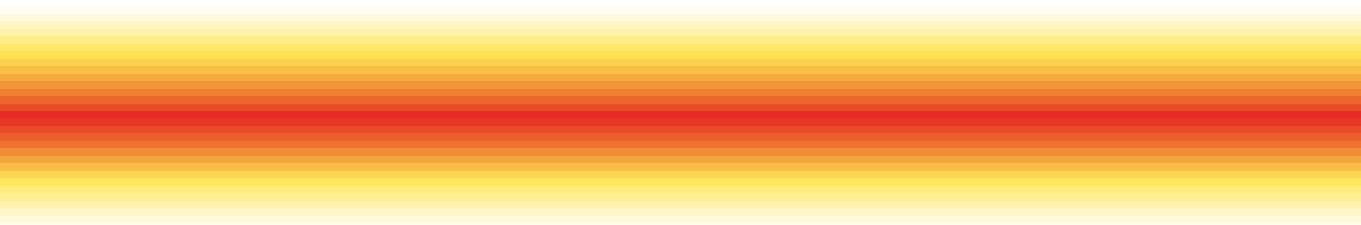


Climate



ClimATE 24.10-21.11.2019
ClimATE Exhibitions and Events by

- Projects by
- The Center for Genomic Gastronomy
 - Vera Anttila
 - Mariana Solís Escalera, Tzuyu Chen & Chiao-wen Hsu
 - Niko Rätty & Jana Moritz
 - Yu Chen & Chiao-wen Hsu
 - Talisa Dwiyani & Miki Todo

Biofilia Workshops by

James Evans

- Selected screening from ELO Film Archive:
- ‘Miten marjoja poimitaan’ (*How to pick berries*) directed by Elina Talvensaari, 2010.
 - ‘Toivola’ (*Heart of the land*) directed by Kaisa Astikainen, 2016.
 - ‘Kyydissä’ (*A seat with a view*) directed by Kaisa El Ramly, 2014.
 - ‘Liminaali & Communitas’ directed by Laura Rantanen, 2018.
 - ‘To the Unknown’ directed by Liinu Grönlund, 2017.

ClimATE Events Programme

- 24.10.19** ClimATE Exhibition Opening - 16:00-18:00, Beta Space Gallery, Otakaari 1X, A-Wing
- 24.10.19** COMMODITY CAFÉ - 16:00-18:00, Beta Space Gallery, Otakaari 1X, A-Wing
- 25-29.10.19** COMMODITY CAFÉ - 12:00-16:00, Beta Space Gallery, Otakaari 1X, A-Wing
- 30.10.19** DY(e)ING with Coffee Discussion Workshop - 16:00-17:30, Beta Space Gallery, Otakaari 1X, A-Wing
- 01.11.19** ClimATE Film Screening: Selection of Documentaries from ELO Archive
15:00-17:00, Väre (F005)
- 31.10.19** Plant Cloning Workshop - 9:30-11:30 / 13:00-15:00, Biofilia Lab, Kemistintie 1B
- 08.11.19** Fermentation of Local Produce Workshop - 9:30-11:30 & 13:00-15:00, Biofilia Lab, Kemistintie 1B
- 19.11.19** Seaweed Kitchen: Future Snacks workshop with kids - Beta Space Gallery, Otakaari 1X, A-Wing

2 3

ClimATE, an expanded exhibition and events programme, took place at multiple sites and spaces across Aalto University’s Otaniemi campus, showcasing research, prototypes and works of art as well as workshops, readings and screenings that discussed climate change and food systems.

We are curious about how food might help us to understand the impacts of climate change and the Anthropocene. In line with this, ClimATE reflected on how what we eat has a hold on the pAnET, and influences EArTh systems and climATE change.

Human activity is rapidly transforming the Earth’s natural systems, destroying healthy ecosystems and diminishing biodiversity. Food systems are inseparable from the impacts they have on, and receive from, climate change. Climate change will almost certainly change the quality and availability of food supplies, but the very methods of planetary food production, logistics and waste disposal must also be revised to prevent further destructive environmental impact.

We cannot accurately predict what our relationship to food will be in the near future in terms of how and what we will be eating. But by looking at the connections between local-global food systems and planetary climate change, can we better understand the speed and scale of the impact we have on the environment through our EATing. How can this understanding help us participate in constructing our food futures?

In the interest of social-ecological justice on a planetary scale, ClimATE focused on how food futures may operate in the discourses of climate change. Art and research projects dealing with this core question invited us to reconsider our position and the roles that complex systems of food production, circulation and consumption operate within.

Between 24th October until 21st November 2019, food led the discussion in different spaces across Aalto. The programme brought us together in practical and surprising ways to exchange thoughts, skills and knowledge as well as food and recipes. The post-disciplinary approach invited us to practice citizen science at the intersection of art, science and activism, and to create a basis for cross-disciplinary dialogue on the way forward. The new possibilities for expression and collaboration helped us to rethink the current food system with all its faults in the face of climate

change, and offer different ways to think about about what we (will) EAT.

Thinking through how more sustainable futures can be built up by working harmoniously with nature and extending the existing boundaries with art and creativity, the project *Padiwara: Rice Straw Exploration* by Talisa Dwiyani & Miki Todo invited us to re-question what waste is. *Padiwara* illustrated how new models of design thinking and practice can offer sustainable accommodations for the waste and organic residue built-into the complexity of the food system.

Our Future with Cultured Meat, by Niko Rätty and Jana Moritz from Future Sustainable Food Systems, considered the environmental effects of livestock farming, one of the one of the largest contributors of global anthropogenic (human-induced) greenhouse gas emissions. Rätty and Moritz questioned whether lab-grown meat could be a sustainable alternative to meat production, helping to reduce its carbon footprint and thereby offering a promising solution for saving the planet from climate change.

Tzuyu Chen, Chiao-wen Hsu and Mariana Solís Escalera drew our attention to how seasonality shapes ecological processes, especially in the marine ecosystem. Their project, *Empathy Education: Human and Non-human Seasons*, and the workshop, *Seaweed Kitchen: Future Snacks*, engaged children and allowed them to discover seasonal marine ecology, local seaweed species, and human and non-human interaction by making these connections to the food they ate in a playful way.

A Palette of Residues by Yu Chen and Chiao-wen Hsu included two series: *Tomato meets Cellulose* and *Feelings Towards Climate Change*. The project utilized from different components of tomato plant residues by approaching waste in an evocative way, with a distance from negative feelings it evoked in the face of climate change.

