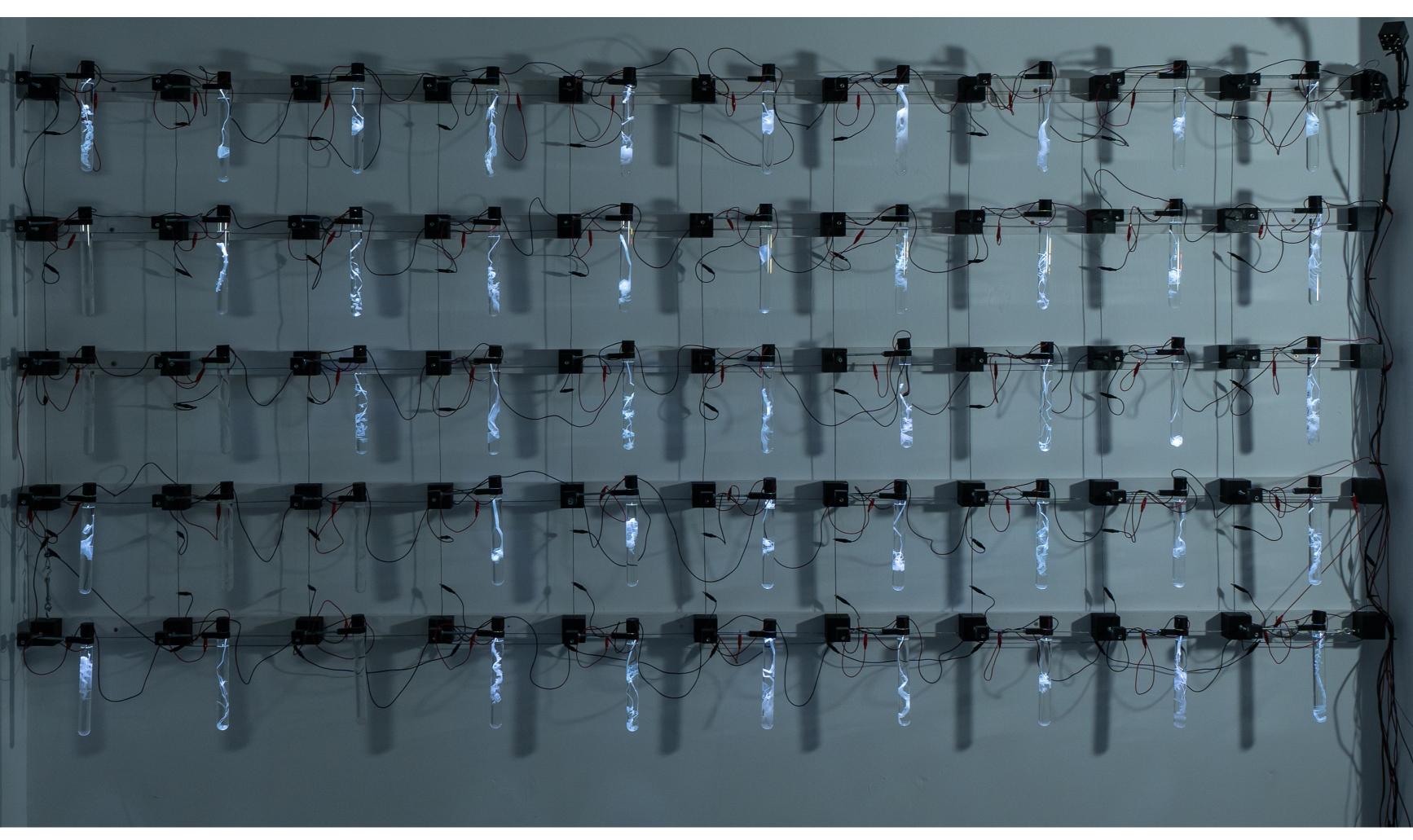
FLORIAMA CANDEA Selected works

## **Floriama Candea** (b. 1984, Bechet, Romania)

Floriama Candea explores the dynamics between objects and the way we perceive them by creating hybrid visual identities. Her versatile toolkit spans interactive, kinetic, and video installations to sculpture, experimental electronics, drawing, and printing, with an additional focus on creating visuals using bio-based materials. With the complex relation between science, philosophy and tech, at the core of her artistic practice, she questions our role as well as the stakes of the Anthropocene, at the dawn of a possible new era. Through her installations, she challenges our beliefs and encourage us to re-evaluate our mental constructs that shape our understanding of the present and, by extension, our future. This way, they activate our imagination and function as gateways to alternative narratives and scenarios.

She is the co-founder of Qolony, a Bucharest-based cultural NGO dedicated to creating bridges between various disciplines and communities of professionals. Those include contemporary artists, scientific researchers and diverse technologists, all brought together by their passion for interdisciplinary practices and its creative outcomes.



ENDANGERED ORDER 2023.

#Self-organised system #biomaterial #human<>nature<>technology #interactive installation #synchronous fireflies #natural<>artificial #algorithm #swarm intelligence #complex system

# **Endangered Order**

environment.

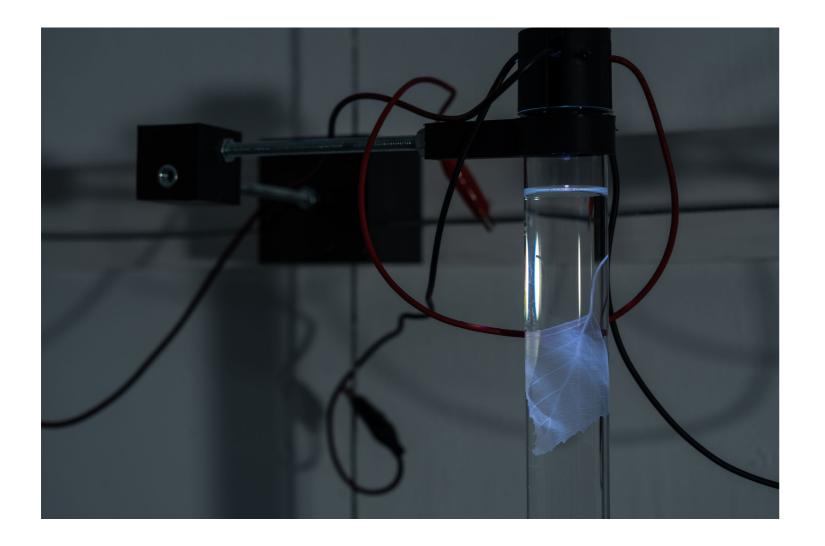
Credits: programming: Cristian Balas | photo: Cătălin Georgescu

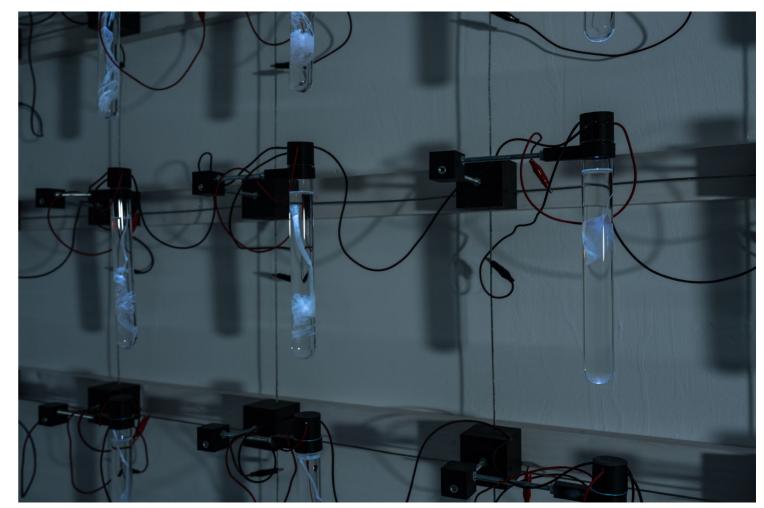
Interactive Installation | 2023

The inspiration for "The Endangered Order" installation is drawn from a combinatorial optimization algorithm that mirrors the intelligence of a hybrid swarm of fireflies. The installation aims to bring attention to the vulnerability of non-human species in the Anthropocene era,

specifically highlighting the endangerment faced by fireflies. Traditionally considered indicators of a healthy natural environment, fireflies confront their own threats, particularly from the expansion of urban spaces and resulting light pollution that diminishes the brilliance of their light pulses, disrupting their natural order.

Within the context of the "Endangered Order" installation, fireflies are depicted as ethereal, plant-like entities stripped of their cellular identi- ty through the decellularization process. In this representation, they serve as biological remnants, symbolizing the decline of the natural world. The installation serves as a commentary on the impact of human activities on the delicate balance of ecosystems and the endangerment of species that are integral to the health of our





ENDANGERED ORDER 2023.

