

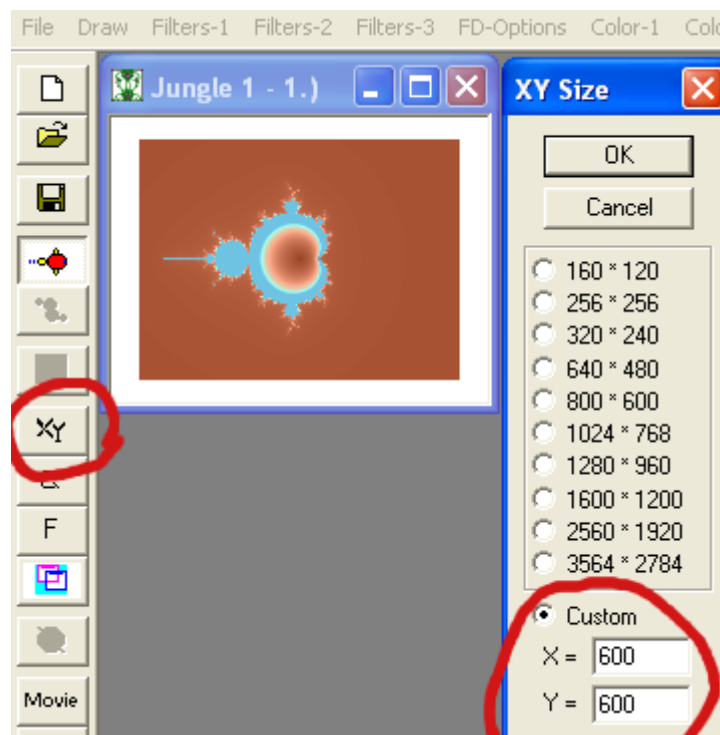
Finding Julia Sets On A Mandelbrot *Using Tierazon*



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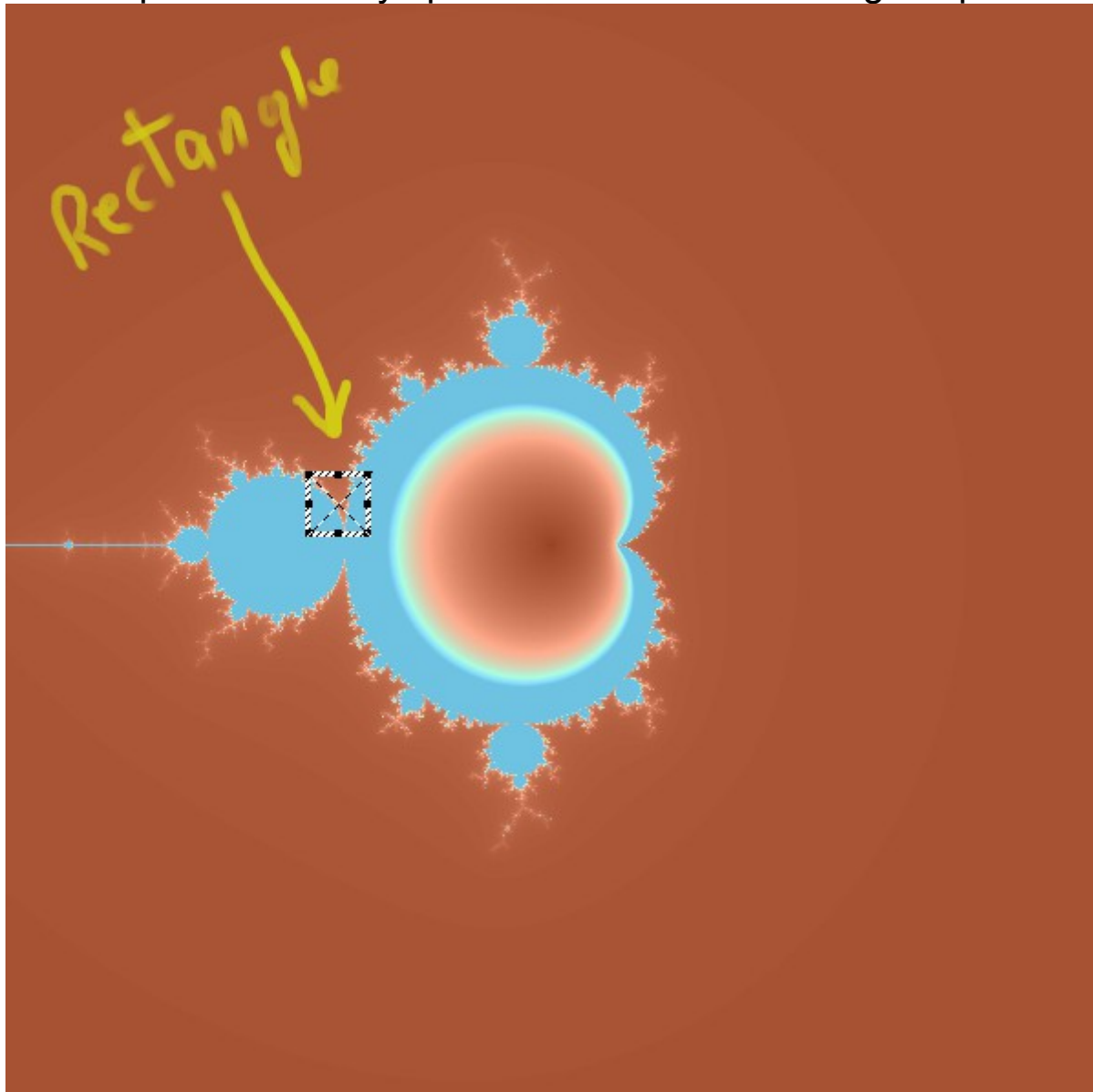
The coordinates around the edge of a Mandelbrot can be used as seeds for creating beautiful Julia set fractals. Gimp's fractal explorer sadly doesn't have this ability but most dedicated fractal software does. I'm using Tierazon for this tutorial because it is my favourite fractal generator and is very easy to use. The Mandelbrot can be seen as a kind of visual catalogue of Julia sets and this makes it easy to browse the shapes you want to play with.

