# SENSORIAL SKINS MICROBIAL ANCESTORS

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Diptique of Sensorial Skins Installation shot at 10N Gallery - Menorca, 2023

#### **SENSORIAL SKINS**

Textile works and installations are an inherent part of the visual arts today. In researching works with new, often biological, materials, much research work can still be done within this discipline.

In my work, I bring together different lines of thought within which textiles and textile techniques can be seen as mediums and signifiers.

Textile objects have always been embedded in a complex fabric of cultural, social, economic and technological developments. Organizationally, a weaving can be seen as a map, a vast world of knowledge that we can never fully grasp but in which we follow some personal lines to explore further. Applied to the projects "Sensorial Skins" and its textile variant "Microbial Ancestors," this line of thought can be taken literally. We follow lines and folds of the skin that take us into the world of the unseen ...

"Sensorial Skins. Microbial grown skins. Just as human skin they carry the imprints of time, they age and transform.

Within their folds, memories are preserved, silently narrating the stories of their existence. Memories are provoked also by the smells they emit. A specific scent can transport us back to a particular moment, evoking a sense of nostalgia and temporal connection."

"These Sensorial Skins embody a remarkable flexibility and softness, akin to organic textiles. They adapt to the ever-changing needs of their environment, exhibiting a responsiveness that defies rigidity.

In their pliability, we find an invitation to engage in a dialogue with the material world, acknowledging the agency of these living fabrics and our own role as co-creators."



At the beginning of this artistic research lies my fascination with the symbiotic organism "SCOBY," an acronym for "symbiotic culture of bacteria and yeast".

The bacterium in question is *Acetobactor xylinum* which, interacting with yeast cells in a particular medium, spins a layered tissue of cellulose threads. Once this tissue is dried, it looks like leather. Vegetal leather, which holds many processing possibilities.

Since 2015, I have been developing this organic material by fermenting bacteria and yeasts, a process that produces a steadily growing bioifilm. The "starter" (the mother) is incubated in an aquarium filled with a nutrient medium in which the microorganisms can develop under the right conditions.

A symbiosis of elements then takes place and a film develops over the surface of the liquid. This film is used by the microbial colony as a protective seal.

Once the film is mature, it is harvested and the membrane is treated. As an artist, I explore the full range of possibilities offered by these organic structures, from the process of their visible growth in real time, to their leathery state after harvesting, to translating the organically created patterns into other disciplines, such as textile works.



Sensorial Skins, diptiques Installation shot at 10N Gallery Menorca, 2023





installation shot at 10N Gallery, Menorca, Spain 2023

Acuario con Acetobacter xylinum (2023) – 99cm x 50cm x 30cm. Fermentation in process. Triptique of Sensorial Skins (2023) – 75 cm x 75 cm Earl Grey, Hibiscus, Gunpowder. The biological growth process. In a large aquarium, the fermentation process takes place. The generative process is in a constant state of transition. This is where the "Sensorial Skins" are created.

The bacterial tissue is a living material capable of interacting intelligently with its environment, engaging in dialogue with invisible factors such as temperature, humidity and the local enzymes in the water and air. Each newly grown 'Sensorial Skin' is thus unique, and is the outcome of the specific place where it is grown, with its own metabolism and aesthetic peculiarities. These skins, also called vegetal leather, range in hue from orange to brown. Some are already colored in the mass during the growing process, with natural dyes such as hibiscus and curcuma added to the medium. Other skins absorb the natural pigments by capillary action during or after drying.

I call these membranes "Sensorial Skins" to emphasize their living and evolving nature. As a product of their environment, they have a clear narrative and communicative power in addition to their aesthetic side. Their roughness indicates that they originated from an agglomeration of different bacterial colonies. Observable folds and spots resemble details of human skin. Their surfaces can be read as topographical maps on which the traces of their gradual aging are clearly shown.