#Self-organised system #biomaterial #human<>nature<>technology #interactive installation #synchronous fireflies #natural<>artificial #algorithm #swarm intelligence #complex system



SOMATIC OBJECT/SENSITIVE DEPENDENCE 2023.

#biomimicry #biomaterial #human<>nature<>technology #interactive installation #biosensors #natural<>artificial #physiological data #pulse

# My Rhino is not a Myth

### science art

fictions

# **SOMATIC OBJECTS** | 2022 - 2023

## Somatic Object | Sensitive Dependence

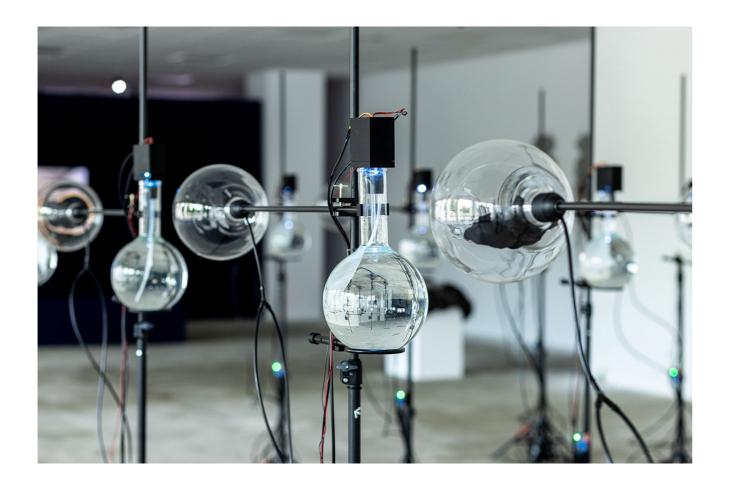
Interactive Installation | 2023

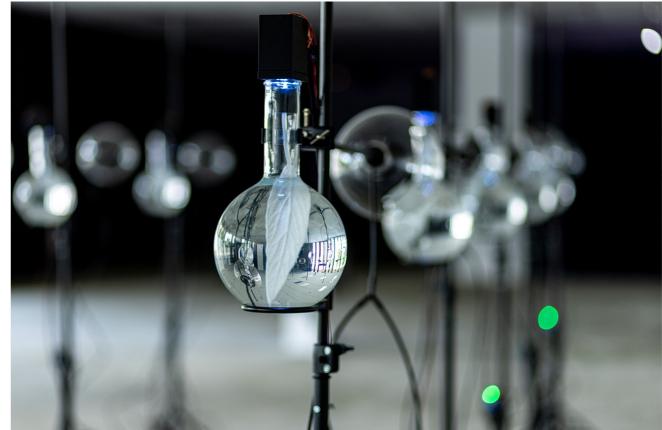
In an increasingly interconnected world where the Internet of Things (IoT) becomes an integral aspect of various relationships, "Sensitive Dependence" delves into a scenario where technology seamlessly integrates as an invisible guide to our behaviors and physiological states. This dynamic interplay between control and the lack of it prompts us to question our capacity to influence the world, nature, species, and the biases that stem from these interactions.

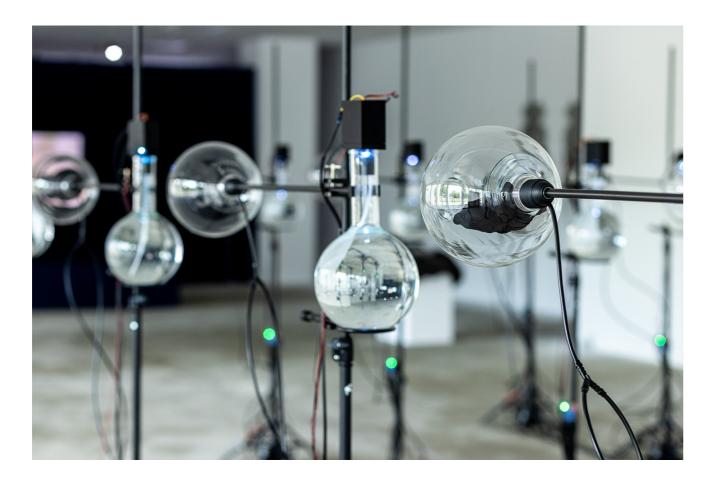
Technically, the installation functions as a bodily extension, monitoring the heart rate and oxygen levels of visitors and transmitting this data, via Arduino, to sculptures that respond and adapt in real time. This immersive chorus of breaths and pulses serves as a reminder that binaries such as inside-outside, us/them should not be taken for granted. The transfer of states or characteristics aims to present a speculative version in which the relationship between humanity and nature involves constant exchanges and negotiations-sometimes imperceptible but always with a reciprocal impact.

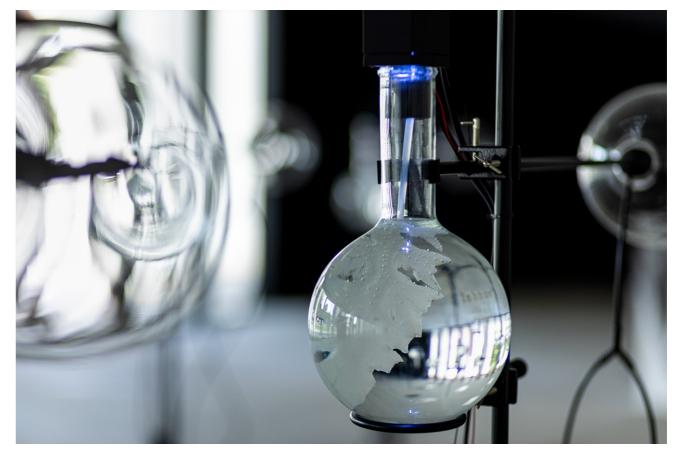
Credits: programming: Cristian Balas | photo: Adrian Câtu

SOMATIC OBJECT/SENSITIVE DEPENDENCE 2023.

