

Essay by Katja Novitskova  
Page 1/2

## MIRROR LIFE

In this exhibition I explore two related but distinct themes through two distinct but overlapping material approaches. All the works in the show continue my exploration of the ways technology reshapes our relationship with nature, especially by capturing, mapping and remodelling those who inhabit the world besides us.

A series of sculptures present animalistic forms in various stages of egg brooding. Their wet-looking bodies are in various shades of blue, their eyes are staring back at us, their body designs do not fit into clear classifications. The sculptures softly activate the viewer's visual memory of vaguely familiar patterns: an egg sac of an amphibian species, a two-headed snake, a beluga whale, a deer, a snail and so on. Situated deep in an uncanny valley of something looking alive but clearly alien to our senses, they represent a population of unlikely life-forms frozen in a cross-section of time. These compact glass-like sculptures blend the highly synthetic materials like polyurethane resin with minerals like rock crystal, obsidian, labradorite, hematite and carnelian. They are a continuation of the *Soft Approximation* sculpture series that began in 2022. The series is defined by the use of generative models, 'cross-breeding' images of my older art-works and research materials to generate new forms, and subsequently material translation using 3D modelling, printing and manual studio craft. The works take the idea of a synthetic assemblage towards a new degree of amorphous complexity. What I'm trying to achieve is an effect of a somewhat alive creature-sculpture that is looking back at the viewer with a nonhuman gaze. It's both animal and algorithmic, a product of many steps of translation. The sculptures approximate their initial nature and the path it took for them to get to their present forms. Any approximation can also be seen as a form of future forecasting, a model of potentials.

The walls of the gallery feature a series of wall-pieces from my *Earthware* series. They depict octopuses and giant squids, both cephalopods, with weirdly accentuated reddish eye glow in their eyes. The squids are also brooding huge egg-masses, in sizes larger than their whole bodies. The digital images, printed onto PET-G film with UV-resistant ink, were manually transferred onto synthetic epoxy clay, a technique I have been developing over the last decade. The process creates a unique transfer each time. In this iteration I have added the lenticular resin-eye element to each work. As octopi and giant squids are often culturally considered to be the most alien out of all nonhuman lifeforms, the effect of the fragmented red eye is pushing them further over the edge of the unfamiliar towards a synthetic amalgamation. If we consider that the animals whose photographs were taken to create these images have long perished, it becomes obvious: the mineralized images consumed the biology.

## MIRROR-GENESIS

### 0.1

Many vital molecules for life on Earth, like sugars and amino-acids, come in two mirror-image forms: 'left-handed' and 'right-handed.' This handedness describes the direction polarized light bends when it passes through a pure solution of the molecule. However, living organisms typically use only one of these forms. This phenomenon is known as homochirality. It remains uncertain whether homochirality arose before or after the origin of life, whether life's building blocks must possess this specific chirality, or even whether homochirality is essential for life at all.

Mirror life is a hypothetical form of life with mirror-reflected molecular structures. If it could exist or be synthesised it would be very similar to our life, but exist in a parallel space of interactions with possibly catastrophic overlaps with our own current life forms. Mirror animals would need to feed on reflected food, produced by reflected plants.

Essay by Katja Novitskova  
Page 2/2

— How would this mirror life look, and how would it look at us? Perhaps a set of artificially synthesised primitive life forms emerges branching into a novel path for life. A common ancestral community of primitive cells that develops into a living thing, a genetically modified feral organism. The eyes and the eggs. Larval eyes acting like a composite multitude looking at the world. Slight differences add up into major mutations once we reach the scale of larger animals. With these new species not fitting into familiar categories we encounter the uncanny valleys of biological possibility spaces. Some can be eerily similar to the ones we already know, as life often produces similar forms in the most distant places. Do they bond and do they brood?

## 0.2

Separated by hundreds of millions of years, cephalopod vision has evolved separately from our human branch but with eerily similar results: their eyes are also camera-like. The structure of the eye is more stream-lined than that of a primate eye as they lack blind spots and lose minimum amount of light. Brooding squid mothers carry around their giant egg sacs with millions of eggs until they hatch. During this period they are not able to eat, resulting in senescence, a life phase that begins with eggs hatching and ends with their death. Devoid of nutrients and strength their bodies begin to disintegrate and at some point lose vital abilities to sustain themselves. Egg brooding is an inflection point that sets off the end of their lives. A giant compound eye made of tiny paralarvae that devours its own mother.

## 0.3

— When a caterpillar goes through metamorphosis and turns into a butterfly it still retains some memories of being a caterpillar although these memories are unlikely to be of direct use to the newly emerged creature. It moves differently and it eats different things. But the neuro-electrical patterns that form caterpillar's memories persist through the radical transformation.

The visual patterns creeping up through multiple transformations of generative AI models have similar trajectories. The training data and the initial signals they register can be looked at as memories of our world that transmute into code and remain embedded in its shape-shifting labyrinths until being called out with a prompt. In developmental biology the concept of cell fate or cell determination captures the phenomena of cells developing into specialised cells and tissue through electrical signalling and gene activation during both the processes of embryogenesis and metamorphosis. The logic of cell fate could perhaps be also found in generative models, where activation patterns of individual neurons within the transformer architecture play a critical role in determining how LLMs process complexities and infer following tokens – forms. These similarities themselves are approximations and result from overall interconnectedness between us human beings, our cultural and technological artifacts and our biological contemporaries. Our interconnected fates are by no means determined, but they are tethered.