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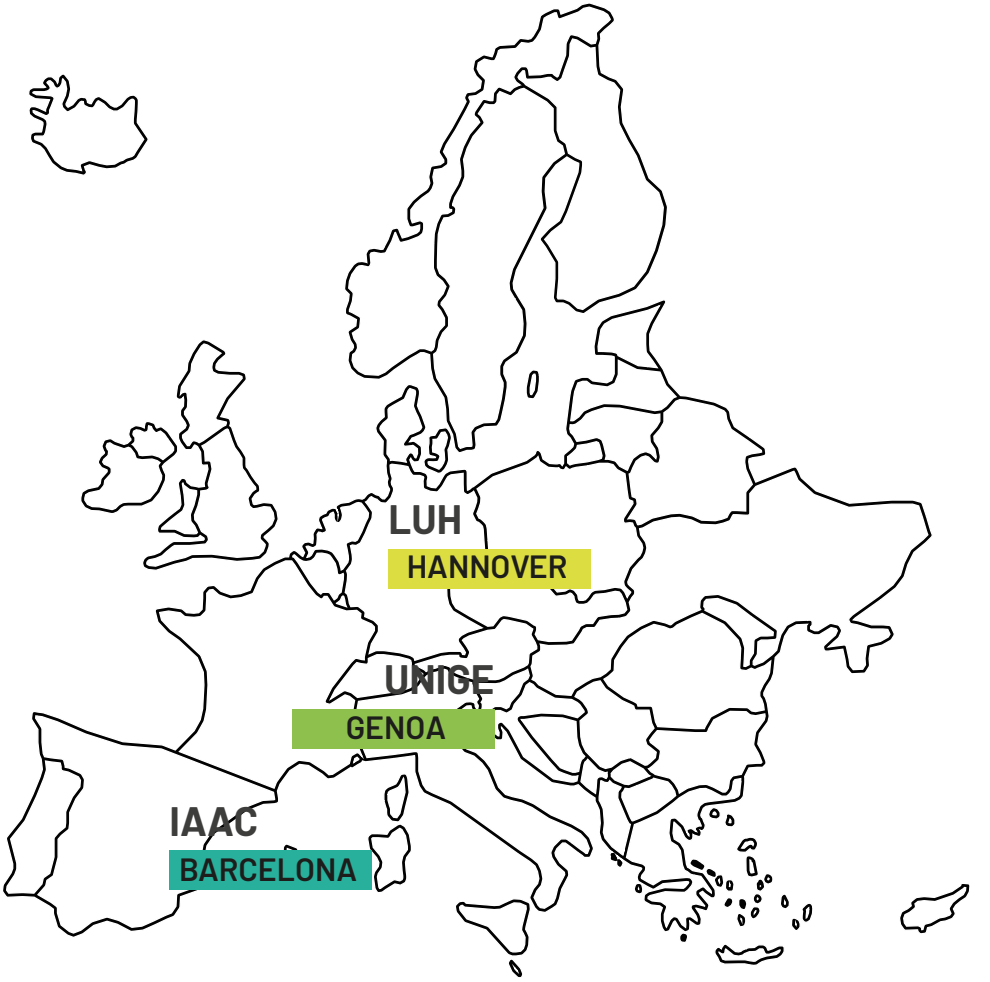


Figure 1. The Creative Food-Cycles Cities in Europe. Graphic Rebekka Wandt

Introduction

COMMON METHODOLOGY

Call:	*EACEA 32/2017 22.11.2017*
Project Title:	*CREATIVE FOOD CYCLES*
Acronym:	*CFC*
Realisation:	*01.10.2018 – 30.09.2020 (24 months)*

Creative Food Cycles (CFC) is a project co-founded by Creative Europe Programme of European Union with the aim of developing a cultural and holistic approach, joining all the aspects of Food Cycle: from production to distribution (phase 1), from distribution to consumption (phase 2) and from consumption to disposition (phase 3). This means also to stimulate with an open and inclusive approach a deeper interconnection among cultural operators, cultural professionals, institutional stakeholders and active urban society.

A HOLISTIC APPROACH
for new Materials and new Rituals

Today, food systems are complex sets of economic activities, exchanges and human interactions that sharply affect Europe's long-term sustainability and its living conditions. Resilient food cycles can be drivers for strategical challenges and opportunities related to urban qualities, cultural values, informal practices, education, economic development, ecological targets and social integration.

Creativity and arts are major driving forces in the current cultural and societal field. In the last years, the limits of sectorial policy programmes and academic research have become obvious to address the topic of food cycles as a main field of change in Europe. Co-Design of change across food issues is a design- and creativity-related action that examines the increased attention for the space and place qualities, the regional scale and local product, as well as their relationships among cultures and cultural experiences. It is placing food higher on both the political and urban agenda.

Weather green and local growth has become a major leitmotiv of contemporary society in terms of nutritional and health issues, with Creative Food Cycles we want to empower architects, product and communication designers and cultural actors to assume a more proactive attitude, regarding food and its expressive capacity, as a cultural vehicle of identity, innovation and social integration.

In fact, the enduring constants in the world's food systems are exchange and change: what appears permanent is forever in a flux or in a recursive cycle as it was addressed by David Hume essay 'Of the Standard of Taste'. Looking at identity as the product of continuing exchanges and transformations, means considering the positive and progressive interactions between food cultures, food spaces and places, creative performances, responsive digital technologies.

THE FOOD-CYCLE

3 phases _ 3 Cities

Creative Food Cycles (CFC) wants to establish an international multidisciplinary platform to explore cultural, social, and economic perception of the challenges and connections between Food, Design, Creativity and Space issues. The overall work programme is mainly divided into three phases which address different parts of the Food Cycle:

PHASE 1 _ PRODUCTION TO DISTRIBUTION

(lead by IAAC, with LUH+UNIGE)

demonstrating how the use of technology can help producing food in urban environments, or in close proximity, and enhancing city resilience. From the proposal IAAC expressed is interest in widening this concept to new systems of cultivation not implemented so far in cities (i.e mushrooms, rice, aquaponics). The use of digital fabrication allows building customized design gardens and the use of sensors helps in controlling the performances.

PHASE 2 _DISTRIBUTION TO CONSUMPTION

(lead by LUH, with IAAC+UNIGE)

focusing on new models of distributing, marketing, processing – as well as cooking, displaying, sharing – food and regional products into a collective aggregation point (place-making effect). LUH confirmed the aim of this phase to recollect and dispose into different sensorial experiences, augmented reality data processing in designed pieces of urban furniture, offering interactive ways for audiences to participate in a product or service.

PHASE 3 _CONSUMPTION TO DISPOSITION

(lead by UNIGE, with LUH + IAAC)

exploring the process that brings food from consumption to disposal, by offering new potentials meaning and spatial combination in an art-design reinterpretation (from scrap to art). UNIGE confirmed its focus in the combination of projects which can configure new design and creative experiences from

discarded products (from waste to resources), but also from abandoned heritage building, widening the concept of urban recycle.

The project overlays multiple issues tackled by Food cycles stimulating intercultural dialogue between 3 partner cities (Hannover, Barcelona, Genova) and other 3 hosting cities (Porto, Antwerp, Montpellier). The general structure of the project is based on a recursive set of creative actions (workshops, art-installations, itinerant exhibition), enriched by moments of capacity building and audience development (State of Art catalogue, international Biennale Festival, Final Symposium) for architects, product and event designers, in order to widening the interfaces between creativity, places and public awareness.

PROJECT ACTIVITIES

Institutions, local expertise, artists, cultural operators and stakeholders of the 3 partner cities will be involved in an open co-creation work programme, by developing:

- 1 state of the art catalogue (Food interactions) of best practices of food/design/art
ed.& train; experiences of partner/hosting cities + EU and worldwide good practices
exchange; further implementation online website and social media diffusion
audience; extending knowledge to other socio-cultural contexts (place factor)

- 3 creative workshops (Food Crossovers) one per each partner city
ed.& train; co-creation open lab in Barcelona, Hannover, Genova
exchange; experts/artists mutual exchange (international mobility) between all partners
audience; empowering thematic skills to attract diverse audience by habit / by choice

- 3 art installations (Food Cycle in action) one per each partner
ed.& train; co-production of art-installations and place-making events
exchange; connect professionals with digital recording of the events
audience; inclusive participation in the arts to audience by choice / by surprise

- 1 itinerant exhibition (Creative Food cycles) 3 partner + 3 hosting cities
ed.& train; further audience development in hosting cities
exchange; all the events are connected by a contribute delegation to the Festival
audience; develop networks, partnerships and collaborations with new project stakeholders

- 1 international Festival (Creative Food Festival) in Genova
ed.& train;presentation of prototypes proof of concepts to target groups
exchange; open call for projects allowing a wider participation of professionals
audience; fostering local organisations to deepening their audiences with int. exchange

- 1 final Symposium (Creative Food Festival) in Hannover
ed.& train; academic-political dissemination of the project results
exchange;international board of experts/lecturers in the field of creative design/arts
audience; further audience development through conference proceedings

The project addresses the EACEA programme's priorities of Training and education (C.3), Audience development (B) strategy in a flow of continuous communication and dissemination both to target groups (audience by habit), cultural operators and institutional stakeholders (audience by choice) and active urban society (audience by surprise). Transnational mobility (A) will be realised not only in the exchange of experts of the three partners, but also with the exchange of artists and cultural experts between the partner and hosting cities through an itinerant exhibition.

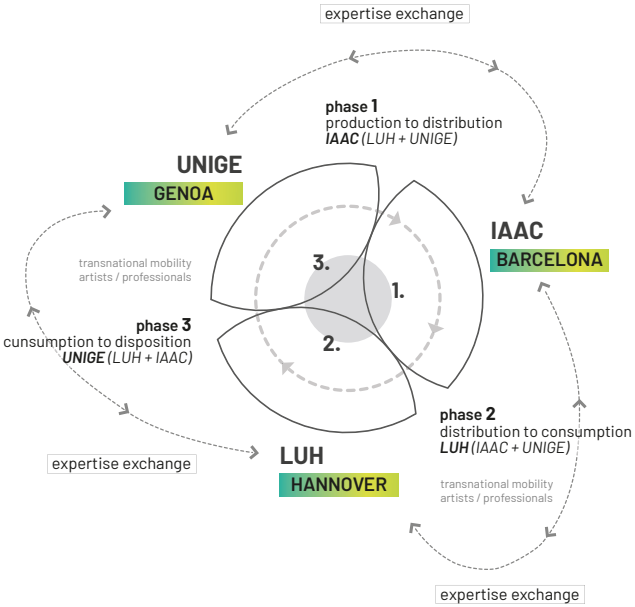


Figure 2. The Creative Food-Cycles Phases and partners: international exchanges. Image: LUH Regionales Bauen und Siedlungsplanung.

PROJECT OBJECTIVES

- Increasing integration of regional food systems as a cultural vehicle of identity, innovation, social integration and implementing sustainable urban development;

- Fostering the exchange of knowledge and best practices in the application of on food/design/art interactions in Europe;

- Contributing to reducing skill-gaps and empowering new building capacities on innovative production, ICT technologies and resilient city metabolism among architects, product and event designers;

- Enhancing audience development and participation in European urban sustainable development processes and creative food cycles in cities;

- Increasing visibility of the role of European architects, designers and performing artists in implementing creative food cycles in cities.

PARTNERSHIP

The project is derived and developed from the artistic and scientific expertise of the 3 partners, with the active involvement of architects, product and event designers. In particular, IAAC will coordinate the activities connected to Advanced Information and **Communication Technologies** (ICT) applied to public space, LUH will coordinate all activities related to **Resilient City Metabolism** and UNIGE will coordinate all activities dealing with Inclusive **Citizen Participation and Co-creation.**

Leibniz Universität Hannover

LUH, Chair of Regional Building and Urban Planning, Hannover
www.staedtebau.uni-hannover.de

Sustainable architecture and planning of the transforming urban-rural territories towards Resilient City Metabolism connected to settlements, food culture, territorial marketing, landscape and circular economy system are the LUH expertise. The Chair is part of the Institute of Urban Design and Planning, Faculty of Architecture and Landscape Sciences.