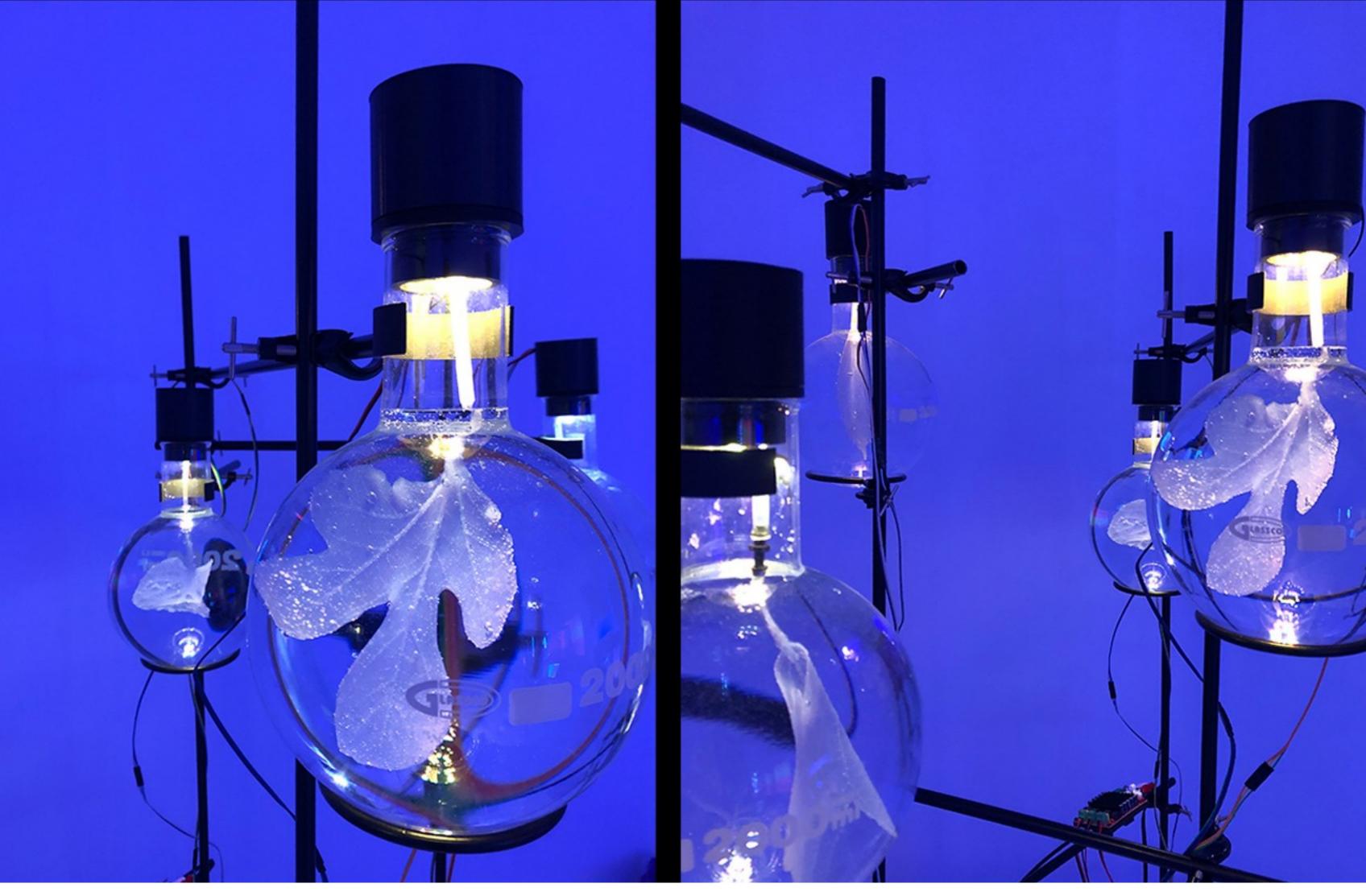




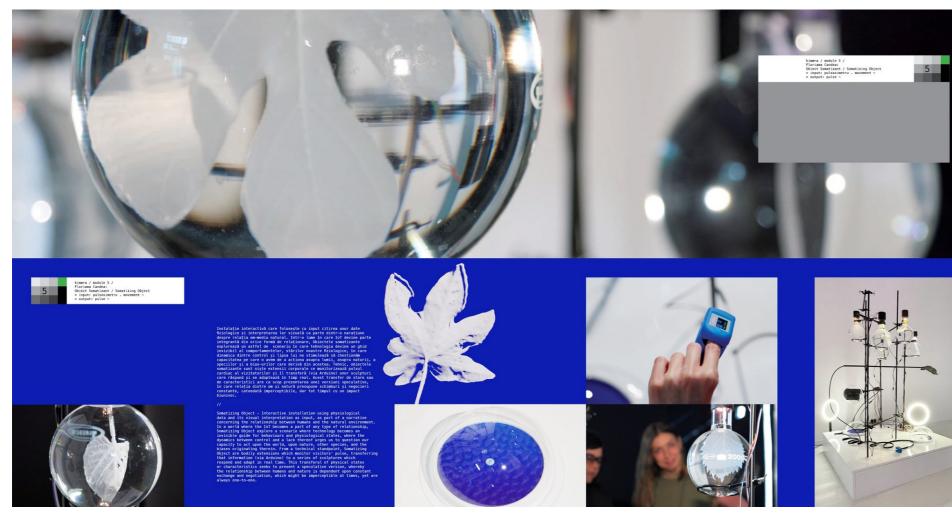




# **SOMATIC OBJECT/SENSITIVE DEPENDENCE** 2023.



#biomimicry #biomaterial #human<>nature<>technology #interactive installation #biosensors #natural<>artificial #physiological data #pulse #cymatics #breathing



page in the catalogue > KIMAERA vol.2 202.3

Credits: Programming: Cristian Balas | Photo: Călin Man

# SOMATIC OBJECT/Kimaera's heart | 2023.

Somatic Object No.3 Interactive Installation 2023

A segment of the Kinema Ikon's Kimaera project. Kimaera consists of ten distinct parts, each crafted by a different artist. This project represents a hybrid body, an interactive digital meta-installation wherein each individual work or module operates both independently and as an integral component of the collective whole.

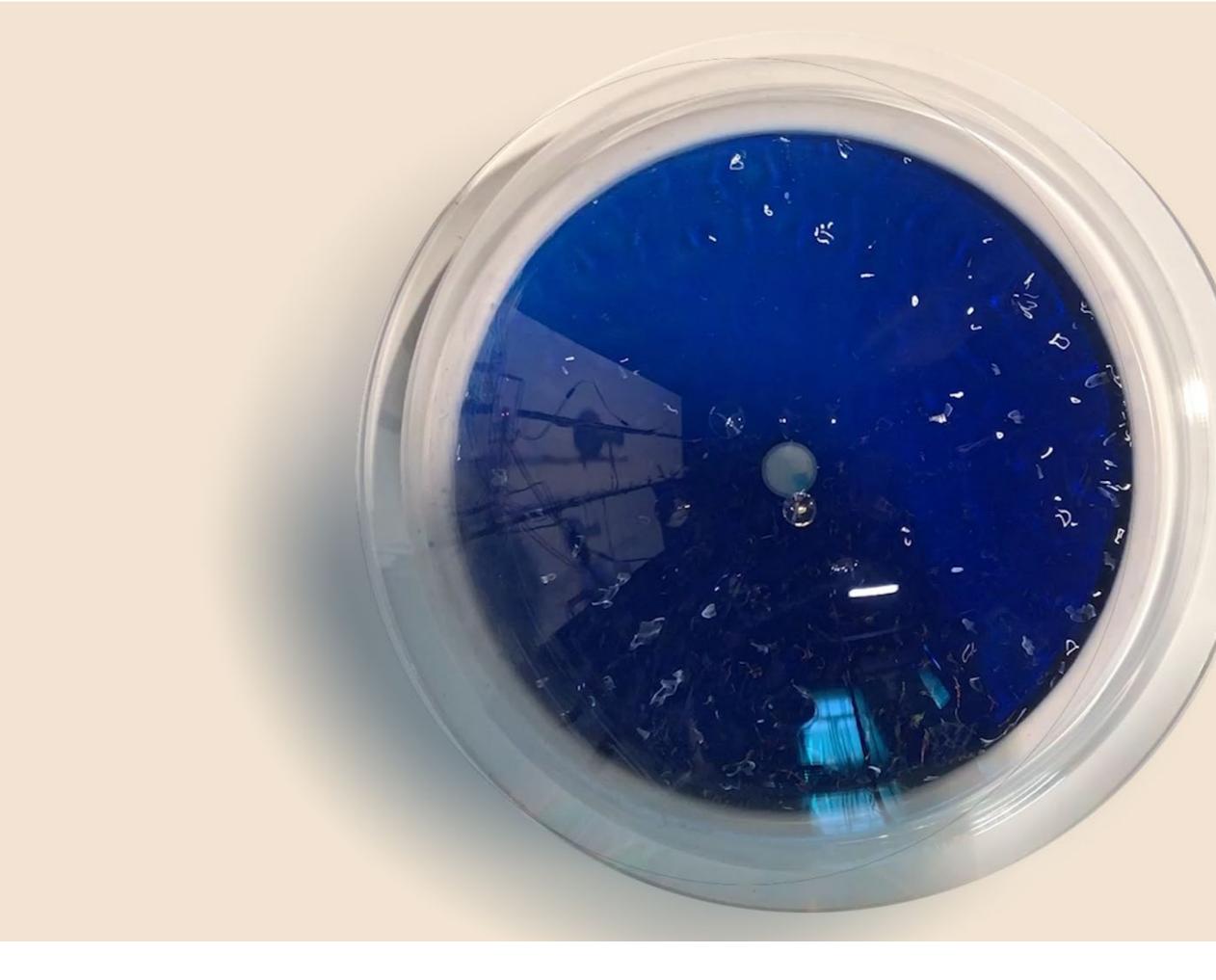
Somatic Object No.3 - the Kimaera's heart is part o the Somatic Objects series - a bodily extension that monitors the heart rate and oxygen levels of the visitors and transfers this data (via Arduino) to some sculptures that respond and adapt in real time. In this scenario, silicone replicas of leaves are interpreting the heart rate data of visitors, black textile inflatable objects are simulating their breathing while their simple presence generates vibrations in an cymatics experiment.



#biomimicry #biomaterial #human<>nature<>technology #interactive installation #biosensors #natural<>artificial #physiological data #pulse #cymatics #breathing





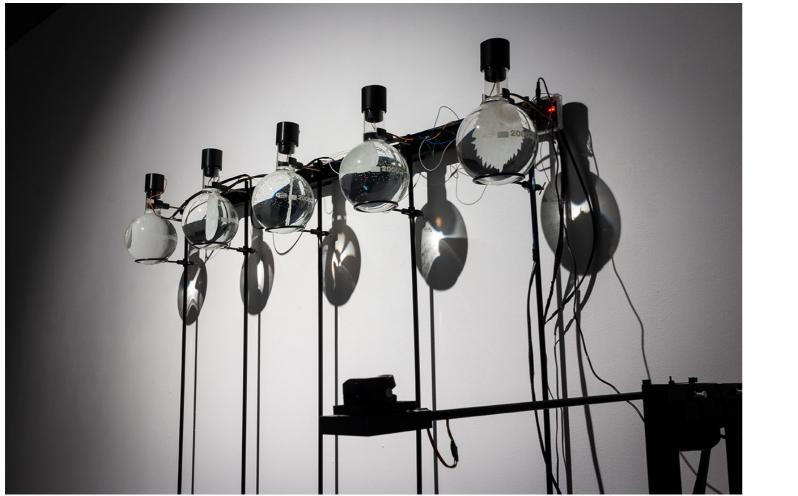


#biomimicry #biomaterial #human<>nature<>technology #interactive installation #biosensors #natural<>artificial #physiological data #pulse #cymatics #breathing



SOMATIC OBJECT No. 2 | 2023.

