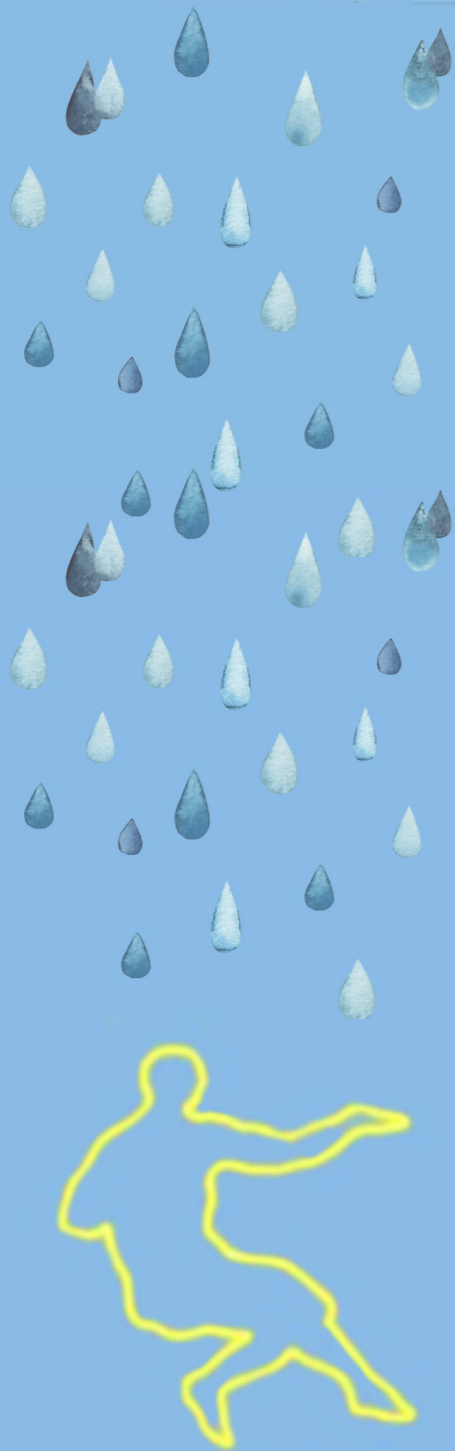


• Było
Sobie
Zycie

A stylized green vine with several leaves, positioned to the left of the title. The vine starts near the top of the word 'Zycie' and curves downwards and to the left, ending near the top of the word 'Było'.

Marcin Janusz



Marcin Janusz

Once Upon a Time... Life

PhD Project
Academy of Fine Arts in Krakow
2023 KRAKÓW

PROMOTER

dr hab Zbigniew Sałaj prof ASP

Once Upon a Time... Life

When tree roots want to speak, when a whole lot of the past, old tales, ancient histories have gathered underneath the turf, when too much hurried whispers have accumulated under the roots, that inarticulate pulp and that breathless dark which is before every word — then the tree bark blackens and breaks coarsely into thick scales, into deep ridges, the core opens up in dark pores, like a bear's fur.

Bruno Schulz, „Spring“

We see a muscular and featureless giant, standing defiantly, his feet astride. He is holding white, uprooted trees. The latter look like humans melting, squeezed with his huge hands, and their bodies, under the influence of such a great force, are dripping a sweet substance straight into the ground. The scene takes place in a wilderness, a dense thicket, pierced by shafts of sunlight falling on broad branches of old trees, overgrown with moss. The landscape is overshadowed by strange, organic patches, reminiscent of microscopic images of human tissue or other microorganisms. The convex bubbles are constantly working, forming an impression of a living and transforming foam. We get the impression that, ultimately, as if they hid a species of new Aphrodite, something will emerge.

My paintings are vehicles of numerous stories, forgotten symbols and entangled meanings. In this sense, Once Upon a Time... Life is a tale of beginnings: of life, art and the world as well as their inevitable end and eternal return. Hypothetical answers about origins of life are delivered by both science and culture as well as mythology. And each of those domains drafts its own, frequently contradictory and mutually exclusive scenarios. My series of paintings refers both to scientific research from the fields of chemistry and biology as well as to primeval beliefs, fables and legends, which are situated in contemporary times in an exploration of the very structure of myth, blurring the boundary between the rational and the intuitive. In other words, I understand the painting to be a transgressive point - an



„A Man Uprooting Sweet Trees“

oil on canvas, resin, sugar

200 x 150 cm, 2021

equivocal history, meanings of which are never-ending and never close, but rather operate as a rhizome, making an impact on the imagination and connecting to other stories - those we know and those that will only become.

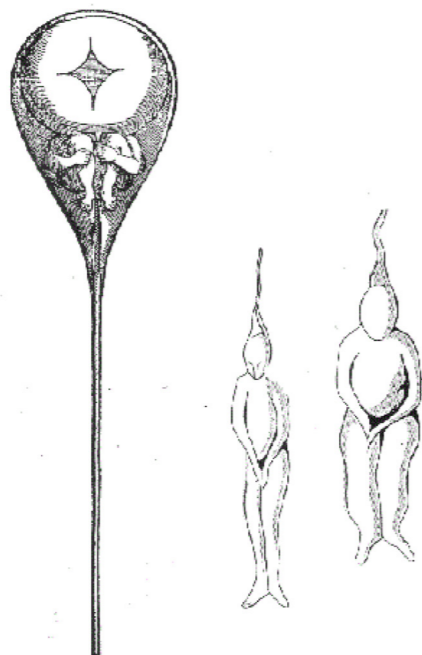
Pieces that make up the Once Upon a Time... Life project were created with an intended kind of experience that can be perceived not only by means of sight, but also through touch or taste. Impacting those senses, the paintings transcend the classical medium of painting. Employing unusual materials, such as soil, sugar or resin, I endow particular elements with a symbolic value. I take sugar to be a metaphor of something precious and good, of 'sweetness', but it is also associated with a fragile substance that, at any moment, can irretrievably melt away. Soil has a primordial dimension, related to the cycle of life and death, and resin resembles juices and fluids squeezed from bodies of plants and animals - its translucent shine and irregular shape can be referred to the abjectal dimension of biological processes. Thus, my objects and paintings have a multisensory character: a shiny texture of resin bubbles almost demands to be touched, while sugar-glazed surfaces are tempting with their sweet taste, which influences the addressee, even if they do not actually lick a painting, but only imagine it.

Once Upon a Time... Life tells the story of bodies and molecules, their relationships and connections, their compounds and dissolutions. They are static paintings and objects as well as a performative circulation of substance: its metamorphosis, transgression and transmutation. This is metabolism, which does not necessarily put matter in motion, but is, in itself, change. The title of the project refers to a French animated series, protagonists of which were biological beings, such as cells, viruses, bacteria or hormones. Those animated characters conveyed basic knowledge about the functioning of the human body in an accessible manner, simultaneously employing the natural need to create narratives as well as the characteristically human love of listening to stories.



Perhaps, the wilderness is a figure of the official history, that which nobody can access and which is rarely visited by sunlight. Whereas the giant represents social hierarchy and heartless civilisation, and the anthropomorphic roots is a homunculus, a miniature human, conjoined with the philosopher's stone, as in the Japanese legend, constantly dying only to be reborn again. But there is also another version, and other versions. Maybe the unearthed root is mandrake and the whole painting is but an after-image, a glimpse recorded on another giant's retina at the precise moment when the human-shaped plant lets out the murderous cry. Or, perhaps, it is a Daphne captured by Apollo who, like in the Greek myth, becomes a body in transition affected by the traumatic experience and, metamorphosing into a laurel tree, brings the worlds of humans and plants together. The painting, *A Man Uprooting Sweet Trees*, is an ecstatic vision of displacements and a metaphor of the endless migration of peoples, cultures and meanings. As much as the giant, demonstrating his might and agency, like the colossus from Francisco Goya's painting, is a human symbolising thoughtlessness, terror and violence, not in consequence of war, but due to the endless exploitation of nature and destruction of biodiversity, the roots—oozing their juices and painted in sugar, capable of disappearance at any moment—become a metonymy of living organisms and a metaphor for the vegetation cycle. Moreover, a representation of the latter is Jacob Grimm's Teutonic myth about the anthropomorphic mandrake root. It is not insignificant, in this context, as the plant grows thanks to a hanged man, who posthumously sows his sperm or urine in the soil and, like the mythical ouroboros, connects death and rebirth.