Institut d'Arquitectura Avancada de Catalunya

IAAC, Barcelona
www.iaac.net

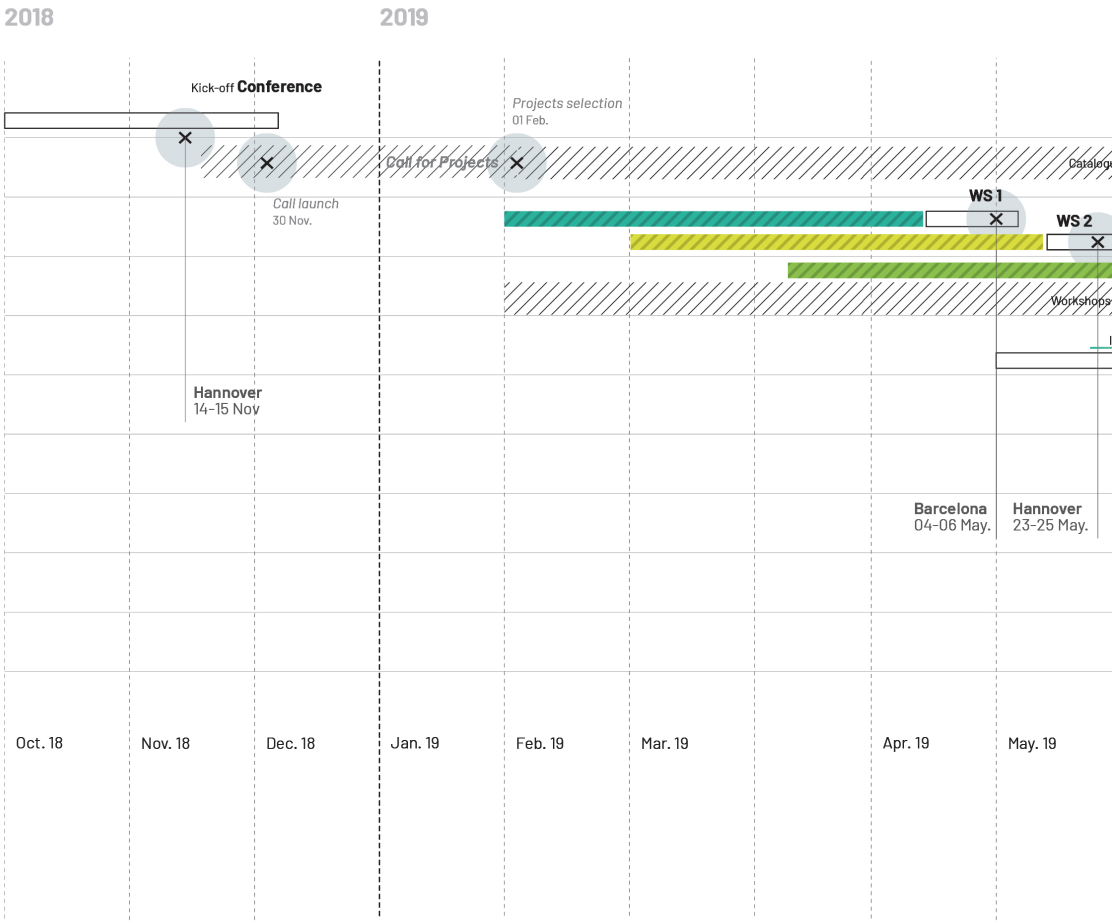
Intelligent cities, self-sufficient buildings, digital matter, design with nature and advanced interaction form IAAC's research lines. IAAC expertise in Information and Communication Technologies (ICT) deals with: real-time data capture; energy generation, storage and reuse; material adaptability; parametric design; real-time management of time-uses and citizen (space) interaction.

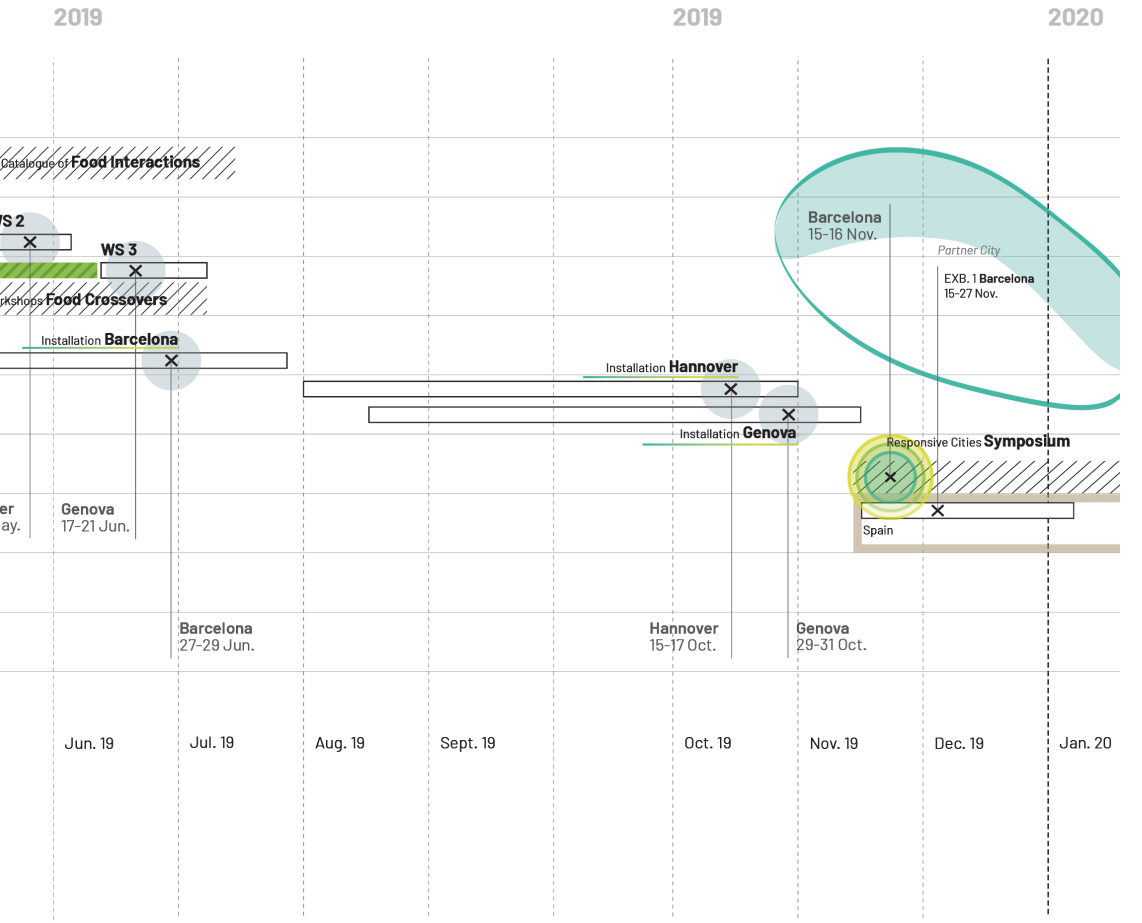
Università degli Studi di Genova

UNIGE_DAD, Department of Architecture and Design, Genova
www.unige.it

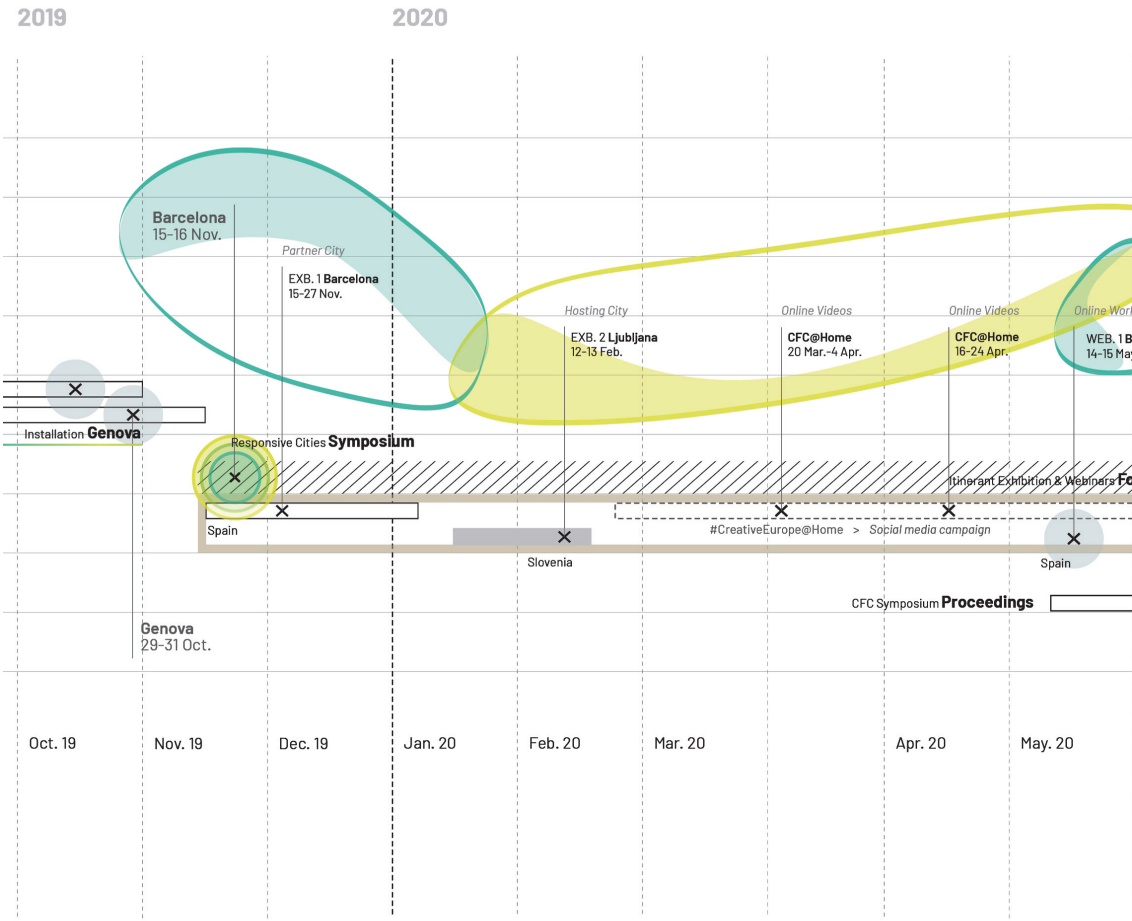
Didactic and research activities related to product / event design for Inclusive citizen participation and Co-creation actions are among the most significant expertise of DAD-UNIGE. The Department collaborate since years with local communities, associations and municipalities in the re-activation on public spaces, organization, communication of urban events and performances.

