

## Texture Mapping in JavaWildfire .

### Tutorial by Jesus Sosa

This little tutorial will let you know how to put a raster image to a 3D object as a texture in JavaWildfire

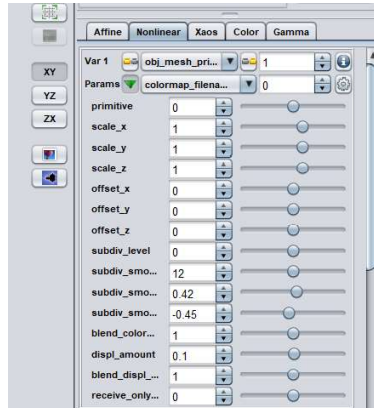
You can use this technique with any variation that build a 3D object, by example a `obj_mesh_primitive_wf`, `obj_mesh_wf`, `lsystem3D`, `knots3D`, `seashell3D`, `parplot2D_wf`, `yplot2d_wf`, `yplot3d_wf`, `dla3d_wf`, `sattractor3D`, `square3D`, `sphirograph3D`, `supershape3D`, `terrain3D`.

But, also you can use it in many other 2D variations as a way to color fractals with a texture map, you may try variations like `brownian_js`, `circleblur`, `chrisantemum`, `pdj`, `svenssons_js`, `clifford_js`, `sunflower`, `crown_js`, `lace_js`, `macmillan`, `maurer_rose`, `maurer_lines`, `nsudoku`, `gpattern`, `hadamard_js`, `recurrenceplot`, `rhodonea` and more.

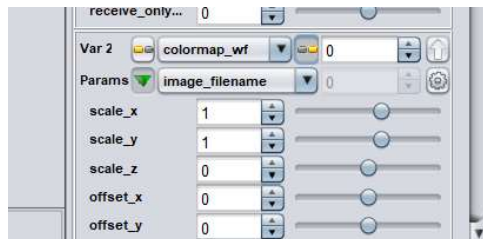
### Exercise 1

Lets start a new flame from scratch

Add a Transformation T1, change Var1 from `linear3D` to `obj_mesh_primitive_wf`



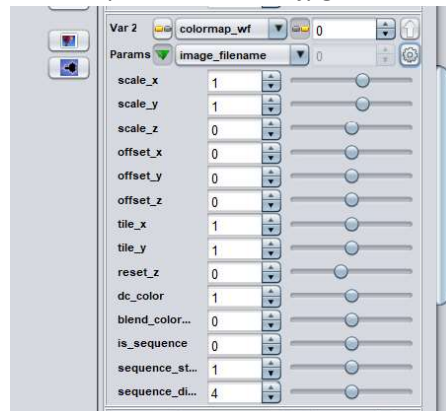
Add to T1 a new Var2 `colormap_wf`, make the current variation a post variation pushing the post button at rightside of the Var2 "`colormap_wf`"



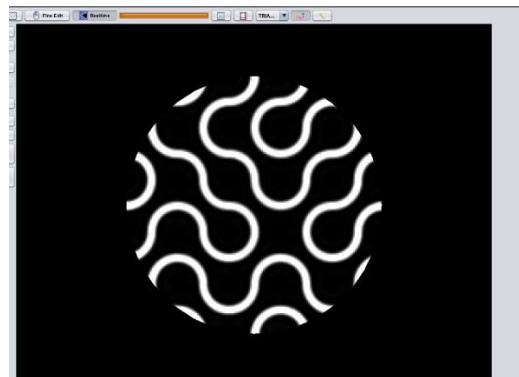
change the following parameters in colormap\_wf