1.



2.



I COSMOGONIC MYTH

The myths are metaphorical of spiritual potentiality in the human being, and the same powers that animate our life animate the life of the world.

Joseph Campbell, „The Power of Myth”

Tiny humanoids travel through a thick, moss-covered forest. They walk underneath overblown mushroom caps. Old tree crowns can be seen against the background of a sunset sky. Their branches resemble a strange tangle of veins, descending into the soil. Behind the humanoids' backs, a mountain of enormous dimension looms - a giant covered in a tangle of lichens and low grasses. His clenched fist is about to pound the earth in a sign of warning...

Since primeval times, humanity has searched for the answer to the question about life's origin and the meaning of existence. Currently, information about the origins comes primarily from science and philosophy, but our previous guide to the world was religion, tightly connected not only with observations of interrelations between the earth and the sky or heavens, but also of life in symbiosis with nature. Myths assisted humans in our understanding of surrounding reality: they clarified and explained nature, gave laws and created a sense of security. Mircea Eliade claims that as much as it is difficult to provide a single definition of the myth, among other reasons, due to complexity of types and functions myths served in various traditions, the emergence of the myth in a majority of cultures relates to the origins of the universe. One of the more common beliefs was one about the life-giving energy coming from the sky, which resulted in the creation of the solar myth. Ancient civilisations of the Greeks, Persians, Slavs, Maya, Egyptians or Indians independently accorded an agency to the sun: they saw it as a source of metamorphoses related to life and death, circulation of time and historical justice. Another, equally universal belief, appearing in numerous corners of the world, was the cosmogonic myth.



„Leshy”

oil on canvas, sugar

200 x 150 cm, 2022



It told the story of the birth of the universe and its structure gave shape to other myths, e.g. those explaining the emergence of natural phenomena. They were supposed to be a blueprint, a particular matrix for any further understanding of the world's order.¹ In this sense, mythology, according to Eliade, are stories, anecdotes and tales concerned only with things that actually occurred and transpired very clearly, usually in the magical time of the beginnings. In other words, it is the absolute truth, the sacred story, which cannot be undermined.²

In this sense, contemporary scientific hypotheses, but also religion, which should be read as a politicised version of mythology, directed at power-yielding, are not so much falsifications of the existence of the story, but rather their subconscious continuations which offer and fail to offer, in equal measure, clear answers as to the actual course of the beginning.

The Forest Forefather resembles the Leshy, a Slavic demon and mischievous guardian of the forest, who was offered sacrifices by woodcutters and hunters to make up for the unsettling of forest structure. His polymorphic power was drawn from his shape-shifting: depending on his mood and will, he could become a tree, a wolf, a boulder, or such a moss-covered giant. He imitated wild animals' voices and the howling wind, he could misguide and deceive, reward or punish those who entered the forest, becoming part of his domain. The hybrid character, capable of simultaneously being a human and a rock, may also refer to Leon Wychólkowski's Petrified Druid, a painting charged with national symbolism, where a Celtic priest's anthropomorphic face emerges from a rock as much as it blends with the landscape of Polish highlands; the figure may also allude to a Romantic as well as fairy-tale vision in Bolesław Leśmian's poetry. In his poem *Topielec* [The Drowned], a traveler on a quest for closeness, who wants to unravel the mystery of existence, encounters a demon. The demon takes him to a place where a human, inundated in green and growing into its primordial matter, not so much ceases to be as is released of the necessity of being human. He is drowned in the wooden abyss, losing his senses and succumbing to an eco-sexual madness. In this sense, *The Forest Forefather* is a story of longing and solastalgia, a dreamed-through return to an inter-species community and a Slavic utopia, but it also speaks about a hybrid nature of the individual and a subversive power of mimicry, which becomes an instrument of identity masquerade. In other words, perhaps, it is not the Leshy who pretends to be the forest, but rather the forest poses as the Leshy?

II PRIMORDIAL SOUP

Every day, 15 billion white cells are being born.

They could all be fitted in as much as 3 tablespoons. One day, we will die, but our genetic memory attaches us to immortality.

„Once Upon a Time... Life”, 1988 (the animated series)

We see an oval form, collapsing in on itself, with an ornament of tiny balls, the interior of which is filled with shiny, convex elements: air-filled, diffuse bubbles. An extension to the structure is a dynamic tangle of creepers. The object looks like a seed with sprouting roots sawn in half, but also like an aquatic organism, which if submerged, would start making repeated and rhythmical movements, not unlike a squid. The roots are covered in delicate threads, which bring to mind lichens, dried algae or villi, tiny projections covering the intestinal membrane.

In ancient times, an interest in science contributed to the emergence of natural philosophy, which influenced, owing to developments in logic, the establishment of modern scientific theories. Nature was perceived as a living and rational being and, even then, it was believed that the origins of life are reducible to a common biological form. Currently, the phenomenon of life's existence is hardly graspable within a single definition. On the one hand, life is defined as a state of matter that endures from an organism's emergence until its death and, on the other, according to its encyclopedic definition, as a dynamic process comprising “all organisms, existing in the future and presently living, derived from one original form together with their interactions and dependencies as well as their impact upon the environment.”³ In this sense, life is not only a form, but also a performative transformation of such forms. It includes metabolism, breathing, secretion, reproduction and growth: processes occurring as biochemical reactions, forming a part of biogenesis. It



„Universal Common Ancestor”

mix media: plaster, paper pulp, quartz glass, pins with glass heads, lichens

150 x 60 x 20 cm, 2021

is a process as well as a question/mystery: how did life on earth come about? There exist numerous theories on the subject: the monophyletic theory assumes a single common ancestor, while the polyphyletic theory holds that life forms emerged on multiple occasions, independently, in different places; however, no theory offers unequivocal answers. In this context, a ground-breaking work is considered to be Charles Darwin's *On the Origin of Species*, initiating the theory of the existence of a single precursor, also called "last universal common ancestor". Contemporary geneticists and biologists claim that we originate from a single cell, which is proven by the fact that all known organisms have a basically identical genetic code. Also, all building blocks are identical: among several hundred amino acids known to chemistry, proteins in various organisms are made up from the same set of twenty amino acids, which are exclusively levorotatory. A basic compound, storing and providing chemical energy (ATP - adenosine triphosphate), also has an identical structure. In her research on the first forms of life, the American biologist, Lynn Margulis developed the theory of serial endosymbiosis concerned with the origins of cytoplasmic organelles, such as chloroplasts or mitochondria. In her book, *Symbiotic Planet*, Margulis argues that the common origins of life should be sought in microorganisms which in their mutual, evolutionary influences throughout billions of years led to the emergence of a biologically advanced world, having common roots. Researchers claim that such a common 'root' could have been a bacterial cell, which is the smallest unit of life so far discovered. Another, ever more widely accepted theory assumes that life was born from the so-called primordial soup, which was a mixture of simple organic compounds. In the 1950s, Stanley L. Miller and Harold C. Urey, attempting to validate the hypothesis, recreated the conditions (by filling a glass flask with water and a mixture of gasses: hydrogen, methane and ammonia) they presumed to have prevailed on primeval Earth. It turns out that energy produced thanks to atmospheric electrical discharges and volcanic eruptions, coupled with heat, impacted interactions between atoms and molecules. In effect, basic amino acids, which are essential ingredients of proteins present in cells of every creature, emerged in the suspension. Although amino acids themselves are not a form of life, they are a necessary condition, similarly to a semi-permeable membrane composed of lipid and protein structures. Recently, lipids themselves became a starting point for formulating another hypothesis about the origins of life. The biophysicist, Harold J. Morowitz proved that the first cellular membranes capable of replicating were fatty acid vesicles which, owing to

solar energy, became ever more metabolically complex, separating the inner from the outside world. Margulis thus paraphrased his insight: "Yet, although we cannot create cells from chemicals, cell-like membranous enclosures form as naturally as bubbles when oil is shaken with water."⁴