1. Open and maximise Tierazon and you will see a tiny Mandelbrot in the top left hand corner of your screen. The first thing we want to do is enlarge this to a workable size. Click on the XY button on the left hand side of your screen, then select custom and type 600 into the X and Y boxes.

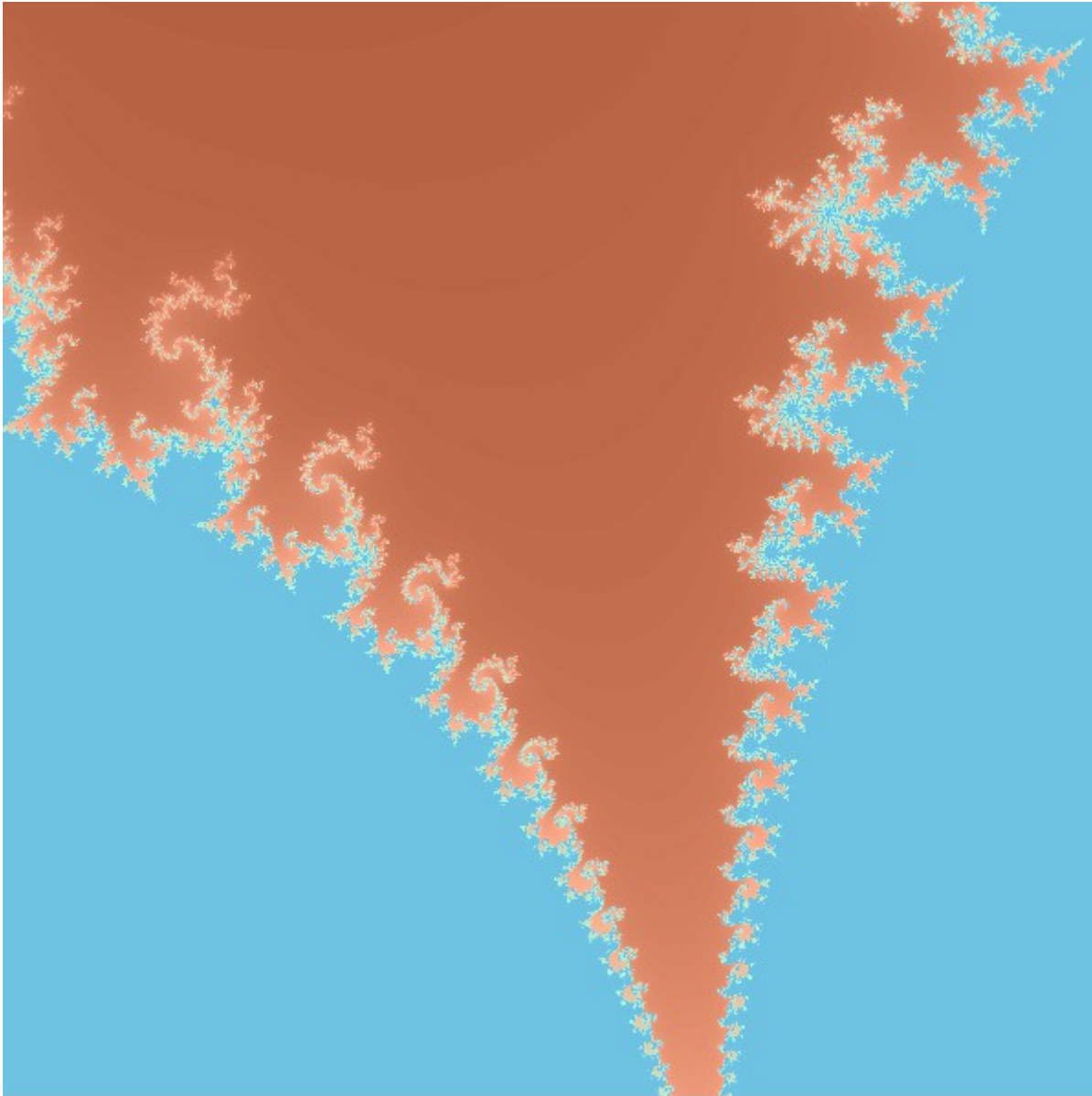


Click on OK and you will have a better sized image for working with.