Timeline


2018
2019
Kick-off Conference
Projects selection
01 Feb.
Call for Projects
Call launch
30 Nov.
WS 1
WS 2
Workshops
Hannover
14-15 Nov
Barcelona
04-06 May.
Hannover
23-25 May.
Oct. 18
Nov. 18
Dec. 18
Jan. 19
Feb. 19
Mar. 19
Apr. 19
May. 19


2019
2019
2020
Catalogue of Food Interactions
WS 2
WS 3
rkshops Food Crossovers
Installation Barcelona
Installation Hannover
Installation Genova
Barcelona
15-16 Nov.
Partner City
EXB. 1 Barcelona
15-27 Nov.
Responsive Cities Symposium
Spain
er
ay.
Genova
17-21 Jun.
Barcelona
27-29 Jun.
Hannover
15-17 Oct.
Genova
29-31 Oct.
Jun. 19
Jul. 19
Aug. 19
Sept. 19
Oct. 19
Nov. 19
Dec. 19
Jan. 20

Timeline


2019
2020
Barcelona
15-16 Nov.
Partner City
EXB. 1 Barcelona
15-27 Nov.
Hosting City
EXB. 2 Ljubljana
12-13 Feb.
Online Videos
CFC@Home
20 Mar.-4 Apr.
Online Videos
CFC@Home
16-24 Apr.
Online Worl
WEB. 1 B
14-15 May
Installation Genova
Responsive Cities Symposium
Spain
Slovenia
Itinerant Exhibition & Webinars
#CreativeEurope@Home > Social media campaign
Spain
CFC Symposium Proceedings
Genova
29-31 Oct.
Oct. 19
Nov. 19
Dec. 19
Jan. 20
Feb. 20
Mar. 20
Apr. 20
May. 20

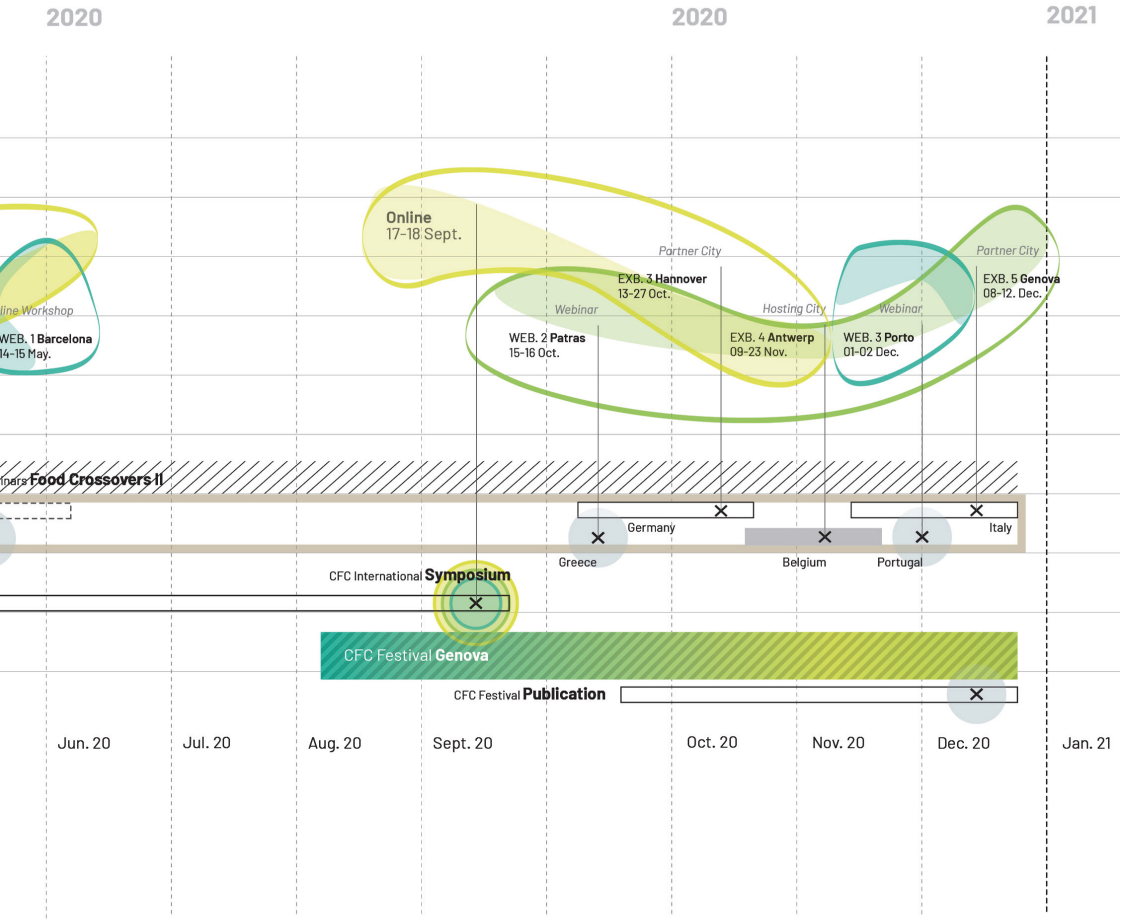


Figure 2. The Creative Food Cycles programme.
Image: LUH Regionales Bauen und Siedlungsplanung

01 Barcelona

CFC IN SPAIN / PHASE 1 PRODUCTION TO DISTRIBUTION

European and Medcities, such as Barcelona, have begun to pay some interest to grassroots movements and bottom-up responsible approach to food topics, also including them into decision-making and planning agendas. Barcelona is one of the innovative cities in Europe that is focusing on its Urban policies on circular food environment. In particular the metropolitan area of Barcelona signed the urban food policy pact in Milan *(www.milanurbanfood-policypact.org)*, which aims to increase sustainability by improving, facilitating, landscaping and utilizing its food production. Introducing awareness practices connected to food production in Barcelona, such as urban roof gardening, terrace gardening and public community gardening, the city can improve multiple ecosystem services (urban greening, micro-climate improvements, shared care of public spaces, etc.) enrich urban biodiversity and reduce food insecurity. Food production provided by local gardening communities can help support and sustain food for urban communities, as well as provide a unique opportunity to effectively grow food in spaces that are typically unused.

The Institute for Advance Architecture of Catalunya uses its Fabrication Lab to focus on the creation of open source food technologies that can enhance the production, and introduce creative invention and multiplication of co-design solutions in urban food production. For instance, through digital technologies and lab facilities it would be possible to develop a sustainable food system, such as digitally fabricated boxes that is created by controlled environments to grow specific types of food. Certain combinations of temperature, humidity and soil can be tailored and optimised according to different plants and produces. This development process can be shared through the lab's open source work to recreate it anywhere in the world allowing communities to adapt and develop designs to their own needs while at the same time distributing them back to a growing community.

Chiara Farinea, Mohamad Elatab, Mathilde Marengo, Federica Ciccone

CREATIVE FOOD CYCLES

REGISTRATIONS OPEN!
deadline
5th April 2019

apply now!

CREATIVE FOOD CYCLES
2018-20 cofunded by the European Union
Creative Europe Programme

Partners:
Leibniz Universität Hannover LUH
(Chair for Regional Building and Urban Planning)
University of Genoa UNIGE
(Department of Architecture and Design)
IAAC Institute of Advanced Architecture of Catalonia

4-5-6 MAY BARCELONA

CREATIVE URBAN FARMING WORKSHOP

at

Iaac Institute for advanced architecture of Catalonia BARCELONA

Pujades 102 baixos, Poble Nou, 08005 Barcelona

follow us:

more info at:
www.creativefoodcycles.org

Photo credits: MAS Food CEEE-Oct/2018 Anne Paperwick, Jessica Sivak Sofia Chavez Cruz - IAAC_SPHERA - Am Urban Photo Bioreactor MAA2017 Mario Alberto Espinoza Eduardo Chamorro, Timothy Magara, Elliott Santos

Co-funded by the Creative Europe Programme of the European Union

Creative Food Cycles Partners:
Leibniz Universität Hannover
Iaac Institute for advanced architecture of Catalonia
Università di Genova

Photo credits: IAAC_Fvvd, CIEE-GAD 2018, Becky Baierwick, Jessica Sved, Sofia Chavez Cruz - IAAC_SPHIRA - An Urban Photo-Bioreactor, MAA2017, Mario Alberto Espinoza, Eduardo Chamorro, Timothy Magara, Elliott Santos

CREATIVE URBAN FARMING WORKSHOP

Creative Urban Farming Workshop

Barcelona, 4-5-6 May 2019

Today, we have accessibility to products coming from anywhere in the world, all year round. However, it is questionable whether the quality of these products is healthy, and whether the food chain is sustainable, like food production, distribution and disposal involve a complex set of economic activities, exchanges (digital and physical) and human behaviours that all sharply affect the living conditions of the planet and its inhabitants. Moreover, there is a growing recognition that food is not only meant to feed us from a nutritional point of view, as it creates also relations referring to the social and cultural perspective, for example, conviviality and feeling of belonging.

Design, through the development of creative, circular and innovative products and services, has the potential to enhance and boost **sustainable food production and distribution,** and **food-related social and cultural processes and practices.** In this regard, one of the main questions that architects, designers and creatives are called to respond is: how can we integrate food production and distribution in the urban environment, enhancing participatory processes and circular use of available resources?

Creative Urban Farming Workshop will investigated how design, based on **creativity, circularity** and **new technologies,** can help to boost **participatory food production** in the **urban environment** in a pro-active and productive way, and through diverse scales.
Participants designed **creative cultivation system** projects and tested them developing **innovative urban food production prototypes**.

PROGRAMME

Barcelona, Day 1 04/05/19

OPENING SESSION

09:30 **Introduction to the Food cycles Pop-up Workshop Hannover**
Chiara Farinea (IAAC)

10:00 **Introduction to the workshop**
Mohamad Elatab (IAAC)

10:30 **Introduction to the to project site**
Federica Ciccone (IAAC)

DESIGN SESSION

11:00 **Group Brainstorming**

15:00 **Presentation of the concept**

LECTURES SESSION

18:00 **Lecture | Open Farming**
Mathilde Marengo (IAAC)

18:30 **Poble Nou Open Day**
and Launch of Food Interactions Catalogue

PROGRAMME

Barcelona, Day 2 05/05/19

LECTURES SESSION

09:00 **Lecture | Conviviality and the City: the relational spaces**
Manuel Gausa (UNIGE)

09:30 **Lecture | Food in City transformation**
Nicola Canessa (UNIGE)

DESIGN SESSION

10:00 **Prototyping**

LECTURES SESSION

18:00 **Lecture | Mushrooms Cultivation**
Mohamad Elatab (IAAC)

18:30 **Lecture | Biophotovoltaic Systems**
Paolo Bombelli (University of Cambridge)

PROGRAMME

Barcelona, Day 3 25/05/19

LECTURES SESSION

09:00 **Lecture | Design Urban Food Metabolism**
Emanuele Sommariva (LUH)

09:00 **Lecture |Resilient Foodsheds**
Sabrina Sposito (LUH)

DESIGN SESSION

10:00 Prototyping

14:00 Documentation

CLOSING SESSION

17:00 Final presentations

INSTRUCTORS AND EXPERTS

Institute for Advanced Architecture of Catalonia - IAAC:

Chiara Farinea | Advanced Nature Based Solutions Expert
Areti Markopoulou | Advanced Materials and Design Expert)
Mathilde Marengo | Open Food Systems Expert)
Federica Ciccone | IAAC | Advanced Urban System Expert

External Experts:

Paolo Bombelli | University of Cambridge – Biochemistry and Algae Expert)
Mohamad Elatab | Nature-based Solutions, Computational Expert

Creative Food Cycles (CFC) Partners:

Emanuele Sommariva | LUH | Resilient Urban Metabolism Expert
Sabrina Sposito | LUH | Resilient Urban Metabolism Expert

Manuel Gausa | UNIGE | Advanced Architecture and Co-design Expert
Nicola Canessa | UNIGE | Urban Design and Participation Expert

Figure 1. IAAC building in Poble Nou district ©IAAC

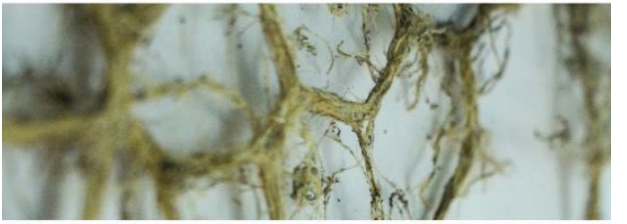
Figure 2. IAAC building: Exhibition hall ©IAAC

Figure 3. IAAC building: Exhibition hall ©IAAC

Figure 4. Advanced technologies: Fab Lab at IAAC ©IAAC

Hydroponic

Roots



Insects

Algae

Mushrooms

Figure 5. Creative Urban Farming Workshop_Topics
©IAAC, Federica Ciccone for Creative Foods Cycles)

In detail here you can learn more about their work:

GROUP 1 (Hydroponics)

Playponics

Awareness Rising Hydroponic Installation for Public Space

Fabiana Cerutti Rossetti, Giulia Bertoldo,
Demi Pradolin, Matias Gatti, Emily Whyman

(https://drive.google.com/file/d/1vsJb0EUqiHRPSP-0limNkrrUgY9lm0zd/view)

GROUP 2 (Roots)

un-EARTH

Roots Textiles from Vegetable Gardens.

Oana Taut, Elvin Demiri, MIchel Grandörf.

(https://drive.google.com/file/d/1fmsS-_ZpAY-hzSad-zJjzBmvHA1oceCr/view)

GROUP 3 (Insects)

Parasitizing Urban Voids

Insects' Hotel and Urban Orchards as Activators of Abandoned Space

Lara Del Valle, Melina Pekholtz, Nikoleta Mougkasi.

