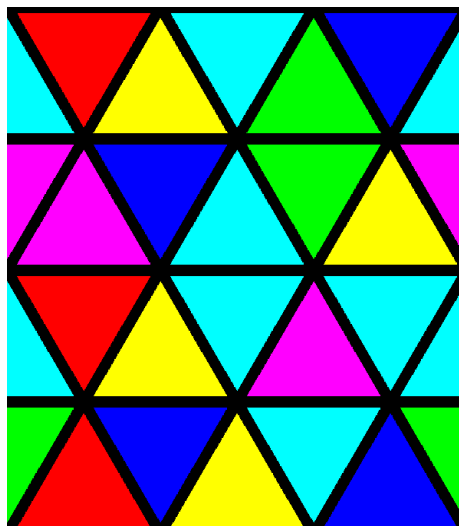
Part 1 - Section 3 – a triangular wire grid

Our objective here is to create a triangular grid using the Hexagon or Triangle Grid filter. Then you will again turn it into a metallic wire pattern; once more this should only take about 10 minutes. OK lets start; but remember to save your xcf file regularly.

1. Because this filter opens its own canvas, you do not need to open one yourself. So just select **Filters>SambrookJM>Hexagon or Triangle Grid** to display the following window. Enter the parameters exactly as shown within the red highlight.
- 2.

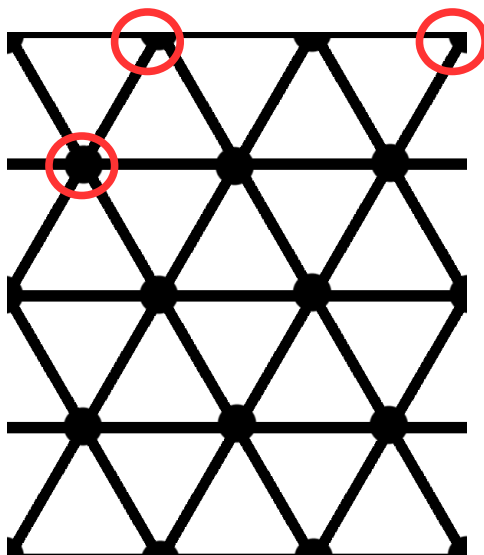


3. The filter will then create a tileable image looking like this example -



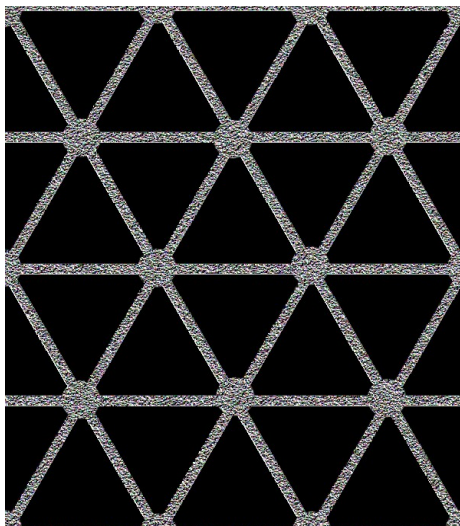
Playing With Shaped Wire & Framed Wire Art – Part 1

4. In other forum discussions the apparently 'inadequate' anti aliasing properties of the black triangles in this filter have been criticised. I do not believe this poses us any problems in this exercise, in that it just adds to the character of the final wire grid.
5. We do not need the colours created by this filter and we will clear them. However, this filter does not supply an Alpha Channel to its output image. So right click on the active **Triangle Grid** layer and select **Apply Alpha Channel** from the menu.
6. Now choose the **Select by Colour** tool from the **Tool Box** and click in any black area of the canvas to create a selection of black areas. Then **Select>Invert** to make the selection of all the non black areas; then press the Delete button on your keyboard. You should be left with just black triangles, the **Select>None**.
7. We can add some character to this wire grid with little effort. So create a new transparent layer above the **Triangular Grid** layer. Now from the Tool Box select the Hardness 100 brush and reset its size to native size of **51 pixels** by clicking on the **resize icon** at the right hand end of the **Size** box.
8. Now with the new transparent layer active, dab the brush on each wire intersection as exemplified in the image below. Make sure you do the intersection on the image edges and corners too.