„Universal Common Ancestor” is a story of the primordial organism, the first division, the first growth and the first evolution. The shape of the sculpture resembles a protist that emerged as a combination of various bacterial forms and developed cell organelles, giving rise to life. Although no-one really knows how it looked (systematics distinguishes over 200 thousand species of microorganisms), it is certain it contained organs similar to mitochondria or chloroplasts as well as flagella, which might have served the function of roots. Under this interpretation, the sculpture, built from plaster, glass and lichens, can be read as everybody's ancestor. It is an inapparent and bio-diverse hybrid, a bacterial conglomerate that might be a parasitic protozoan - an amoeboid or a plant-animal entity, *Euglena*, that looks like a transparent sack with a highly mobile flagellum, the eyespot apparatus and the ability to photosynthesize. It may belong to Foraminifera or Actinopoda, the one containing a silica skeleton, sinking to the bottoms of the oceans after their death and contributing to geological rock layers.⁵ The ancestor combined features of all the five kingdoms of living things and becomes an inapparent anti-monument, emancipating the community, and a palpable representation of what could only be seen as a microscopic after-image.

III VOLCANIC ERUPTION, EXPLOSION OF LIFE

„Yes,‘ said the troll. ‚We’ve always been puzzled about it. Most of our legends are much more exciting. It was more interesting being a rock in the old days.‘

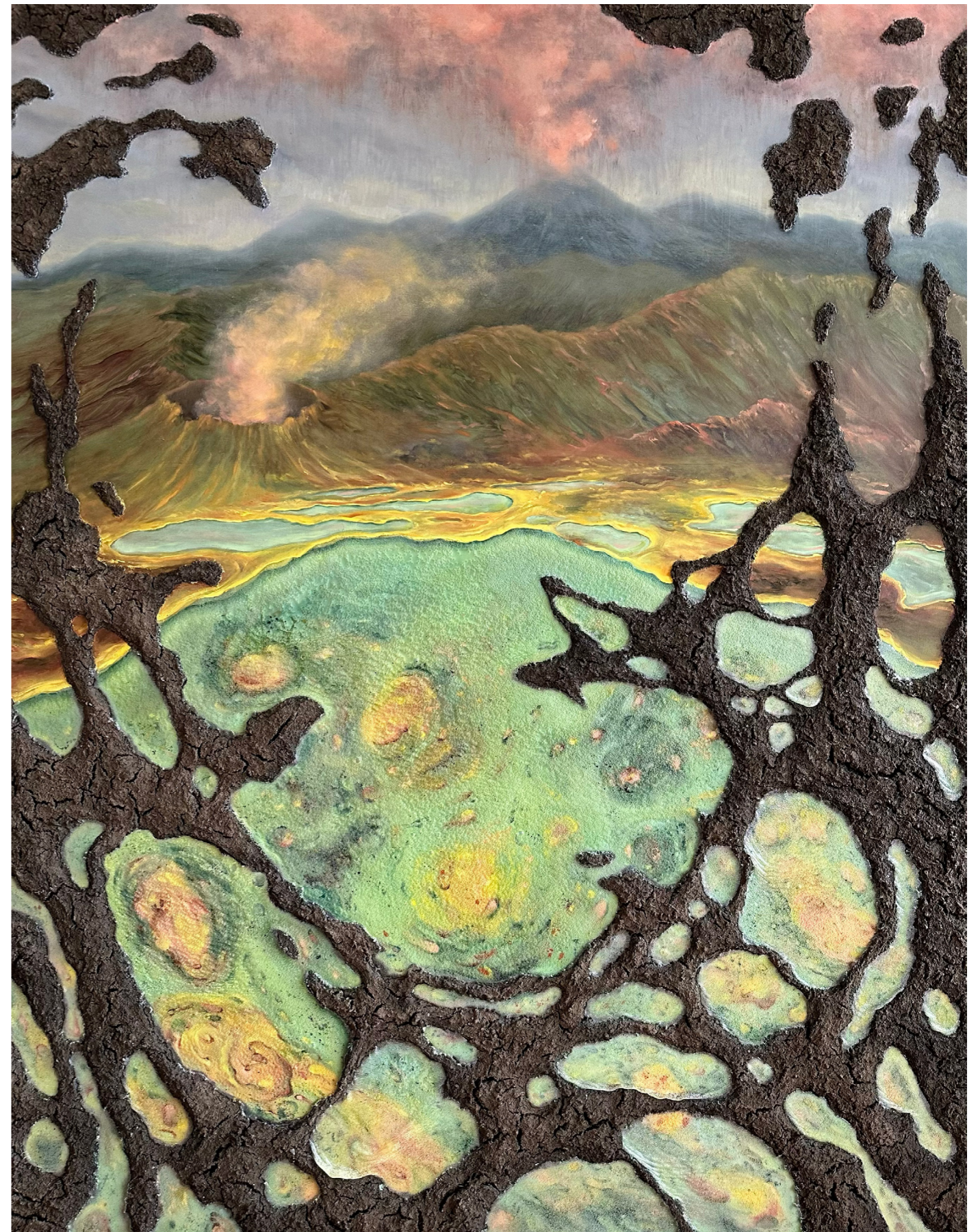
„It was?‘ said Rincewind weakly.

„Oh yes. No end of fun. Volcanoes all over the place. It really meant something, being a rock then. There was none of this sedimentary nonsense, you were igneous or nothing. Of course, that’s all gone now. People call themselves trolls today, well, sometimes they’re hardly more than slate. Chalk even. I wouldn’t give myself airs if you could use me to draw with, would you?‘

Terry Pratchett, „The Light Fantastic”

Before us, a volcanic landscape. A smoking volcano in the background and, in the foreground, we see wet and partly cracked earth, surrounded by diffuse and colourful patches. The latter resemble puddles of boiling geysers. The biological forms glitter, with floating bubbles, a structure of foam emerges. Banks of water reservoirs are covered in glaring, fluorescent yellow. There is a thick suspension of gasses in the air, coming from within volcanic craters. Sulphur can be smelled.