COMMODITY CAFÉ - Dy(e)ing with Coffee by Vera Anttila invited us to think together about commodification, communication, gift economies and waste alongside art, politics and activism. Rephrasing waste in terms of death and dy(e)ing the lifecycle and materiality of coffee was used to highlight the movement of food waste materials through different social relations with the

performance, reading and a workshop, offering a tangible and tactile example of the negation of the notion of death in the food system industry.

To Flavour Our Tears: AnthroAquaponics Systems by The Center for Genomic Gastronomy broke the anthropocentric assembly of the food chain within a post-humanistic approach and extended the discussion towards symbiotic relations within and between species. By getting us to see ourselves in an endless cycle of eating and being eaten, thinking about the food chain from a different perspective may curb our anthropocentric privileges and facilitate a better co-existence here on EArTh.

In addition to the main exhibitions in Betaspace Gallery and V1 Gallery, the project included a programme of events. Workshops run by James Evans in collaboration with Biofilia Lab invited us to connect with and learn from nature through plant cloning and fermentation activities. A screening event featuring a selection of documentary films from the ELO archive provided further perspectives that intersect with the concerns of ClimATE.

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ClimATE oli laaja kokonaisuus näyttelyitä ja tapahtumia eri puolilla Aalto-yliopiston Otaniemen kampusta. Se esittelitutkimusta, prototyypppejä, taidetta, työpajoja, luentatilaisuuksia ja videoesityksiä, joissa käsitellään ilmastonmuutosta ja ruokajärjestelmiä.

Meitä kiinnostaa, miten ruoka voi auttaa ymmärtämään ilmastonmuutoksen vaikutuksia ja antroposeenikautta. ClimATEssa pohditaan, miten syömämme ruoka pitää maailmaa otteessaan vaikuttamalla sen järjestelmiin ja ilmastonmuutokseen.

Ihmisen toiminta muuttaa nopeasti maailman järjestelmiä, tuhoaa terveitä ekosysteemejä ja vähentää luonnon monimuotoisuutta. Ruokajärjestelmillä on kiinteä yhteys ilmastonmuutokseen, sillä ne vaikuttavat ilmastonmuutokseen, mutta ovat myös itse sen vaikutuksen alaisia. Ilmastonmuutos muuttaa lähes varmasti ruokatarvikkeiden laatua ja saatavuutta. Samalla ruokatuotannon tapojen, logistiikan ja jätteenkäsittelyn täytyy muuttua, jotta se ei tuhoaisi ympäristöä enää enempää.

Emme voi ennustaa tarkasti, miten ja mitä syömme lähitulevaisuudessa. Tarkastelemalla paikallisten ja globaalien ruokajärjestelmien yhteyksiä maailmanlaajuiseen ilmastonmuutokseen ymmärrämme ehkä paremmin, miten laajasti ja nopeasti syömämme ruoka vaikuttaa ympäristöön. Miten tämä ymmärrys voi auttaa meitä osallistumaan ruokatulevaisuuksiemme rakentamiseen?

ClimATEssa keskustellaan maailmanlaajuisen sosioekonomisen oikeudenmukaisuuden nimissä siitä, miten ruuan tulevaisuudennäkymät voivat vaikuttaa ilmastonmuutosdiskurssiin. Tätä ydinkysymystä käsittelevät tiede- ja taideprojektit herättävät meidät ajattelemaan asemaamme ja rooliamme ruuantuotannon, -jakelun ja pois heittämisen monimutkaisissa ketjuissa.

Aallon eri tiloissa keskusteltiinruuasta 24.10–21.11.2019. Ohjelma kokoaa ihmisiä yhteen käytännönläheisillä ja yllättävillä tavoilla ja tarjoaa mahdollisuuden vaihtaa ajatuksia, tietoa ja taitoa, ruokaa ja ruokaohjeita. Tämä lähestymistapa kutsuu meidät tekemään kansalaistiedettä taiteen, tieteen ja aktivismin rajapinnassa ja luomaan pohjaa poikkitieteelliselle keskustelulle tulevaisuuden toimista. Toivottavasti uudet yhteistyö- ja ilmaisutavat sekä uudet näkökulmat tulevaisuuden ruokaan auttavat meitä uudistamaan ajatteluamme ja miettimään, miten voimme ilmastonmuutosta torjuaksemme muuttaa nykyisiä puutteellisesti

toimivia ruokajärjestelmiä.

Talisa Dwiyanin ja Miki Todon *Padiwara: Rice Straw Exploration* -projektissa mietitään taiteen ja luovuuden avulla rajoja rikkoen, miten voisimme rakentaa kestävämpää tulevaisuutta sopusoinnussa luonnon kanssa. Projekti kehottaa kyseenalaistamaan jätteen käsitteen ja havainnollistaa, kuinka muotoiluajattelu ja sen uudet käytännön sovellutukset voivat tarjota kestävä tavan käyttää monimutkaisten ruokajärjestelmien bio- ja muuta jätettä.

Future Sustainable Food Systems –tutkimusryhmän Niko Rädyn ja Jana Moritzin *Our Future with Cultured Meat* pohtii miten karjankasvatus, joka on yksi suurimmista antropogeenisistä (ihmisen aiheuttamista) kasvihuonepäästöjen lähteistä, vaikuttaa ilmastonmuutokseen. He kysyvät, voisiko laboratoriossa tuotetusta lihasta tulla kestävä vaihtoehto lihantuotannolle tai voisiko se pelastaa maailman ilmastonmuutokselta ja pienentää hiilijalanjälkeä.

Tzuyu Chen, Chiao-wen Hsu ja Mariana Solís Escalera kiinnittävät huomionsi siihen, miten vuodenaikojen vaihtelu muokkaa ekologisia prosesseja erityisesti merien ekosysteemissä. Heidän projektinsa *Empathy Education: Human and Non-human Seasons* ja työpaja *Seaweed Kitchen: Future Snacks* tarjoaa lapsille mahdollisuuden tutkia meriekologiaa eri vuodenaikoina, tutustua paikallisiin merilevälajeihin sekä tutkia ihmisen ja muun maailman välistä vuorovaikutusta. Lapset oppivat hahmottamaan ruuan erilaisia yhteyksiä leikin avulla.