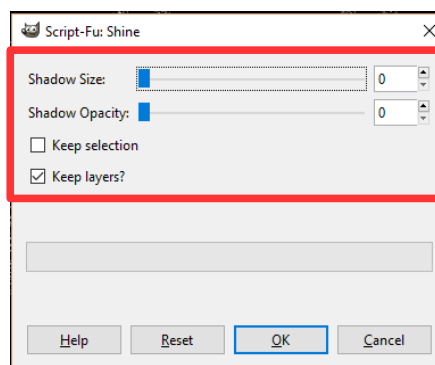


9. When you have finished dabbing, right click and select **New from Visible** to create a new layer combining the triangles and your spots.
10. Again, choose the **Select by Colour** tool and click in a transparent location on the canvas to make a selection. Then **Select>Invert** to select only black areas and then choose **Filters>GMIC>Testing>Samj>Colours>Couleurs metallique** and click **Apply**. Of course if you already made this filter a favourite, as shown above, it speeds up the process as you select only **Filters>GMIC>Faves>Couleurs metallique**.
11. Your image should now look similar to that below although you will not yet have a black background! So add a new black background layer if you wish.

Playing With Shaped Wire & Framed Wire Art – Part 1

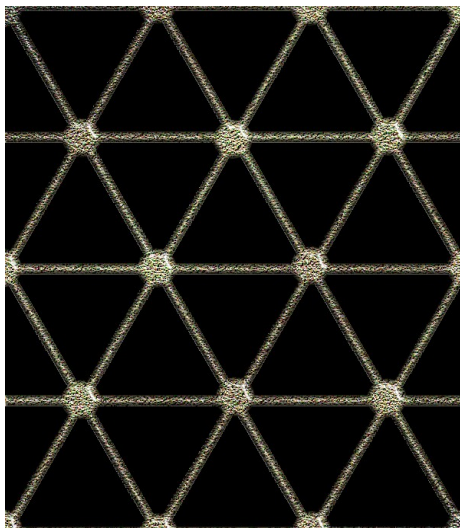


12. Your selection should still be active so let's add a nice golden overlay to the current steely colour. Create a new transparent layer, then select the [Blend Tool](#) and the [Golden](#) gradient from [Tool Options](#) with a [Linear Shape](#). On your canvas hold down the left mouse button and drag the cursor from top left to bottom right, release the button then change the layer's [Blend Mode](#) to [Overlay](#).
13. Again we have a flat looking image so with the selection still active select [Script-Fu>Effects>Shine](#), use the same parameter set as previously and click [OK](#).