Cellulose Weaving by the Acetobacter xylinum bacteria Scanning Electron Micrograph (SEM) of a freshly grown microbial skin -Magnification factor X500 - Vrije Universiteit Brussels (VUB), 2018



Sensorial Skins & Woven Tapestries Pilar Gallery Brussels, 2021 Table with Skins (150cm x 150cm)





Sensorial Skins & Woven Tapestries Pilar Gallery Brussels, 2021 Large Skin on cotton (95cm x 300 cm)





Sensorial Skins at the expo 'Vulnerability', Cyart#14 Yerevan, Armenia Variable lengths (max. 300 cm)

## SENSORIAL TAPESTRIES

The three large textile works : *Microbial Ancestors - pink, orange, green* can be seen as a form of mimesis of the *Sensorial Skins*. In these works, different observations are combined in a poetic way after which they enter into dialogue with each other. The tapestries are woven to reproduce the specific (growth) patterns of the biofilms. Despite -or thanks to- the multiple layers of organic fibers, the airy fabric allows light to pass through, just like the natural skin that interacts with environmental factors.

The tapestries describe the ecology of the bacterial colonies that weave the different layers of cellulose to create the skin. This ecology is translated into a jaquard weave by experimenting with different natural yarns, specific weaves and several loosely woven layers.

Translated to the textile medium, this results in a play of light shining through the airy, multi-layered work, reminiscent of the multiple layers woven by bacteria.

The change of medium -from biofilm to textile work- emphasizes the original organic patterns, revealing minuscule details not easily perceptible to the naked eye.

Technically, the tapestries *Microbial Ancestors - pink, orange, gree*n are woven in seven layers on a computer-controlled, state-of-the-art Dornier Jacquard weaving machine at the TextielLab Tilburg (NI), using a range of organic fibers: linen, paper, polyester, elirex and cotton.





As an artist, I have been working with "woven materials" for several years. I have a great interest in natural tissues and biofilms.

The works I have realized so far, with or without the help of microorganisms, have all been realized in an experimental manual way with natural materials I have found or created.

My collaboration with the TextielLab Tilburg has given me the opportunity to work with weaving techniques in a technical way, supported by the best professionals in the field. This approach has opened new perspectives for the development of my oeuvre.

I then share the expertise gained at the textile lab through my exhibitions and during the workshops I give. As a trained herbalist, it is also very exciting for me to be able to work with natural yarns derived from a variety of unusual wild plants, which in turn are colored with pigments derived from local wild flowers and lichens.

Together with master weaver Marjan Van Oeffelt, I realized the project *'Microbial Ancestors'* at the textile lab Tilburg. This is a series of 3 tapestries (each 170cm x 220cm) inspired by 3 different '*Sensorial Skins'*. The weavings can be seen as a whole, but each can also stand alone. Each work is woven with a range of natural yarns in the same hue: a pink, a green and an orange. The works each consist of 7 loosely woven layers, they are an interpretation of the cellulose layers woven by bacteria, with their characteristic skin lines, nodules, flat and irregular surfaces.







With the textile works, I want to create the visual impression that they consist of an accumulation of paper-thin weaving layers, representative of the semi-transparent membranes, as are the 'Sensorial Skins'. Marjan and I, together with Vera De Pont as yarn specialist, have done preliminary research into which yarns in combination with which bindings can best be used to achieve the most natural and artistic outcome possible. Decisive for each of the works is that the overall drawing is made by the incidence of light and by the difference in texture and density.

This outcome is achieved by converting certain weaving techniques and bringing together certain yarns. By splitting the warp into layers, a transparency is obtained due to the large distances in the weft. By adding flotations in the weave, we obtain differences in texture and relief. A combination of mat and lustre yarns provides the changing light: linen and (mercerized) cotton, with additions of more technical yarns, such as transparent mono-filament, round yarn elirex NM23, copper, brass and paper yarn.

By applying a variety of material we obtain a contrast in the work: paperthin  $\delta$  open (technical yarns) versus stiff and dense (cotton and linen).

The preliminary research and testing happened during the months of July, August and September 2022. Following material research was done: working with organic yarns such as jute, hemp, flax, seaweed and wild plants; dyeing with vegetarian and bacterial dyes: pigments from wild plants, lichen, algae and mushrooms; trying out specific weaving bonds and state-of-the-art digital fabrication of textiles on computer-controlled Dornier Jacquard rapier weaving machines.