reset\_z = 0

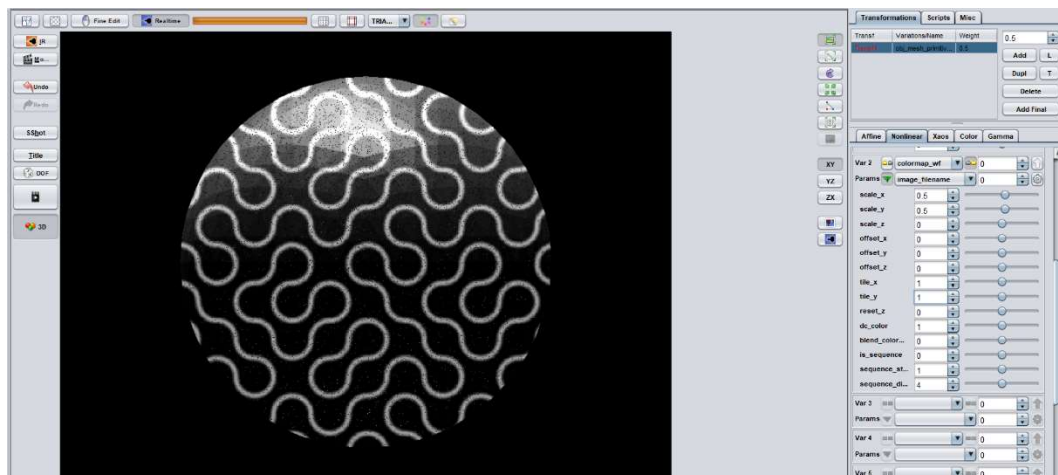
image\_filename= peek the file 13.jpg from the textures directory



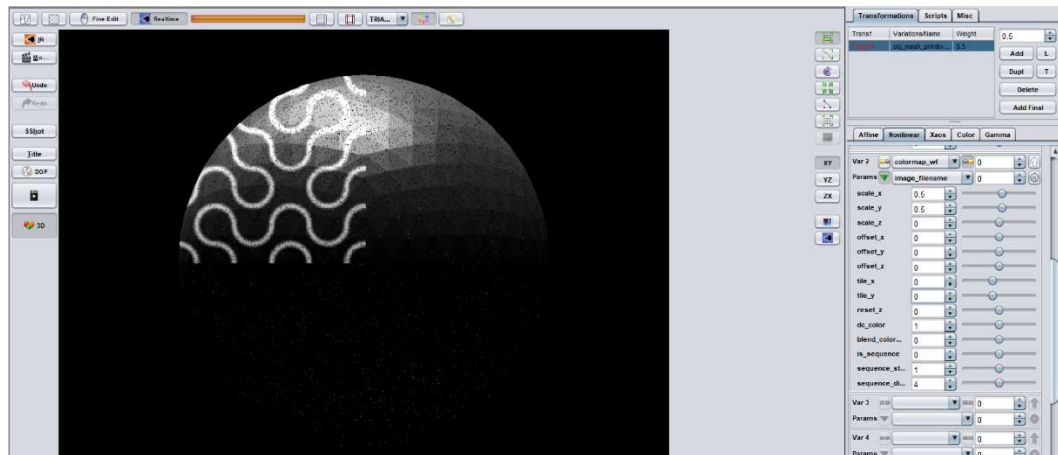
You will see this flame



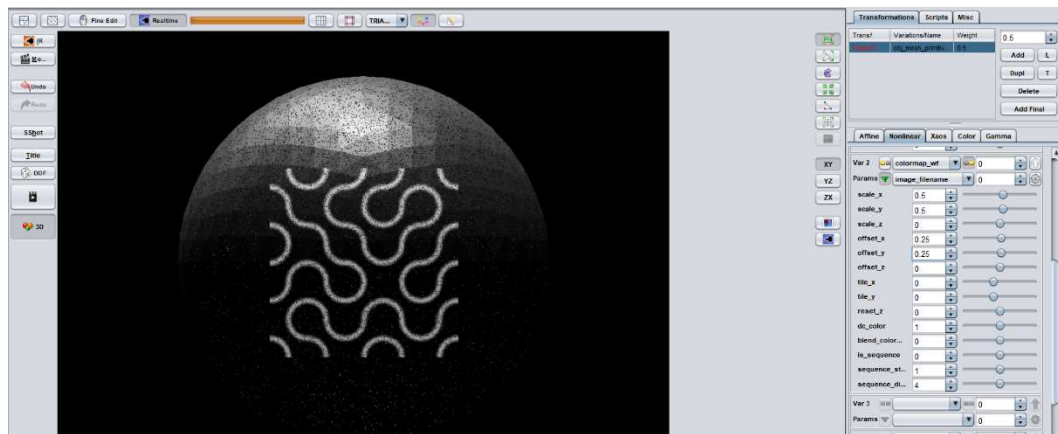
change the scale\_x and scale\_y parameters to 0.5