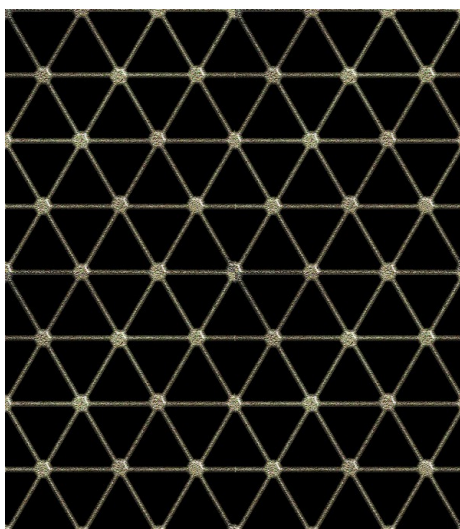


14. Now your wire grid should resemble that below -

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15. Make any background layers invisible, then with the **Shine-layer** as the active layer, right click in the layer dialogue and from the menu select **New from Visible**, to create a new single layer from the multiple contributing layers. Make all other layers invisible. It is your preference now if you are happy with the size grid you see and wish to make a pattern from it or if you wish to process step 16 below before making your pattern.
16. With the new **Visible** layer active select **Filters>GMIC>Arrays & tiles>Array(regular)** leaving all parameters at their default settings, with a 2 x 2 matrix as exemplified before, then click **Apply** and close GMIC. A new tiled layer will be created called **[G'MIC] Array [regular]: -gimp_array 2,2,0,0,0,0** from which you can make a GIMP pattern.



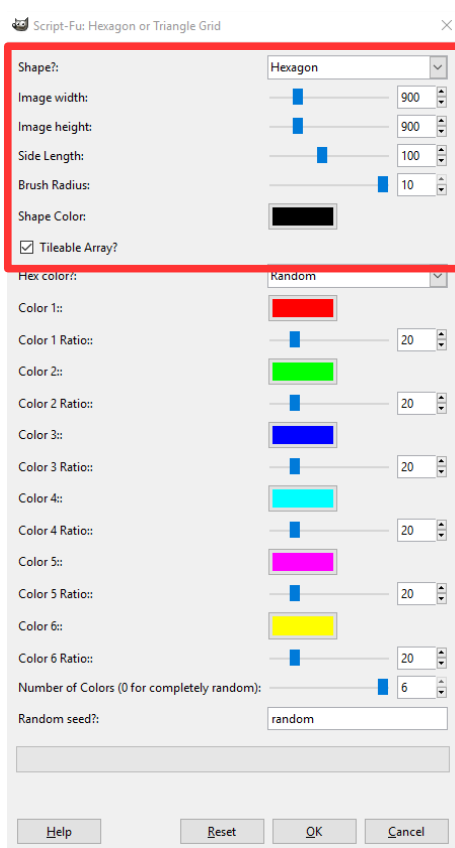
And yes that is it; congratulations once again you have completed your third wire tutorial.

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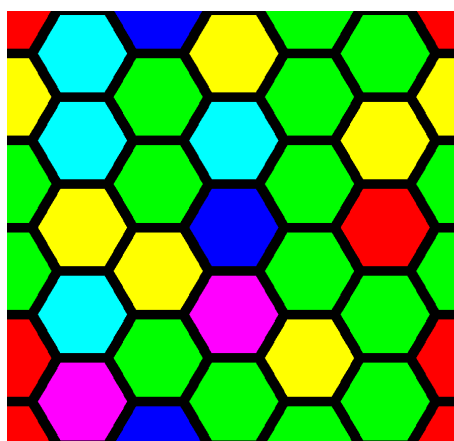
Part 1 - Section 4 – a hexagonal wire grid

Our objective in this section is to create a hexagonal grid, again using the Hexagon or Triangle Grid filter. Then you will turn it into a metallic wire pattern using similar steps to those in Section 3 above. Because we will follow basically the same steps as before, I will abbreviate the process. OK lets start; but remember to save your xcf file regularly.

1. Because this filter opens its own canvas, you do not need to open one yourself. So just select [Filters>SambrookJM>Hexagon or Triangle Grid](#) to display the following window. Enter the parameters exactly as shown within the red highlight.