What would the world look like if not for bacteria? Three and a half million years ago, the Earth was not a place conducive to life. Scientists suspect that everything changed thanks to volcanoes, even if gas emission, high temperatures and the ensuing lack of oxygen seem not to have created appropriate conditions for living beings. Despite the fact, the surroundings of volcanoes in the shape of warm water reservoirs and hydrothermal vents, rich in organic compounds interacting with each other, became a habitat for thermophilic sulfur bacteria, altering the Earth’s landscape forever. The aforementioned Margulis claims that the free-floating bacteria could combine, creating more advanced forms of life, such as protists. Thus, the energy-emitting volcanoes influenced circulation of animate and inanimate matter in the environment. In other words, the more advanced evolutionary



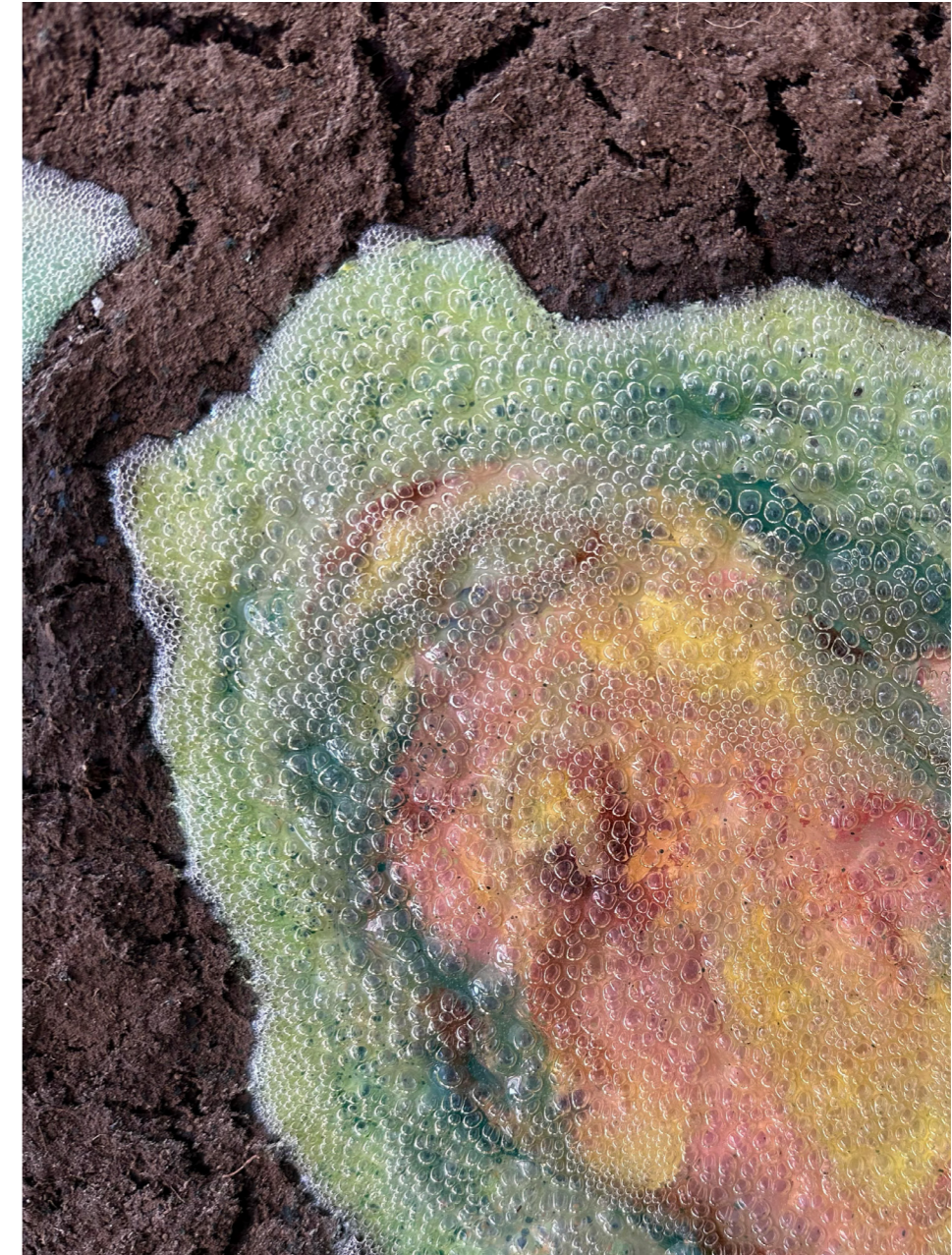
„Primordial soup”

oil on wooden panel, resin, soil

190 x 150 cm, 2023

processes occurred thanks to them. The American biologist, David Deamer, researching the possibility of the emergence of the first cell in warm waters, which underwent constant mixing and biochemical combination, put forward his theory of the life-enhancing nature of volcanoes. According to Deamer, warm hydrothermal vents, rich in organic compounds, were full of lipids and amino acids that could have been delivered to Earth by meteorites. He claims that the environment of 'life-giving swamps', where water often evaporated and was re-filled, was conducive to the emergence of the first protocells.⁶ Interestingly, the hypothesis about an ingredient falling from the sky that could contribute to the origin of life is related not only to the genesis of the first organic compounds on Earth, but also with the panspermia hypothesis. The latter considers life to be commonly occurring in the universe and distributed on heavenly bodies by means of meteorites; and, therefore, carriers of information about the history older than our planet, and even our Sun. The most famous meteorite to become the source of increasingly novel scientific discoveries is the Murchison that fell in Australia, in 1969. Analyses of its composition demonstrated the presence of ancient cosmic dust as well as ribose, a simple sugar that is a basic building block of RNA. Similar compounds, in the shape of protein amino acids, also building blocks of RNA and DNA, have been discovered by Japanese scientists of the Hokkaido University in Sapporo; they proposed a theory that they could emerge as a result of gamma radiation. The radiation was supposed to result from the presence of radioactive aluminum within meteorites. They are suspected to release a form of high-energy and heat radiation during decay, which was essential for the creation of biomolecules.⁷

The landscape with a volcano is either a paradise for bacteria - an environment the conditions of which can be conducive to the birth of the famed life - or a spectre of impending future, where this very life is reduced to a patchy trace recorded at the bottoms of gurgling puddles. The volcano is related to ancient beliefs and forgotten rituals: it is a metaphor of a life-giving and deathly force, birth and annihilation. It is an embodiment of a dormant wrath and an anthropomorphised mountain that has the power to create reality. The power of changing both biology - as in the case of Mt. Tambora, the eruption of which led to a year without summer - and history - the Laki eruption resulted in the break-out



of the French revolution. In this context, „Primordial Soup” is both nourishment and a graveyard, a set for a dance about to erupt on the volcano, even if there is no-one left to pounce, but also a view of imperceptible matter, full of underground tensions, fissures and resonances. Invisible movements of bacteria that need not be seen to be believed. Some think that this is what apocalypse will look like: volcanoes will be boiling and bubbling, spluttering fireworks; a purple sun will be settling against pink-red sky; million-years-old gemstones will be falling from the sky; and the most resplendent magma will cover the whole Earth.

IV A ROCK THAT HAS MEMORIES

A belief in our separateness from the world due to the fact of mental life is so well-founded that it is difficult to change it, but we may be able to look at ourselves through the outer world, a part of which – despite our whims – we are alongside cosmic dust. It sometimes helps to connect what has been artificially divided.

It is truly amazing that a drop – an entity so delicate – is capable of holding its shape and demonstrating its presence. Our body, just like a cell's body, surrounded by a barrier separating the inner from the outer world, is destined to constant transformation and permeation of the two worlds. One could claim that the waters in rain, rivers, seas and taps are not the same as bodily fluids. Indeed, they differ, but only minimally, since its basis is water, everywhere identical. It is in every cell. Everywhere. Our body gives an impression of constancy, but if only it is cut, it leaks.

Jolanta Brach Czaina, „Błony umysłu” [Membranes of the Mind]

The air is suffused with fog. The weather is rainy and light shines gently through hazy clouds. On a flowering meadow overlooking the mountains, there are sweet characters. They are sugar-made humans, their palms catching drops of sweet rain. The world in the painting is cut in two halves, like cake layered with cream. The cross-section reveals, under the layer of grass and soil, the existence of yet another group of people, lying still this time. Their soil-modeled bodies have hibernated. It is precisely here, underneath the ground, couched in roots of the plants growing in the meadow, they are dreaming about the past and imagining their own future.

A dying star sends out 'seeds of life' into space, which in sowing fragments of the heavenly body, become components of new stars. Iron in our blood or calcium in our bones, therefore, comes from the interior of stars that exploded. We are literally cosmic dust that makes up our planet together with everything that is found on it.