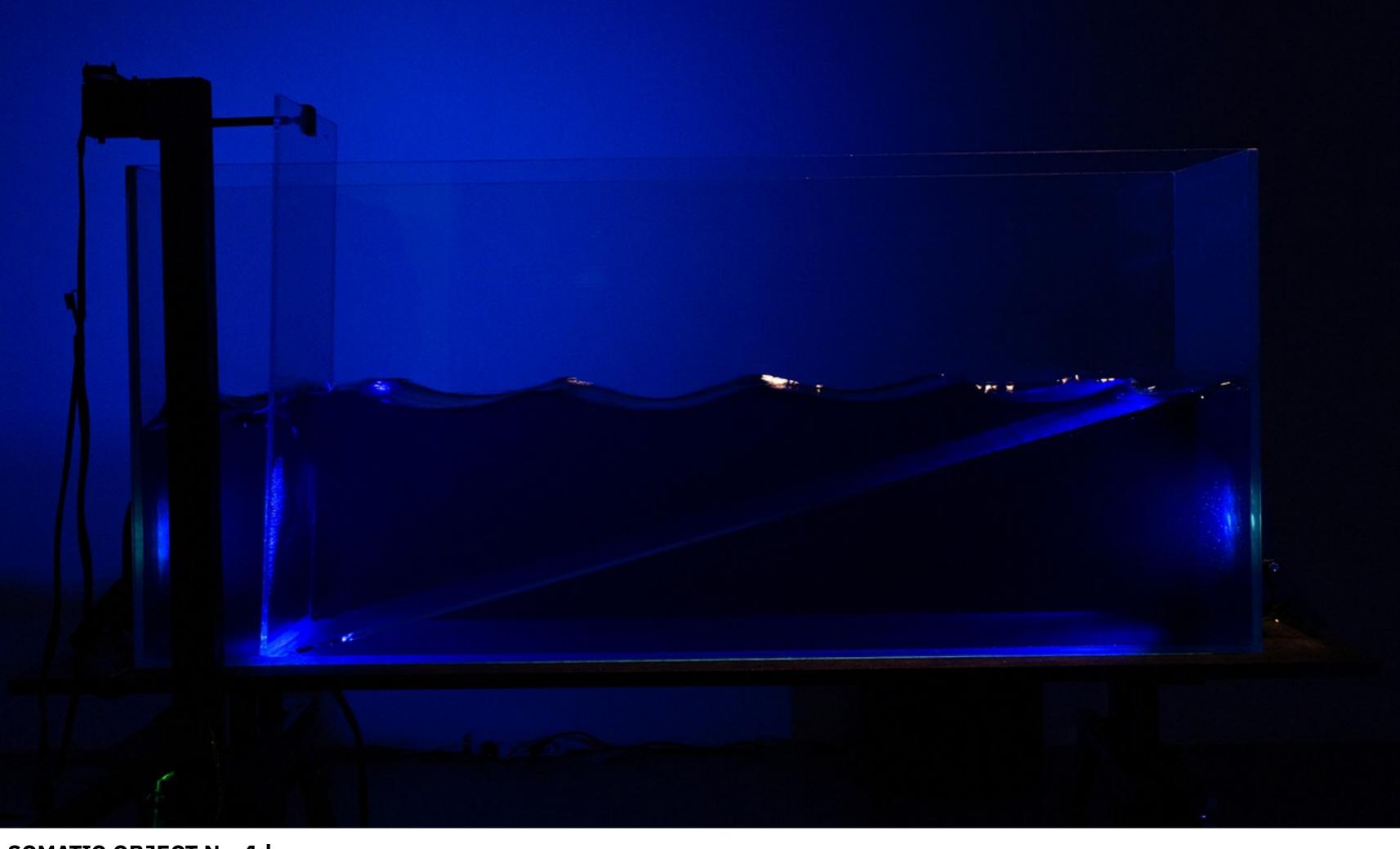
#biomimicry #biomaterial #human<>nature<>technology #interactive installation #biosensors #natural<>artificial #physiological data #pulse #pulsoximeter #quantified self





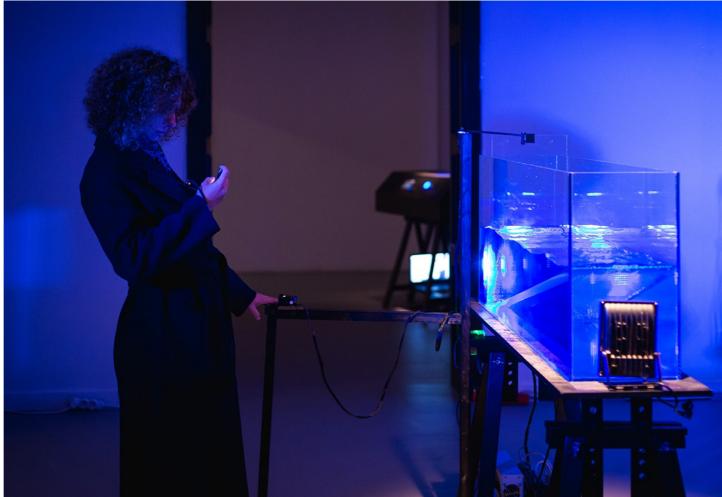
SOMATIC OBJECT No. 2 | 2023.

#biomimicry #biomaterial #human<>nature<>technology #interactive installation #biosensors #natural<>artificial #physiological data #pulse #pulsoximeter #quantified self



**SOMATIC OBJECT No. 1** 2023. #biomimicry #biomaterial #human<>nature<>technology #interactive installation #biosensors #natural<>artificial #physiological data #pulse #pulsoximeter #quantified self

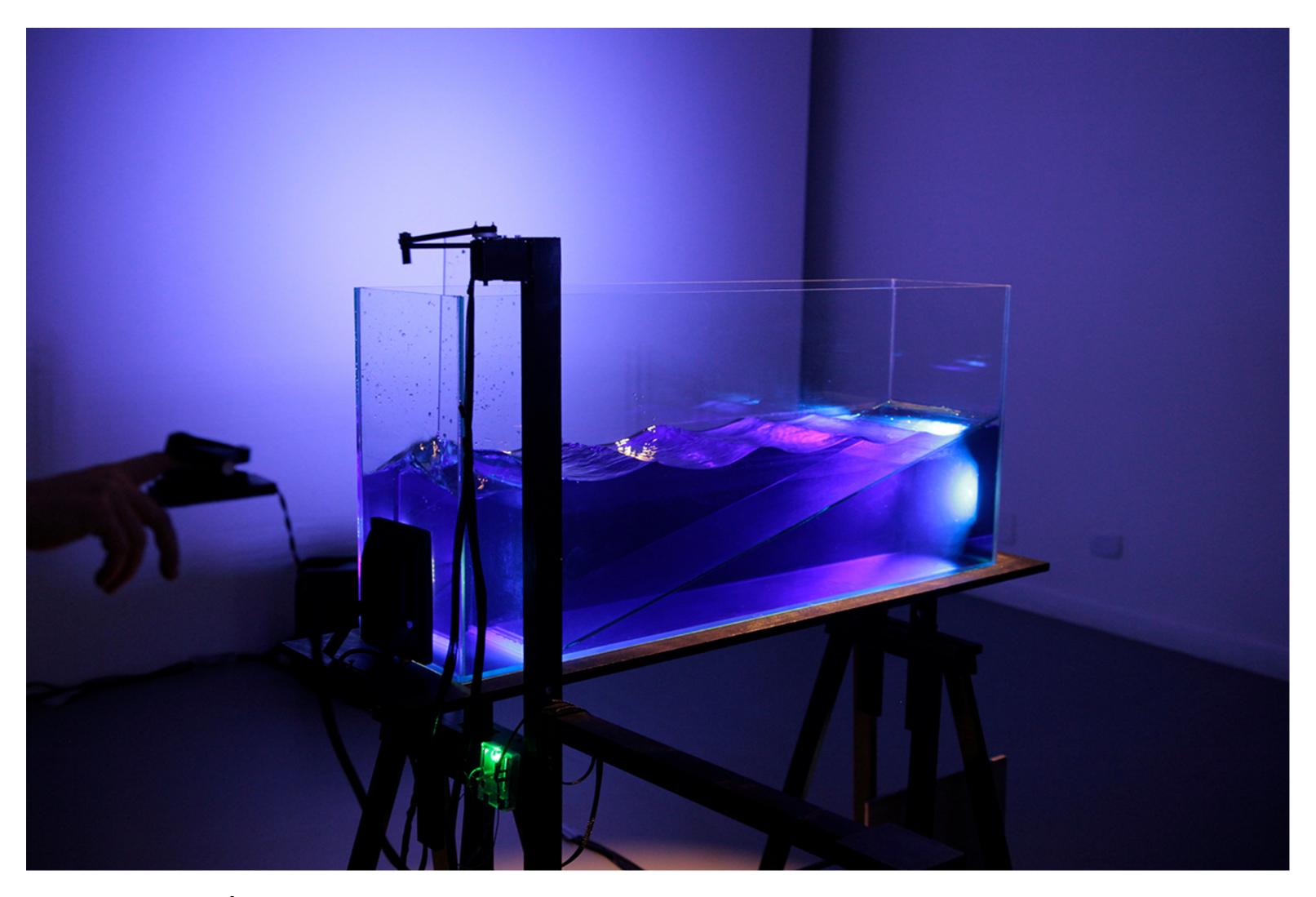




SOMATIC OBJECT No. 1 | 2023.