Yu Chenin ja Chiao-Wen *A palette of Residuesteoksessa* on kaksi sarjaa: *Tomaatti tapaa selluloosan* ja *Tunteita ilmastomuutosta kohtaan*. Projekti hyödyntää tomaattikasvatuksen jätteitä ottamalla etäisyyttä negatiivisia tunteita herättäviin mielikuviin suhteessa ilmastomuutokseen.

Commodity Cafe – Dy(e)ing with Coffee -kokonaisuudessa Vera Anttila kutsuu osallistujia miettimään yhdessä hyödykkeellistymistä, viestintää, lahjataloutta ja jätettä ja sen rinnalla taidetta, politiikkaa ja aktivismia. Työpajassa jäte määritellään uudelleen kuolemiseen (lisäksi engl. dyevärjäämisen) kautta. Siinä käytetään kahvin elinkaarta ja materiaalisuutta kuvaamaan ruokajätteen liikkumista erilaisten sosiaalisten suhteiden kautta. Asiaa havainnollistettiin performanssilla, luennalla ja työpajalla, jotka tarjosivatkonkreettisen esimerkin siitä, miten

kuoleman käsite kielletään ruokateollisuudessa.

The Center for Genomic Gastronomy -ajatushautomon *To Flavour Our Tears: AnthroAquaponics Systems* rikko ruokaketjun ihmiskeskeisyyden posthumanistisella lähestymistavallaan, joka laajentaa keskustelua kohti lajien sisäistä ja niiden välistä symbioosia. Kun saamme nähdä itsemme syömisen ja syödyksi tulemisen jatkuvassa ketjussa, näemme ruokaketjun ehkä eri valossa, jossa ihminen ei olekaan etuoikeutetussa asemassa, vaan laji, jonka pitää osata elää sopusoinnussa muiden kanssa.

Beta Space -galleriassa ja V1 -galleriassa pidettävien päänäyttelyiden lisäksi projektiin kuuluioheistapahtumia. James Evansin ja Biofilia Labin yhteisesti pitämässä työpajoissa etsittiin yhteyttäluontoon ja opittiinsiitä kasvien kloonauksen ja fermentoinnin keinoin. ELOn arkistoista löydettyt dokumenttielokuvat tarjosivat lisää näkökulmia ClimATEessa käsiteltyihin aiheisiin.

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To Flavour Our Tears: AnthroAquaponics Systems By The Center for Genomic Gastronomy

The AnthroAquaponics System is a closed loop where humans are both eaters and food. *AnthroAquaponics* is part of the *To Flavour Our Tears (TFOT)* restaurant complex, an experimental eatery that places humans back into the food chain by investigating the human body as a food source for other species. At *TFOT* your body is a farm, a kitchen, and a restaurant. Through this research, we hope to intimately and materially reconnect humans with the metabolic flow of the planet and our role in shaping it. How do you taste to the small organisms that consume parts of you everyday, and every last bit of you when you die? Will the chef of the future help humans taste good to nonhumans?

This video features *AnthroAquaponics*: a new kind of spa where humans are part of a closed-loop system. 'Garra rufa' (or 'Spa Fish') feed on the dead skin cells of human feet. The fish provide nutrients for plants that are then harvested and consumed.

Bio →

The Center for Genomic Gastronomy is an artist-led think tank that examines the biotechnologies and biodiversity of human food systems. Our mission is to map food controversies, prototype alternative culinary futures and imagine a more just, biodiverse and beautiful food system. The Center presents its research in the form of public lectures, research publications, meals and exhibitions. We have conducted research in Europe, Asia, and North America, collaborating with scientists, chefs, hackers and farmers. The Center's work has been published in *WIRED*, *We Make Money Not Art*, *Science*, *Nature* and *Gastronomica* and exhibited at the World Health Organization, Kew Gardens, Science Gallery Dublin and other venues.

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Empathy Education: Non-Human and Human Seasons

By Mariana Solís Escalera, Tzuyu Chen & Chiao-wen Hsu

This project developed from a study of the area of Lysekil, Sweden, during the course Design Practice in Social Context (MA Contemporary Design at Aalto University). Designers interviewed marine researchers about how to best utilise the marine habitat. Through an empathy exercise in which the group took a local species as their alter ego, they discovered the importance of every resident of the oceans and their place in this huge system. Understanding seasons is key for changing habits and raising awareness as seasons have an immense effect on how we live; they also determine which plants, trees and fruits grow, their propagation period, and other changes in non-human activities. What patterns should regulate our food culture and consumption? Food is one of the biggest connections we have to marine ecosystems, but humans consume seafood in a way that is disconnected from seasonal eating customs.

Empathy Education concerns the knowledge and ability to share and/or experience, at different levels and in various ways, another being's situation. We are living in times of change, including cultural change. The project's goal is to create a food culture with different practices, inviting new generations to learn as they grow and build their customs by focusing on the relationships and connections that food brings between humans and non-humans.