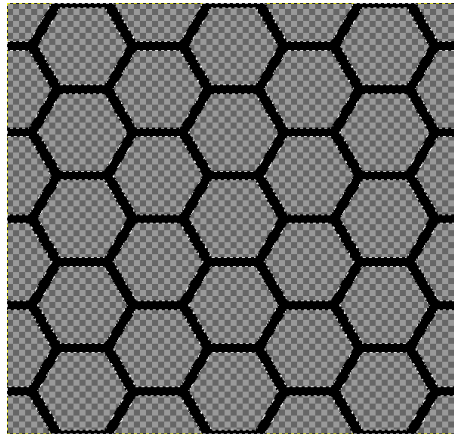


2. The filter will then create a tileable image looking like this example -

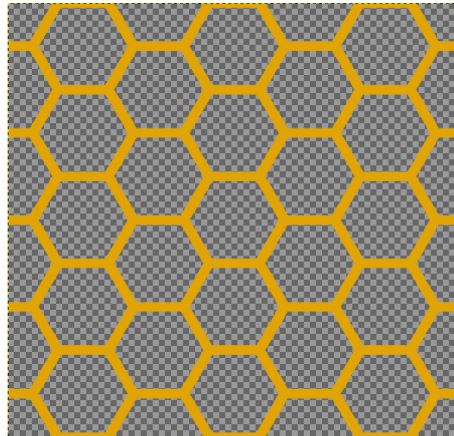


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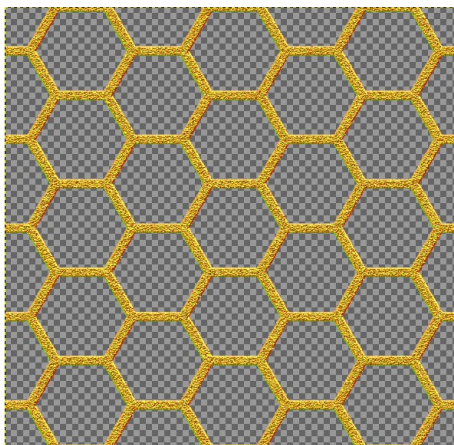
3. As you did previously, add an Alpha Channel and use selections to remove the colours.



4. We will make a slight process change here, so with the black colour selected, choose the [Bucket Fill](#) tool and with colour [e0a505](#) selected, fill the selection. You should now have something like the following example.

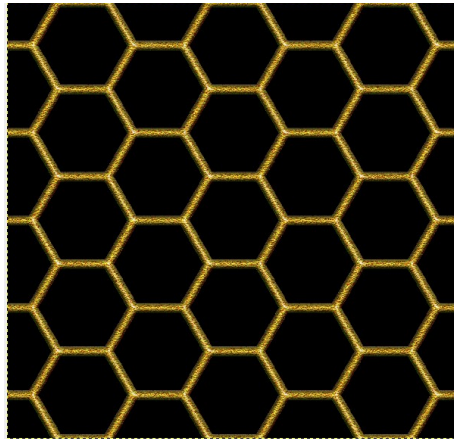


5. This time we will apply a different texture so select [Filters>GMIC>Testing>Samj>Artistic>Granular texture](#) and [Apply](#). You should now see a canvas like this.

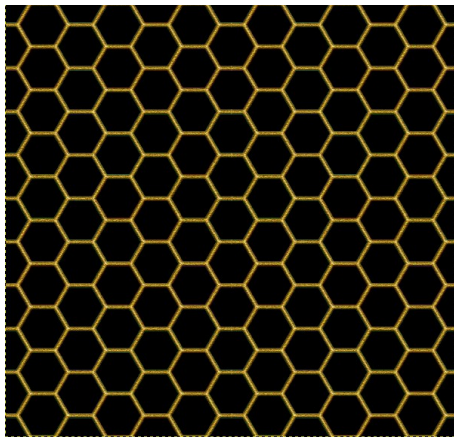


6. Once again run Shine to complete the wire grid, which should resemble the example below.

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7. You can either save this as a wire pattern or again create [New from Visible](#) and run [Filters>GMIC>Arrays & tiles>Array\(regular\)](#) to create a smaller hexagonal pattern as shown hereunder.

