

DESIGNS FOR A COOLER PLANET

5 to 26 September

Designs for a Cooler Planet— Today's cool choices and tomorrow's concepts in Otaniemi

*If we want to keep the earth liveable,
the next ten years are crucial.*

We Finns consume four times more energy and natural resources than is sustainable. To reach sustainability, the next ten years will have to look completely different—but can still be appealing.

In September 2019, the Designs for a Cooler Planet exhibitions will introduce solutions to support more sustainable lifestyles. Aalto University's Otaniemi galleries showcase eleven multidisciplinary exhibitions, from future homeware to a carbon-free city district.

Change concerns all of us: consumers, companies, education and governments. We have no time to lose.

<http://bit.ly/acoolerplanet>

Helsinki

Design

Week

IMAGE Anne Kinnunen EXHIBITION GRAPHIC DESIGN Babi Brasileiro



The world's first microbe-grown headset IMAGE Aivan

Designs for a Cooler Planet

DIPOLI GALLERY

Designs for a Cooler Planet exhibition presents a wide selection of experimental climate-friendly products and individual choices that you can do already now.

We need to rethink our individual lifestyles: what we eat, how we live and how we move. The *1.5 Degree Lifestyles*

study calculated the climate impact of 30 choices. What will be your contribution?

The prototypes of Future Home will give a glimpse of new material research. What if all our belongings were reusable and recyclable, non-toxic and long-lasting?



Some of the carbon fibre-reinforced plastics may be replaced by nanocellulose.

DESIGN Tiina Härkäsalmi, Tuomas Pärnänen & Kim-Niklas Antin

IMAGE Eeva Suorlahti

Nordic Rebels: Goose bumpifying learning

VÄRE, V1 GALLERY

How might we create learning experiences to enable everyone to see what role they play in creating a more sustainable future for our societies and planet? This is one of the core tenets of Nordic Rebels: creating learning experiences that help our students see the critical role they play in creating a brighter future for all of us. Learning is not about earning a diploma or a degree, but first and foremost it is about transformation—growing as a human being and helping our peers achieve the same.

In May 2019, a Finnish-Danish blended minor programme Nordic Rebels received a Danish Design Award in the Better Learning category.



ILLUSTRATION Parvati Pillai

ILLUSTRATION Markus Ahonen



Archilux: a cruise ship for Finnish lakes, coast and archipelago

VÄRE, V2 GALLERY

The cruise business is booming, and a huge number of expedition cruisers take passengers to the most remote locations on Earth. Europe's largest lake district with pure water and the natural beauty of the world's largest archipelago are still missing from the cruise maps. Therefore, the Archilux takes its guests on an adventure to the sensitive nature in Finland. Environmental friendliness has been taken into consideration in every detail, from power production and light-weight structures to everything that happens onboard.

The ship concept was originally designed for Finland's 100th anniversary.



A pile of wood waste in Tarastejärvi recycling center.
IMAGE Chiara Piccardo

Our remaining carbon budget for this century, 800 million tons of CO₂eq, might be overstepped because of the unsustainable use of material resources. Therefore, the recirculation of waste materials for new production is crucial.

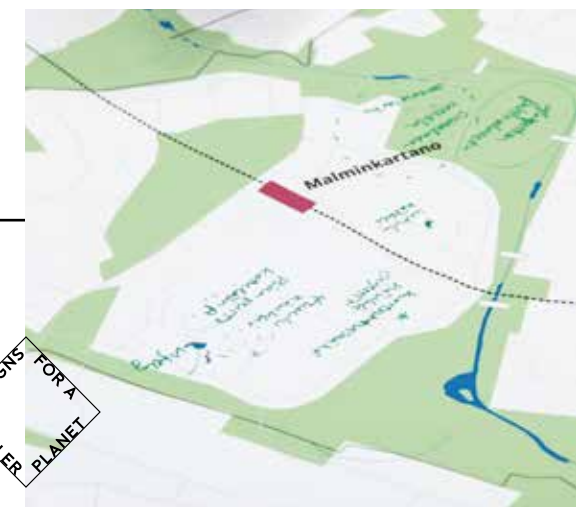
In Finland, more than one third of construction and demolition waste is wood. The implementation of Design for Disassembly (DfD) principles in constructions might increase the reuse of wood products.

CircWood: Recirculating wood within the built environment

VÄRE, FE LOBBY

CircWood aims at modelling the effect that recirculating wood materials within the built environment has on the sustainability of wood use. The exhibition shows how recirculating wood waste is both a technical issue and a creativity challenge.