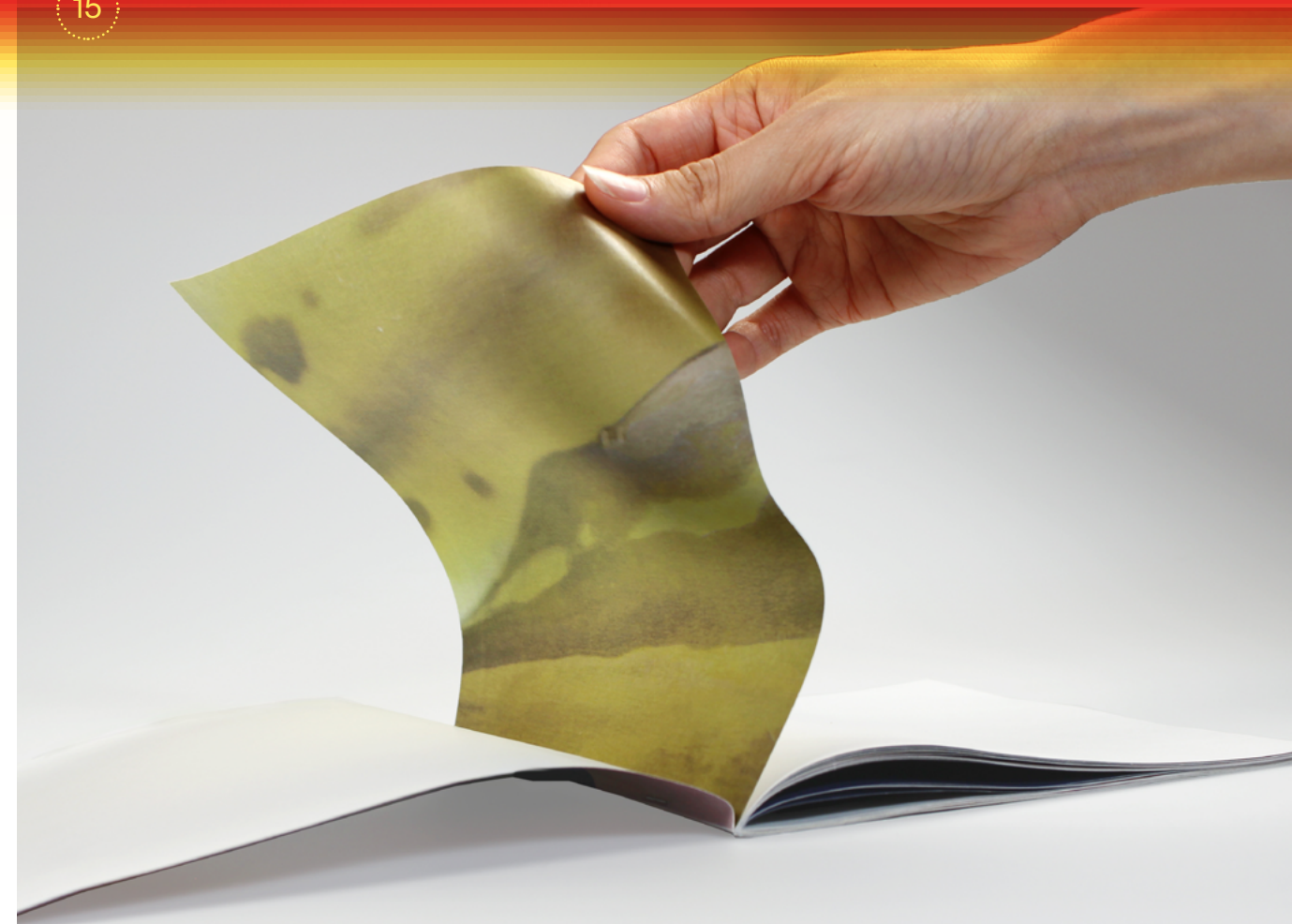
Bio →

The project consists of master's students in the Contemporary Design Programme at Aalto University. Coming from different backgrounds, they share their cultures and values and contribute to each other's expertise. Together they explore the multi-faceted challenges and complexities that emerge in the field of design. This has led them to develop 'Empathy Education: Non-Human and Humans Seasons', a project that enquires into the relationships between humans and non-humans and reflects on how a sustainable diet can play a revolutionary role towards a better future.



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COMMODITY CAFÉ - DY(e)ING with coffee

By Vera Anttila

Yellow, coffee as a commodity, waste, and communication serve as the focus for the project *COMMODITY CAFÉ - DY(e)ING with coffee*. The performative installation will serve as a platform to scrutinise the dying process of natural resources in the Anthropocene era through the process of dyeing with coffee. The dyeing, drying and dying forms a system without any specific beginning or end, no simple answers to impart or take away. By reflecting on art, politics and everyday activism through the writings of Jacques Rancière, the installation serves as an attempt to map the project's political value as a practical tool, a potlatch for contemplation and open-source sharing.

Bio →

Vera Anttila is an artist, pedagogue and writer, whose practice is collaborative and multidisciplinary. In her recent work, she combines culture jamming and activism with the aesthetics of everyday life.

An ecological concern for the future and an interest in anthropological and ecofeminist theories lays the basis for her practice. Vera is studying Art Education (MA) at Aalto University and researching themes for her MA thesis based on her artworks around waste, commodities and yellow.

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Padiwara: Rice Straw Exploration

By Talisa Dwiyani & Miki Todo

Padiwara tackles the issue of daily waste caused by cheap and disposable products with a limited lifespan, which in many cases is caused by planned obsolescence. There is an urgent need to support sustainable living, create a balance with nature and to be respectful of humanity's symbiotic relationship with the earth's natural ecology and cycles. This material was explored during the ChemArt Summer School 2018 at Aalto University, where Talisa Dwiyani and Miki Todo had the opportunity to engage closely with the raw material and investigate its many possibilities. The collaboration between design and chemistry bring them further towards future materials that could enhance sustainability. Straw is, in fact, very closely connected to traditional Indonesian and Japanese cultures, being used in crafts, festivals and rituals. The sacred rope called 'Shimenawa' is also made of straw. Before plastic bags, straw was used to wrap food. People even made thatched houses out of straw. 'Wara', as the rice straw is called in Japan, and 'Padi', as it is called in Indonesia is what is leftover after the rice grains have been threshed out. Straw is not just about rice fields; it is also about a sustainable lifestyle. Inspired by a culture that is still carried by Japanese & Indonesian society, Dwiyani and Todo want to bring rice straw one step forward through technology and science to uncover the potential of this erstwhile 'waste' as a sustainable alternative material. With modern technology and the development of science, they combine two natural materials, cellulose extracted from Finnish wood as a binding agent and the rice straw. Inspired by Finnish design, the object both emphasises the beauty of simplicity and provokes discussion.

Bios →

Talisa Dwiyani is an Indonesia-born, Helsinki-based designer. She is interested into closing the loop in the agriculture industry. Intrigued by the surroundings and found objects in her homeland area, she is curious to explore their potential as sustainable and ethical materials. She is a second-year master's student in Creative Sustainability at Aalto University, where she manages to balance her time between studies and her passion for art and culture, cooking and yoga.

Miki Todo is a Japanese Designer based in Tokyo. She is exploring new ways of developing new materials to create sustainable and aesthetic products. As an exchange student at Aalto University in the Master's Programme in Collaborative Industrial Design, she created some works integrating her knowledge of material science with the inspiration she drew from the Finnish landscape.



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Farming to cellular farming: Our future with cellular agriculture and cultured meat.