(https://drive.google.com/file/d/1bcx6VnfVUR2FG474vivFr0CbMXEvcCLY/view)

GROUP 4 (Algae)

The Algae of Everything

Intelligent network of algae, people, data, things and processes

Cecilia Gonzales Torres, Emmanouli Vermisso, Janine Philippe, Nadina Iona Jurat.

(https://drive.google.com/file/d/1zpvLE9j84BkoRzfFa0XL-Xw9jA0aYljU/view)

GROUP 5 (Mushrooms)

Mutualism

Tile for mushrooms and vegetables cultivation in urban environment

Giovanna Bartoleschi, Evanthia Beristianou, Paula López Barba, Maher Mansour.

(https://drive.google.com/file/d/1XTSco_wksW_CbKgaFLL0PgVID_z41Ahx/view)

Figure 6. Creative Urban Farming Workshop_Participants working
©IAAC, Federica Ciccone for CFC

Figure 7. Areti Markopoulou[IAAC]_Final Presentation Creative Urban Farming Workshop
©IAAC, Federica Ciccone for CFC.

Held on 4-5 and 6th of May at the Institute of Advanced Architecture of Catalonia in Barcelona, the workshop hosted 30 contributors from all over the world.

The participants worked on 5 different topics, focusing on emergent strategies and methodologies regarding food production in urban areas.

Workshop topics:

- Hydroponic cultivation
- Materials developed withvegetable plant roots
- Pollination
- Supernutrients / Algae
- Mushroom cultivation

The workshop programme was structured to give theoretical and practical classes in a complementary way.
The participants coming from different backgrounds, learned about Circular Economy and Participatory Processes, Open Farming and Biophotovoltaic Systems, Resilient Foodsheds, Urban Food Metabolism, Conviviality and Food Cycles thanks to CFC Partners (IAAC, LUH and UNIGE) and external experts.
Following IAAC educational methodology , the participants have been involved in a learning by doing process, driven by digital fabrication and computational design.

Each participant group will realize one 1:1 scale prototype for food production in urban environment and all the project were presented during a final-open to the public-presentation to an international multidisciplinary jury, with the scope to give all the contributors specific critics and tailor-made suggestions.

Workshop participants learned about **digital fabrication** targeted at the creation of **site-specific prototypes** for **food production,** responding to **local environmental, social** and **economic conditions** for **making circular use** of **local resources**

Figure 8.Creative Urban Farming Workshop_Learning by doing methology Fabrication expert: Mohamad ElAtab ©IAAC, Federica Ciccone for Creative Foods Cycles)

Figure 9. Creative Urban Farming Workshop_Learning by doing methology Biochemistry and Algae Expert: Paolo Bombelli ©IAAC, Federica Ciccone for Creative Foods Cycles)

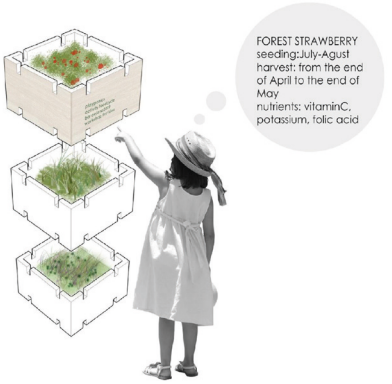
Figure 10. Final Presentation Creative Urban Farming Workshop
©IAAC, Federica Ciccone for Creative Foods Cycles

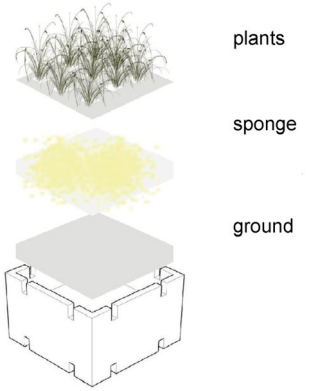
Figure 11. Final Presentation Creative Urban Farming Workshop
©IAAC, Federica Ciccone for Creative Foods Cycles

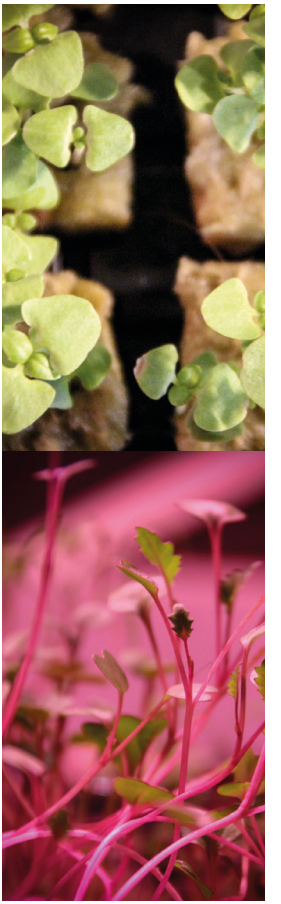
Playponics

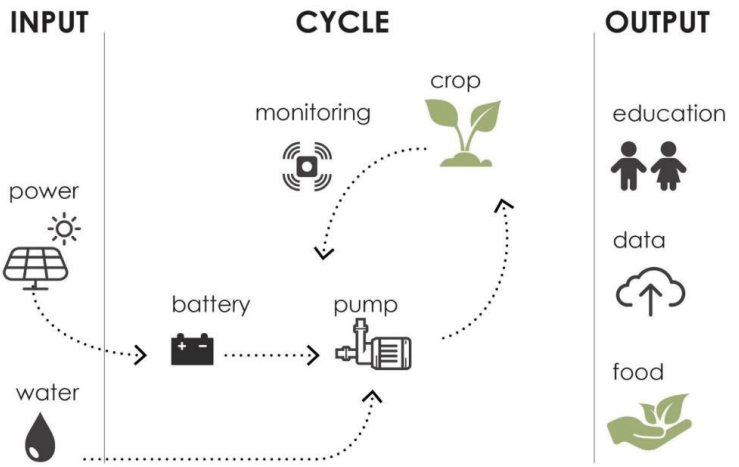
Awareness Rising hydroponic installation for public space. Neighbours can cultivate vegetables and herbs in the hydroponic system while children can play with the installation.

GROUP 1 (Hydroponic cultivation)









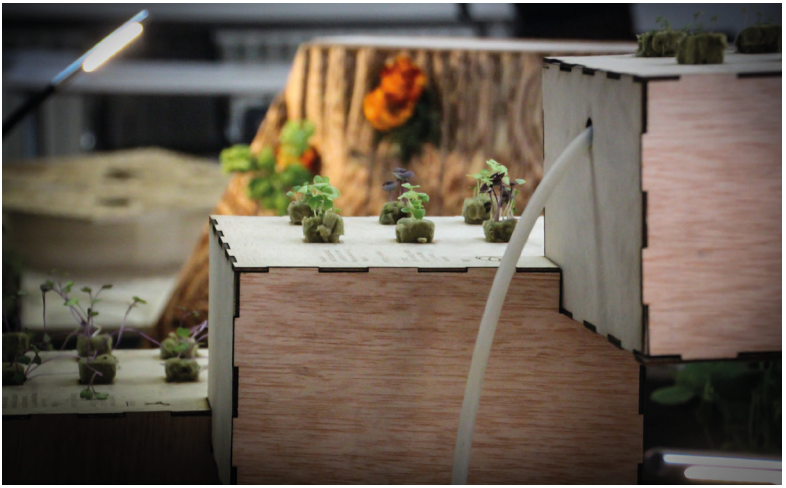
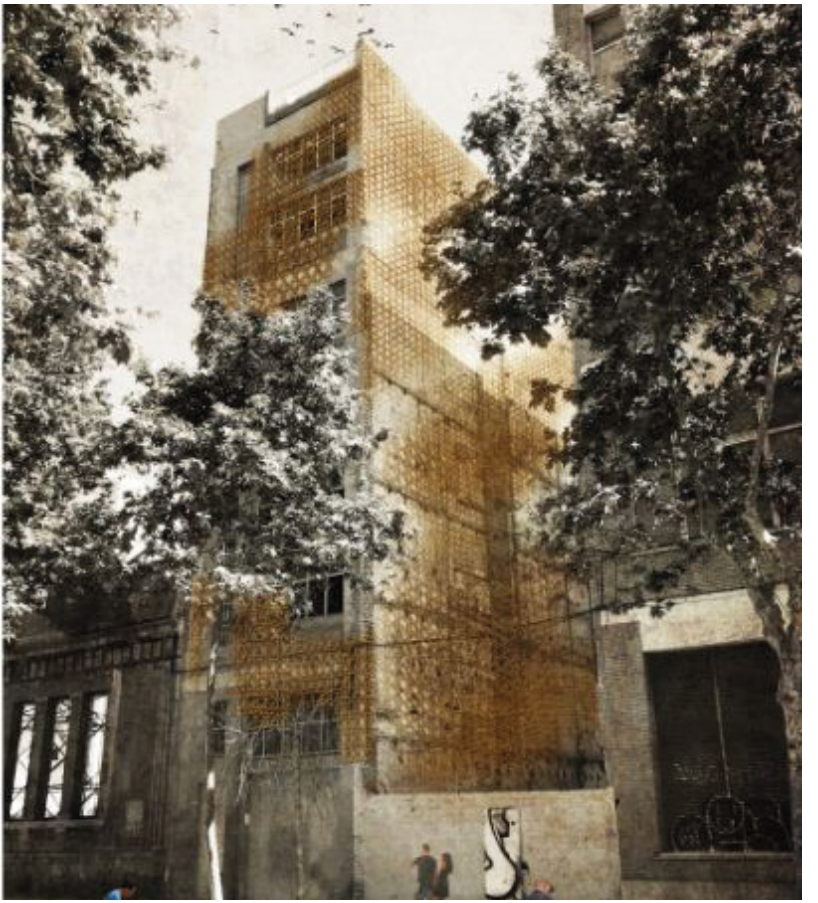


Figure 13-18. Creative Urban Farming Workshop _ GROUP 1 (Hydroponics)
team: Fabiana Cerutti Rossetti, Giulia Bertoldo,
Demi Pradolin, Matias Gatti, Emily Whyman
©IAAC, Federica Ciccone for Creative Foods Cycles

un-EARTH

The roots of the plants grown in vegetable gardens are used to create textiles that can be applied on the facade of the building as a function of natural skin.

GROUP 2 (Materials developed with vegetable plant roots)



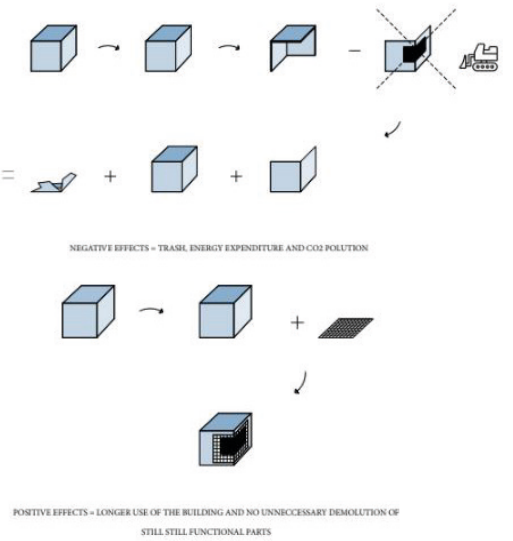


Figure 19-21. Creative Urban Farming Workshop _ GROUP 2 (Roots)
team: Oana Taut, Elvin Demiri, MIchel Grandörf
©IAAC, Federica Ciccone for Creative Foods Cycles

Parasitizing Urban Void

Insects' Hotel and Urban Orchards are used to activate Abandoned Urban Spaces through biodiversity. These hotels will attract and support stag beetles, solitary bees, butterflies, spiders, lacewings, and ladybirds.