Microbial Ancestors (Orange) 225cm x 170cm Studio Anne Marie Maes, Brussels Jaquard Weaving atTextielLab Tilburg



The *Microbial Ancestors* project is finished at the end of 2022 at the textile lab. As of 2023, the series of works *Microbial Ancestors pink, green, orange* has already been shown in several international exhibitions, including the solo exhibition '*Alchimia Nova*' at the Kunsthalle of Mulhouse (16.02 -30.04. 2023), and in the group exhibitions '*Symbiosium*' at the Fondation Fiminco, Paris (17.03 - 08.05.2023), AHWNN Gallery Oostende (17.03 -15.04.2023), '*Second Nature*' at Gallery 10N Menorca (04.06 - 20.08.2023), and '*Matter of Kinship*' at the Fondation Mateus, Porto / Vila Real (15.11.2023 - 30.04.2024).

The works were presented in some exhibitions as total installations, in others on the floor or on the wall as sculptures.

I work a lot with customized metal structures and in combination with other objects -such as the aquariums in which the biofilms grow during the duration of the expo- the total installation can tell the story I want to bring to the viewer.

The advantage of a presentation in space is also that one can approach the weaving from all sides, creating different experiences.For me, the emphasis in the works is on the matter, and how this matter can be experienced by the viewer. With the eyes, the subtle reliefs in the weaving should be able to be read as if they were simultaneously felt with the hands.

Synesthesia. These works are intended to evoke a sensory experience in the viewer.



Microbial Ancestors (Pink and Orange Tapestry 225cm x 170cm). La Kunsthalle, Mulhouse, France (2023) Interpretation of a Sensorial Skin - Jaquard Weaving atTextielLab Tilburg





Microbial Ancestors (Green Tapestry 225cm x 170cm). Symbiosium - Fondation Fiminco, Paris (2023) Interpretation of a Sensorial Skin - Jaquard Weaving atTextielLab Tilburg

#### PERFORMANCES RITUALS WITH MICROBIAL ANCESTORS

'Rituals with Microbial Ancestors' is a performance that stems from the alchemy created during fermentation processes. Insinuating a possible future in which different worlds create a universe that is both terrestrial and aquatic, human and bacterial, the performance poetically explores the close and fascinating relationship between humans and bacteria.

Anne Marie Maes invites us to consider what the future of coexistence might look like in a world where our ecological consciousness is constantly evolving and speculative time fluctuates through a network. Do we reject or embrace these tiny organisms as they weave a membrane of space-time around our bodies? Can we become entwined in an erotic embrace with these slimy substances? Can our collaboration with these bacterial organisms lead to a sustainable future that draws us into its fertile depths?

Surrounded by the elements of her installation 'Microbial Ancestors', Maes invites us to step into a world where the boundary between humans and microorganisms blurs. The scoby mother is moist and slimy, with a sour smell of living matter. Every death is a birth and every end is a beginning. Transmutation.

Bacterial time, human time, fermenting time.

Collaborations fuel transformations. The soundscape from bacteria is polyphonic and interweaves on different levels.





Symbiosium - Fondation Fiminco, Paris (2023) Performance 'Rituals with Microbial Ancestors' on Earth Day 2023

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## BIOGRAPHY

Anne Marie Maes is a multidisciplinary artist with a background in botany and visual anthropology. She lives and works in Brussels. Her practice combines art and science with a particular interest in ecosystems and alchemical processes. She works with various biological, digital and classical media, including living organisms. In doing so, she focuses on the process and creates the ideal conditions for a selfgenerating art.

On the roof of her studio in Brussels, she has created a field laboratory and experimental garden where she works with insects and bacteria, studying the processes that nature uses to create certain forms.

For many of her projects, she collaborates with fablabs and university research labs. Her long-term projects "Connected Open Greens," "Bee Agency" and "Laboratory for Form and Matter" provide the framework for a wide range of artworks, all at the intersection of art and ecology. Anne Marie Maes has received several awards and citations and has exhibited as a solo artist and in group exhibitions around the world.

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Green Tapestry (test) Casa de Mateus, Pt.













