

## 8) The Path to the Mystery

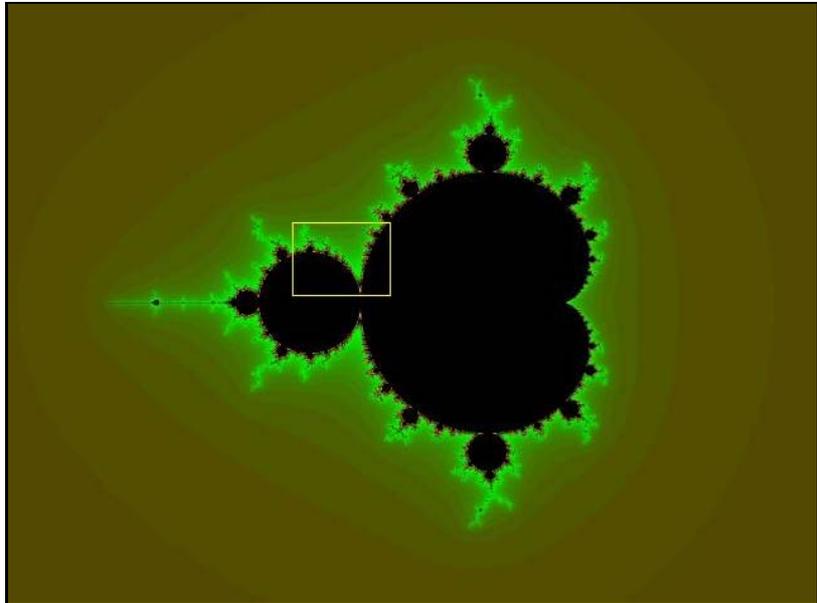
In the article 4 about the complete Lesbian Mystery the following question was asked: Now the intelligent reader for sure wonder how the parameter value:

$$c = -0.770930796610917792 + 0.116025116127935824i$$

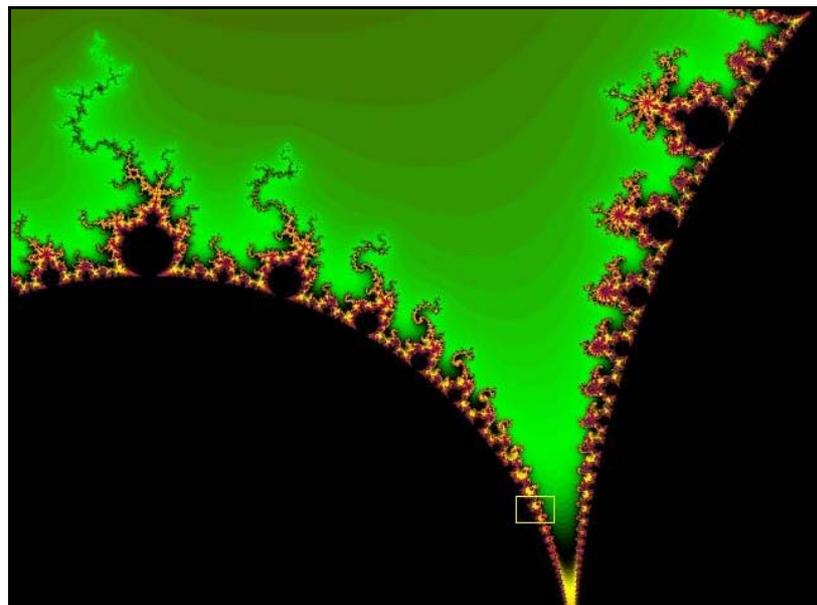
that is responsible for this sophisticated Julia set could be found?