GROUP 3 (Pollination)

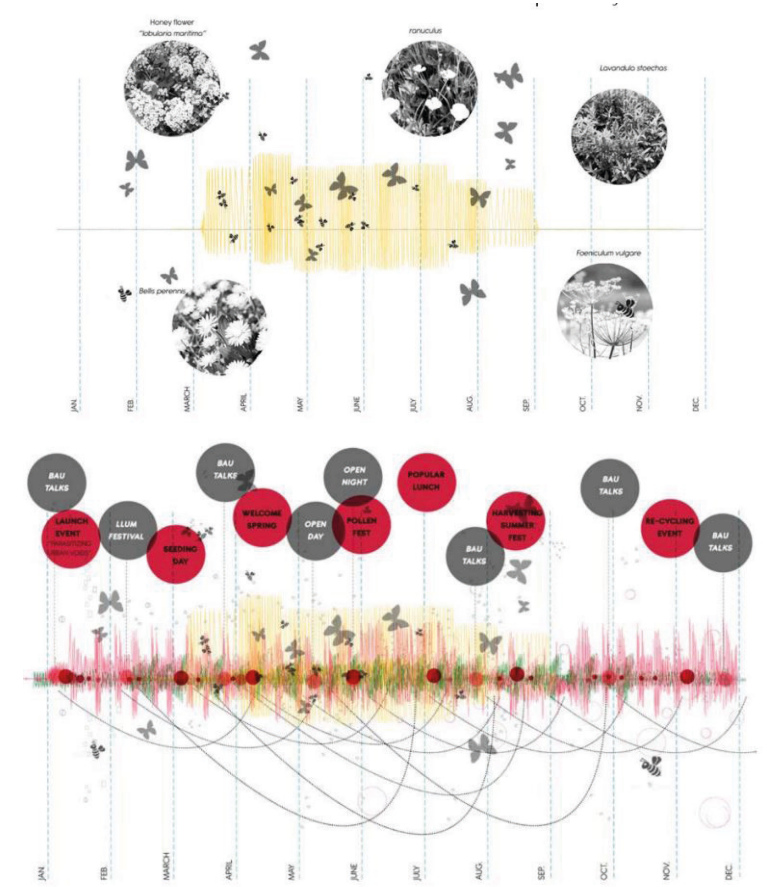
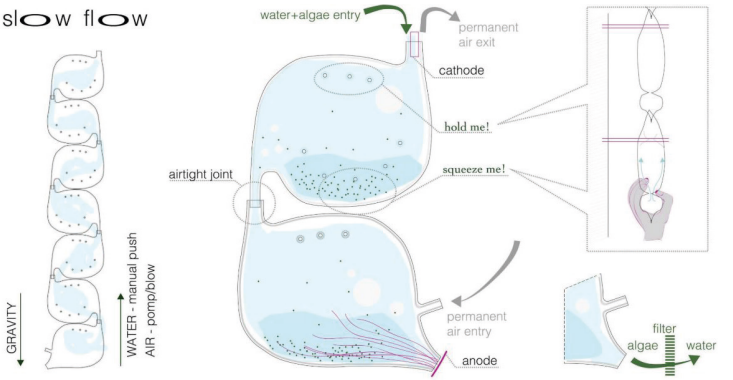


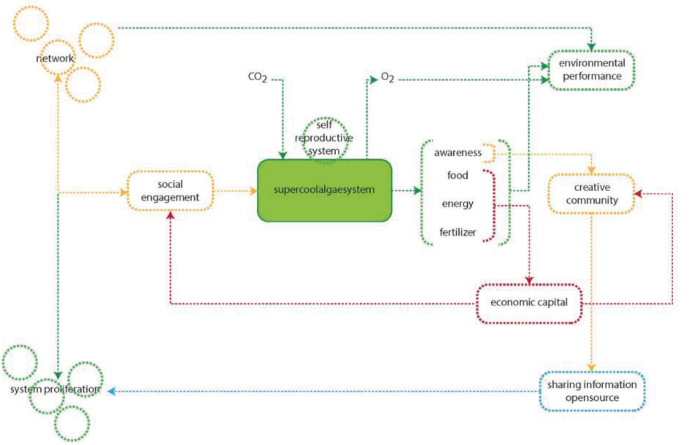
Figure 22-24. Creative Urban Farming Workshop _ GROUP 3 (Insects)
Team: Lara Del Valle, Melina Pekholtz, Nikoleta Mougkasi
©IAAC, Federica Ciccone for Creative Foods Cycles

The Algae of Everything

The algae of everything tile is designed to bring awareness to vehicular air pollution, the tile acts as an urban bio-reactor produce clean, renewable, algal biofuel. Its soft pillow-like composition encourages direct interaction with the tile, and harvests movement to stimulate algae growth.

GROUP 4 (Supernutrients / Algae)





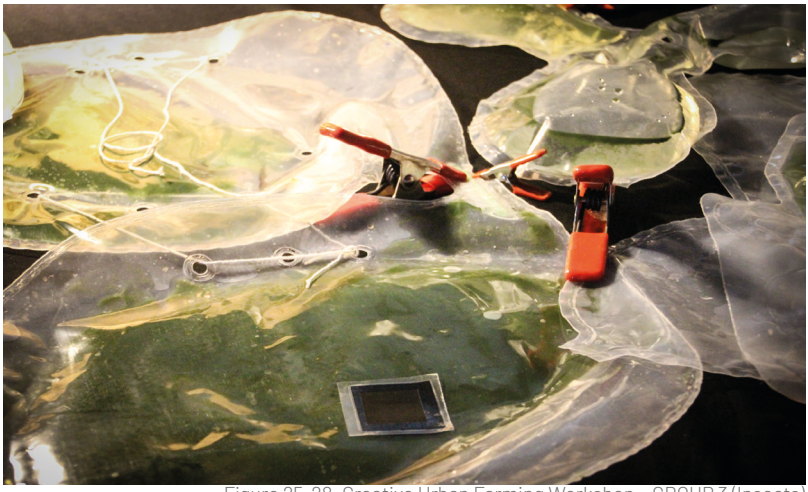
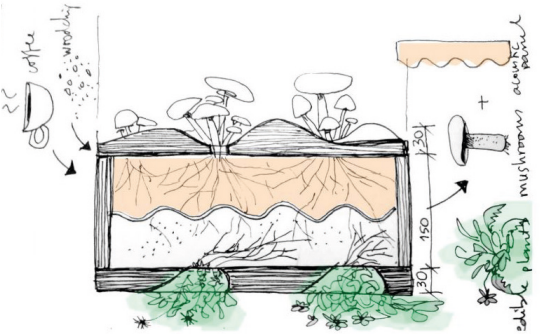


Figure 25-28. Creative Urban Farming Workshop _ GROUP 3 (Insects)
Team: Cecilia Gonzales Torres, Emmanouli Vermisso, Janine Philippe, Nadina IonaJurat.
©IAAC, Federica Ciccone for Creative Foods Cycles

Mutualism

Mutualism is a construction system, consisting in double-face tiles: in the interior side it is possible to cultivate mushrooms and get construction materials from their roots, in the exterior side vegetables and herbs are cultivated, alleviating Barcelona heat island effect.

GROUP 5 (Mushroom cultivation)



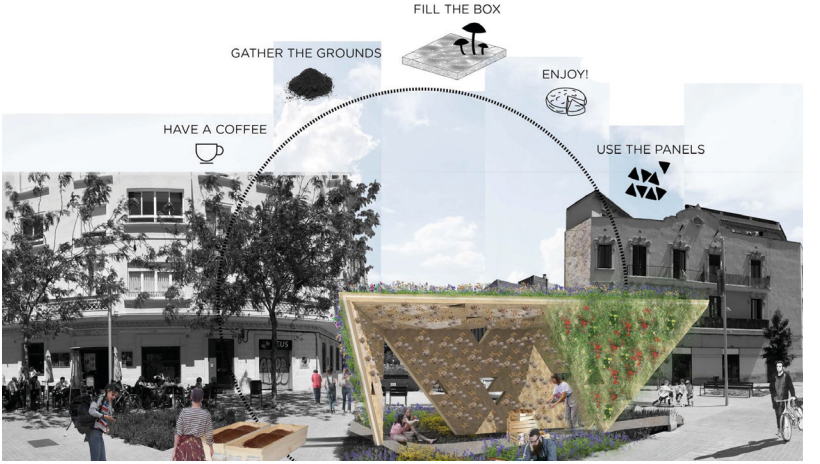


Figure 29-33. Creative Urban Farming Workshop _ GROUP 5 (Mushrooms cultivation)
Team: Giovanna Bartoleschi, Evanthia Beristianou, Paula López Barba, Maher Mansour
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THINK TANK

Figure 34.Creative Urban Farming Workshop Participants _ Group Picture
©IAAC, Federica Ciccone for Creative Foods Cycles)

Co-funded by the Creative Europe Programme of the European Union

Creative Food Cycles Partners:

Leibniz Universität Hannover

Iaac Institute for advanced architecture of Catalonia

Università di Genova

INSTALLATION MYCO-SCAPE

Installation

Barcelona, 27 -29 / 06 / 2019

Barcelona Creative Food Cycles Installation project "Myco-Scape" has been developed by scaling up the Mutualism project, designed during Creative Urban Farming Workshop Barcelona, by Giovanna Bartoleschi, Evanthia Beristianou, Paula López Barba, Maher Mansour.

Myco-scape is a modular system which supports the growth of edible mushrooms in the urban environment (e.g. public spaces /facades / rooftops), producing both food and construction materials.

It consists of modules to locate the mushroom substrate (straw and mycelium) and an external surface, parametrically designed, tailored to control various environmental conditions (e.g. sun / shading and humidity).

The project, in detail, consists of the two following parts:

- cultivation area: where straw and mycelium spores remains for 3 weeks in order to allow mushrooms formation.
  After harvesting the mushrooms, the material contained in the cultivation area can be used as a construction material.

- external surface: it is mimicking the texture and function of a tree bark, which is the natural environment for the mushrooms. It has openings for the mushrooms to flower.

In order to develop a growing module as sustainable as possible, wood has been selected for realisation of panels and the frame structure. A second main objective of the installation, apart from the production of mushrooms, is to act as a demonstrator: creating a 'culture of caring' for locally sourced and produced food.

Figure 2. Creative Urban Farming Workshop_Prototype Selected "MUTUALISM"
©IAAC, Federica Ciccone for Creative Foods Cycles

Figure 3. Creative Urban Farming Workshop_Details - Prototype Selected "MUTUALISM"
©IAAC, Federica Ciccone for Creative Foods Cycles

Figure 4. Myco-Scape Installation and CFC Exhibition - Opening Event
©IAAC, Federica Ciccone for Creative Foods Cycles

Figure 5. Myco-Scape Installation and CFC Exhibition - Opening Event - Food Interaction Catalogue ©IAAC, Federica Ciccone for Creative Foods Cycles

Figure 6. Creative Urban Farming Workshop_Prototype Selected "MUTUALISM" - Vegetable Cultivation Side ©IAAC, Federica Ciccone for Creative Foods Cycles

Figure 7. Creative Urban Farming Workshop_Prototype Selected "MUTUALISM" - Mushroom Sultivation Side ©IAAC, Federica Ciccone for Creative Foods Cycles

The final output of this process is a mock-up of a productive facade, showing the potential of parametric design as well as digital fabrication towards innovative food-based projects implementation in urban environment.
The installation, being modular, is highly replicable and scalable.

Myco-space is intended also as a tool for social inclusivity, as it is meant to be a facade maintained by local communities.
The installation remains available to the public for 3 months (until the 2nd of October) at IAAC premises, being part of IAAC Expo 2019.

Moreover, aselected prototypes developed within the Barcelona CFC-Creative Urban Farming workshop and the Food Interactions Catalogue are exhibited.
The Opening Event was structured following a specific Programme (page 10) that was structured for involving more audience possible.
During the first day, a demonstration on how to cultivate mushrooms in an urban environment has been given. Dedicated professionals from CFC team introduced the audience to the central topics of the project, with the objective to increase the awareness of food as one of the main actors in the world's climatic transformation. Moreover, participants learned about food production systems and strategies, digital tools, local fabrication and circular productive dynamics.

Being part of IAAC Expo event, the installation had great visibility during the exhibition opening. In order to reach a wider audience, It has been invited:

- stakeholders, social initiatives and associations, as for example the Poblenou Urban District;

- scientific community members such as the Collegi d'Arquitectes de Catalunya and representatives of ETSAB university;

- students from any bachelor and master degree levels.

More than 1.200 people, coming from different socio-cultural background participated the event coming from different districts.