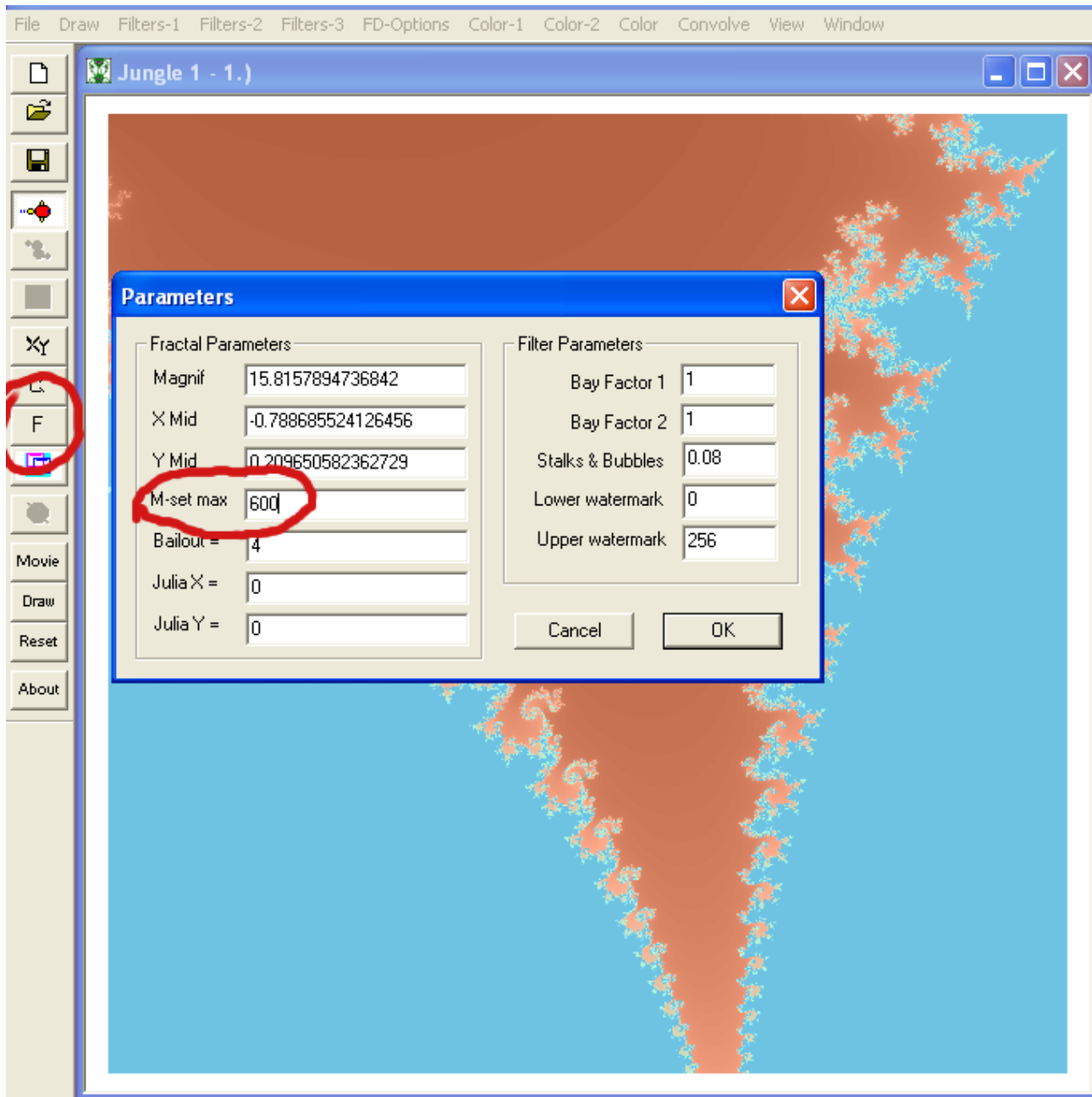
2. Click and drag a rectangle around any point on the edge of the mandelbrot – somewhere in the deep V is a good