IMAGE Andre Vicentini



Urban transitions: Imagining Malminkartano in 2050

VÄRE, K CORRIDOR

Cities are critical intervention points to address climate change, and there is an urgent need to transform both how we live in cities and how cities support our needs. The Urban Transitions and Futures course focuses on developing transitions to sustainable post-carbon cities by using design-led future-focused thinking. Students develop visions for sustainable urban futures

and strategies of experimentation to achieve these visions. In 2019, the course focused on the Malminkartano neighbourhood in Helsinki.

Urban Transitions and Futures course is jointly offered by Aalto University and University of Helsinki and the course was done in collaboration with City of Helsinki and citizens of Malminkartano neighbourhood.

New Silk - What can we learn from spiders?

VÄRE, FK LOBBY

The New Silk research project studies new ways of producing sustainable materials in the future, especially how to produce new types of silk-like materials in the context of synthetic biology. The project team consists of scientists, material researchers and design researchers with textile expertise. The goal is in the far future: how to design and produce material attributes at the DNA

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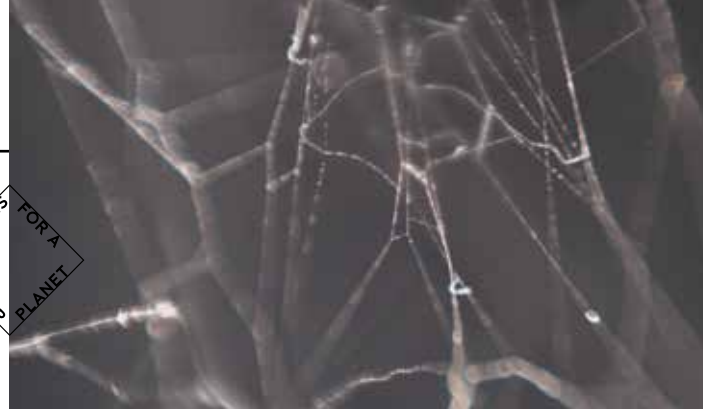


IMAGE Pirita Lauri

level through genetic engineering. The original inspiration for this project was a spider's way of creating materials for its web using "spider silk", a luxurious and sustainable material with properties that surpass existing synthetic materials.

This research project is a collaboration between Aalto University and University of Helsinki, and is part of the BioFuture25 programme by the Academy of Finland.

DESIGN Essi Karell IMAGE Eeva Suorlahti



Natural Indigo: New Luxury from Northern Fields

VÄRE, BRIDGE K2

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One fifth of the water pollution caused by global industry is due to the dyeing of textiles and the synthetic chemicals used in the process. Some regions of the world already have polluted groundwater because of the textile industry's activities.

From 2018 to 2019, the Crops4Luxury (*Peltoluksus*) project studied special crops that could replace synthetic textile dyes sustainably and ethically. Blue is the rarest color in nature, and in Finland, a crop called dyer's woad (*värिमorsinko*) yields a non-toxic blue dye.

Through an eco-luxury approach we can build a new understanding towards a more sustainable future with fewer synthetic chemicals and a less damaging environmental impact.

Crops4Luxury was a collaboration project between Natural Indigo, the Natural Resources Institute Finland (LUKE) and Aalto University. The project was funded by Sitra, the Finnish Innovation Fund.

Envisioning the future of packaging

VÄRE, LQ LOBBY

There is an urgent need for sustainable alternatives to oil-based packaging materials such as styrofoam. Emerging interdisciplinary practices in material research aim to develop novel wood-based biomaterials with similar or better properties to replace non-renewable and environmentally problematic plastics.

The exhibition features three sustainable packaging projects: CoCeA, Fold and Sustain and Pack-Age.

The **CoCeA project** combined design thinking with scientific research process to obtain unique material solutions by foam forming. This production technology uses wood-based cellulose fibres and enables production of lightweight biomaterials that are renewable, biodegradable and recyclable, using a minimum amount of water.

CoCeA (Complex Cellulose Structures or Consumer Applications) is part of the FinnCERES, a joint research programme between Aalto University and VTT.