By Niko Rätty and Jana Moritz

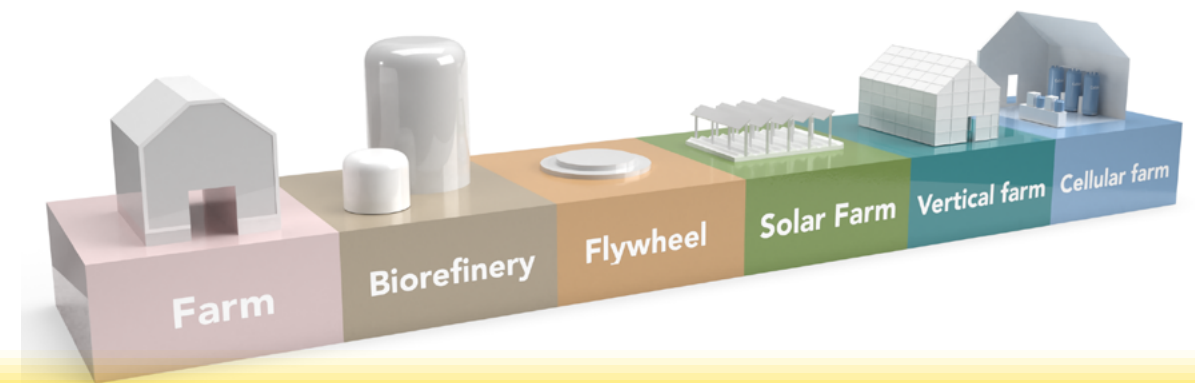
This project takes developments in the field of agro ecological symbiosis (AES) as the basis for prototyping new cellular agricultural practices. Taking the example of livestock farming and comparing its environmental impacts on water use, land use, deforestation and CO2 emissions to the energy outputs of new, cellular agriculture practices in laboratories, the research calculates and presents comparative energy consumption of producing cultured meat in vitro. The project explores the viability of transitioning commercial farming practices away from livestock farming to self-sufficient AES systems to produce 'cultured meat', meat grown from stem cells. With the production of cultured meat come certain challenges but also opportunities. AES aims to provide a resilient and local food production system which creates ideal conditions for cellular agriculture production. For instance, in the future, farmers could switch from traditional farming to "stem cell producers" of cultured meat. Therefore, Cellular Agricultural farms can emerge and replace farming as we know it today. These innovations would also work as a beneficial alternative to produce energy for the bioreactors used for modern food production.

Bios →

Niko Rätty is a PhD student at University of Helsinki in the doctoral program of Political, Societal and Regional Change. Niko's research is focusing on consumers' and farmers' perceptions on cellular agriculture in the future food systems. In his master thesis, Niko designed a home bioreactor together with Technical Research Centre of Finland (VTT). This work focused to investigate consumer behavior using co-creation, social media, prototyping and concept designs.

Niko is also design professional with a Master of Arts (M.A.) degree focused in Creative Sustainability from Aalto University School of Arts, Design and Architecture and a board member of Ornamo Art and Design Finland.

Jana Moritz is a postgraduate student from Maastricht University where she studied Sustainability Science and Policy. Within her studies in Maastricht, she wrote her thesis about cultured meat and has been interested in the topic of novel food systems since then. Jana started as a PhD candidate at the University in Helsinki in June 2019 where she is researching the post farmed animal bioeconomy and its novel food products such as cultured meat.



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A Palette of Residues

By Yu Chen & Chiao-Wen Hsu

A Palette of Residues is a project which began in the ChemArts Summer School course 2019 during an excursion to HAMK Lepaa Campus. In the Lepaa Greenhouse, the side streams from tomato industry production—tomato leaves and stems (11-12 kg/plant)—account for 35 % of total biomass, which nowadays lack sustainable and profitable utilizations. The project delves into the interconnective relationships among biomaterial, climate change and human. Climate change is both highly related to biomaterial and the human, and as the key theme it is explicitly embedded in the experimental process of food-related material exploration. In this project, plant residues from tomato have been explored through a series of cellulose-based experiments to create new materials with great potential. Increasing the utilization of ecologically sustainable materials partially mobilizes the behavior of moderate resource use, and contributes to reducing the resource abuse as well as the climate change effect. Regarding the human, a focus on feelings and emotions has been embodied in the project. Diverse feelings are directly or indirectly aroused by climate change, while some are generated during the process of new biomaterial making, and from the underlying notion about making judicious use of the resources to support the alleviation of climate change. The work is categorized into two series, respectively associated with food-related material, and the feelings towards climate change.

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Series 1

A Palette of Residues: Tomato Meets Cellulose

Tomato plant residues as unmined resources deserve more attention for development. The project explores different components of tomato residues and creates diverse composite materials with cellulose. The experimental process is aimed to open up the discourse about the dynamic potential of tomato residues.

Series 2

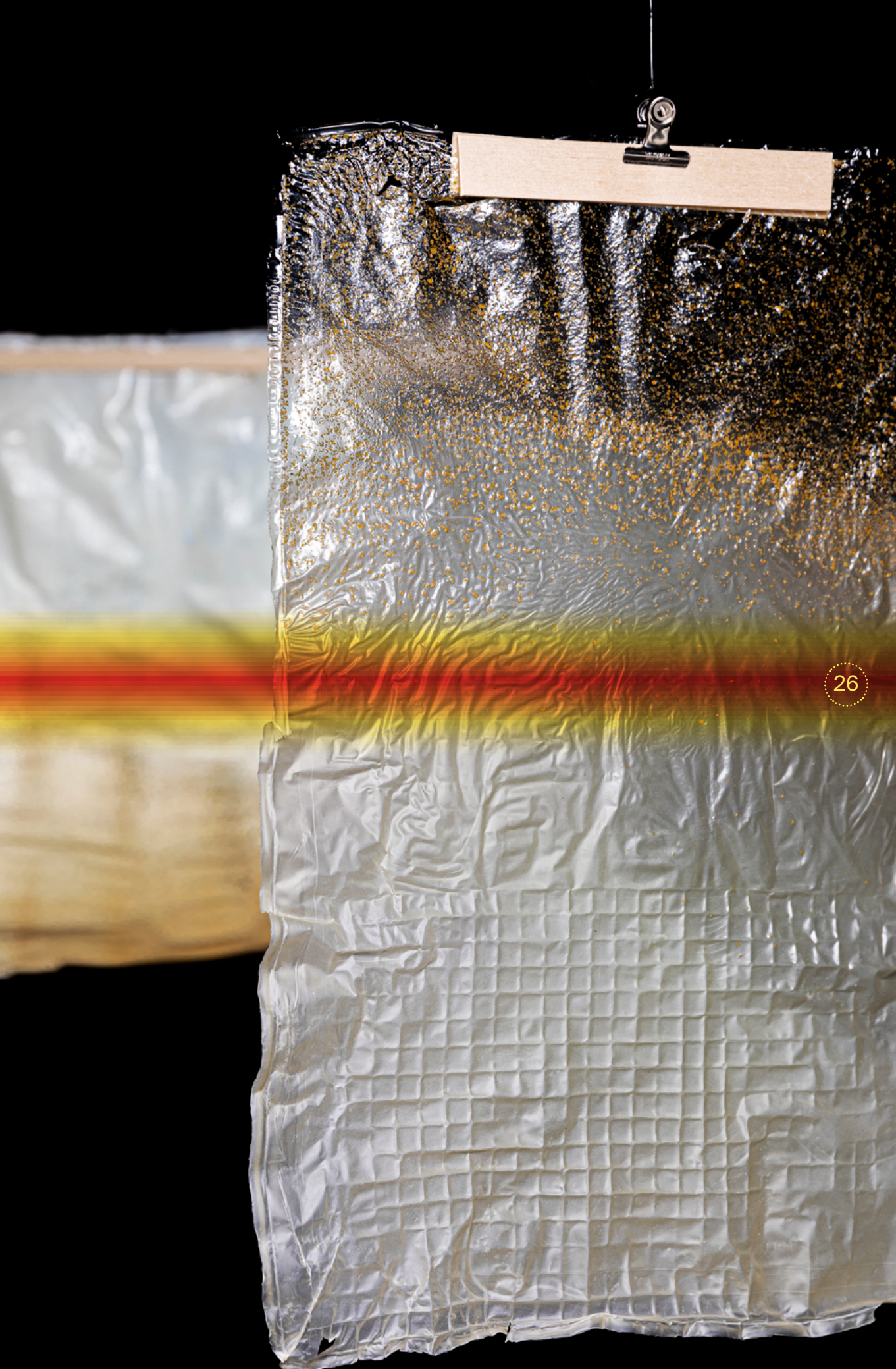
A Palette of Residues: Feelings Towards Climate Change

