

Work descriptions

Sébastien Robert, Rite of Passage

The installation "Rite of Passage" is the result of an ongoing research project by artist Sébastien Robert. In 2019, the artist spent time in the forests of Chile during a residency to study the culture and associated rituals of the local Mapuche population. In this context, the Chilean araucaria, a type of fir tree, has played an important role in local traditions for thousands of years. As a refuge for mystical beings or the embodiment of spirits, they are closely linked to the animistic view of nature and the ancestor cult of the indigenous peoples. Although the araucaria is one of the oldest tree families in the world and is considered sacred by the Mapuches, it is an endangered species due to deforestation and climate change. Both the ecological development of this area and social upheavals due to constant economic growth, colonisation and the associated missionary work of recent decades have naturally also had an impact on the culture of the indigenous population. The work "Rite of Passage" explores the connections between culture and nature by uncovering parallel tendencies of common disappearance. An important aspect in the culture of the Mapuches is the accompanying music of the cult run - drum, which is played by the healers ("Machi") during ceremonies, for example to communicate with the ancestors or the spirits in the forest. The artist attempts to visualise the communication between the instrument and the sacred tree of the Mapuches using the method of copper chloride crystallisation. This method makes it possible to visualise a change in the structure of a material to which a copper chloride solution has been added. For this purpose, he took samples of tree resin from the araucaria in the Chilean forests and mixed them with the solution. In the installation, visitors can experience this process live, as on the one hand the drum is audible, while on the other hand the structural change of the tree resin can be perceived under the microscope. The process is supported by the visualisation of the crystallisation of already recorded samples, which are shown by means of video projections and actual samples.

Sébastien Robert (*1993) is a French research-based interdisciplinary artist based in The Hague, The Netherlands. His work has been recently exhibited at FIBER Festival (Amsterdam, NL), MU ArtSpace (Eindhoven, NL) and Global Seed Vault (Svalbard, NO) and he has performed

at various renowned international festivals such as Rewire (The Hague, NL), Organik (Hualien, TW) and Scopitone (Nantes, FR). Sébastien graduated from the ArtScience Interfaculty of The Hague with honours in 2020.

<https://sebastienrobert.nl/>

Charlotte Triebus, is a rose

is a rose (2019) is a performative installation for and with an interacting audience, developed by Charlotte Triebus with an interdisciplinary team. In her work, Triebus explores the the agency of different actors and investigates the role of animate and inanimate objects as well as the perhaps outdated dichotomies of nature/technology and nature/culture. Visitors are invited to move around a circle of nine plants hanging in the room. The fine leaves of the ornamental asparagus (*Asparagus setaceus*), which are attached to the ceiling in mossballs (corkedama) on fine nylon strings, perceive every change and movement in the space. The seismographic impression of the plants is recorded on an LED monitor and modulates a sphere on the screen which is displayed as a grid graphic and rotates on its own axis in real time. The animation shows every effect of the interaction between visitors and the plants in real time using different deformation methods. The intensity of the interaction caused by a breeze or touch can only be perceived as an interaction, but the exact location of the transformation is not selectable. All impressions received by the plants accumulate over a day as a unified interaction and manifest themselves in the form of an object displayed on the screen. In this way, the resulting graphics show the interplay of intended and unintended interactions of the visitors and thus represent a temporal-spatial, living representation of a non-repeatable constellation of movements in the exhibition space, embedded in a performative structure. An equality between agents is aimed for by distributing agency in the space. Further, performativity is questioned in relation to the capacities of those present.. Whilst the human capacity to perceive and express takes place in the different sensory spheres of a human being, the piece acknowledges a unique way of perceiving to another species. We leave anthropocentrism behind and follow Karen Barad in assigning performativity to humans and non-humans, blurring the boundaries of the traditional nature/culture divide, the artist says.

Charlotte Triebus works as a performance artist and multidisciplinary art director, based in Cologne and Madrid. The focus of her work is to investigate the potential of the intersections of art, dance and technology. She leads the artistic research department of Innovations hub Düsseldorf, and is an associated member of several international research teams investigating the intersections of dance and technology.

<http://charlottetriebus.com/>

Hyejun Youn, AuxeticBreath: Changing Perception of Respiration

The work "AuxeticBreath" by artist Hyejun Youn is an interactive installation that records and visualises rhythmic patterns of collective human breaths using soft robotics and auxetic structures. The oval shapes react with different intensities in the presence of the viewers, triggering intimacy, threat or caution. The auxetic stretchable material suggests a kind of membrane and is strongly reminiscent of organic forms. The rhythmic changes are intensified by various light pulses. After observing the installation for an extended period, the simulated breath returns to its original rhythm. In times of a global pandemic, human breath has been declared a danger zone. However, breath is not only the basic condition for a living body, but the air exhaled by humans is also an important carrier of information. For some years now, research has been conducted into which trace components of the breath can be considered biomarkers for metabolic disorders and diseases. Breath also has an important emotional and social component and refers to inner states of mind. In order to be able to maintain this basic need of humans and other living beings, oxygen produced by plants is needed. In the exhibition space and in connection with the other works, the installation "AuxeticBreath" depicts the interdependence of a common milieu and clarifies the experience of invisible structures that surround us every day.

