# MANIFEST
"A FOOL'S ERRAND"

FRACTAL - PORTRAIT / CANVAS PRINT
68 x 140 CM
Edition of 3 + 1 AP

On the constant search for shaping things at one point fractals came up. The first glimpse of a fractal I had was with the Mandelbrot Fractal, found as a function in computer-graphics environment.
It is a 2 dimensional pattern which has self similarity on any scale. Meaning you can zoom in for ever and it always repeats. This is proven and perfectly works in 2 dimensions.
I was intrigued by its shape and wondering on its applications even thou I disliked the form. It has something invasive and unfriendly.

Then people tried to make it work in 3 dimensions. Namely Daniel White contributed a lot effort on it. But here the fun starts. It is not clear if this can work at all in 3 dimensions. Daniel writes about his journey on his website [https://www.skytopia.com/].
He describes his process from euphoric beginning to doubt about the whole question and whether his is just following a fool's errand and there is no solution at all for the problem given. But at the same time there is already a lot of energy invested in it.
Everyone trying to build things knows the doubt occuring about ones doing at a certain point.
Later on the journey Paul Neylander [http://bugman123.com/] joined and introduced a new idea. He started computing the fractal with rotation-formulas instead of positions.
The visual results are quite extreme. But it is still not clear if the self similarity exists into eternity. So back to the fools errand.

With one of the formulas from Paul I have been experimenting in the virtual 3d space. I had it compute in a given volume with a certain resolution - both defined by the amount of memory available.
The Fractal-Space Image has been created with a modded version of the formula. Meaning I played with changing parameters and observing what happens. In a way like synthesizing the sound of its shape.
Now if we dive with a virtual camera into the computed volume we experience a devastating richness of forms and spaces.
Playing with regular Camera and Light parameter I created this actual 2 dimensional image from an impossible 3 dimensional structure.
Then I tried to create more images with the same set up - me getting greedy.
Notable is the fact that I went on a journey for 2 weeks seeing hundreds of interesting and inspiring things until in the end I gave up with a headache. No other solution brought up an image with clear structure and appearance. They were interesting, beautiful, strange, inspiring but none worked out as an image per se. This started to feel like the fool's errand. But the one portrait-format image from the start of the journey was there and I went on.
A year later with fresh eyes I was able to create a Series of 4 more fractal-space images in square format. Since they were computed in a regular cube instead of the long cuboid base shape from the first attempt it was a fresh start. Funny-wise it exactly created 4 interesting images and not 1 more..
Now whether self similarity or not this whole fool's errand turns out to be promising. The relation between invest and result is neither rational nor linear. In this sense thank you Daniel and Paul for being foolish.
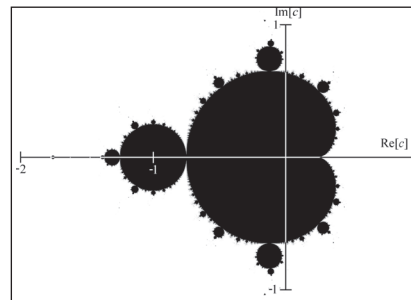
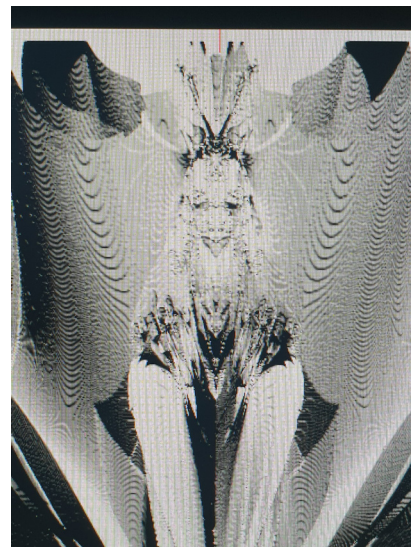
2 Dimensional Mandelbrot Fractal

$$\{x,y,z\}n = rn\{\cos(\theta)\cos(\varphi),\sin(\theta)\cos(\varphi),\sin(\varphi)\}$$
$$r=\sqrt{x2+y2+z2}$$
$$\theta=n\ atan2(y,x)$$
$$\varphi=n\ \sin{-1}(z/r)$$

The formula from Paul Neylander's research.
If executed iterative (n) it creates a Hyperfractal.

Figurine found during journey in Fractal.

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