place for swirly spirals and other interesting shapes.



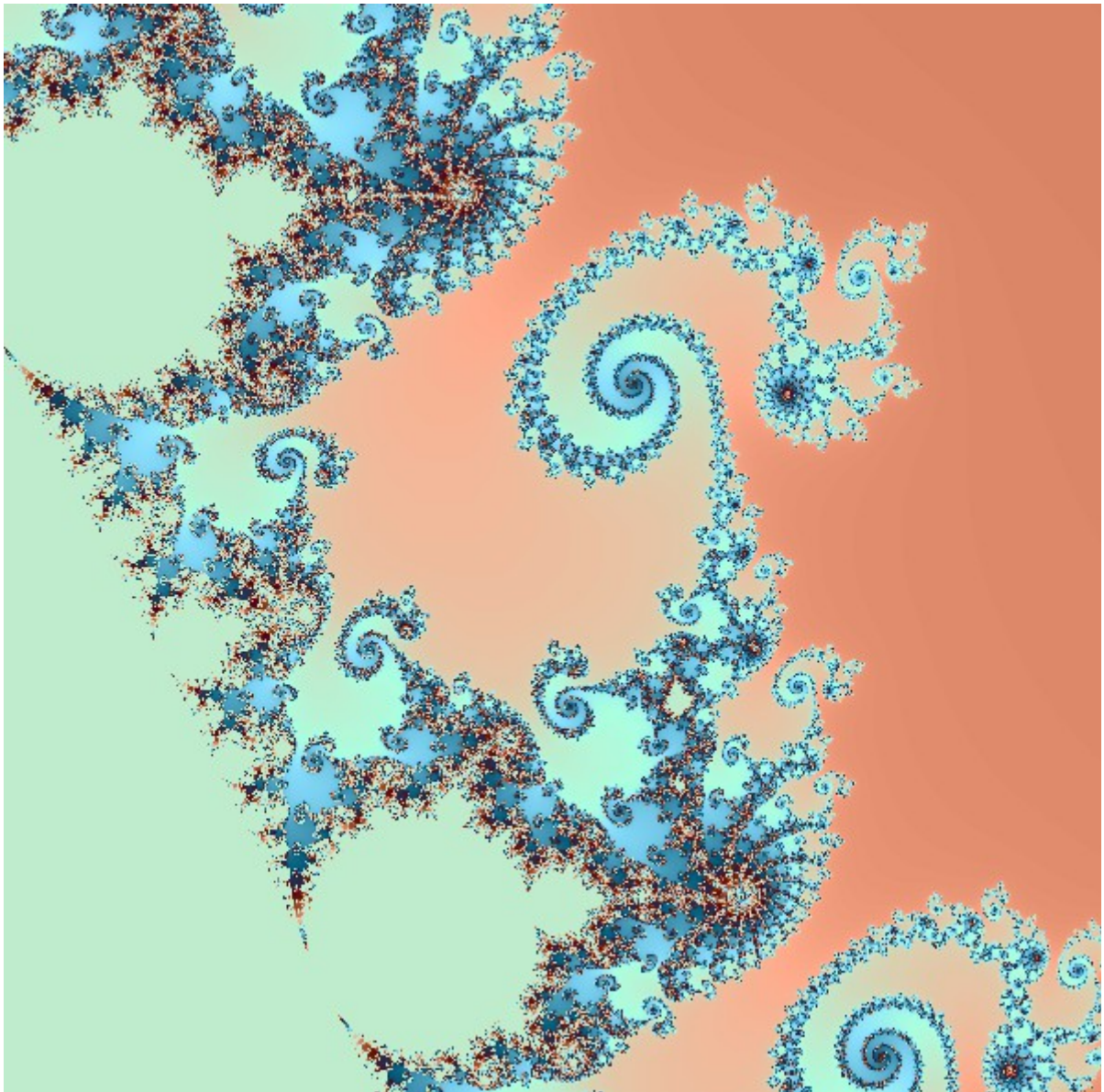
3. Right click the rectangle and choose zoom in.



