

Abstract of the doctoral dissertation

written under the academic supervision of

Dr hab. Janusz Rafał Głowacki, prof. nadzw. UJD

*"HERMETIC FORMS OF A FRACTAL NATURE"*

Mgr Justyna Warwas

The PhD dissertation deals with the subject of painterly forms, enclosed in tight, hermetic areas, the character of which refers to systems of fractal forms.

The last few years, before the so-called "COVID-19 era," I spent a lot of time traveling. A closed cabin of an airplane, located somewhere high above the clouds, which on the one hand leaves us at a safe distance from "earthly" problems, but on the other hand is a kind of trap from which we cannot get out for a strictly specified period of time. When tens of thousands of kilometers separate us from home, when time brings thoughts of longing for a place that is close to us, a lot of reflection occurs. For me, the frequent trips were an attempt to find my place on earth. And although I haven't found it yet, I've managed to realize which places are important, more important and most important to me, and which have shaped my personality and character, ones I can return to in order to feel safe. A rather obvious set of questions about self-discovery in new situations and how these "new" ones affect perceptions of the "old" ones are popping up in my mind. Hermeticism is a kind of separation of thoughts or behaviors so that their connections with other thoughts and the rest of our lives, are severed. The process in which we try to find a discursive definition of the dormant conflicts, feelings, thoughts in order to control them.

The etymology of the word "hermetic," meaning hidden and tightly sealed, co-

mes from Hermeticism, a philosophical movement. It has its origins in ancient Egypt, which was a multicultural melting pot bringing together Greek, Roman, Jewish and Egyptian peoples. Hermeticism was one of the most interesting religious and philosophical phenomena that developed in such a cultural melting pot. It is the totality of pagan beliefs, which were contained in a collection of seventeen ancient Greek treatises/dialogues entitled *Corpus Hermeticum* (created in the first century AD), and the originator of this philosophy is considered to be Hermes Trismegistos, who is most likely a semi-mythical figure, the author of thousands of books in which ancient knowledge, the legacy of antediluvian humanity, was immortalized. Despite being a non-existent figure, Hermes Trismegistos is now considered the father of philosophical thought, a prophet, a magician and even a god, a figure influencing the history of thought from antiquity to the present day. Most of the philosophical thoughts from around the world and esoteric sciences probably originated from Hermes.

While creating my compositions, which had the hallmarks of concrete art and were by design closed compositions, I realized that they were a kind of protective shield for me. The tightly closed geometric forms, surrounded with a flatly painted color patch, show that metaphorically I wanted to enclose in the paintings particles of nature and memories that form, like film stills, evoking a whirlpool of positive emotions. Since I was a child, I have been told that what is around us is a kind of gift, and we are guests who must take care of the world around us. The pieces of nature we interact with have evolved into forms inspired by the fractal structure of the world.

Different individuals' perceptions of what safety can be, can vary widely. Safety is a kind of condition that guarantees the individual's ability to develop. A sense of safety is one of the most basic needs. When it is lacking, we notice that a person develops frustrations, anxiety and insecurity. In a broad sense, isolation (hermetici-

ty) can be a remedy for the external factors that threaten people. It arises when we have a natural need to protect certain people, values, beliefs and things that have special meaning.

In my works, this hermeticism does not stem from a desire to cut myself off from the world and people, but from the need to preserve important memories, traces or energy of places and the current state of painterly consciousness.

These are painterly records of the past combined with contemporary meanings and traces. The idea is to show what has long been stored in memory through contemporary means of artistic expression and current interests.

Since the beginning of civilization, the important issue for people has been to find their place, to find themselves in a specific space that for the purposes of residence, rest and refuge. It is particularly important to find and define that place, as it affects the perception of reality. The place of memory is the subject of study not only of history and sociology, but also of philosophy, which captures this issue in the search for the truth about people and their ability to get to know themselves and the world around them. Philosophical research deals with both individual memory, a certain investigation and attempt to apprehend events, and collective memory, synonymous with national and social identity.

We cherish and cultivate memories, but this is followed by a paradox - we strive to build a network of memories, as well as we can, on the one hand, while on the other hand we want to live in the present without looking at the - sometimes dramatic - memories. We want to live in the present moment, while indulging in memories and reflections on the past.

Chaos became the guiding theme of my painting explorations, until it has led me to the world of fractals. The road has been quite bumpy, but also significantly varied. "Fractal-like" forms already appeared intuitively in the first cycles, although

completely unconscious and unnamed at the time.

There is no single, precise definition of fractals. It is often said that a fractal (Latin: *fractus* - *fractured*, partial) is a curve, surface or solid, but not in the sense of classical geometry, arising in the process of successive division of a figure. Multiplication. Ambiguity. An object that is self-similar or infinitely reproducible in form.