Climate change triggers human feelings. Materials also evoke our emotions. We attempt to make use of the tomato plants residues in the context of the overuse of resources that is negatively related to climate change, and proceed the material experiments towards the diverse feelings associated with climate change.

Bios →

Yu Chen is a master student majoring in Creative Sustainability in Design, and an enthusiastic sustainability explorer and learner. His background is Environmental Engineering, in which he obtained the technical knowledge and skills of organic and environmental chemistry, meanwhile gained experience in participating in projects related to environmental impact assessment and biomaterial purification system.

Chiao-Wen Hsu is currently studying in Contemporary Design MA program. With a background in Visual Communication Design and Crafts, she is passionate about the various attributes that different materials perform. In her recent projects, she employs materials as a vehicle to explore the complex relationship between human and nature and sustainable issues from different perspectives.



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DY(e)ING with coffee

By Vera Anttila

30th October, Beta Space Gallery

sh sh

linger around the busyness-as-usual

where does the work of art end and life begin?

burning, fire,

soaked in caffeinated perspectives,

grounding, grinding, weaving visions

water, fire, heatwaves boiling over

steaming, roasting, ingesting matter

mmm...

digesting thoughts on...death, burning and the gift

Vera Anttila hosts a round-table reading and discussion workshop
DY(e)ING with coffee on the 30th of October at Beta Space Gallery.
Texts by Roger Sansi, Zadie Smith and T. J. Demos.

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You can listen here:

<https://soundcloud.com/commoditycafe>

COMMODITY CAFÉ

By Vera Anttila

24th - 29th October, Beta Space Gallery

Yellow, coffee as a commodity, waste and communication serve as the focus for the project *COMMODITY CAFÉ - DY(e)ING with coffee*.

The performative installation will form a platform to scrutinise the dying process of natural resources through the process of dyeing with waste coffee, while having a sip of the same liquid. The dyeing, drying and discussions on dying forms a system without any specific beginning nor end. There is not one simple answer to give or take away. By reflecting on art, politics and everyday activism, the project is an attempt to map art's political value as a practical tool, a potlatch for contemplation and open-source sharing. The *COMMODITY CAFÉ* is an ongoing project by the artist and includes a podcast of previous sessions on soundcloud.