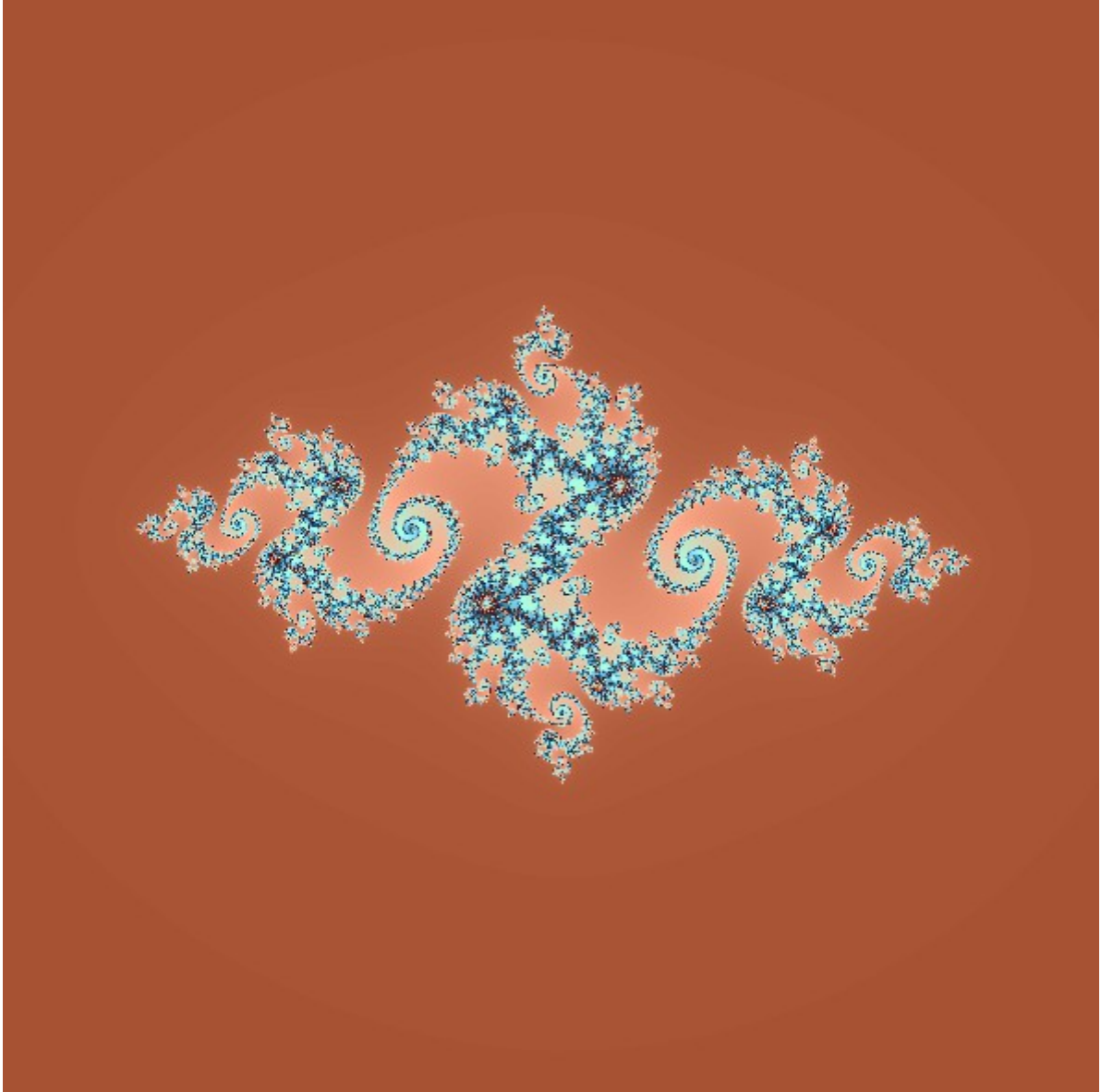
4. We are starting to see those interesting shapes but we want to make them more interesting by increasing the iterations. Click on the F box on the left of your screen and find where it says M-set max. Change this figure to 600 and click on OK.