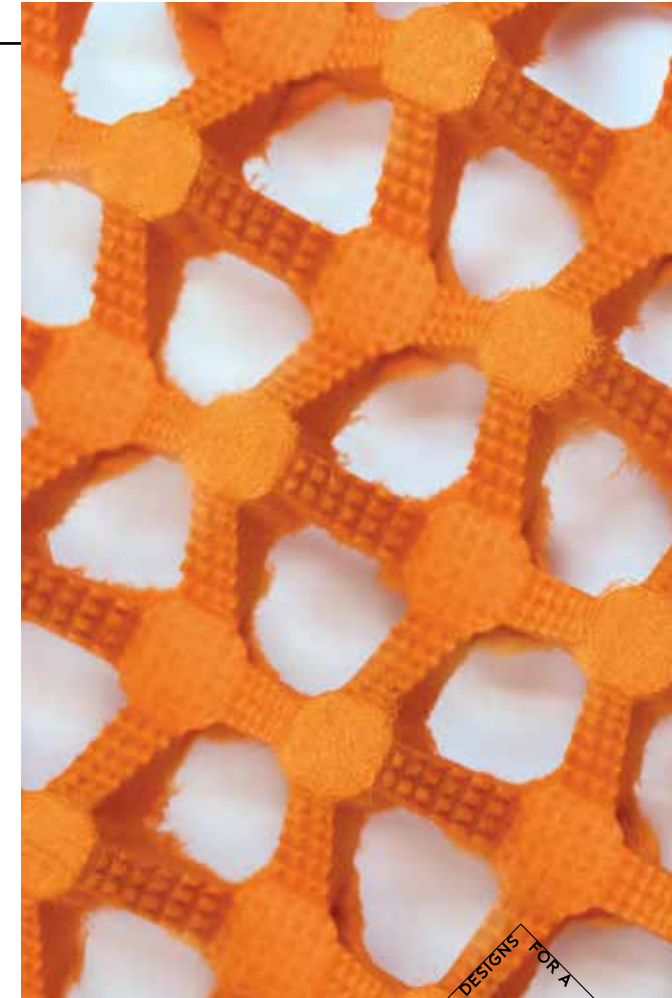


IMAGE Anastasia Ivanova

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The **Fold and Sustain project** investigates patterns and folded structures which can be implemented in packaging design to replace plastic materials, concentrating especially on creating transformable, stable and protective structures.

Pack-Age is Aalto University's innovative packaging design course that combines visual communication, design, business, and engineering thinking with sustainability and project-based learning. Students from different programmes work in interdisciplinary teams with actual projects from the industry. The exhibition showcases sustainable package ideas designed by student groups.



IMAGE Valeria Azovskaya

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IMAGE Eeva Suorlahti

ChemArtsing with bio-based materials

Results from the Summer School 2019

📍 HARALD HERLIN LEARNING CENTRE, LOBBY

The aim of CHEMARTS is to inspire designers and material researchers to explore bio-based materials for novel material solutions and their innovative applications. The CHEMARTS philosophy is based on sustainability, with the focus being on renewable raw materials, utilisation of side streams and waste, and creation of biodegradable and/or recyclable materials.

The interdisciplinary CHEMARTS Summer School has been organised since 2012. This year, the overall theme of the Summer School was *'Value from plant residues'*. Some students worked within the theme, some decided to take other approaches. This exhibition showcases the students' ideas, processes and the most interesting experiments.

CHEMARTS, established in 2012, is a strategic collaboration in education and research between the School of Arts, Design and Architecture and the School of Chemical Engineering.

Traces from the Anthropocene. Working with Soil

📍 BETA SPACE GALLERY

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IMAGE Tzuyu Chen

Traces from the Anthropocene. Working with Soil is a multidisciplinary research project that addresses the ecological consequences of human footprint through ceramic art. The project took place before and during the Research Pavilion in the context of the Venice Biennale 2019, the world's best-known contemporary art event. As ceramists traditionally work with local earth, the research is situated in the local environment of the Biennale, the Venice lagoon area.

During the process, local soil was gathered and then analysed for anthropogenic contaminants. Local brick clay was used to create large ceramic forms, and finally, the contaminated soil was used to paint the ceramic vessels. In this project, craft making is understood as a philosophical space to think through the ethical and ecological concerns related to the stage of the environment.

This project has been a collaboration between the Aalto University School of Arts, Design and Architecture, School of Chemical Engineering and the Finnish Environmental Institute SYKE.

Urban Façades

📍 VÄRE, MAIN LOBBY

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DESIGN Antti Mikola IMAGE Antti Mikola & Aapo Airas

High quality architecture is sustainable. When thoughtfully designed and well maintained, it can last forever. As architects, it is important to ask ourselves what defines architectural "quality". Besides structural and functional aspects, we must also consider the properties of architectural aesthetics. In this respect, it is of great importance to gain an understanding of how building façades make use of materiality, colours, joints, forms, proportions and depth to determine the qualities of urban

spaces. The students were given the main task of producing their own designs for an urban site in the city. The aim of this exercise was to produce a proposal which would establish a language that is formally consistent and sustainable.

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Designs for a Cooler Planet is one of Helsinki Design Week 2019's main events. Eleven art galleries in Otaniemi showcase a wide variety of Aalto University's projects ranging from sustainable product and service concepts to new material experiments.