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



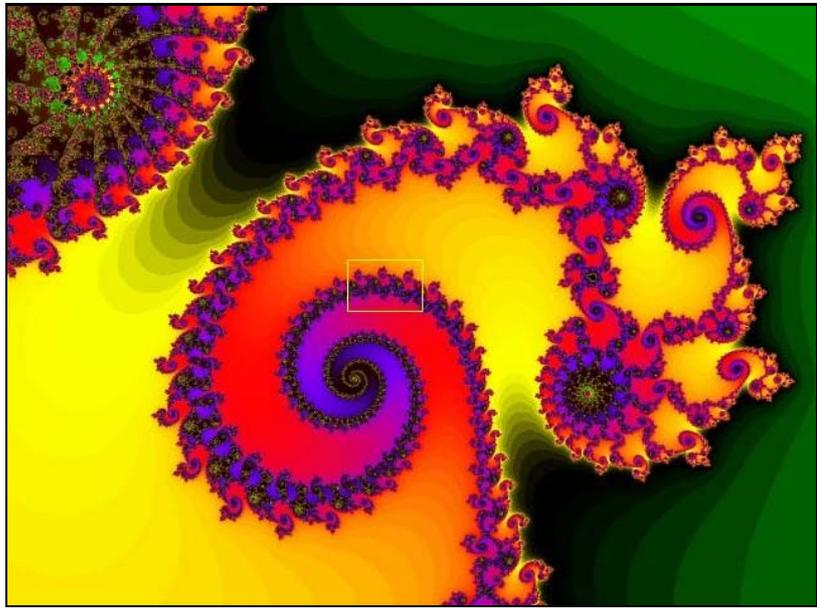
**Fig 1.**



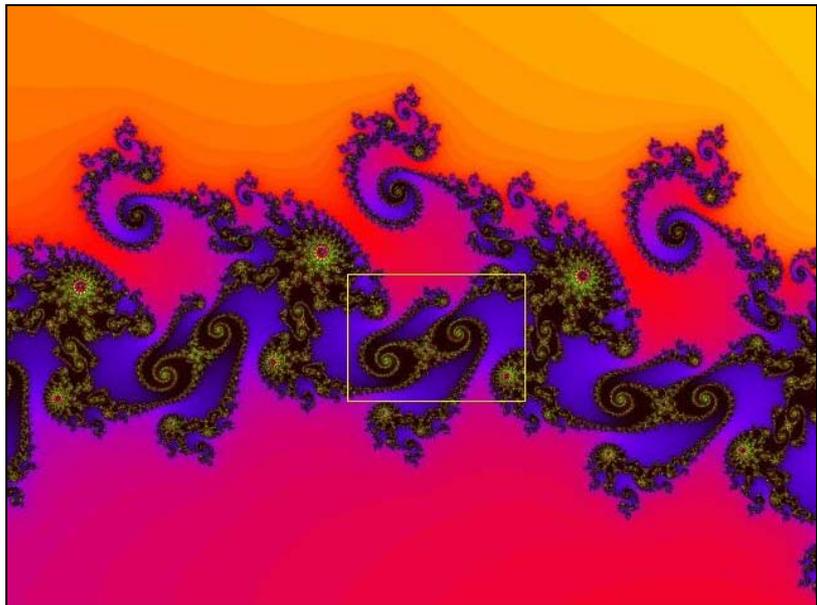
**Fig 2.**



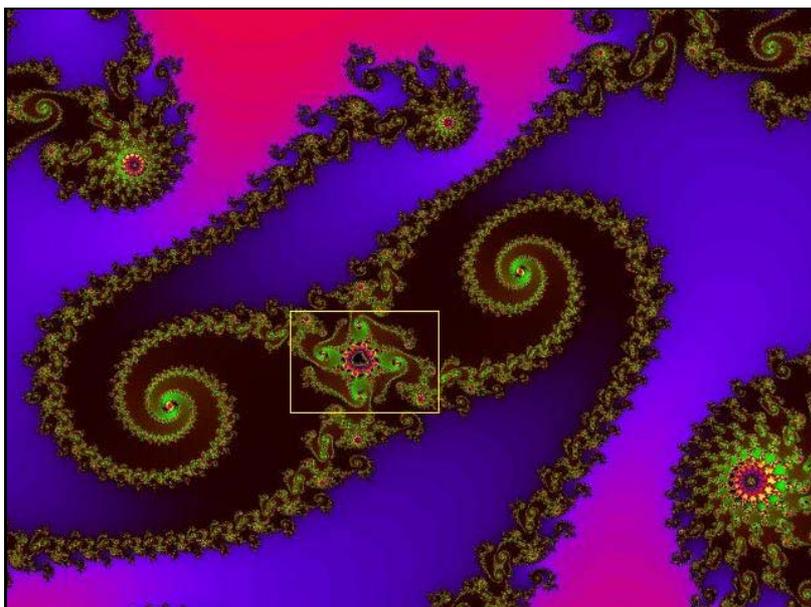
**Fig 3.**



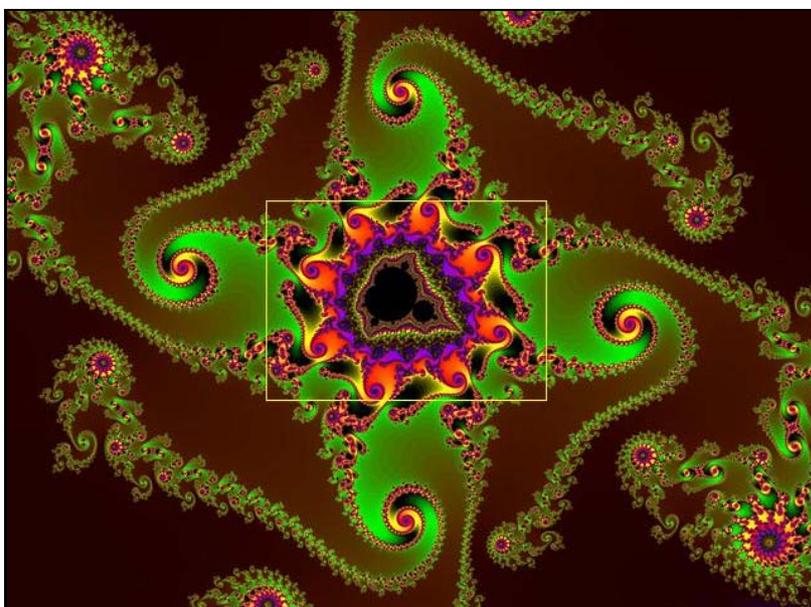
**Fig 4.**



**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.

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Regards

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