„Spittin Image”

oil on canvas, sugar, soil 190 x 140 cm, 2022



Thanks to research on the origins of life, we know that in order for life to emerge, an interaction between various forms of matter is necessary, leading to constant transformations of life by means of physical-chemical and thermodynamic processes. Those changes can be understood in terms of various notions, such as space, time and causality; Harold Morowitz enlarged the set with yet another that bridges physics and history; namely, the idea of biological ‘memory’. The memory, according to paleobiology, a science investigating the history of life in geological layers, is recorded in rocks, the formation of which was influenced not only by conditions prevailing over the Earth’s crust, but also by meteorite falling down. Morowitz demonstrates that the presence of the so-called metabolic pathways, coding metabolism in rocks, lays down a heritage of primal metabolism common to all creatures. Although the oldest known fossil of microorganism is bacterial forms discovered in Eswatini, Africa, dating back over three and a half million years, Morowitz goes on to argue that the memory of living organisms cannot simply be dated; cells’ metabolic memories can evoke much more ancient times than the oldest known rocks.⁸ In this context, it becomes clear that organisms making up the biomass of all ecosystems are alive thanks to the presence of elements such as oxygen, hydrogen, carbon, phosphorus or sulfur, which as molecules of inanimate matter take active part in chemical and physical processes, remaining in constant circulation.

In other worlds, the matter of the external environment is constantly circulating and interacting, permeating through bodies of living organisms, contributing not only to their existence, but also helping the process of decomposition. The closed circle of metabolic changes in animate and inanimate matter, interconnecting various ecosystems, is the essence of earthly life, whereby life exists not only thanks to, but precisely in constant metabolic changes. Thus, death is not only an end, but merely a passing stage, a stage in the circulation of matter. To return to memory, metabolic processes do not only mark geological layers of the Earth, leaving their palimpsestic trace, but the process is recording its history on the planet: a story of the evolution of both human and non-human forms of life.

Once, a drop was sufficient to enrage a god and several drops of blood and semen – to give rise to goddesses of revenge. While residents of Nordic countries believed that a drop of blood begets a hawk, and a woman is born of it, medieval alchemists watching a drop of semen under their looking glass saw a miniature human. „Spitting Image” draws a vision of transformations related to the vegetation cycle and the circulation of matter in nature. It is a parallel narrative woven around elements essential to life and, therefore: water and its drop, which here becomes a reflection of the body, but also carbon: the sugar-people drenched in rain are transformed into a geological fabric, making visible the eternal connection between animate and inanimate matter. Ovid wrote that dripping water hollows out stone, not through force, but through persistence. The painting is concerned precisely with such invisible metamorphoses, gradually introducing changes and illustrating the circulation not only of water, but also other substances; it emancipates the processes of condensation, liquefaction and crystallization. A person exposed to rain is commonly said not to be made of sugar, so they will not melt. It seems, however, that we are all here made of the sweet and vulnerable substance, we are all part of the looping cycle and we are all, including plants, animals, soil and stones, are profoundly interconnected. We are what we breathe, eat and drink. Pollutants enter the ground, fall on us with rain and are soaked into our bloodstreams. And rocks can only remember.

V LIFE IN THE EARTH

I have no parents: I make Heaven and Earth my parents.

I have no home: I make Consciousness my home.

I have no life and death: I make the rhythm of breath my life and death.

16th-century samurai

At the edge of a forest, surrounded by high grasses and rosehip bushes, we see three characters. Their silhouettes, covered in cracked soil, look like recently revived bodies, previously flooded with volcanic lava. They are looking around, as if they were woken from a long dream and were trying to find out their current position. At their feet, an organic grass plane extends, filled with tiny plants, roots and moss patches, over which fiery sparks hover like glow-worms. An impression can be had that we are dealing with a golden compost, in which dynamic metabolic processes are taking place.

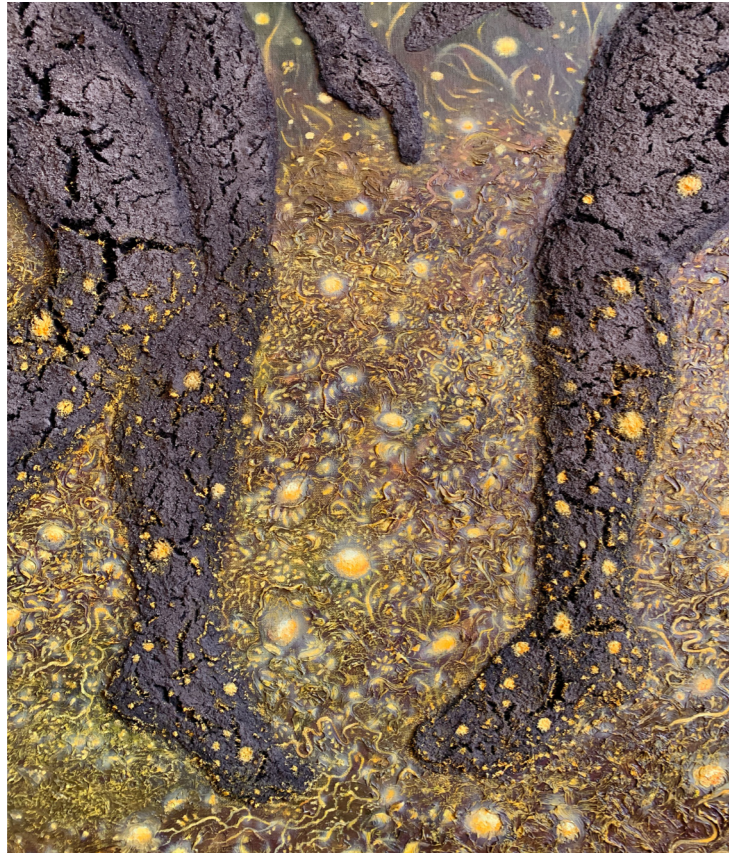
Life would not have evolved if not for interactions and physical contact between various organisms. Everybody and everything is profoundly interconnected, linked by unbreakable networks of dependencies. One of the most interesting forms of such a co-dependence is symbiosis, which is characterised by cooperation between two species, resulting in benefits to all organisms involved, or symbionts. It is, according to Anton De Barry, “a co-existence of variously called life forms.” Such an interspecies relationship is developed e.g. by clusters of bacteria, microbes and fungi that make up the human microbiome. They enhance our functions related to life processes, create a protective layer on the skin or assist intestines in digesting food residues. Another relationship of this kind is one between fungi and plants, the so-called mycorrhiza, in which fungi help plant roots in absorbing water and mineral ingredients, such as phosphorus or nitrogen, while they benefit from products of photosynthesis performed by the plant, e.g. glucose. The process is described



„Earthligns”

oil on canvas, soil

170 x 190 cm, 2022



Research on the evolution of life forms has proven that symbiotic cooperation played a fundamental role in the development of various organisms. Analysing consecutive stages of symbiogenetic dependencies, Lynn Margulis concluded that they resulted in blending of bodies. Based on the research, it seems probable that all eukaryotic organisms, namely, fungi, protists, plants and animals, have common ancestors. They are the above-discussed bacteria which combined with other organisms thanks to a symbiogenetic relationship, as part of a process called endosymbiosis, creating entirely new forms of life. In this context, Margulis discusses the example of algae which might have arisen through a combination of four bacteria, in a particular temporal order, where each was distinguished by different features that are still recognisable today. The researcher also deals with lichens, which are a result of a symbiotic relationship between algae and fungal hyphae.⁹ Symptomatically, both instances of symbiogenesis had a key significance not only in the formation of the surface layer of the Earth, but also in developing its soil-making capacity.