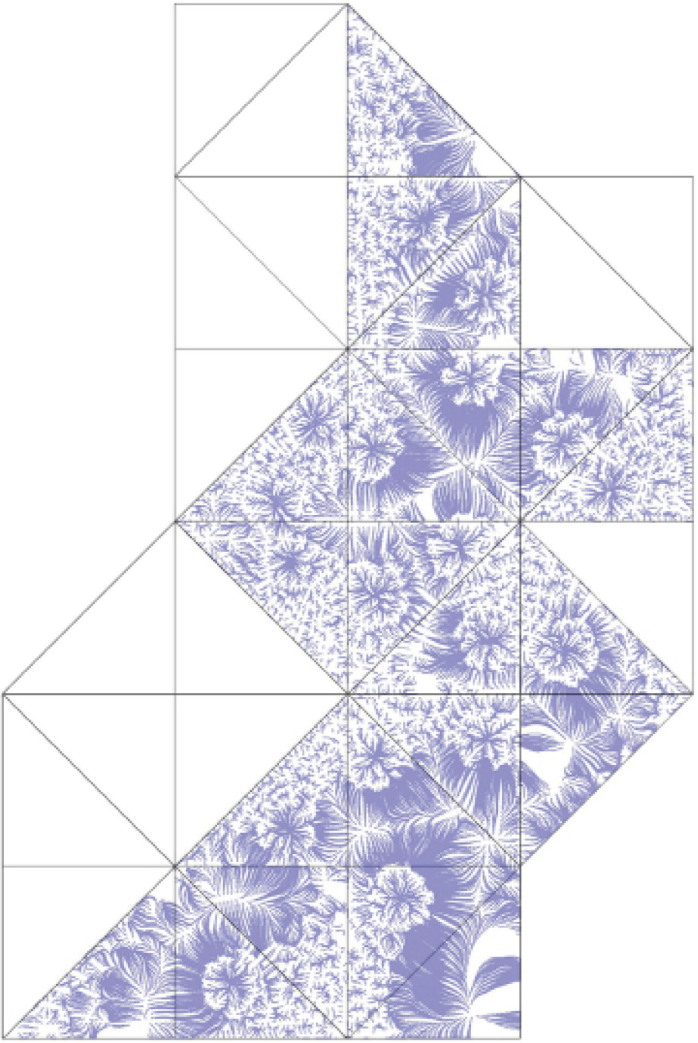

Figure 8. MYCO-scape - Design Exploration WaterStrategy
Mohmad Elatab for Creative Food Cycles

PROGRAMME

Barcelona, Day 1 27/06/19

19:00 Launch of the BCN Installation "Myco-scape"

19:30 Opening speech Areti Markopoulou
Areti Markopoulou / AAC Academic Director

20:00 Proof of concept demonstration – mushroom vertical farming

20:30 CFC DJ set and world cafe

PROGRAMME

Barcelona, Day 2 28/06/19

16:30 Site Visit Valldaura – Open day on advanced farming

17:30 Food Circular Design roundtable

18:30 Circular Design Symposium launch

19:00 CFC partners management meeting

Figure 9. MYCO-scape - Design Exploration Pattern Simulation - Final pattern
Mohmad Elatab for Creative Food Cycles

Inoculation, Grow and Fruiting Process

Barcelona, Installation Myco-Space

1. Inoculation

In order to start the mushrooms growing process straw has to be inoculated with mycelium. The straw was pasteurised for half an hour in boiling water, let cool down and spread out evenly in a sterilised table surface to fasten the cooling process. Mycelium was then mixed manually with the straw.

2. Grow

This substrate was separated within sterilised bags, which were placed into a hydroponics tent, at a stable humidity level and temperature of 24 degrees Celsius to start the process of growth. The bags remained for 3 weeks in the hydroponics tent.

3. Fruiting

For the fruiting phase the bags have been placed in the CFC installation, which provided, thanks to its external surface, the right amount of humidity and shade.

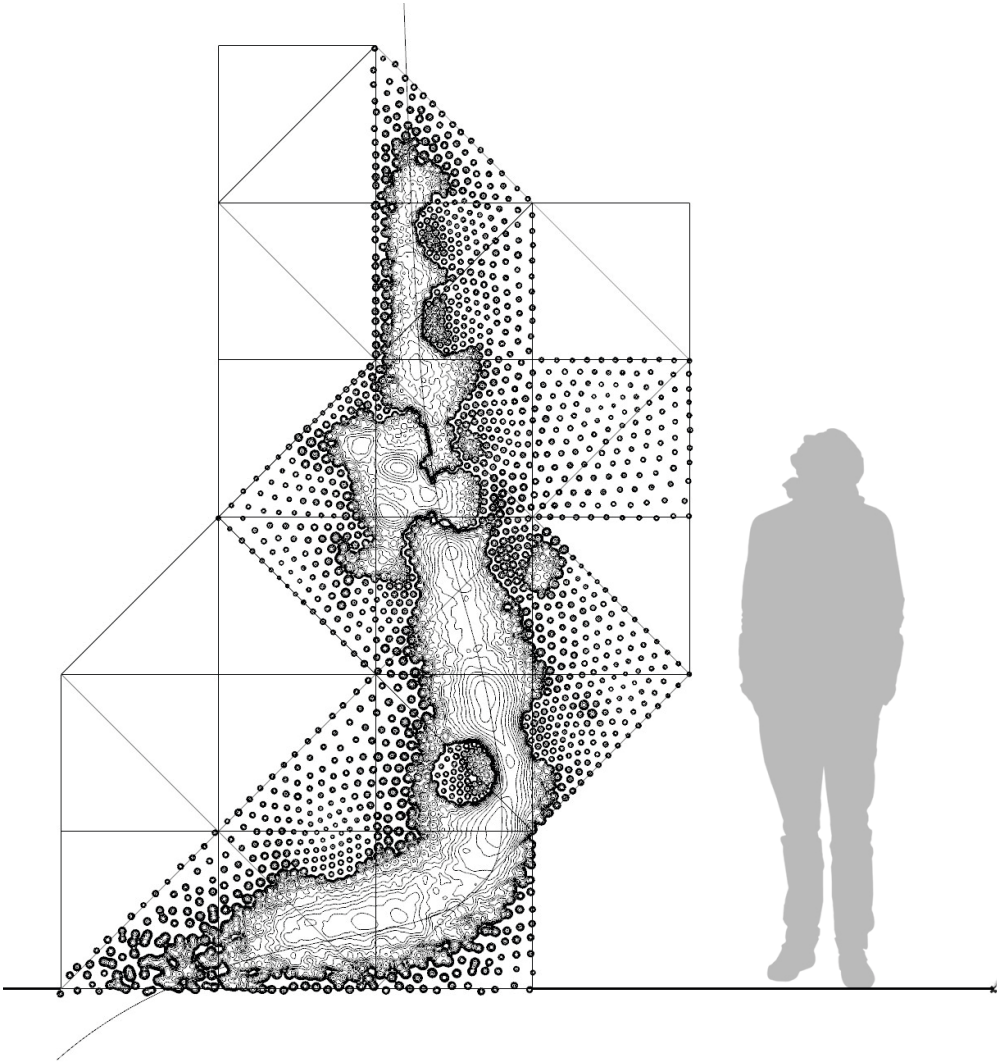

Figure 10. MYCO-Scape – Design Explorations
Initial pattern exploration with attractor line (on the left) and final pattern design (on the right)
Mohmad Elatab for Creative Food Cycles

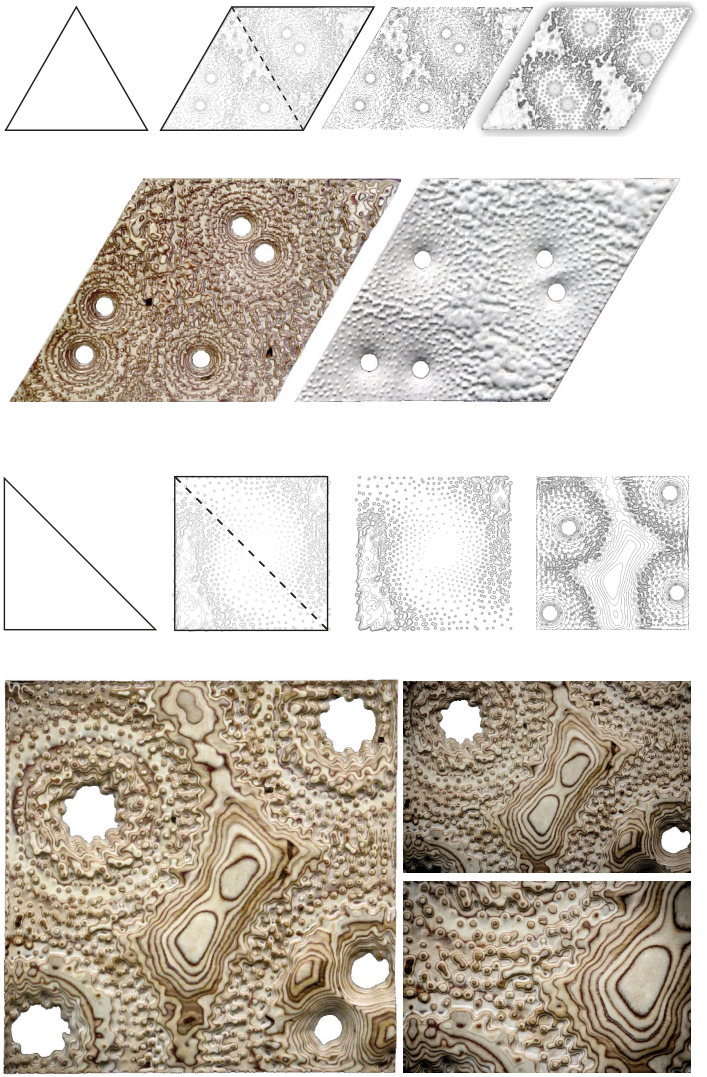

Figure 11. MYCO-Scape Installation
Design Exploration patterns and test of patter concepts in CNC's plywood
Mohmad Elatab for Creative Food Cycles

Design and Fabricatio Processes

Barcelona, Installation Myco-Space

Two of the essential conditions that are required for the growth of fungi, at the fruiting stage, are humidity and shade.

The design of the installation external pattern aims to create microclimatic ideal conditions for mushroom fruiting. The micro-climate is controlled through a varied topography that regulates the humidity and the shading around the holes where mushrooms are fruiting.

Then, the topography has been generated using a parametric design method (Metaball), in order to create around each hole a surface to capture air humidity and slowly release it through evaporation. Moreover, on the top of each hole, a sharing system has been created.

The installation was produced through different digital fabrication process, milling wood plates with a CNC machine. The external surface was milled using different tools in various depths, working on a 30mm plywood board.

This process allowed to display the natural colours of the wood layers. After the pattern was milled on one single board, the overall shape was broken down into individual triangular panels. (cfr. previous page drawings)

The structure was also fabricated using the CNC machine. The pieces were cut in two plywood boards of 15mm and then assembled together in a waffle structure.