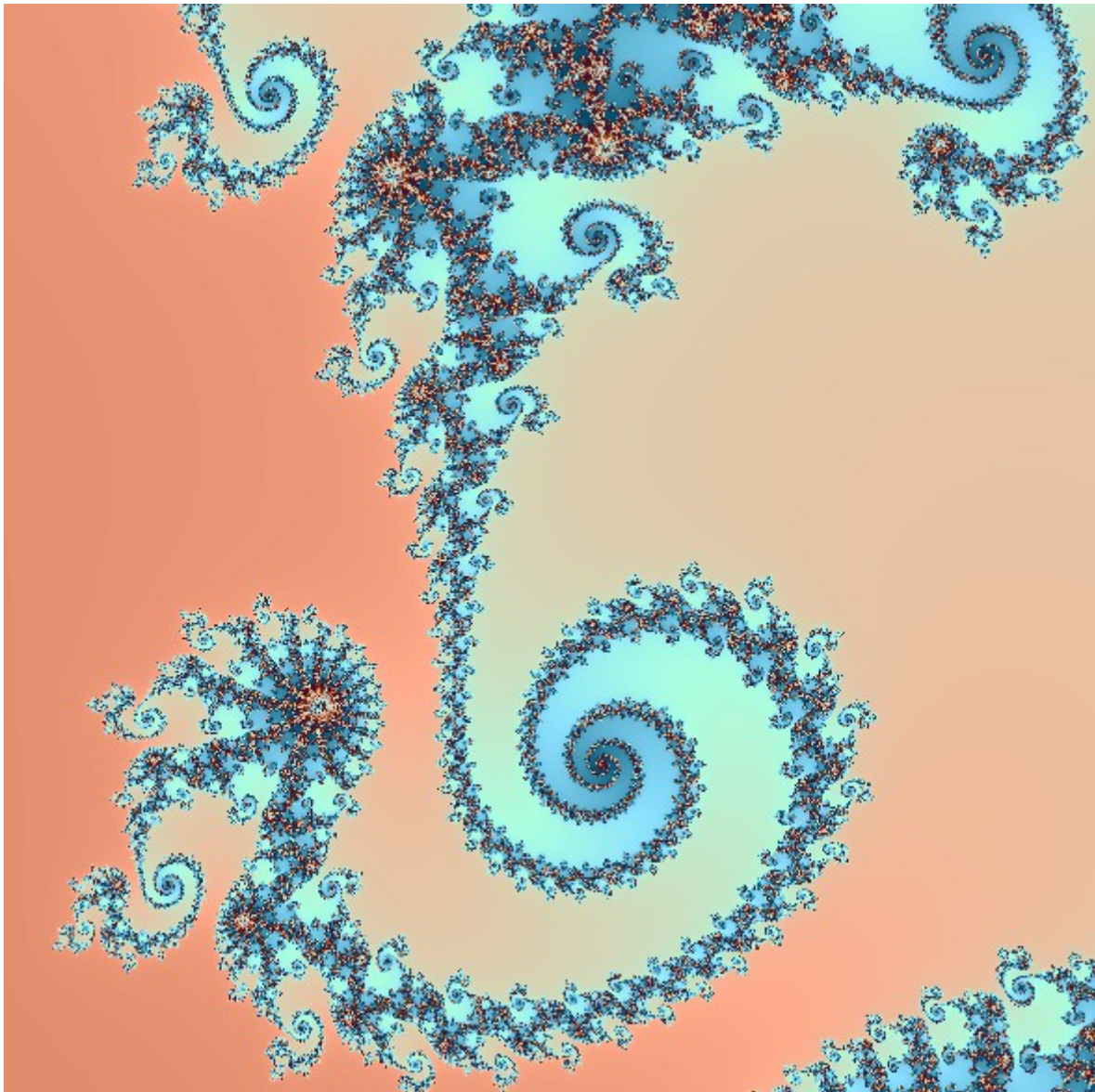
You can now zoom in further to find a pattern that you like.