The process is described in „The Symbiotic Planet”: “Algae growing under protective cover of fungi cling to sheer rock, extend over its face, and ultimately break it down into soil that can be penetrated by roots of plants and fungal hyphal networks. The hard rock of this spinning planet has been crumbling for hundreds of millions of years into rich, nutritive soil as a result of the fungal-algal partnerships.”¹⁰ The perspective is not limited to soil only, but concerns the whole Earth - Gaia, which appears as a multidimensional process and one grand recycling of matter with an interplanetary reach. In the 1970s, James Lovelock, working for NASA on the potential emergence of life on Mars, developed the Gaia hypothesis. According to the theory, the Earth is one huge, animated hyper-organism which exists thanks to an interplay of all possibly existing ecosystems.¹¹

In myths, human birth was often identified with the ground. Greeks believed that first humans were molded by Prometheus from a mixture of soil and fire in the interior of the globe. Egyptians, in turn, claimed that the body was created from clay mixed with divine sperm and Jews claimed it was a combination of ashes and soil. In folk cultures, the ground is most often identified with a woman who gives life in connection with the rain-giving sky, just like the Greek Danae on which Zeus fell in the guise of golden droplets. „Earthlings” have no gender, race or class. They may be the primordial, dirty people, who live in an idyllic conjunction with nature and roll around in healing mud; a representation of a rotting body, transforming into a life-giving compost; or a memory of a lost civilisation, the story of which can only be told by stones. In this sense, the soil-shaped humans can resemble the Pompeian figures: sculptures or casts created by hot volcanic dust during the eruption of Mount Vesuvius. Their phantom nature is not only a story of tragic death, but rather a trace of life. The latter appears here as part of the inter-species hive intelligence, for which nothing dies. Everything only changes its shape.

CONCLUSION

I should also speak of crystals, forms, laws, colours. There are crystals as large as temple columns, as delicate as mould, as sharp as spikes, colourless, azure, green like nothing else in the whole world, fiery, black, mathematically precise, perfect, resembling structures conceived by unreasonable, mischievous scientists. There are crystal caves, bubbly freaks of crystal mass, there is rebellion, drowning, growth, architecture and the art of engineering.

Jaromir Čapek

Lichen-plastered roots emerge from a soil-covered object. The sculpture resembles an object found in a forest, an archeological finding from primeval times, but also a laboratory desk that contains a microscope. The surface of the desk is covered in soil, from which emerge craters filled with glistening, biomorphic shapes. To look deeper into its structure, it is sufficient to transfer a colourful glass under the microscope. On its surface, one can see abstract images that include crystallised human blood. Depending on the time of day, chosen glass, but also the time and manner of positioning the microscope, the view will be different.

Before I started studying painting, I had studied at the Jagiellonian University Medical School for several years. Particularly well-remembered instances from the period were microscopic tissues in magnification, but also research related to physiological processes, internal changes and bodily structures. Those were inspirations for my earlier paintings, such as Henle's Loop, related to the filtration of bodily fluids, or Lipids, inspired by structures of burr cells. The complexity of forms in particular sections of tissues reminds me of inner landscapes that build up our bodies like layers seen in geological cross-sections of the Earth. I enjoyed metamorphoses and transformations of the body changing into its mineral-crystalline shape. As in the case of the diamond that is created from the ashes of the burnt body, but also from hemoglobin that is turned into stone. In this context, I became interested in a no-longer-applicable experiment conducted by



„Crystals” instalation
mixed media: wood, soil, wood glue, metal, plaster, paper pulp, stained glass, lichen,
crystallized form of hemoglobin, microscope
140 x 85 x 90 cm, 2023

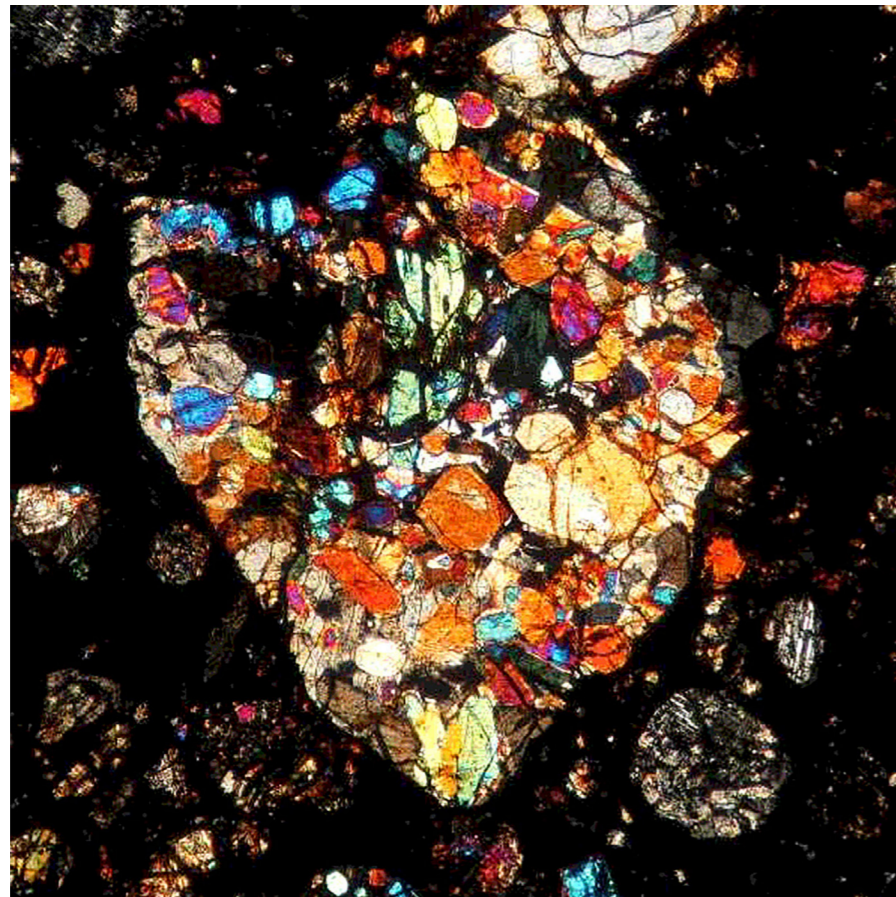


the forensic physician and anatomist from Krakow, Ludwik Teichmann. The experiment, helping to verify the presence of blood at a crime scene, consisted in extracting small haemin crystals from blood. Only one drop of blood, two drops of icy acetic acid and five grains of salt were sufficient to achieve this. The mixture was heated over a candle and the effect watched under the microscope. When I first saw the crystal shape of human blood, I was fascinated by its sculptural form. A metamorphosis occurs here: the burr hemoglobin cell, reminiscent of a holey doughnut, gets transformed into a small crystal with pointy edges or small pieces of broken glass, surrounding diffuse, brown-coloured patches. The composition looks like an artistic abstraction more than any biological forms known to humans.