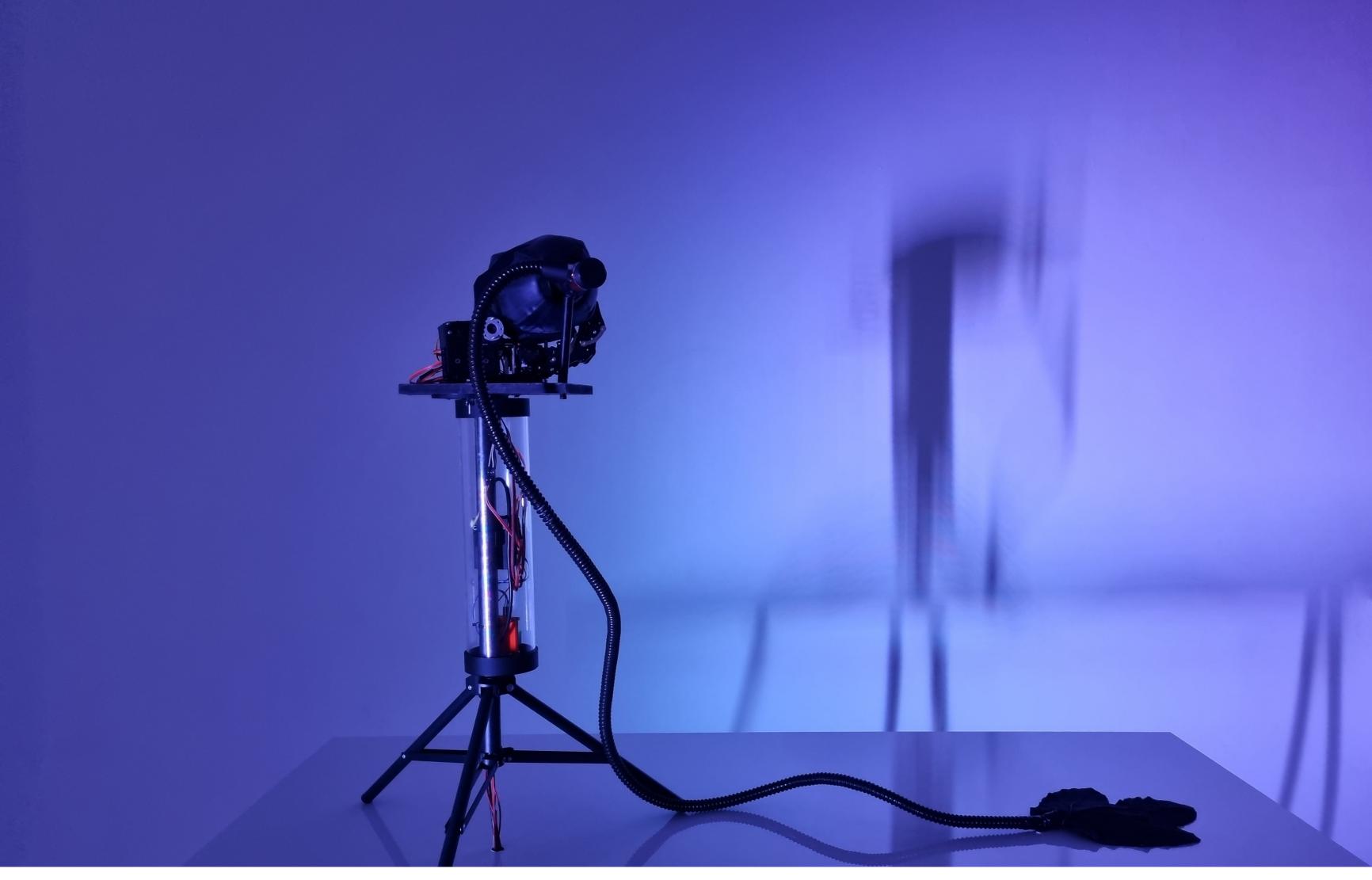
#biomimicry #biomaterial #human<>nature<>technology #interactive installation #biosensors #natural<>artificial #physiological data #pulse #pulsoximeter #quantified self





SOMATIC OBJECT No. 1 | 2023.

#biomimicry #biomaterial #human<>nature<>technology #interactive installation #biosensors #natural<>artificial #physiological data #pulse #pulsoximeter #quantified self



**SOMATIC OBJECT | A technophilic love of nature** 2023.

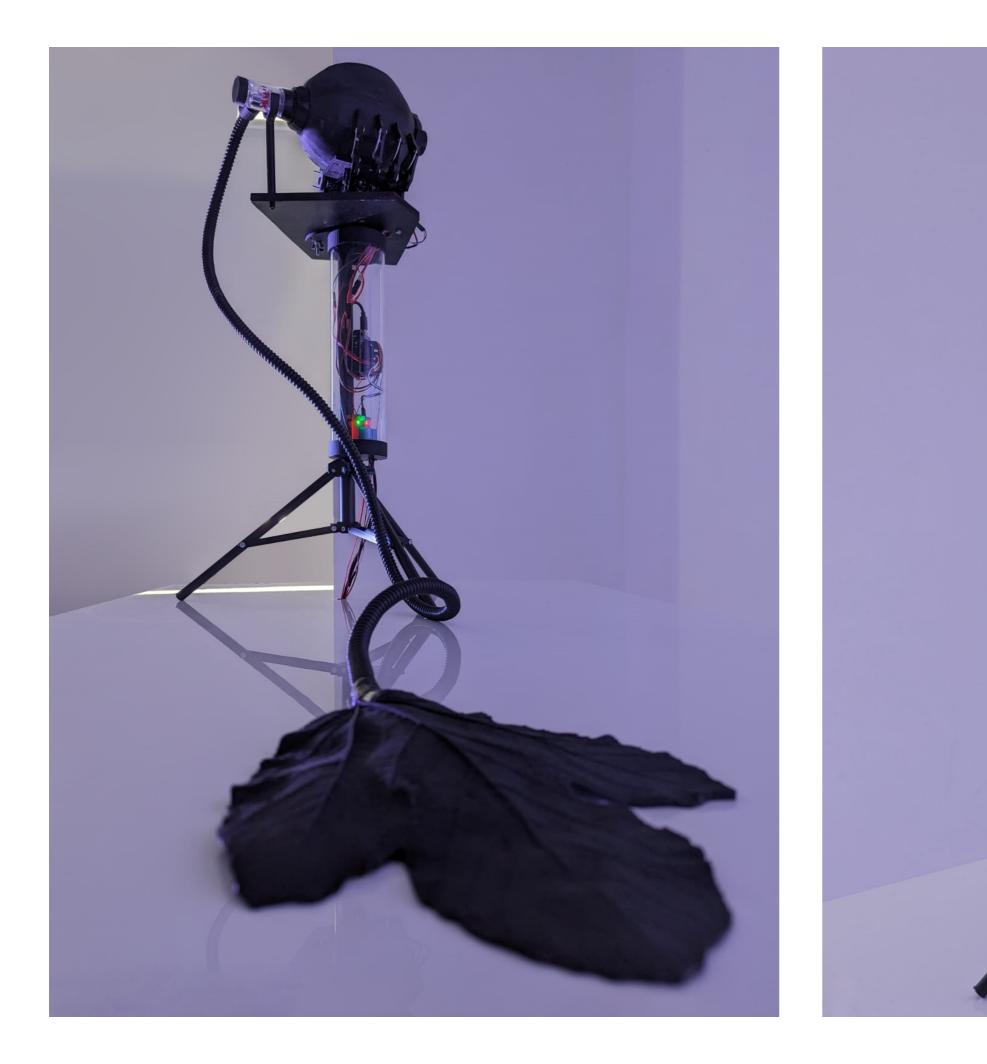
#biomimicry #robotics#human<>nature<>technology #installation # #natural<>artificial #life sustaining device #breathing

Somatic Object | A technophilic love of nature Installation | 2023

An experimental contemplation on the potential of a world where technology assists us in addressing the challenges of the Anthropocene. Envisioning a met- aphorical scenario with a reversed dynamic, where plants are aided to breathe, requiring technological prosthetics for us to breathe. This reversed symbiosis serves as a reminder that concepts like inside-outside, usthem shouldn't be assumed, proposing instead a speculative scenario where the connection between humans and nature entails ongoing exchanges and negotiations. These interactions may be subtle at times but always have a reciprocal impact.