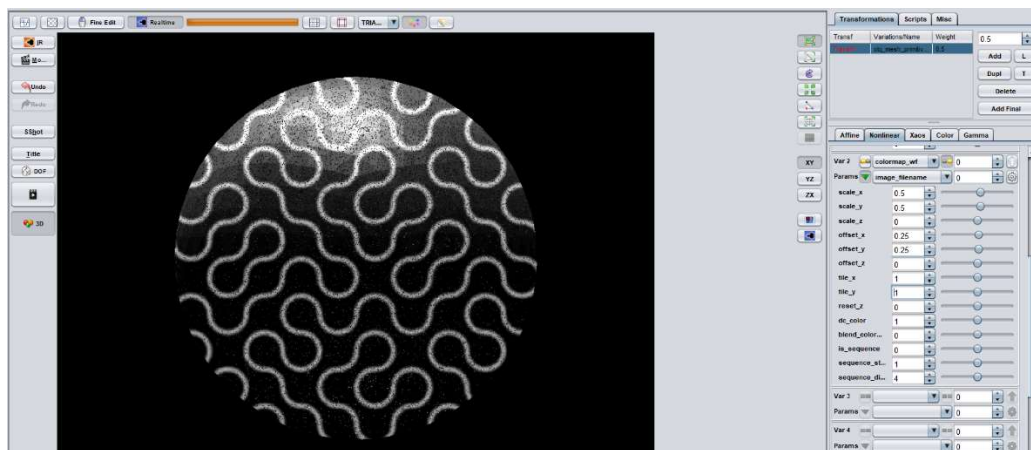
change the tile\_x, tile\_y to 0.0



Change the offset\_x, offset\_y to 0.25

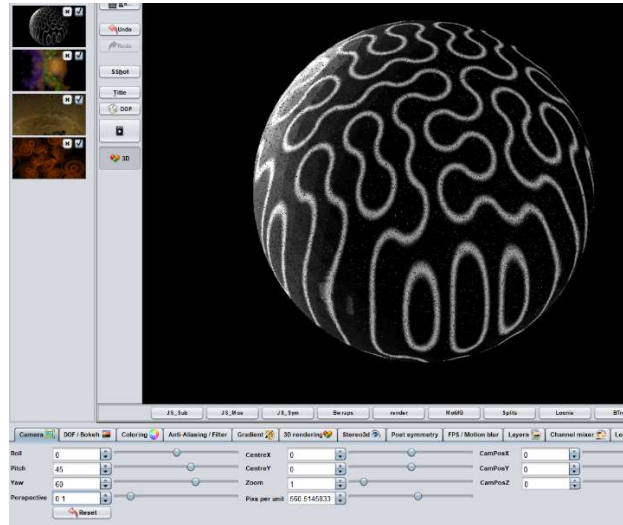


Set tile\_x, tile\_y again to 1



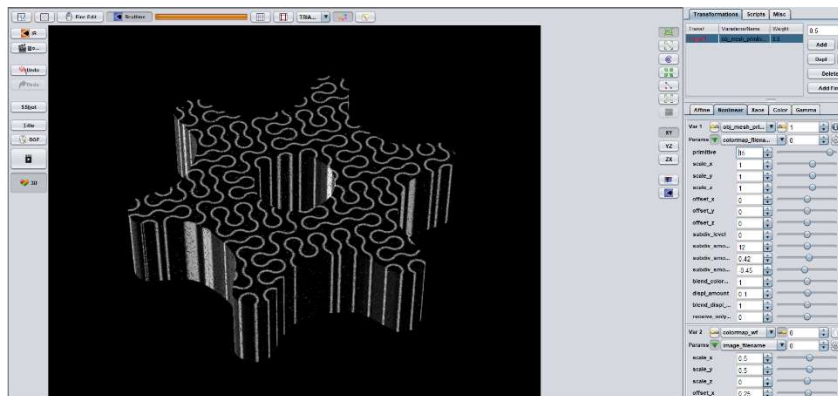
Now change the camera position with this values