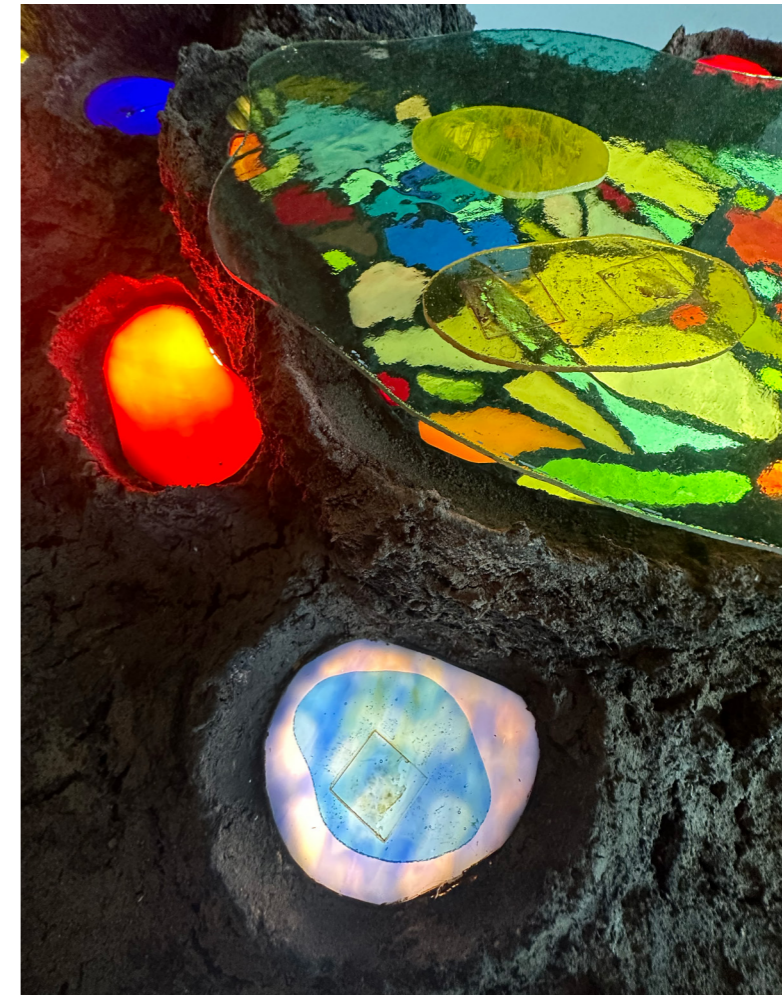
Once Upon a Time... Life does not illustrate scientific discoveries, but rather enters into unapparent relationships with them, approaching them as a starting point for weaving a multi-threaded yarn without beginning or end. A story of circulation of animate and inanimate matter, but also a narrative whereby we seem to believe that culture controls nature, while everything we enclose in the very word 'nature', coding passivity, constancy and ahistoricity, eludes all orders and diagnoses.¹² According to Ewa Bińczyk, a return to nature is impossible today, not so much due to its increasing exploitation, but the very idea of nature, the way in which our representations and values shape what we define as savagery, or wildness.¹³

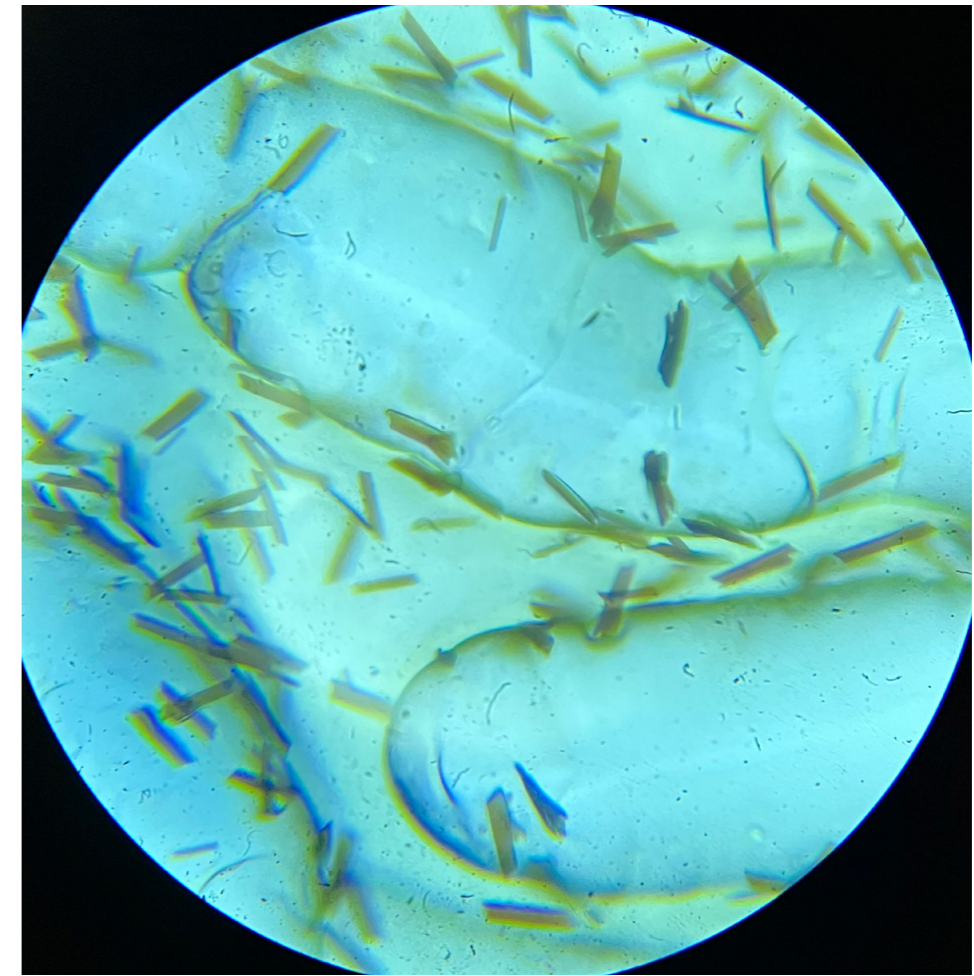
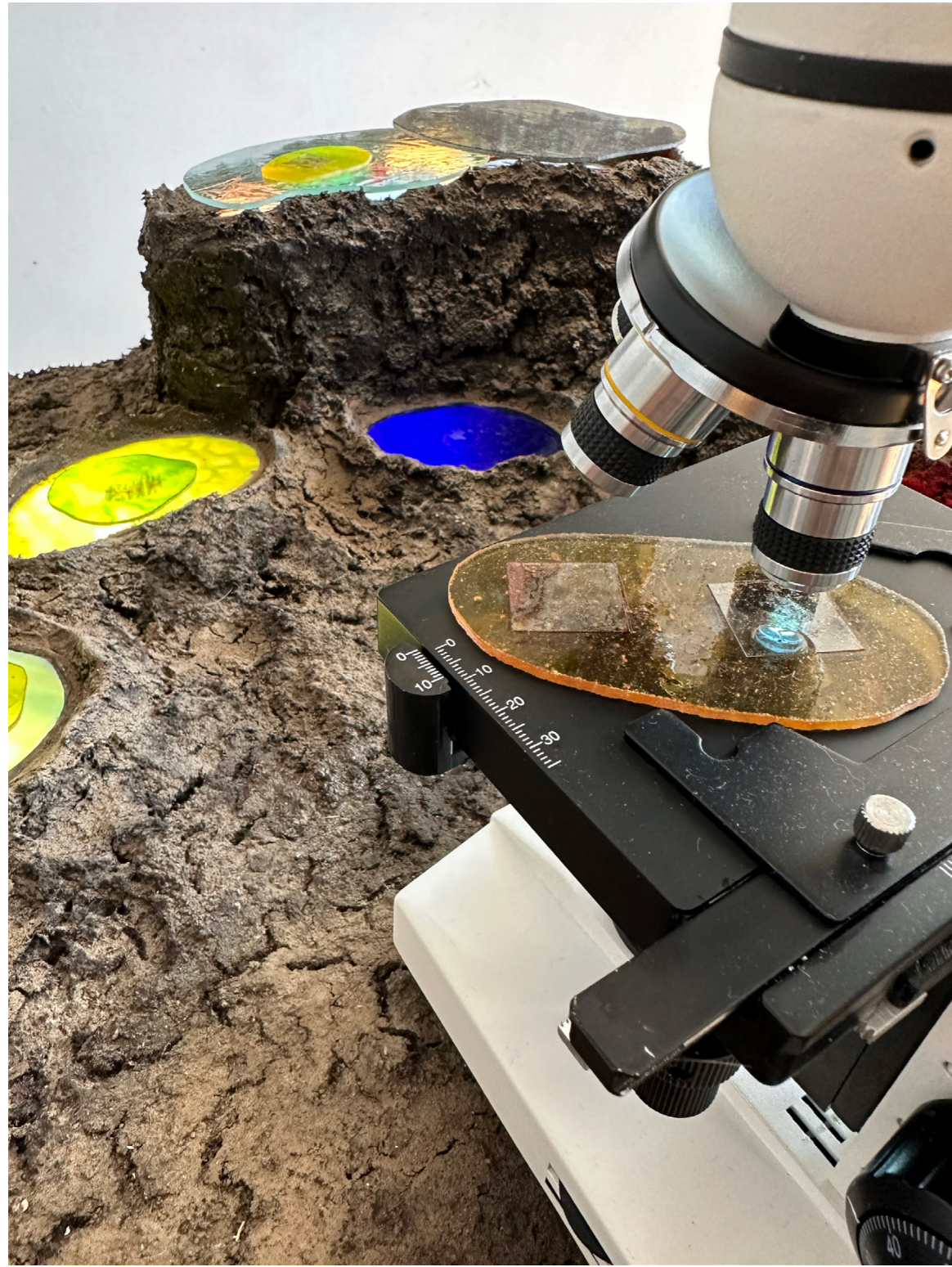
The installation alludes to the experiment with crystalline form of blood and the relationship occurring between organic and mineral matter. Vladimir Vernadsky claimed that 'life' is a force that gives geologic shape to the Earth. According to him, life transforms the biosphere into the Earth's crust. In other words, it incessantly deposits some chemical elements that have passed through living substance - or the planet itself - creating enormous layers of psilomelane mineral, not known elsewhere, or infusing the inert matter of the biosphere with the slightest dust of its remains.¹⁴ An organic form of the table, on which