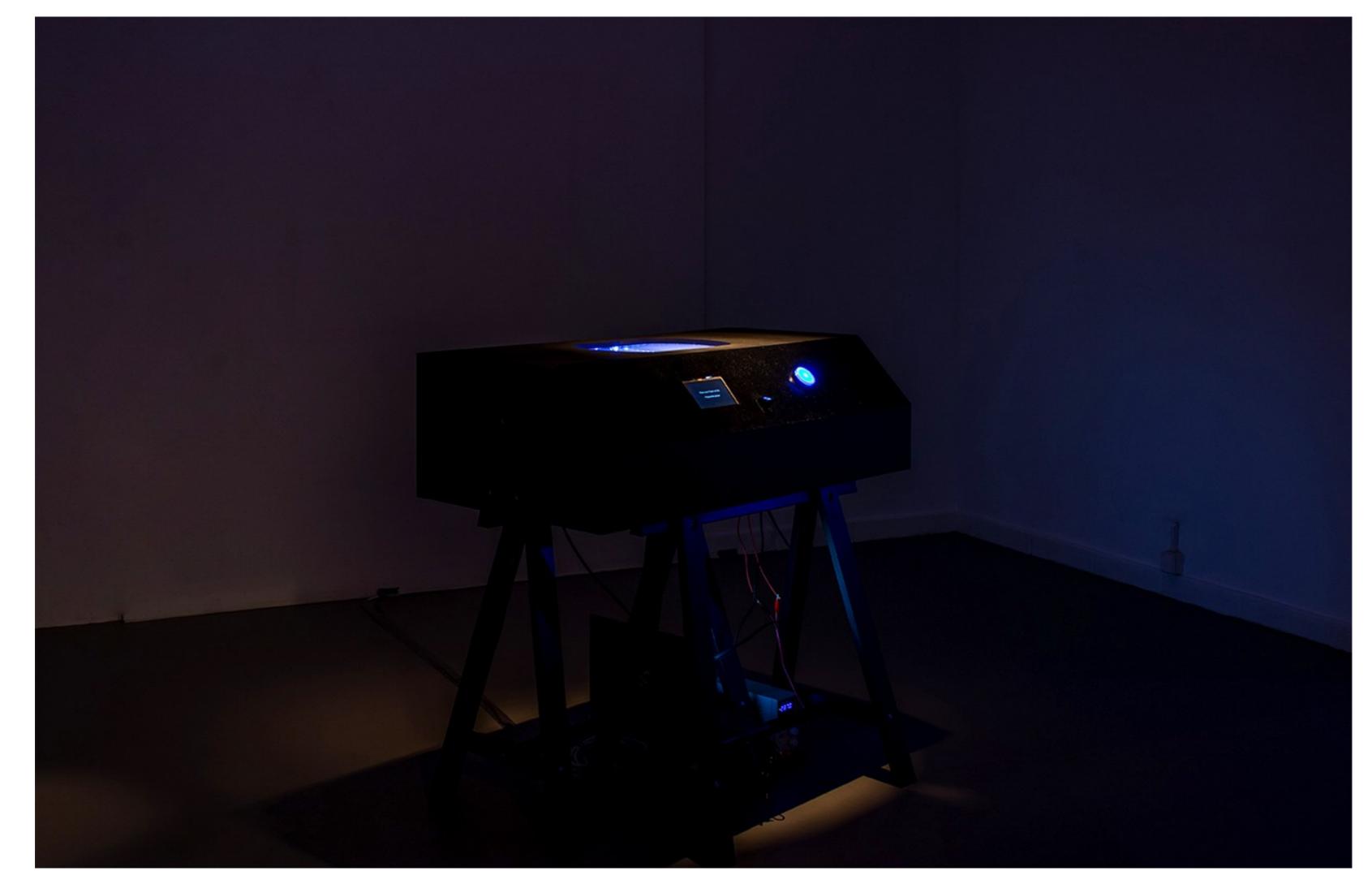
**SOMATIC OBJECT | A technophilic love of nature 2023.** 

#biomimicry #robotics#human<>nature<>technology #installation # #natural<>artificial #life sustaining device #breathing



**SOMATIC OBJECT** | A technophilic love of nature 2023. #biomimicry #robotics#human<>nature<>technology#installation # #natural<>artificial #life sustaining device #breathing





A SCULPTURE FOR A THOUSAND PEOPLE 2022. #biometric #behaviour #human<>>>technology #installation #unique pattern #data storage #sonification # regognition # dedicated to limited no. of people

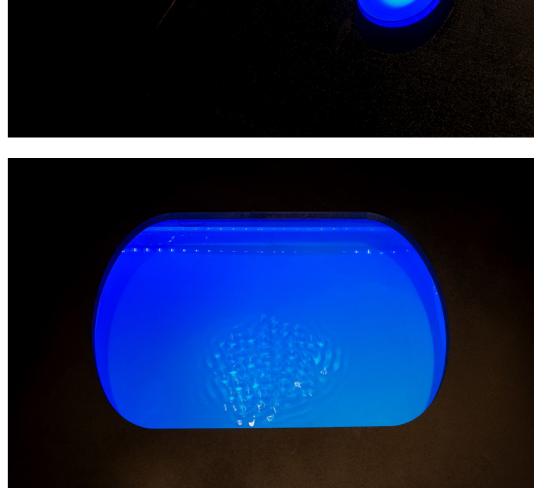
## A Sculpture for a Thousand People

Interactive Installation | 2022

We cannot recognize the unique pattern of our own fingerprint, yet we have so many objects that do respond to it. This identity marker unlocks our technological gadgets and assets. "A Sculpture for One Thousand People" can store and interpret 1000 fingerprints. The installation uses the reading of the numerical data recorded by a common fingerprint sensor and transforms it into sound frequencies. Then, these frequencies are played by a speaker inside a cymatics device, generating a visual pattern onto a liquid medium. The visual and sonic pattern become visible only by saving the fingerprint into the sensor's memory, this way, alluding to the restrictive relation we have to objects we own or we call our own. "A Sculpture for One Thousand People" eventually becomes an object dedicated to 1000 viewers, an object that owns 1000 fingerprints data.