Hyejun Youn is a designer, researcher and developer. She has a fellowship at Rhode Island School of Design. Her research is based upon innovating interactive designs that extend the user experience by enabling the engagement of our various perceptions. She focusses on extending user experience with storytelling and instruction, building toolkits for non-

engineers, and developing psyche-based artworks with soft robotics, digital fabrication, and human-material interfaces.

<https://hyejun.work>

Young Suk Lee & Daniel Saakes, Footsie

"Footsie" is a kinetic decorative table installation with four robotic chairs that incorporate elements of nature. Two of the chairs are placed across from each other for participants to sit on, with these presented alongside a set of robotic chairs. The robotic chair arms attached to the participant's seat gently poke the their back and side. The structure of the arms is inspired by nature, like a human's spine or insect's segments, allowing elastic motion that is gentle and smooth like a caterpillar's undulating wave. As an interactive kinetic art installation it inspires to connect people through the counter-intuitive physical interaction that is mediated by a machine. While it tackles the controversial cultural and social norms around touching the bodies of others or being touched, an experimental bodily experience explores new aesthetic interaction between humans and a mischievous digital entity. The interaction is provocative in a slightly uncomfortable way, and the paradoxical feelings and stimulating sensations open simultaneous interpretations on the meaning of Human-Machine-Interaction. Using a nature-inspired design, (similar to a human spine, the flexible muscle of mollusca and a caterpillar's undulating wave motion), these pliable structures were fabricated with 3D printed meta-materials to create the sensual gestures. "Footsie" aims to unfold a sensitive and unspoken dialogue for both physical and emotional engagement, and it further explores how an evocative digital object mediates people's relationships or disrupts people's habitual interaction in everyday life. When one sits with another person or is surrounded by others, the non-verbal physical communication carries various feelings and meanings.

Young Suk Lee is a a multimedia artist and researcher and is currently working on her PhD dissertation (University of Twente, The Netherlands) based on her body of work of interactive computational art & design.

Daniel Saakes is trained as an industrial design engineer at Delft University of Technology and he likes making things and making things that make things.

<http://youngsuklee.com/>

<https://mid.kaist.ac.kr/>

DataPaulette, Topographie Digitale

"Topographie Digitale" is an interactive installation that illustrates a hybridization between science and traditional textile craftsmanship and therefore stands between tangible and virtual worlds. It uses pleated textiles embedded with electronics as touch sensitive surfaces for interacting with a video-projected visualization. The pleated fabric, augmented by the artist's custom chemical process, and the electronic sensing system give birth to a material with a mixed heritage that is both technological and traditional, and prefigures an emerging craft. The combination of craft and technology, creating a Creole technique, is an alternative way of thinking about the place of digitalization in our society in a more resilient way. It is also a metaphor of moving territories of creation that are constantly changing, as much as nature and human life, modifying our environment and landscape to unpredictable rhythms.

DataPaulette is a multidisciplinary collective focused on research and development in textiles and digital technologies. Founded in 2014, DataPaulette has taken the form of an independent laboratory operating as a hackerspace. Their members are: Audrey BRIOT, textile designer and technologist; Martin DE BIE, designer, teacher and researcher; Alice GIORDANI, engineer and e-textile designer; Cedric HONNET, research engineer.

<https://datapalette.org/>

Yoon Chung Han, Roads in You

"Roads in You" is an interactive biometric-data art and physical 3D data visualization by using a vein-matching process to roads. Veins are beautifully complicated forms hidden under our skins. They include many intersections that resemble the roads and paths surrounding us. In this artwork, participants scan their veins, capture the aesthetically formed vein lines, and observe existing roads on the Earth's surface that match with the veins inside of their bodies. The surprising results discovered through this process are shown with both interactive map visualization and 3D printed sculptures. This artwork invites audiences to experience a unique matching process and discover newly meaningful roads for them. Enhanced 3D data visualization and physical data sculptures are new additions to this updated version. This data-driven artwork aims to find an interesting correlation between biometric data and map-based data in terms of research questions.

Yoon Chung Han is an interactive media artist, award-winning interaction designer and educator. Over the past ten years, she has created a wide range of interactive audiovisual art installations, data visualization, sonification and musical interface design. Her works have been presented in many international exhibitions, conferences and academic journals such as ACM SIGGRAPH Art gallery, Japan Media Arts Festival, Media City Seoul, ZKM, NIME, ISEA, ACM Multimedia, ACM CHI, IEEE Vis, and Leonardo Journal.

<http://yoonchunghan.com/portfolio/>