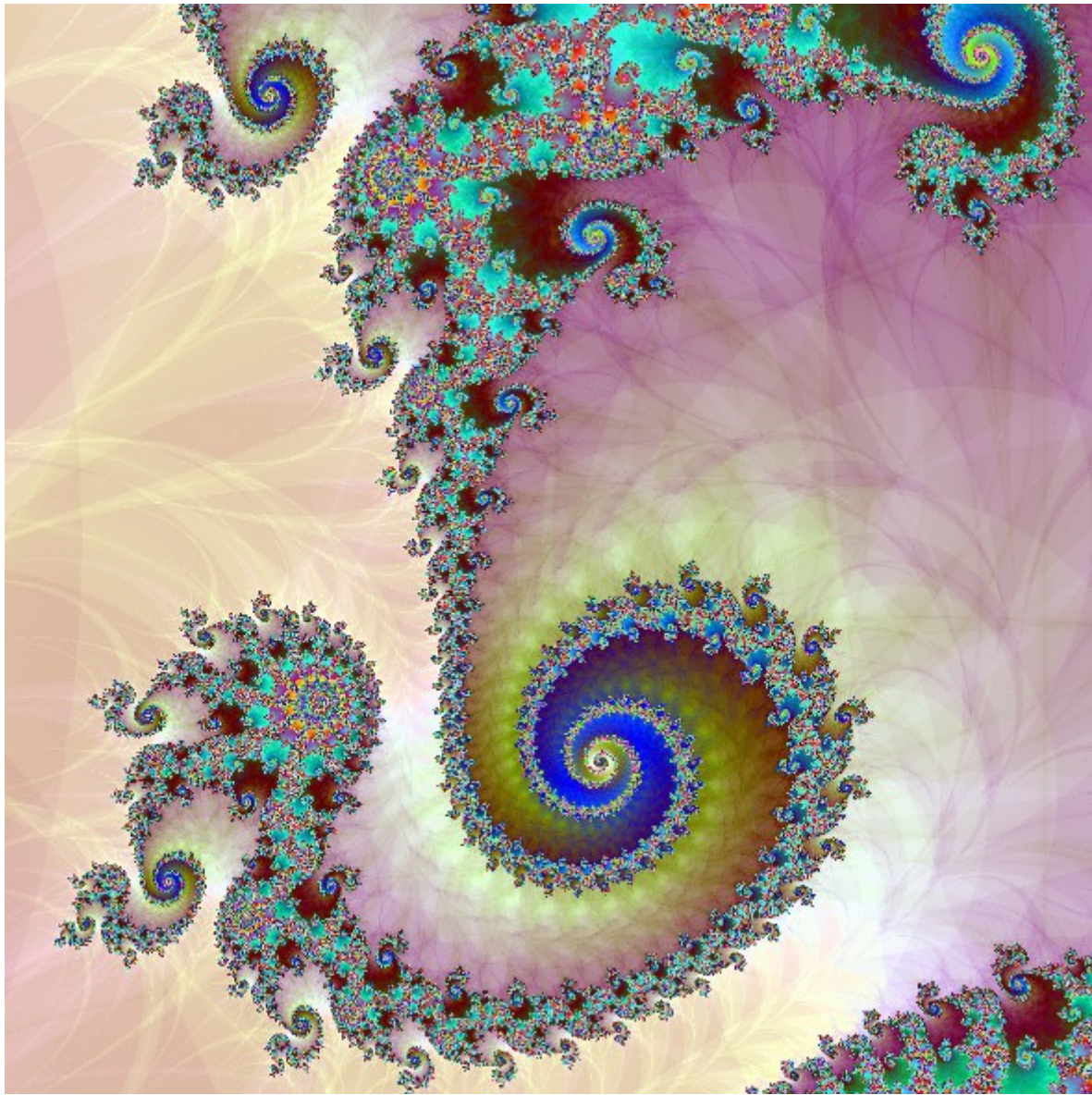
5. Drag a rectangle around a part that you like, right click and choose Draw Julia and you will have a Julia set made up entirely of this pattern.