the microscope is placed, resembles a miniature volcanic landscape, from which emerge craters of volcanoes or geysers covered in a thick layer of cracked soil. Their interiors are sealed up with abstract forms: stained glasses similar to carbonaceous chondrites. They are meteorites whose microscopic image looks like colourful and brilliant kaleidoscopes. Little Crystals is an object alluding to a geological cross-section of primeval Earth, on which life arises, but also to metabolic processes interconnecting things that are animate and mineral, liquid and solid. Monika Bakke argues that we have to finally include minerals into the network of relationships we live in, not only in the sciences, but also the humanities, highlighting the key role of the co-evolution of biological and mineral species in earthly ecosystems.¹⁵ In a sense, not only do we influence the creation of new geological-mineral forms, but even if we are not yet there, we will soon become them. Everybody, just like the blood under the microscope, will become one more mineral.

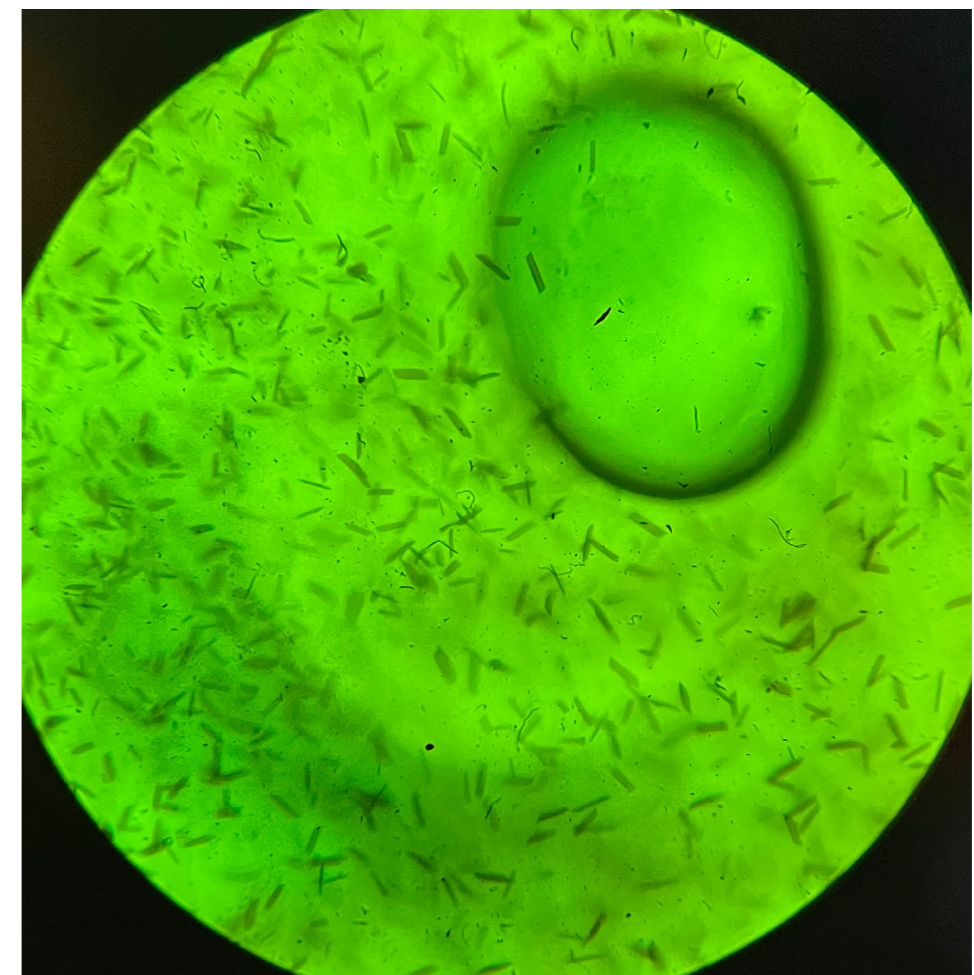


3.





microscope pictures of hemin crystals put on stained glass



¹ M. Eliade, *Aspekty mitu*, przeł.: P. Mrówczyński, Wydawnictwo KR, Warszawa 1998, s. 8-11

² Ibidem, s. 12

³ W. Zagórski, hasło w encyklopedii: *Życie*, <https://encyklopedia.pwn.pl/haslo/zycie;4003248.html>, dostęp: 30.04.2023

⁴ L. Margulis, *Symbiotyczna Planeta*, Wydawnictwo 4 CiS, Warszawa 2000, s. 104

⁵ Zob.: E. P. Solomon, L. R. Berg, D.W. Martin, C. A. Vilee, *Biologia*, Oficyna Wydawnicza, Warszawa 1996, s. 531, 533, 535

⁶ J. Jońca, *Życiodajne wulkany*, <https://www.projektpulsar.pl/srodowisko/2103603,1,zyciodajne-wulkany.read>,

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⁷ *Meteorites plus gamma rays could have given Earth the building block for life*, ACS Chemistry for Life, [https://www.acs.org/pressro-](https://www.acs.org/pressroom/presspacs/2022/acs-presspac-december-2022/meteorites-plusgamma-rays-could-have-given-earth-building-)

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⁸ L. Margulis, *Symbiotyczna...*, dz. cyt, s. 113

⁹ L. Margulis, *Symbiotyczna...*, dz. cyt., s. 55

¹⁰ Ibidem s. 154

¹¹ Ibidem, S. 161-162

¹² Zob. M. Bakke, *Bio-transfiguracje, sztuka i estetyka posthumanizmu*, Uniwersytet im. Adama Mickiewicza, Poznań 2010, s. 64

¹³ E. Bińczyk, *Epoka człowieka, retoryka i marazm antropocenu*, Wydawnictwo Naukowe PWN, Warszawa 2018, s.120

¹⁴ A. Turowski, *Biomorfizm w sztuce XX wieku*, Fundacja Terytoria Książki, Gdańsk 2019, s. 50

¹⁵ M. Bakke, *Gdy stawka jest większa niż życie. Sztuka wobec mineralno-biologicznych wspólnot*, [w:] „Teksty Drugie”, nr 1, 2020, s. 167

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