Credits: Programming: Cristian Balas | Sound: Cătălin Crețu | Photo: Tudor Popa





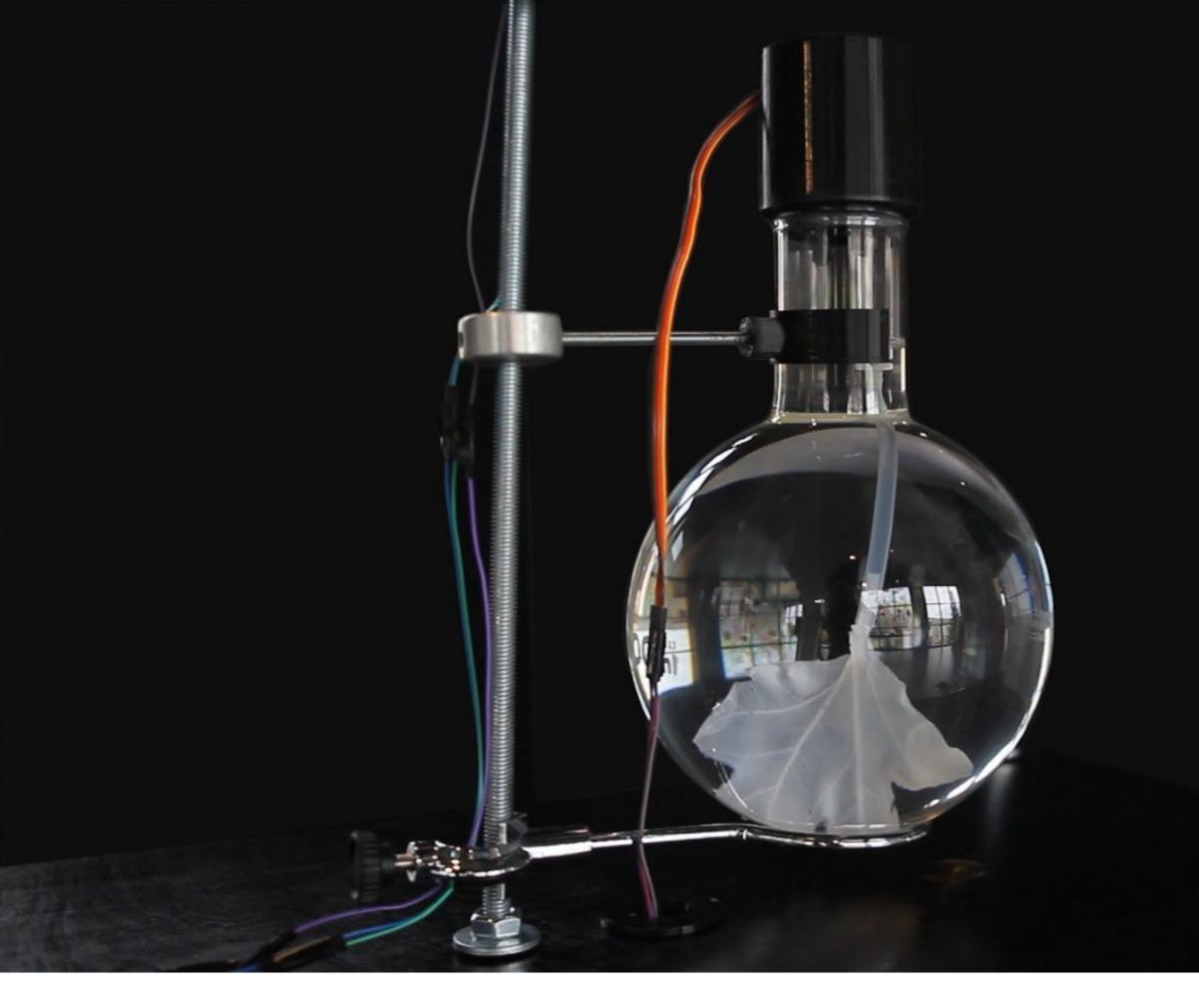


#biomimicry #biomaterial #human<>nature<>technology #interactive installation #biosensors #natural<>artificial #physiological data #pulse #time #human presence #ghost tissue



#biomimicry #biomaterial #human<>nature<>technology #interactive installation #biosensors #natural<>artificial #physiological data #pulse #time #human presence #ghost tissue

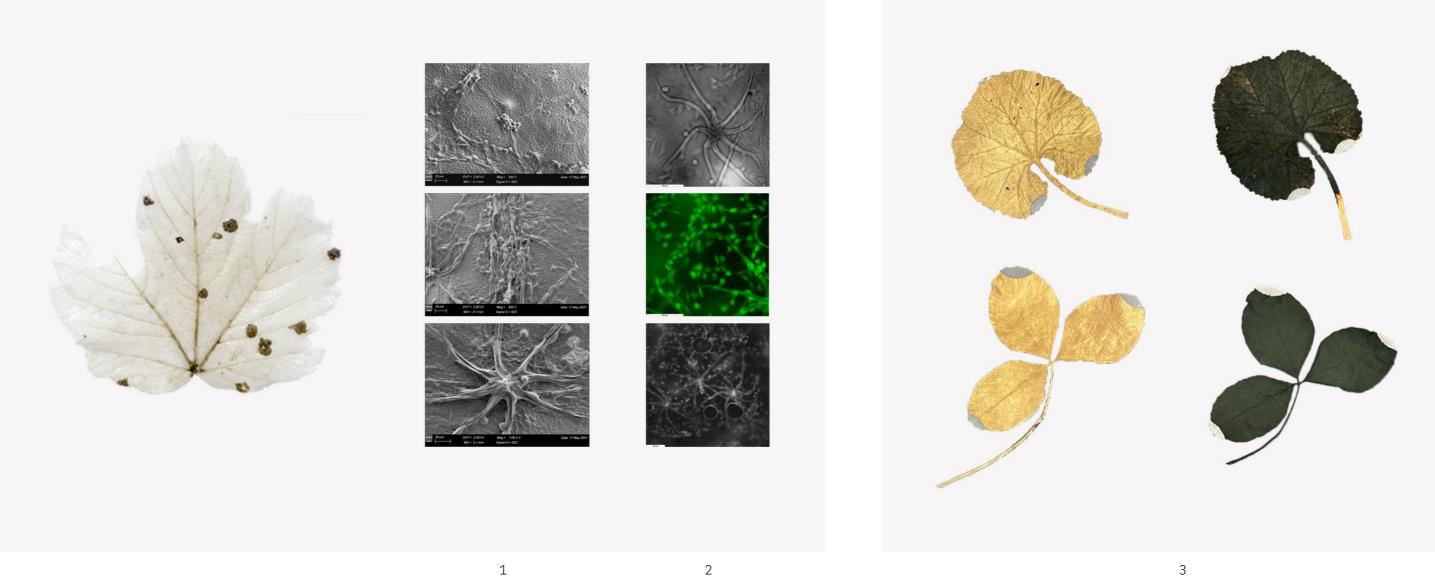
SENSITIVE OBJECTS | 2021.







IMplant | 2021. #biomimicry #biomaterial #living matter # installation #biosensors #natural <> artificial #cell cultures #artificial muscles #vegetal scaffolds #bio-engereing #no species #collaboration #interaction



Scanning Electron Microscopy (SEM) of a decellularized leaf with cell cultures (photo -Adrian Enache)

electro fluorescence microscopy analysis of a decellularized leaf with cell cultures (photo -Adrian Enache, Luminita Radulescu)

Bioinspired artificial muscle-sensor based on conducting polymers functionalized electrospun fiber networks on decellularised plant tissue (with Mihaela Bunea, Mihaela Beregoi)

### IMplant

Kinetic Installation | 2021

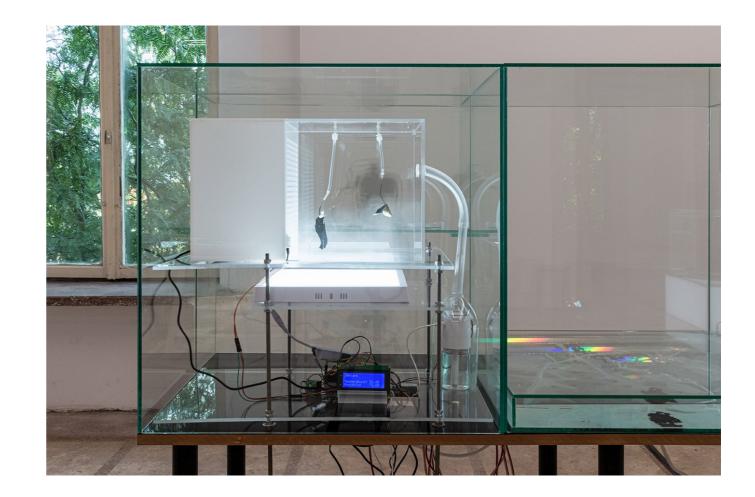
-extracellular matrix (ECM) of vegetal tissues obtained via decellularization process, used as a scaffold for growing living cells

-extracellular matrix (ECM) of vegetal tissues obtained via decellularization process, implanted with artificial nanostructures that allow their movement under certain stimuli (muscular leaves) -artificial replicas of some vegetal tissues implanted with artificial nonostructures, which allow their movement under certain stimuli. (Soft- Phytomorphic robots)

The IMplant installation explores the relationship between biodiversity and visual identity that we don't think about very often. The notion of 'implant' is central here: it provides a bridge between the visual identities of the objects we are already accustomed to and the visual questioning of these identities. By 'implant' one can understand the creation of new objects from the existing ones, the reiteration of the visual identity in general. The installation stages several such steps. It shows some hybrid entities / objects with a focus on how different structures/intensities influences the materiality of different bodies. These objects obtained via bioengineering techniques invite us to look at things differently, as genuine novelties, resulting from redefining familiar identities. The use of non-biological materials is used to interfere with biological systems and make us wonder about the legitimacy of this distinction and the consequences of biological fabrication. Thus, IMplant consists of a collection of iterated objects (natural and artificial), with decomposed features or swapped details, objects that transit the boundaries between species, between natural and artificial, between real and fiction in an attempt to find new narratives about the human-nature relationship.

Credits: programming: Cristian Balas | photo: Tudor Popa | scientific collaborators: Adrian Enache, Luminita Radulescu, Ionut Enculescu, Mihaela Beregoi, Mihaela Bunea @ National Institute of Materials Physics









**IMplant** 2021. #biomimicry #biomaterial #living matter # installation #biosensors #natural<>artificial #cell cultures #artificial muscles #vegetal scaffolds #bio-engereing #no species #collaboration #interaction



**IMplant** 2021. #biomimicry #biomaterial #living matter # installation #biosensors #natural<>artificial #cell cultures #artificial muscles #vegetal scaffolds #bio-engereing #no species #collaboration #interaction



CONTAMINATION 2020. #microbiom #biomaterial #living matter # bacteria #microbs #natural <> artificial #mold cultures #yeast cultures #vegetal scaffolds #no species #collaboration #no sterile environment

# Contamination

Amidst the era of enforced social distancing brought about by the Covid-19 pandemic, I've explored the intricate interplay between our physical identities and presences and the natural realm. The embodiment of this exploration is captured in "Contamination," a series of objects - of petri dishes, each housing bacterial and mold cultures sourced from both my body and studio. These cultures thrive on decellularized leaves and flower tissues, challenging the notion that material objects are static, prepackaged entities. This project is grounded in the concept that identities and classifications of material objects are dynamic processes rather than fixed states. Our bodies, the living matter they consist of, and the various species we encounter, alongside the artifacts intertwined with our daily lives, maintain an ongoing relationship with the environment. The identity of both ourselves and these elements is shaped through a continuous negotiation among the constituent parts of this intricate whole.