Fractal structures shape tangible and intangible entities, create time. Surround everything. And are everything. This amazing news builds a whole new perspective of our reality. A fractal is the essence of every shape, every value, every space, and makes even seemingly chaotic areas form internally a peculiar order. All that is known so far is that the repetition exhibited by this being is found literally everywhere - from simple forms of matter, to space-time and potential dimensions of time.

Research in recent years, conducted by such researchers as Hamein, Lungold, and Mandelbrot, has been somewhat illuminating the very formula of fractals and their properties in the world around us. A fractal is a feature of matter. It is a shape, equal to some whole as well as its smaller components. If we notice that a certain particle is identical to a larger one, an even larger one and the whole of a given thing, we are dealing with a fractal. And as the latest research reports - the entire universe is based precisely on fractals. And in an amazing way.

The phenomenon of fractals can be most clearly conveyed by the example of nature that is close to us. For example, fantastic repetitions were noticed in the forest. So if this is the case, then fractal repeatability is observed in nature:

- atmospheric phenomena,
- human nervous and circulatory systems,
- snowflakes, floodplains,

- clouds, lightnings during storm,
- arrangement of the rocks, structure of the cone,
- in the heartbeat

However difficult it is for us to understand their perfect characteristics - fractals give a sense bordering on certainty that there are more of these phenomena in the universe than we can imagine.

In each of my paintings of this series, there appears a structure resembling the tissues of a living organism viewed under a microscope. The form, which approximates the shape of trees, is the main carrier of the image. Heavily fragmented in the center, but at the same time with a clear contour, woven from a grid of fine lines and points, it is surrounded by a uniform, flat color patch.

The structure I used has long been present in my works. It was already used in the first major painting series, has been repeatedly modified and fulfilling various roles on canvas. This time, it served to clarify and plasticize the issues that had been swirling around fractals for years, so that they finally now became a real and tangible subject that I could show in a series of paintings. Many natural objects are fractals - including trees. Plants, as they grow, assume certain fractal algorithms in their developing shapes. Snails do the same, building spiral, almost always right-handed, shells. Fractals are contained, among others, in bird feathers, patterns on crocodile skin, our fingerprints, waves of sand in the desert, cloud systems or spirals of galaxies and areas of nebulae.

One can conclude that the whole reality is an entity with fractal characteristics, that all elements of reality interpenetrate each other, and that in such a mystical way the entire universe is interdependent and contained in each small fragment.

In the spaces of my paintings - which are built mainly on scraps of memories of landscapes and places - I have consciously dispensed with a marked horizon to de-

lineate perspective and build the illusion of depth. Objects levitate in the space that surrounds them, causing solids to float in an undefined sphere, giving a sense of associative and symbolic depth, acquired through color contrasts.

The paradox embodied in my works lies in the hermetic and tight confinement of objects with fractal structure, which in their natural place are rough, irregular and evade all rules for their calculation. In an effort to bring order to the chaos, the matter in my paintings has been drawn into a certain framework to keep the whole composition on canvas. Along the way, a few of them become an experiment of sorts, slipping out of the boundary that had been set for them earlier and going beyond the dimension of the canvas, but for me they are always a moment of entering the painting, not an attempt to escape it. They are an example of object control on canvas, an analysis that seeks to tame chaos and something such undefined as fractals. Their complexity and diversity were all the more challenging for me as I tried to encapsulate the whole range of these features in the field of the painting. Flexible forms that are an answer and at the same time a question about the condition of the world around us.

As I worked on each of these paintings, with an infinite number of possible combinations of fractal arrangements in my mind - which themselves can be copied indefinitely - I decided to reduce the number of layers of painting as much as possible. Unlike the previous series of paintings, where the number of layers sometimes oscillated around 30-40 or more. For greater clarity and to clean up the space between objects.

All of the phenomena described, all of the smaller and larger discoveries that emerged during the writing of this work, outlined to me unequivocally that the totality of everything around us is inextricably interconnected. Every shape, every living organism has an impact on the universe around us. We are linked by a certain web of events, like a forest communicating through its roots. In the life cycle of the

earth, we are hermetically linked to its every particle, every fractal.

Unity of people and nature. An unbreakable bond that manifests itself in everything we touch and experience. The very discovery of these correlations laid the groundwork for at least several painting series, was an inspiration in photography, and was seen in many of my drawings. Looking for inspiration in the universe around us is like an endless journey into ourselves and into nature. A journey that spans 47 million years... A journey during which several Earth extinctions have taken place as a result of global environmental factors. A journey that, with human interference with life on Earth, is probably approaching another extinction in the Anthropocene epoch.

*We are our memories - they are what builds our identity.*

*Agostina  
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*Justyna Wawrzyn*