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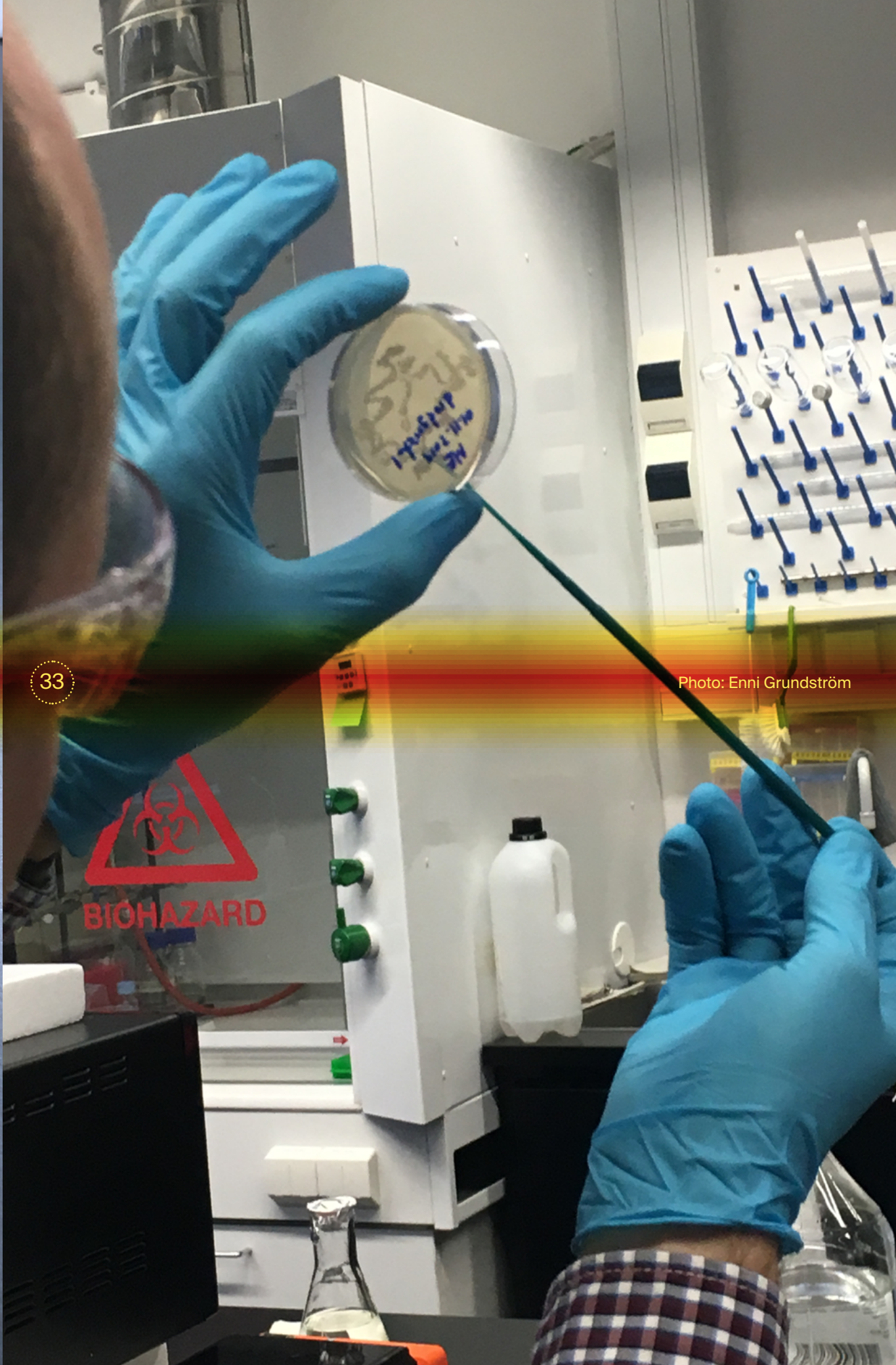
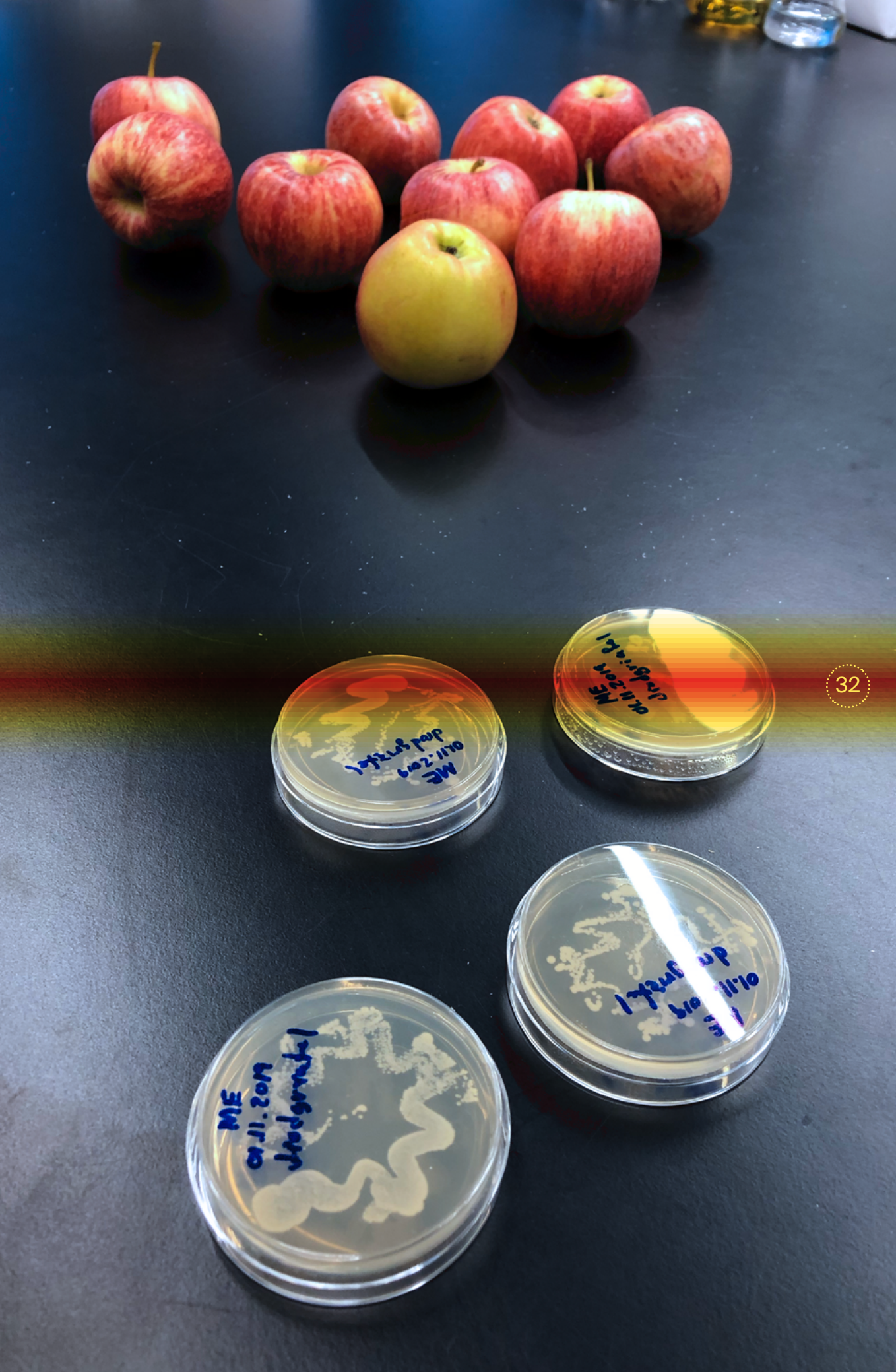
Biofilia workshops: Conscious and Delicious!

- *Plant Cloning With James Evans*

31st October, Biofilia Lab

How can a single person combat climate change? All while being conscious in food consumption? Clone your own berries! The participants bring small blueberry or lingonberry plants for cloning. During the workshop, the plants will be cloned to create perfect copies of the original plants, and hopefully, berries for the next year. The plant is first cleaned, and then a small cutting is made from the recent years' growth. This cutting is placed into one of two plant hormones, called auxins, which convince the cutting to start producing roots. The first hormone is naphthaleneacetic acid, and the second is indole-3-butyric acid. The cutting is soaked in these chemicals for half an hour, and then it is placed in a gel containing plant nutrients. After a few days, roots can be seen in the gel, and the plant is then ready to be set into the ground next Spring. In addition to producing berries, the newly cloned plant combats climate change by hiding, or sequestering, or sinking, carbon dioxide into its leaves. Every Spring, green plants take a BIIIIIG breath in, and use the carbon dioxide that they breathe in to build leaves. The amount of carbon dioxide trapped every Spring in this way is staggering: at least 30 000 000 000 000 kilograms! The newly cloned berries will help in a small way to trap even more CO2 next year, and in addition they will deliver delicious, locally-produced and non-GMO food, without having to rely on carbon-heavy food shipping systems.