Figure 12.Myco_scape Installation Opening Event
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Figure 13. Myco_scape Installation Opening Event
©IAAC, Federica Ciccone for Creative Foods Cycles

Figure 14.| Myco_scape Installation Opening Event
©IAAC, Federica Ciccone for Creative Foods Cycles

Figure 15. Myco_scape Installation Opening Event
©IAAC, Federica Ciccone for Creative Foods Cycles

Figure 16. Myco_Scape Installation - Social Interaction Moments
©IAAC, Federica Ciccone for Creative Foods Cycles

Figure 17. Myco_Scape Installation - Detail
©IAAC, Federica Ciccone for Creative Foods Cycles

Figure 18. Myco_Scape Installation ©IAAC, Federica Ciccone for Creative Foods Cycles

Figure 19. Myco_Scape Installation - Detail
©IAAC, Federica Ciccone for Creative Foods Cycles

Figure 20. Myco_Scape Installation - Opening Event - Social Interaction Moment
©IAAC, Federica Ciccone for Creative Foods Cycles

Figure 21. Myco_Scape Installation - Detail
©IAAC, Federica Ciccone for Creative Foods Cycles

Figure 22. Myco_Scape Installation - Detail
©IAAC, Federica Ciccone for Creative Foods Cycles

Figure 29. CFC Partners at MYCO-SCAPE Installation BCN
©IAAC for Creative Foods Cycles)

02 Hannover

CFC IN GERMANY/ PHASE 2 DISTRIBUTION TO CONSUMPTION

Hannover and Lower Saxony is home of large agro-industries and of a leading trade fair for agro-technology. At the same time, a new community-based sensitivity, from pop-up farmer markets to open streets initiatives, has developed a growing trend in adaptable platforms able to connect producers to consumers over food and aim at a more sustainable future of all food aspects in a changing society and economy. A desire for regional and sustainable food can be observed in new models of distributing, marketing, processing as well as cooking, displaying, sharing regional products into urban food nodes.
In this context the notion of resilient urban metabolism has been investigated as a collection of socio-spatial and regional-based trends able to visualize the levels of interdependencies occurring among urban-rural contexts at different scales, for sustaining the process of food distribution and its consumption for a given population (regional foodsheds). The objective of integrating the spatial factor of food-flows and to extend food safety in urban contexts enlightened the challenges in which design-driven actions are promising, according to the principles of tactical urbanism. The regional markets models, as places of urban-rural interaction in food cycles, have been investigated for their place-making effect in urban society as well as activators of an ecological role of community spaces. Regionalising food demand in Hannover with a creative research-by design approach gave the opportunity to explore both in Food Cycles Pop-up workshop and the PorTable Installation fabrication the creative and artistic collaboration with local stakeholders and cultural actors while tracing critically the food-flows on multipurpose stage for novel rituals of conviviality.

The Chair for Territorial Design and Urban Planning of Leibniz Universität Hannover has implemented broad research experience in local and regional processes of food cycles by addressing the circular thinking approach to urban-rural interfaces, food nodes, food networks and food structures, and towards a renewed culture for the active care of the territory.
By recollecting different sensorial and artistic experiences into movable pieces of urban furniture, the activities developed offered the direct participation of young creatives, invited experts and local stakeholders to co-create a public living room where crossed food geographies have been used as cultural medium to catalyse the regional food cycles with regenerative effects driven by culture and creativity.

Jörg Schröder, Emanuele Sommariva, Sabrina Sposito

REGISTRATIONS OPEN!
deadline
24th April 2019

CREATIVE FOOD CYCLES

apply now!

CREATIVE FOOD CYCLES
2018-20 cofunded by the European Union
Creative Europe Programme

Partners:
Leibniz Universität Hannover LUH
(Chair for Regional Building and Urban Planning)
IAAC Institute of Advanced Architecture of Catalonia
University of Genoa UNIGE
(Department of Architecture and Design)

23-24-25 MAY HANNOVER

FOOD CYCLES POP-UP WORKSHOP

at

Leibniz Universität Hannover

Leibniz Universität Hannover
Fakultät für Architektur und Landschaft
Herrenhäuser Str. 8 - 30419 Hannover

follow us

more info
at:
www.creativefoodcycles.org

Photo credits: Manifesto Market – reSITE © Jakub Červenka, Prague 2018

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Creative Food Cycles Partners:
Leibniz Universität Hannover
IAAC Institute for advanced architecture of Catalonia
Università di Genova

FOOD CYCLES POP-UP WORKSHOP

Creative Cycles Pop-Up Workshop

Hannover, 23-24-25 May 2019

Pop-ups have become popular in many cities, able to define micro-urban actions, sharing economies and self-organised practices often implemented by local residents to co-create new community hubs. Especially connected to food topics, this phenomenon intertwines diverse spatial manifestations, such as regional markets, street kitchens, temporary shops, social tables, advocating a tactical urbanism approach to shorten food distribution chains and new forms of food cycles in everyday urban life.

Food Cycles Pop-Up Workshop investigated how design based on creativity, circular economy and innovation, conviviality, sensorial experiences and social participation, could foster fair-access to regional food productions by enabling alternative distribution and consumption models, together with cultural processes and practices. Workshop participants, through a learning-by-doing methodology based on recursive creative co-design steps, have been asked to prototype a multipurpose stage able to provide new ´´ways of distributing, marketing, and consuming food into a **urban food hotspot** (temporary, moving, modular) to communicate open public activities, trends, and movements and to enhance place-making effect, responding to the paradigm of a **Resilient City Metabolism.**

The workshop involved 65 participants in working and exchange activities, learning about agro-cities and urban food strategies, pop-up design experiences, regional productions and marketing, visual communication techniques and packaging design, thanks to the expertise of the project partners (LUH, IAAC and UNIGE) and the inputs from thematic international experts.

Photo credits: Manifesto Market _ reSITE _ © Jakub Červenka, Prague 2018

Twenty selected contributors from all over the world explored five main Topics during the design and prototyping sessions, as it follows:

1. **Food Culture** related to novel urban theatres and sensorial experiences, through performing arts.

2. **Conviviality** connected to new sharing practises in public spaces.

3. **Digitisation** addressing creative business, fabrication techniques, and artistic crafting.

4. **Circular economy** towards responsible consumption, creative recycling, and food-waste reduction.

5. **Sustainability** exploring regional and local productions and markets in resilient food systems.

The Design Studio has been developed through a research-by design methodology with a series of reviews, driven by a multi-scalar approach (City – District – Site scale).
The prototyping process displayed 1:50 study models and 1:10 zoom-in, enriched by an analysis of local stakeholders, with the aim to understand the feasibility and the final implementation.

PROGRAMME

Hannover Day 1 23/05/19

09:00 **Introduction to the Food cycles Pop-up Workshop Hannover**
Emanuele Sommariva (LUH)

OPENING SESSION

09:30 Groups brainstorming

LUNCHTIME LECTURES

12:00 **Welcome and Introduction**
Jörg Schröder, Emanuele Sommariva (LUH)

12:30 **Lecture | Culinary Lessons**
Johan Bettum (Städelschule Frankfurt)

13:15 **Lecture | Firekitchen: cooking and processes**
Johanna Dehio (UdK Berlin)

14:00 Questions and discussion
Moderation: Emanuele Sommariva (LUH)

DESIGN SESSION

14:30 Design studio
17:00 Presentation / Reviews on Design

Food & Music Interaction

18:00 **CFC Jam Session |** in collaboration with:
Hochschule für Musik, Theater und Medien Hannover
Julian Scarcella (*guitar*), Martin Schwarz (*bass*),
Tim Köhler (*saxophon*) and Christoph Wirtz (*drums)*

PROGRAMME

Hannover Day 2 24/05/19

DESIGN SESSION

09:00 Design studio

11:00 Prototyping

LUNCHTIME LECTURES

12:00 **Introduction and Lecture**
Sabrina Sposito (LUH)

12:30 **Lecture | Pop-up design strategies**
Boano Prišmontas Architects (London)

13:00 **Lecture | CFC Food Interaction Catalogue**
Federica Ciccone (IAAC)

13:30 **Lecture | Food as a design object**
Silvia Pericu (UNIGE)

14:00 Questions and discussion
Moderation: Sabrina Sposito (LUH)

DESIGN SESSION

14:30 Prototyping

17:00 Presentation / Reviews on design

Food & Regional Products Interaction

18:00 **CFC Food interaction |** in collaboration with:
Lola - Der LoseLaden Hannover

PROGRAMME

Hannover Day 3 25/05/19

DESIGN SESSION

09:00 Prototyping/ Representation techniques

CLOSING SESSION

10:30 **Introduction and Lecture**
Emanuele Sommariva (LUH)

11:00 **Lecture | Food & Beverage: visual communication**
Maria Elisabetta Ruggiero (UNIGE)

11:30 **Lecture | Food & Beverage: product and packaging**
Ruggero Torti (UNIGE)

12:00 **Lecture | Agro-cities and food strategies**
Giorgia Tucci (UNIGE)

12:30 Questions and discussion
Moderation: Emanuele Sommariva (LUH)

LUNCHTIME LECTURES

13:00 Final presentations

Figure 2.. Design sessions and reviews.
Photo by Pierre Martin for LUH Regionales Bauen und Siedlungsplanung

Figure 3.. Design sessions and reviews.
Photo by Pierre Martin for LUH Regionales Bauen und Siedlungsplanung

Figure 4. Prototyping sessions.
Photo by Sabrina Sposito for LUH Regionales Bauen und Siedlungsplanung

Figure 5. Prototyping sessions.
Photo by Sabrina Sposito for LUH Regionales Bauen und Siedlungsplanung

Figure 6. Food interactions, in collaboration with HMTMH and Lola der LoseLaden Hannover.
Photo by Pierre Martin for LUH Regionales Bauen und Siedlungsplanung

Figure 7. Food interactions, in collaboration with HMTMH and Lola der LoseLaden Hannover.
Photo by Pierre Martin for LUH Regionales Bauen und Siedlungsplanung

Figure 8. Final presentations.
Photo by Pierre Martin for LUH Regionales Bauen und Siedlungsplanung

Figure 9. Final presentations.
Photo by Pierre Martin for LUH Regionales Bauen und Siedlungsplanung

Figure 1. Food Cycles Pop-Up Workshop: Pneumatic Towers.
Graphic and design: M. Adel Alatassi, Elvin Demiri.

Pneumatic Towers

GROUP 1 M. Adel Alatassi, Elvin Demiri

People always try to come out of the everyday routine in life, and one of these ways is trying new cuisines and the exotic feelings that come with it. The experience of trying other cuisines is considered as a ritual revealing the relationship between food and society. It is like a portal through society order and historical changes.

Food has the ability to take us in a journey into the local origins and traditions. At the same time, it allows to explore, discover, and look for the surprise. It translates not only the values and the habits of people, but also the economic and political context.
It is essential to understand the importance of food and the effects it has in everyday life, as food sustains us not only in a physical way, but also spiritually.

We explored two main ideas to translate the objective of connecting food and architecture in a specific context:

1. The first idea concerned the combination of the different continents in the world and how every culture symbolises a different colour of food and different tastes. Therefore, the installation was conceived as a combination of a number of modular boxes with different colours.

2. The second idea regarded the effect of food and food parliament. We started investigating the concept of food culture and talking about what does food mean in our culture.

Like an example, there is an old saying in Arabic "the eyes eat before the mouth", expressing how colour is a very important aspect for maximising appetite.

La Cocina - Die Kochschule

Königstraße 51, 30175 Hannover

geographical coordinate	52°22 N 9°44 E
district population	532.163 inh.
typology	cooking school
activity sector	food culture
n. employees	34 external
main productions	better food culture
food cycles contribution	distribution and consumption
audience involvement	consumers groups, incoming students

After thinking and searching thoroughly about potential investors/stakeholders who would be interested to support our design and to invest in our idea, we decided that the best and suitable contender would be the well-known Cooking School La Cocina-Die Kochschule. It has multiple locations across Germany, and one of the main ones is located in Hannover. The school, with more than 12 years of experience, provides cooking lessons to people who are passionate about food, that want to improve their skills, diet, or to learn new cooking techniques. That is exactly the reason why we thought a potential "collaboration" between the Cooking School and our installation would benefit both sides. On the one side, they could provide us with the necessary budget in order to finance our design and construct the Pop-ups. On the opposite side, they could use the Pop-ups as part of their teaching methods-technique. It means they could offer Molecular Cuisine lessons to students who are keen to learn this new cooking art and create an interesting atmosphere.

The common goal of this collaborating is to make Molecular Cuisine well known across Hannover and easily accessible, and to create events to celebrate this innovative and modern way of cooking. "Eating with your eyes" could be a motto for the food Festival across the city and an advertising opportunity for the stakeholder to introduce the Cooking School to the city and invite more students to participate into the classes. More people will be able to use Molecular Cuisine, which may lead into opening new restaurants, maybe creating bigger Cooking events around Hannover. The idea of this collaboration can lead to a new trend and opportunities for our project, the city, and the school.

Finally, it has the potential to be developed into a blossoming plan: considering the fact that La Cocina has schools in different cities, and taking this collaboration a step further, we could construct at least two more Pop-ups in Hamburg and Berlin. They could advertise their cooking lessons thus creating multiple designs across Germany!