Learn more <http://bit.ly/acoolerplanet>

1 Väre Art galleries

Otaniementie 14
4 – 26 September 2019
Natural Indigo:
New Luxury from
Northern Fields
Bridge K2

NEWSILK: What can we
learn from spiders?
FK Lobby

Urban Transitions
for Cooler Futures
K Corridor

CircWood
FE Lobby

Envisioning the
Future of Packaging
LQ Lobby

Urban Facades
Main lobby

Nordic Rebels: Goose
bumpifying learning
for societal agency
V1 Gallery

Archilux
V2 Gallery

2 Harald Herlin

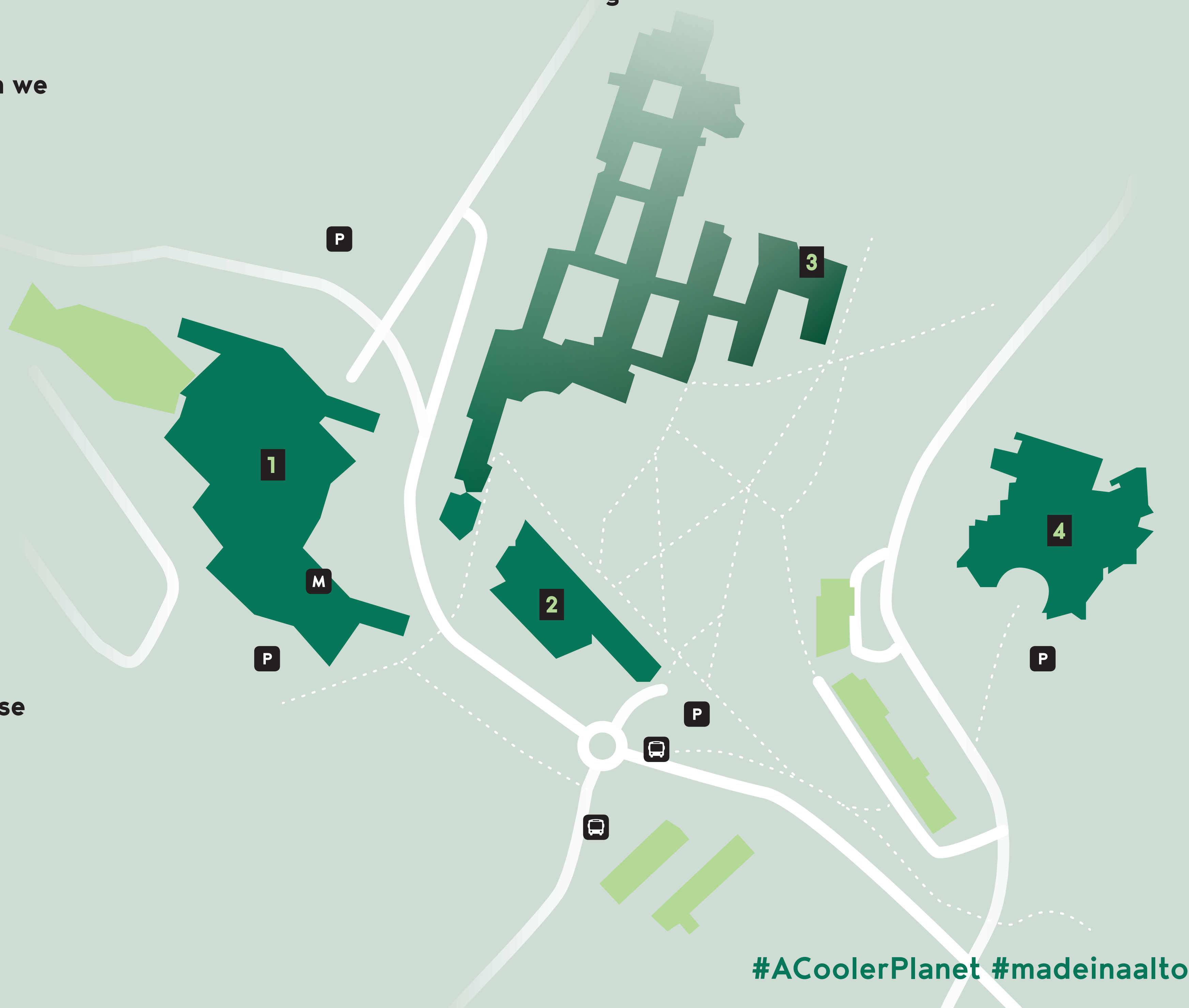
Learning Centre
Otaniementie 9
4 – 26 September 2019
ChemArtsing with
bio-based materials.

3 Beta Space Gallery

Otakaari 1 X
10 – 26 September 2019
Traces from the
Anthropocene.
Working with Soil.

4 Dipoli Gallery

Otakaari 24
4 September –
5 October 2019
Designs for a Cooler
Planet main exhibition



#ACoolerPlanet #madeinaalto



Helsinki
Design
Week

Satellite
exhibitions

Fragile Water
Helsinki Airport,
arrival hall 2B
23 January – 31 December 2019

Critical Tide
Helsinki Designmuseum,
Korkeavuorenkatu 23
6 September – 27 October 2019