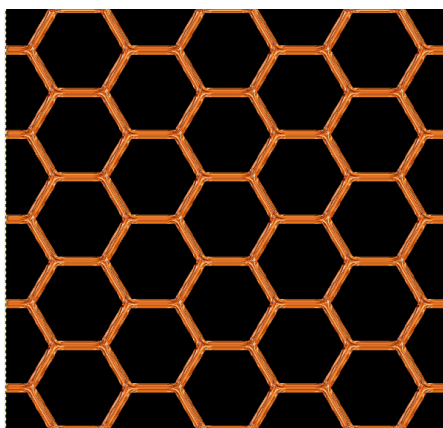


Dare I say it once more ... that is it; congratulations once again you have completed your fourth wire tutorial.

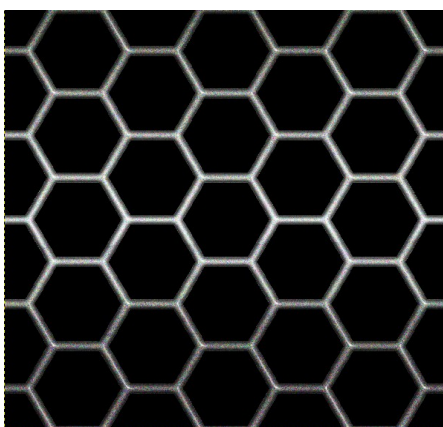
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Part 1 - Section 5 – some other ways of creating wire using the basic grid shapes from the above sections in the tutorial.

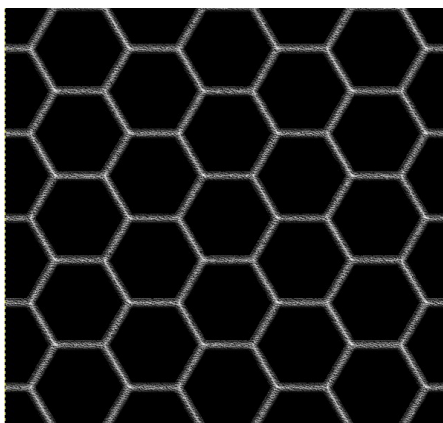
1. The script [Bevel Reflect Logo \(BRL\)](#) can be used with a gradient (OMG_metal_bronze shown below) against the hexagonal grid selection. Specifically textured, metallic environment maps (e-maps) can also be used with [BRL](#) in the same way



2. Another 'manual' approach is to apply say the [Brushed Aluminium](#) gradient to the grid selection, then use the filter [Noise>RGB noise](#) or [Emboss](#) and then finish off with [Shine](#).

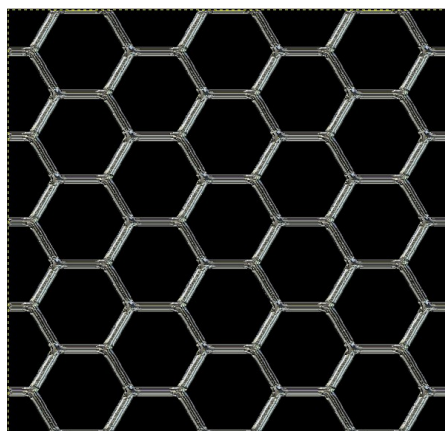


3. Again with the [Brushed Aluminium](#) gradient or a grey colour previously applied to the hexagonal grid, select and apply [GMIC>Contours>Local_orientation>CMYK\(key\) or LAB\(lightness\)](#) to obtain the texture. Then again finish off with [Shine](#).

