



Self-Portrait with Symbiotic Cultures Of Bacteria & Yeast (SCOBY)

Maaijke Middelbeek Other-Mother 2021



MY ARTIFICIAL Maaijke Middelbeek WOMB 2021-2022

Installation with acrylic glass, Symbiotic Cultures Of Bacteria & Yeast (SCOBY), amniotic fluid, tubes, plastic bags with blood and urine of the artist, sugar, tea, the artist as a fetus (Nov.1979), mother cultures in glass mother's milk, ultrasound of

Maaijke Middelbeek in conversation with Huda Takriti & Kyungrim Lim Jang

<u>H&L:</u> How do you associate the terms cultivating and culturing — in science and every day as an artist/cultural producer?

<u>M</u>: I'm both skeptical about and fascinated by biotechnology. Cultivation is a controlled growth of organisms by humans; culturing is to maintain an environment suitable for growth. Both human-controlled techniques turn nature into culture. Today we can tamper with evolution, from cultivated meat to growing a prematurely born lamb in an artificial womb or the possibility to 'design' babies. Still, it all comes with big ethical questions.

Kombucha tea originated as a probiotic medicine, and the starter culture or SCOBY (Symbiotic Cultures Of Bacteria & Yeast) is a life form invented by humans. The culturing process for me as an artist is more than growing organisms; it is a process of being with, becoming with, and thinking with living matters. Working and collaborating with other beings so different from myself became my way of caregiving or mothering.

In science, the artificial womb is a device for an extracorporeal pregnancy, culturing a fetus outside

the body of an organism. It raises questions about the future of baby-making. If it no longer has to take place inside a woman's body, the meaning of motherhood will change. I believe there is no artificial surrounding that can replace the natural mother and the safest place we know, inside the uterus, or the secure prenatal connection between mother and child over the umbilical cord and beyond.

<u>H&L:</u> Could you tell us more about your artist statement, "You are my mother, let me be yours." and tell us if "You/Me" in your text is singular or plural?

This work is about motherhood and interspecies care. Me: is singular, very personal - You: is plural. Bacteria are our ancestral mothers. They merged to create human cells. The bacteria inside me sometimes cry out for a connection to these early ancestors. This may already have started the first week of my life, being isolated in an incubator. A sterile environment is not what sustains us. Our body does not end at our skin, it is inseparable from the symbiotic world. Our microbiome is co-responsible for our physical and mental wellbeing. When the internal and external cosmos work together, we are happy. Can we be satisfied in the incubator houses, cities, and civilizations we built, disconnected from the natural interconnected world? Working with SCOBY makes me happy. The "Other-Mother" photo series portrays a motherly bond to the other-than-human, to our oldest ancestors. "My artificial womb" is a fantastic apparatus that stimulates synthesis with the other. But then it is "my" artificial womb. It is a technically induced, externalized intimacy. My bodily fluids mingle with the symbiotic cultures of bacteria and yeast. I inhale the vapors and steams of this process of life. We contaminate each other. We communicate through this artifact, the artificial, the cultured. It is a reconciliation of nature and culture, of the other and me.

<u>H&L:</u> What kind of insight can we take from SCOBYs as a self-sustaining care community?

<u>M</u>: Kombucha SCOBYs are an artificially cultured lifeform, though a life form that grew from bacteria and yeast willing to merge, to make a new life form. Bacteria date back almost 4 billion years, the fungi kingdom about 2,4 billion years, while we, homo sapiens, emerged only yesterday on earth's scale, about 300.000 years ago. Bacteria and fungi are intelligent and social. They know about life on this planet and how to adapt, survive, and co-exist. They question our concept of individuality. They show us that life, on a physical, psychological, and cultural level, is much more intertwined than we often realize. They can help us see beyond national borders and our self-delusion.



We need others. Our symbiotic, interactive, interdependent past is connected. The bacteria in our microbiome help us digest our food, regulate our immune system, protect against other microbes that cause disease, and produce vitamins. Without these others, we wouldn't be here. Life, especially bacterial life, is resilient. It has fed on disaster and destruction from the beginning. We are much more vulnerable to change in the biosphere.

Nevertheless, we act carelessly. We are the only species that produces the destructive and unsustainable. SCOBYs, like other living species, do not know waste. One organism's junk is another's food. It is often also a good reason for symbiosis. I have these fantasies about healing and protecting the damaged skin of our planet with symbionts, cleaning up with bacteria and fungi that feed on our plastics or nuclear waste. On the other hand, Mother Earth takes care of us, not we of it; she has her cycle and ideas. We better learn again to join hers.

H&L: When does Contamination become survival?

<u>M</u>: As we mostly use it, contamination is unwanted pollution by pathogens or toxins, which harms us. Today we live in an age of human-caused contamination, and we are forced to look at it from another angle. Cross-contamination is collaboration, a process of life.

As Anna L. Tsing's book argues, *every species* requires liveable collaborations to stay alive. We touch and breathe in others: spores, pollen, bacteria, viruses. The carbon dioxide we humans exhale as a waste product becomes the life-giving force for plants, and in turn, the oxygen waste of plants gives us life. The fungi that live in the rootstock of trees and plants have a mutualistic arrangement; the plant produces sugars by photosynthesis and shares these with the fungus. The fungi grow large webs of mycelium that enhance the plant's access to water and soil nutrients. The idea of purity is a human myth. Sharing my studio with SCOBYs, I became part of them as they became part of me. Who knows what comes from the cross-contamination other than exhibitions.

<u>H&L:</u> As someone working on the topic of bacteria, contamination, and survival, how did the pandemic affect, change, or confirm your views?

<u>M</u>: I see the pandemic as a warning. During the long history of the earth, microbes (and here I count viruses among them), together with fungi and plants, have been essential, and are still crucial, to the composition of the environment in which we humans live. The pandemic has shown us that we can't escape the invasive presence of others. They react to our actions, to our changing climate; if they mutate, we have to mutate as well.