Credits Supported by the Artists Rooms Micro Grant 2020 | Fundatia9

Bacterial cultures on decellularized vegetal tissue | 2020



**CONTAMINATION** 2020. #microbiom #biomaterial #living matter # bacteria #microbs #natural<>artificial #mold cultures #yeast cultures #yegetal scaffolds #no species #collaboration #no sterile environment





**CONTAMINATION** 2020. #microbiom #biomaterial #living matter # bacteria #microbs #natural<>artificial #mold cultures #yeast cultures #yegetal scaffolds #no species #collaboration #no sterile environment



## Panspecies

of identity

#microbiom #biomaterial #living matter # bacteria #microbs #natural <> artificial #mold cultures #yeast cultures #vegetal scaffolds #no species #collaboration #no sterile environment

Plant ECM (extracellular matrix), soft silicone sculptures | 2020

The project involves utilizing Petri dishes as vessels to showcase plant connective tissues, employing them not merely as a substrate but a white page upon which artificial silicone components are intricately arranged. This arrangement serves as a metaphor, depicting a realm devoid of gender and species distinctions, forming a landscape of substitute objects. In doing so, it offers a reflection on our diminishing biodiversity and calls for a reconsideration



UNCANNY SYMMETRY 2019. #ghost objects #biomaterial # meat scaffold # white rock# camouflage #similar form #taxonomy #decellularization process #embeded rules #perception #no species



## **Uncanny Symmetry** Installation | 2019

#ghost objects #biomaterial # meat scaffold # white rock# camouflage #similar form #taxonomy #decellularization process #embeded rules #perception #no species

UNCANNY SYMMETRY 2019.

Embedded within every object or body is a foundational substratum that serves as the basis for every visual and imaginative facet it will ever possess. In the context of 'Uncanny Symmetry,' the revealed tissue represents the formal matrix of a body, the scaffold on which its identity rests. The matter is obtained via biological decellularization, which strips out all the cells from a donor organ, keeping only the white, almost translucent connective tissue, and nothing else. Fiction is the only place in which the original identity still holds.







FOLDS & SCAFFOLDS 2017.

#experimental engraving #biomaterial #living matter # installation #oxidation #kombucha biofilm #form #taxonomy #biocellulose #sugar printing #embeded rules #reasearch oriented

## Folds & Scaffolds

Installation | 2017

"Folds and Scaffolds" explores the relationship between the unraveled aesthetic character of organic material and the way it can be revealed within an artistic practice. Within this constellation, , the image is addressed in two ways. One avenue involves viewing the image as a recognizable entity defined by form and our mental understanding of it. The other way is to see it as the result dictated by the inner rules of the material itself. The matter transforms into the medium, guiding the production of the image, unveiling its own states and embedded rules-some only partially preset, others revealed solely within the artistic process. This installation serves as the launching pad for artistic research, utilizing objects derived from bacterial cultures that are carefully crafted selected and arranged. The amalgamation features Kombucha films subjected to two distinct interventions, resulting in diverse visual outcomes. The growth trajectory of the bacterial colony is intentionally disrupted through varied means: selecting the growing medium, introducing attacks with other bacteria, fungus, chemical agents, and more. The dried Kombucha membrane undergoes alterations through processes such as oxidized drawings, photographic exposures, and form manipulation. These dynamic procedures introduce an element of uncertainty, questioning the integrity of matter and its origins as a living entity.

# FOLDS & SCAFFOLDS 2017.





FOLDS & SCAFFOLDS 2017.

#experimental engraving #biomaterial #living matter # installation #oxidation #kombucha biofilm #form #taxonomy #biocellulose #sugar printing #embeded rules #reasearch oriented



## Metabiosis

biomaterials, bioprinting | 2015

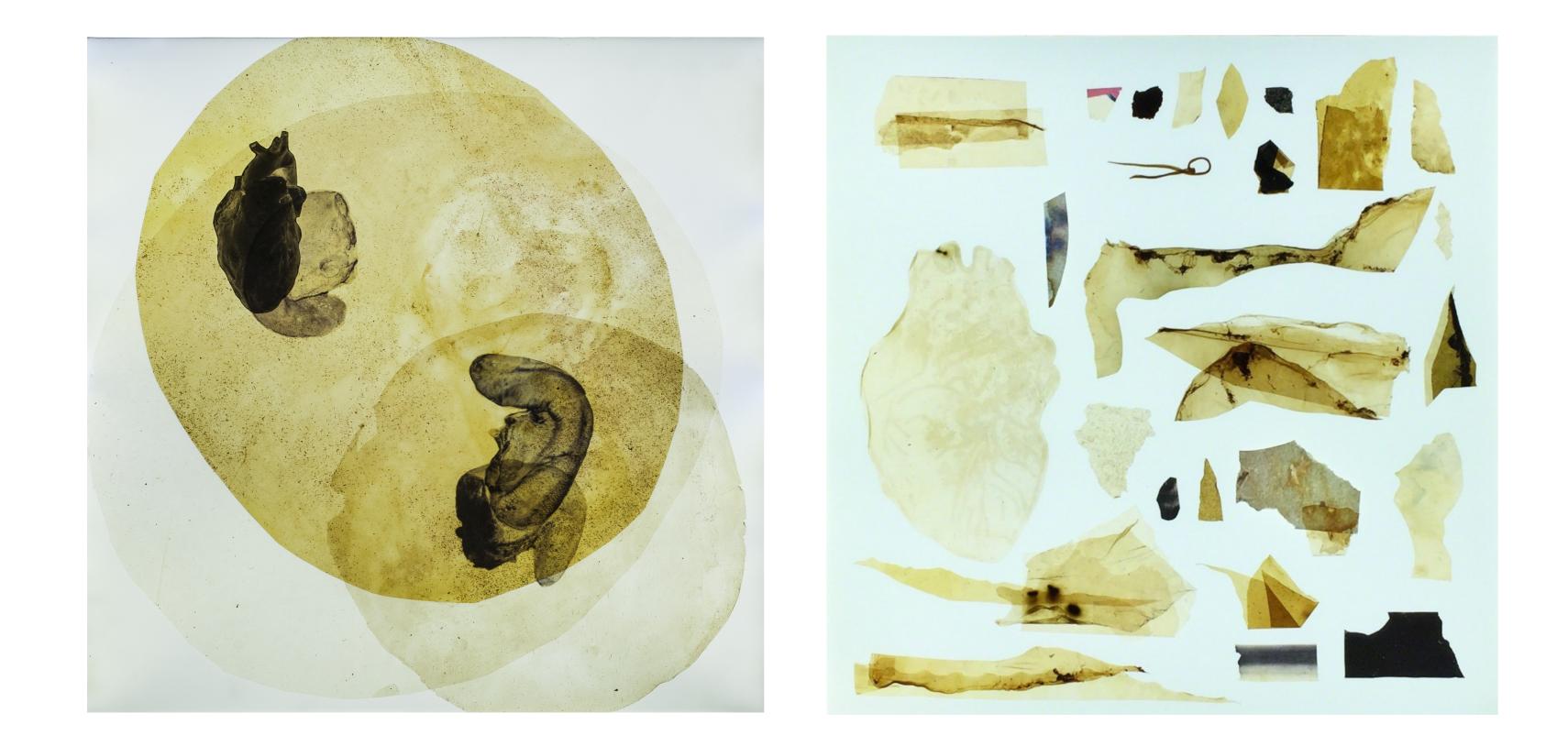
trum of black-brown.

biofilm.

METABIOSIS | 2015. #fermentation #biomaterial #natural #experimenting with matter's embeded rules #cellulose based #bacteria #yeast #sugar printing #kombucha #dried film #organic matter # experimental ingraving #oxidation

Metabiosis delves into the experimental exploration of the aesthetics inherent in living matter, specifically a biofilm cultivated from Kombucha symbiotic cultures. Extracted from its natural habitat, the bacteria undergoes a desiccation process, giving rise to a skin-like membrane. This film undergoes an aging and oxidization process, progressively transforming its color into a richer, deeper spec-

In a unique twist, modified images are printed onto sugar paper and introduced to the Kombucha biofilm. As these images imprint onto the biofilm, their visibility gradually diminishes over time, mirroring the ongoing alterations within the biological material. This process unfolds continuously, resulting in a dynamic interplay between the printed images and the evolving nature of the living



**METABIOSIS** 2015. #fermentation #biomaterial #natural #experimenting with matter's embeded rules #cellulose based #bacteria #yeast #sugar printing #kombucha #dried film #organic matter # experimental ingraving #oxidation

# FLORIAMA CANDEA

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