

8) The Path to the Mystery

In the article 4 about the complete Lesbian Mystery the following question was asked: Now the intelligent reader for sure wonder how the parameter value:

$$c = -0.770930796610917792 + 0.116025116127935824i$$

that is responsible for this sophisticated Julia set could be found?

Since this parameter value is a coordinate in the parameter plane, that is the c -plane, where the Mandelbrot set resides, and the mentioned coordinate happens to be situated in the border of the Mandelbrot set, the answer to this question is a deep zoom in the border of the Mandelbrot set against the coordinate responsible to our sophisticated Julia set.

The yellow rectangle in each image denote the following image. Finally

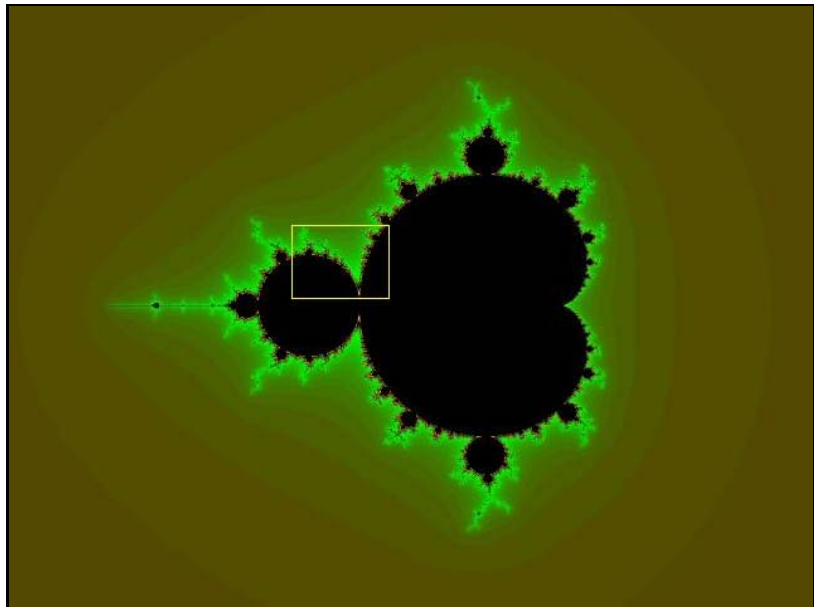


Fig 1.

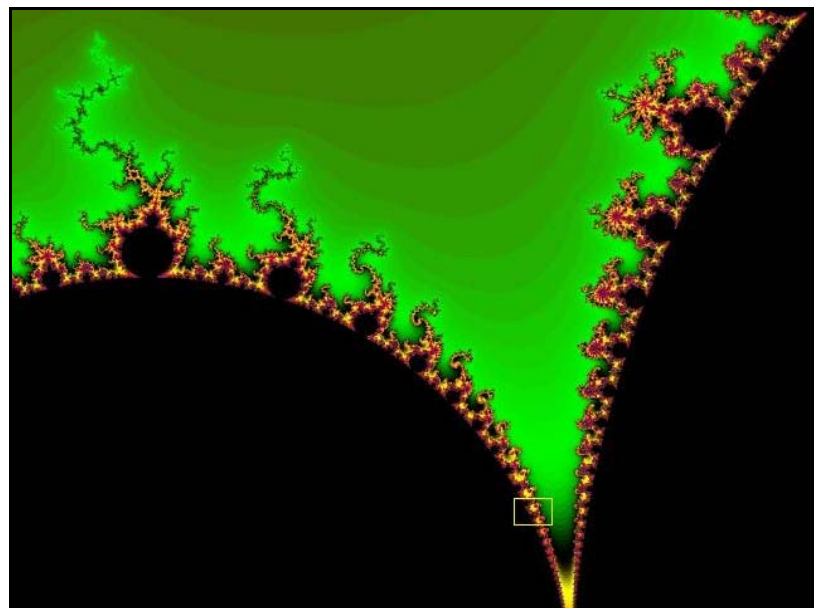


Fig 2.



Fig 3.