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Biofilia workshops: Conscious and Delicious!
- Fermenting local produce With James Evans
8th November, Biofilia Lab

Become a locavore! Participants will bring their own apples, berries or other fruits found from their own (or neighbours) garden. With the help of the laboratory master, the produce transforms into the participant's very own cider! Zero shipping emissions, zero GMOs and zero artificial ingredients. Just crush the provided produce with some sugar and add water. In the course of the workshop, participants will learn about the chemistry of microbial fermentation, and the different flavours and textures that yeast and bacteria impart to a fermented beverage. Yeast (*Saccharomyces cerevisiae*) from a previous fermentation is isolated and ready to use, after observing the growing cells under the microscope. A small dot of yeast is all that is needed, and is added to the produce-sugar-water mixture. This organism converts the sugar to ethanol and carbon dioxide, thus making the beverage "firm" or fermented. After this first or primary fermentation, the cider takes one of two different paths for the secondary fermentation. Either, malolactic fermentation or vinegar fermentation. The bacteria associated with the yeast will start to convert organic acids from the produce into lactic acid. This is the traditional wine-making secondary fermentation. A different possibility, is for participants to use *Acetobacter* species of bacteria to convert the ethanol produced in the primary fermentation to vinegar. Whichever path is taken, the fermentation proceeds with heat and bubbling over the course of several days to give a product that is 100% local and 100% natural.

Bio →

James Evans is the laboratory master of Biofilia, a base for biological arts at Aalto University's School of Arts, Design and Architecture. He holds a BA in Molecular, Cellular & Developmental Biology from the University of Colorado, and an MSc in Biotechnology from the University of Helsinki. The lab enables students of the school to use biology as a source of inspiration, a medium of expression and a muse for their artistic works. The lab is open to all Aalto students, and regularly runs workshops for the general public. Find out more at: Aalto.fi/Biofilia

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Photo: Lingonberry I3BA 40X' Micrograph, James Evans, Biofilia, 2019.

1000 um

200 um

ClimATE Film Screening Event
(Selection of Documentaries from ELO Archive)
1st November, F005 Väre

To the Unknown

Director: Liinu Grönlund

Finland, 29 min 30 sec., 2017, Documentary

Scientists around the world come to Madagascar in order to study the mysteries of its unique forests and species, showing us that there is still much unknown to man. The poetic film takes a look at the researchers' work, the curious human mind and the vanishing time left to save the last forests.



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Miten marjoja poimitaan (How to Pick Berries)

Director: Elina Talvensaari

Finland, 18 min 45 sec, 2010, Documentary

Visitors from a distant place appear in the misty swamps of Northern Finland. The locals grow restless - things are changing, secret berry spots are revealed and everything is getting uncomfortable. Who is to blame and who is profiting from all this? *How to Pick Berries* is an exploration of Finnish mind and the absurdities of global economy.



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Liminaali & Communitas

Director: Laura Rantanen

Finland, 10min 20sec. (Min. & Sec.), 2018, Documentary

After the sunset, a man wanders between the edges of the highways and freeways gathering edible dead animals hit by a car. *Liminaali & Communitas* is an experimental documentary short film about the utilization of roadkill animals. The film investigates the border between life and death and the edges of the manmade world.

Liminaali & Communitas is a visually rich one night journey in which temporal and eternal meet.

Toivola (Heart of the Land)

Director: Kaisa Astikainen

Finland, 30 min, 2016, Documentary

A couple runs a small dairy farm somewhere in the heart of the Finnish countryside. The work of generations will soon come to its end, as their retirement is approaching and there's no one left to continue the family tradition. But for one last year everything continues the same; the seasons change, and the days are filled with labor. A film about love for the land, the richness of everyday life, and the sadness of letting go.

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Kyydissä (A Seat with a View)

Director: Kaisa El Ramly

Finland, 11min 02 sec., 2014, Documentary

A Seat with a View is a film that takes us on a journey with three children sitting as passengers on a bicycle. It is a depiction of those mythical moments experienced along the way: What is seen and what thoughts are aroused by being “onboard”.



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Seaweed Kitchen: Future Snacks Workshop

By Mariana Solís Escalera, Tzuyu Chen & Chiao-wen Hsu

19th November, Beta Space Gallery

Does the future lie in seaweed? This workshop allows children to explore the future of food through immersive experiences: where they cook with seaweed and speculate on future diets. The aim is to encourage children to understand human and non-human relationships in the context of seasonable, sustainable consumption. Through a sequence of presentations and different activities children learn about seaweed, observing colour changes when boiled, designing their own bread using seaweed and dough while learning the baking process. By eating, drawing and reflecting on their experiences with seaweed, the workshop encourages children to engage with unfamiliar species and food ingredients while raising awareness of the benefits of restoring the biodiversity of the sea and land. The workshop is part of the exhibition project 'Empathy Education' which includes three components: a “Seasonal Map” which visualises the local species’ growth and changes; “Sea Neighbours: Seaweed”, a children’s activity book that initiates children’s interests in local seaweed species through different interactions; and “Seaweed Diary: Future Snacks”, a cooking diary that documents our experiments with and reflections on cooking seaweed within a western context also encourages people to become part of the experience.



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Credits

Curator	Bilge Hasdemir
Producer	Edel O' Reilly
Editors	Bilge Hasdemir & Edel O' Reilly (SCTA), William Hellberg (Aalto University Language Centre)
Translator	Vilja Pitkänen (Aalto University Language Centre)
Graphic Design	Joosung Kang
Image Credits	Courtesy of the artists, curator and producer.

This project was co-produced by Sharing & Co-Creating Transdisciplinary Artworks (SCTA), a University-Wide initiative responsible for exhibitions, transdisciplinary artworks, collections and public art at Aalto. SCTA includes Assistant Professor Bassam El Baroni, Art Coordinator Outi Turpeinen and Co-Curators Bilge Hasdemir & Edel O' Reilly.

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