7. Zoom in to a portion of the Julia that you like



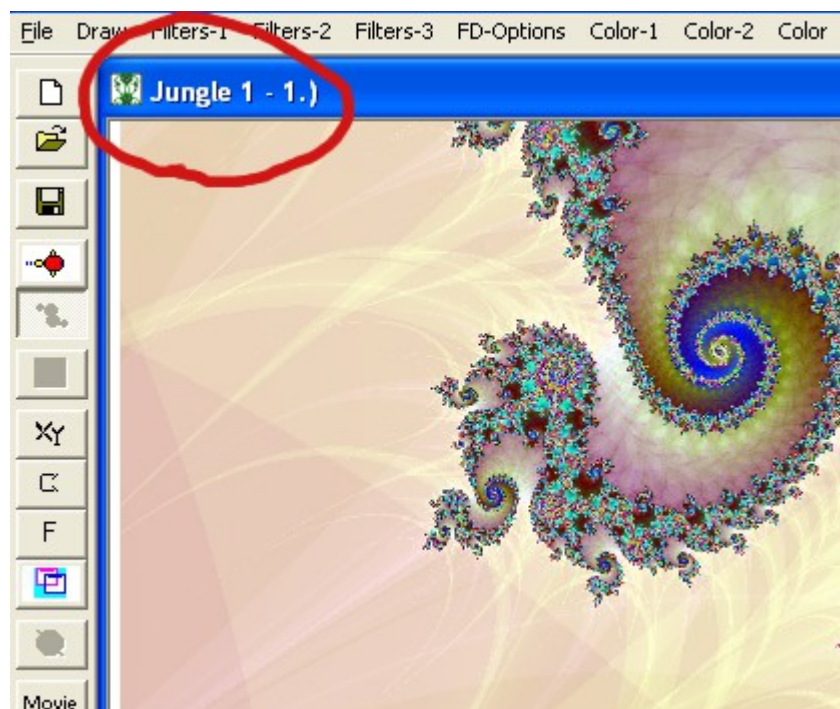
8. We can make it more interesting by adding a filter. Here I have used Filters-1 > X-ray Hi/Lo stalks.



To perfect our image we can antialias it. Tierazon uses a 2:1 size reduction for this purpose so we first need to double the size of our fractal. Click on the XY box and change the custom settings to 1200. When you click on OK you will notice some numbers in the top left corner of your fractal window. This means it is still calculating. Leave it to finish.



When finished this will change to...



Now click on Convolve>Anti Alias and your fractal is complete.