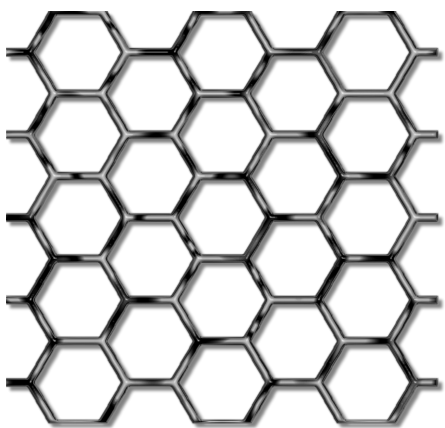


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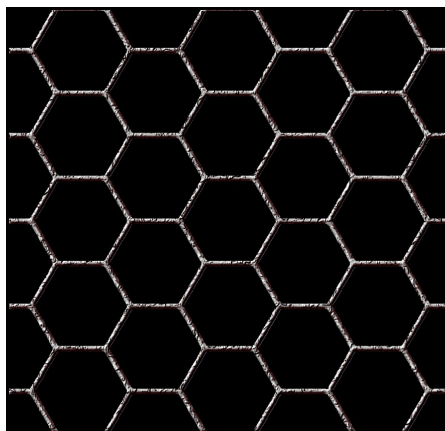
4. Getting more adventurous the following shows the effect of running [GMIC>Contours>Local_orientation>CMYK\(key\)](#) against a layer containing the result of a [BRL](#) using a galvanised iron emap.



5. The following example comes from running Graechan's [Metal Alpha](#) script, with silver colour and shadow selected – it also can provide an added 3D effect.

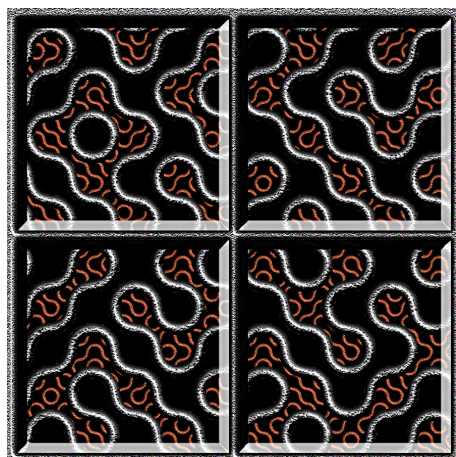


6. Another script from Graechan, [Antique Metal Alpha](#) using the iron parameter.

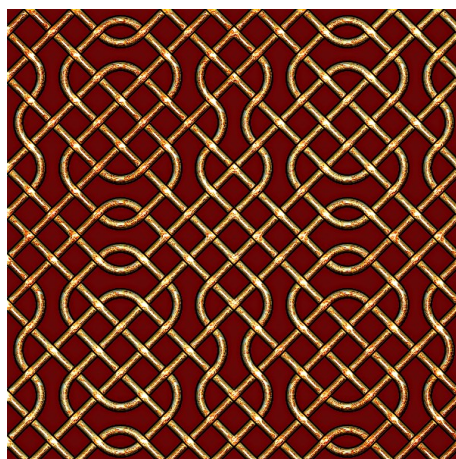


Playing With Shaped Wire & Framed Wire Art – Part 1

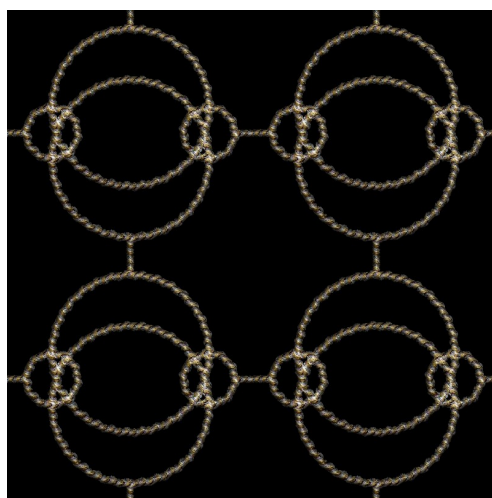
7. On this next one I used a GMIC Truchet pattern, applied my favourite [couleurs metallique](#) and of course [Shine](#).



8. For this last one I downloaded the Celtic Knot from an online knot generation program and then applied BRL with one of my rusty metal e-maps.



9. Of course if you are reasonably competent using paths or scripts/filters/plugin-ins that generate them, then anything is possible,



Well that's it for **Part One** – I hope you enjoyed it and thank you for doing my tutorial.