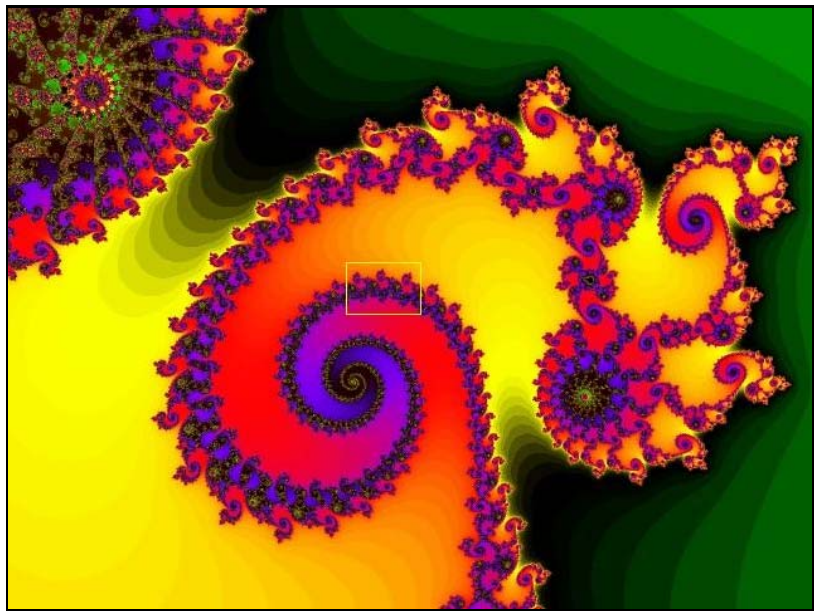


Fig 4.



Fig 5.



Fig 6.

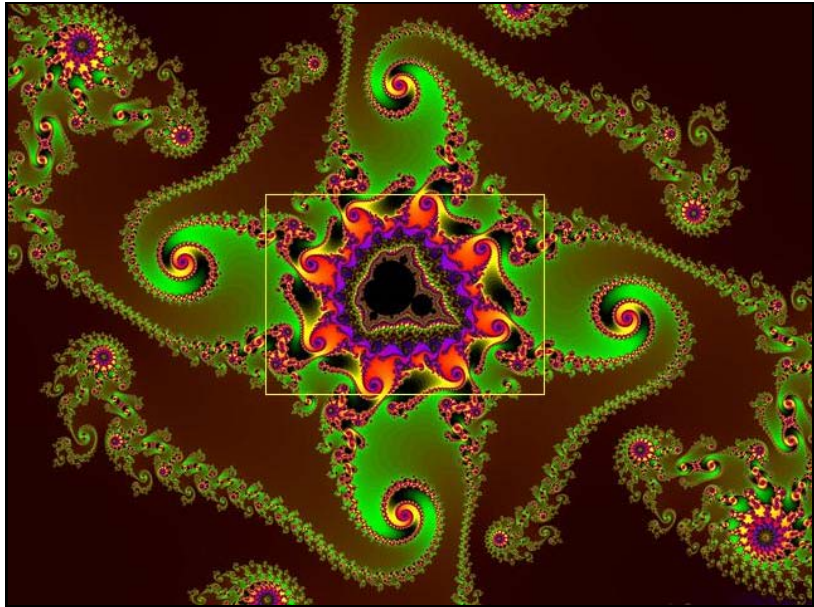


Fig 7.



Fig 8. The yellow dot marks the coordinate (=parameter value) responsible for our discussed Julia set

we land at a copy of the Mandelbrot set.

From the aisle of this minibrot, marked with a yellow dot in figure 8, the parameter value responsible for the above Julia set is picked up. As the parameter belongs to the Mandelbrot set, the Julia set is connected.

Note the very resembles the unmagnified Julia set has to the filaments around this minibrot, that is an infinite hierarchy of 2-armed spirals and 14-armed stars. As the parameter value is picked from the aisle of the minibrot, the enclosed regions of the Julia set has an infinite hierarchy of aisles.

Exercise: Zoom in closer to the minibrot an use the Switch Mode (if you have UF) to produce Julias with parameters from different locations in the minibrot (and even a little bit outside it). The unmagnified Julia sets will be almost identical. The visible differences will occur in the bridges.

Regards

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