Roll=0, Pitch=45, Yaw=60, Perspective=0.1

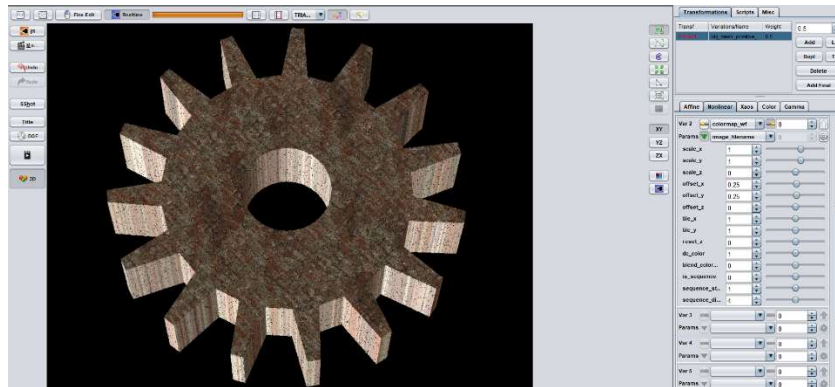


We have applied a texture file to obj\_mesh\_primitive\_wf, you can change now the primitive parameter of the T1\_Var1, to any value.

If change primitive=15 in T1\_Var1 (obj\_mesh\_primitive\_wf) you will see



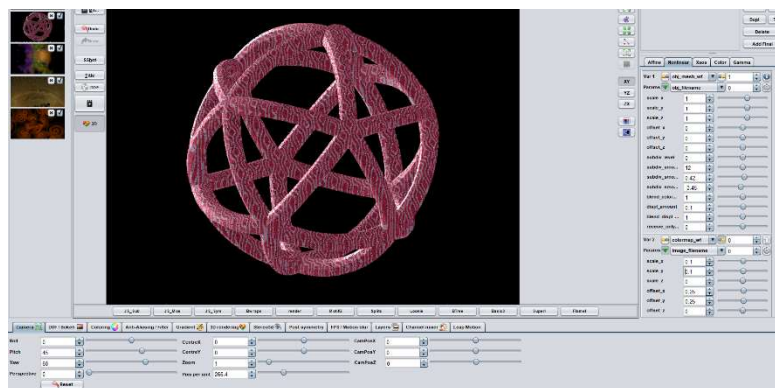
Try changing different texture files , scale\_x,scale\_y for colormap\_wf and different primitives for obj\_primitive\_wf, and render in 3D mode.



## Exercise 2

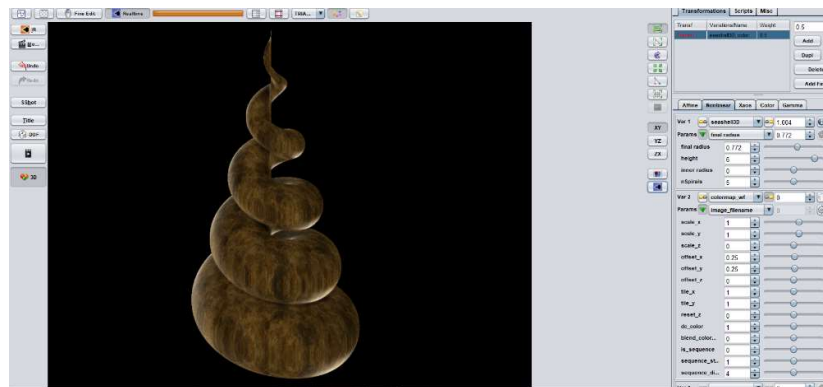
Now we are going to try with another variation, “obj\_mesh\_wf”,

Start with the flame generated in excersice 1 and replace T1\_Var1 from obj\_primitive\_wf to obj\_mesh\_wf, and peek for obj\_filename the file “icosahedron.obj” in the mesh directory, change the texture file to 1006.jpg and scale\_x,scale\_y equal to 0.1. Render in 3D mode



## Exercise 3

Start with the flame generated in excersice 1 and replace T1\_Var1 from obj\_primitive\_wf to seashell3D, change the texture file , scale\_x, and scale\_y. Render in 3D mode



#### Exercise 4

Start with the flame generated in excersice 1 and replace T1\_Var1 from obj\_primitive\_wf to parplot2d, change the texture file , scale\_x, and scale\_y. Render in 3D mode