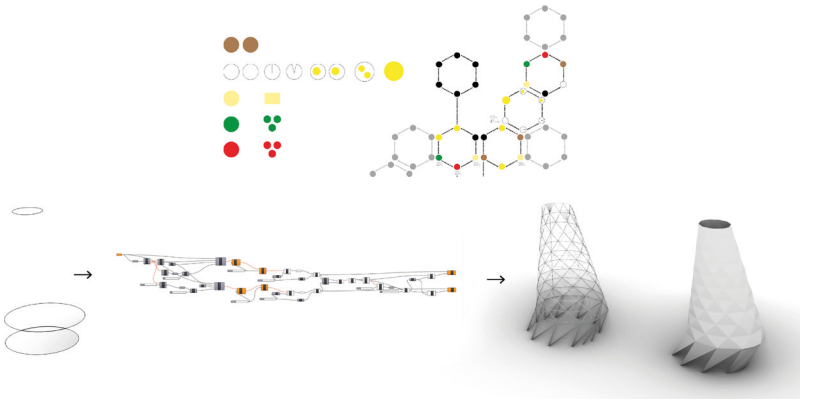


Figure 2. Food Cycles Pop-Up Workshop: Pneumatic Towers. Parametric modeling, Combination of Molecular Gastronomy and parametric programmes.

We were inspired by our cultural backgrounds and the idea of a table full with delicious, colourful and memorable food. Our memories run back to the homeland and to a meal a mother would have cooked for her kid, creating a playful interaction and intriguing the kid's imagination to eat all the meal and leave nothing on the table. Before starting to eat, the kid would have a smile on the face just looking at all the amazing dishes the mother prepared; and, for a moment the stomach would be full even before the food is touched. The kid can taste and eat with the eyes, and the moment she/he seats on the table everything tastes as imagined.
Influenced from a daily story in our home, and having as initial grasp the variegated colours on a table full with food, we start researching the association of colour, food, and psychology. Every colour is always related to an emotion; everything we want to eat, before it touches our mouth gives us a feeling. It is like deep down we are all kids and colours are tickling our belly. However, in order to go beyond a superficial colour-taste association (and what you see is what you get), we went on the path of exploring something new, in search of the unexpected, of a surprise. The idea was to feed the eyes with colours and emotions, getting them all, but at the same time to make the reception of taste in the mouth totally different: an explosion of

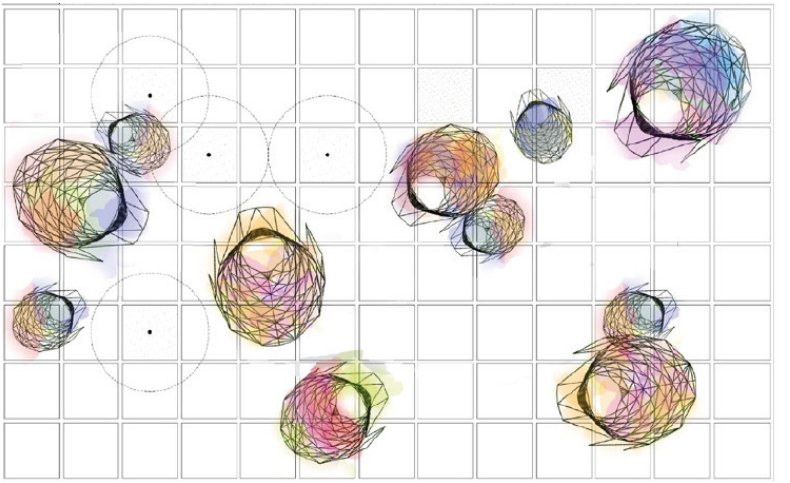


Figure 3. Food Cycles Pop-Up Workshop: Pneumatic Towers. Siteplan.

flavours, perceptions, and surprises. Therefore, the answer was Molecular Gastronomy, where imagination meets technology, and passion for food meets creativity. Using technology and parametric programmes, we created different pavilions, in different sizes and colours to express the emotions of a hungry kid in front of a table full of food: and yet, what visitors are going to taste is something new and unexpected, something that the kid inside of us is eager to explore and be surprised of.
So, join a new and modern food festival and *Guten Appetit*!

REFERENCES

Our first reference and an opening source towards our proposal was the project Firekitchen by Johanna Dehio, one of the cases collected in the Food Interactions Catalogue. The project focuses on the relationship between the object, the recipe for a specific dish, the people, and the cultural environment providing ingredients, by an applied research and an experimentation process. These words and ideas fascinated us, paving a way to the centre of communication and cultural production, processing food, colours, and materials. Of course, the shapes of the object she was

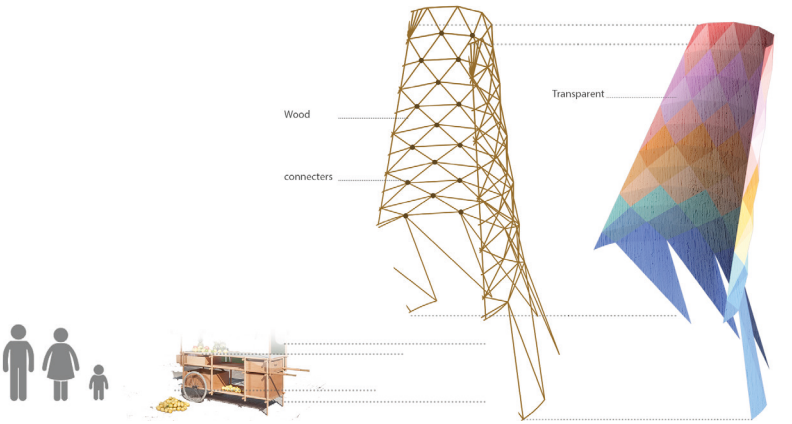


Figure 4. Food Cycles Pop-Up Workshop:
Pneumatic Towers. Shape and Structure of pavilions.

using were also very exciting, the form and efficiency was something we wanted to combine in our design. And that was the reason we went with our form, trying to incorporate the Firekitchen spirit. Additionally to the main reference, we explored and searched for more examples, finding the best inspiration in the colourful architectures using recyclable materials by SelgasCano. Their colourful and interactive works is something that pushed us creating a vast forest of colours where you could enter, walk around, and get lost.

Our main concept was to implement technology in our design in the same way technology is being used in Molecular Cuisine. And keeping that in mind we used software that would help us compose and realise our idea, starting from drawings and renderings, and that could support its fabrication too. This software could parametrically create a modular form and through those calculations the construction part would be more efficient, faster and cheaper. Through the parametric modelling and digital fabrication, design could have a better control and would be able to achieve conceptual integrity on all surfaces. The precision is measured toward all the design parameters. And of course, lower costs, less material waste, less transportation of unnecessary products, and efficient use of labour.

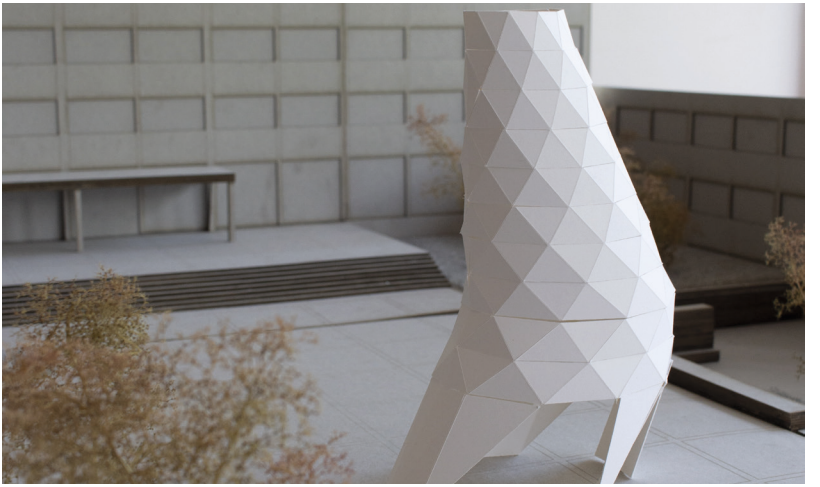


Figure 5. Food Cycles Pop-Up Workshop: Pneumatic Towers. Model 1:50. Photo by Pierre Martin for LUH Regionales Bauen und Siedlungsplanung

Additional advantages of the form and shape of our design are the flexibility and the various possibilities for construction. One option would be, as previously mentioned, through digital fabrication, using wood to create scaffolding and then placing either colourful laser cutter wooden pallets or transparent and colourful latex. Additionally, another option would be to use the same textile being used for the air balloons. We provide the parametric form to the company responsible of constructing hot air-balloons, and the machines can saw in the desired form. Of course, the expensive part would be to get the machine to inflate the hot air for the air-balloon. Another alternative would be to create it as a blow-up air balloon, if instead of textile we use latex or rubber, we give it the desired shape and then we inflate it with helium to stand up. As previously explained, the opportunities are limitless and the parametric modelling is contributing into that.

Figure 1. Food Cycles Pop-Up Workshop: PorTable.
Graphic and design: Anna Pape, Joephine Arfsten.

PorTable

GROUP 2 Anna Pape, Joephine Arfsten

VISION

Many cities all over Europe and beyond are claiming to create more attractive spaces for the people living in them rather than for cars.
As a result, cities are getting greener and the use of cars will decrease—they are disappearing in parts of the cities. Fewer cars mean less used parking spaces. That means there will be unused space in the scale of parking lots. For our installation we want to use this gained space. Therefore, our installation needs to fit in a scale of 2,3 m x 5 m, has to be useful for a lot of people in the neighbourhoods to bring them together and create something common. Moreover, the installation must be moveable.

By taking these aspects in consideration, there will be the possibility to create something you can easily transfer to any city because of the standardised dimensions of the parking lots.

The vision of our project is to give the streets back to the inhabitants of cities, by "transformative" civic actions that promote place-making effect and give centrality to local communities.

Figure 2. Yatai Cart. Design: Note Architect, Fukuoka, Japan, 2018. ©Note Architects

REFERENCES

Before realising our vision into a tangible idea we did some research to find projects working with similar principles.

Yatai Cart, Japan
Yatai Cart is a small project designed by Note architects. Instead of building something completely new from scratch, which often requires a lot of capital and time, they wanted to use available spaces and existing resources. So they re-used the features of the traditional yatai, a small, mobile Japanese food stall in reality used to sell food.

"By using the YATAI, we can make small but quick actions as a test, which might lead to long-term, bigger project eventually," said Ryo Kamamatsu, founder of note architects. Because it fits in the in-between spaces thanks to its flexibility and mobility, Bonnie Coffee Stand is installed in an otherwise-awkward interstitial space between two buildings .
"YATAI was a great solution to make the best use of the small space, as a quick prototype."

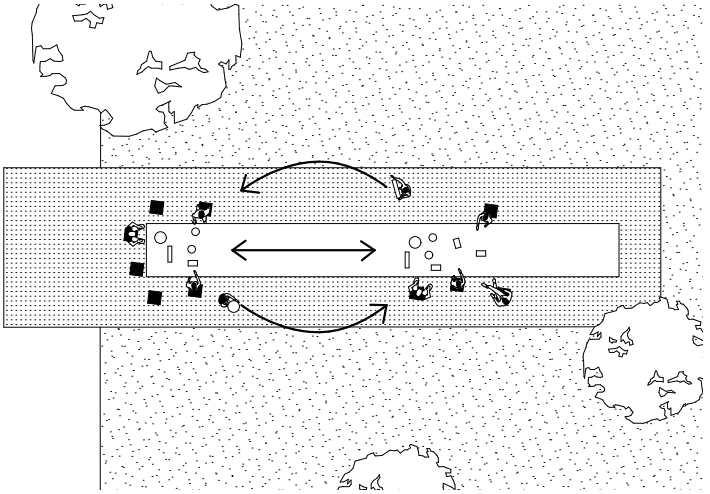


Figure 3. Using concept of Ma(h)lzeit.

In addition, the YATAI was designed in a way that the designer calls "transformative" relating to its use. During the daytime, it has a counter, and even some chairs and roofs against rain to serve coffee. After opening hours, it gets shuttered and disassembled into a small box shape, with chairs and kitchen equipment that perfectly fit within.

Ma(h)lzeit

Another more local project is Ma(h)lzeit, located in Hannover-Linden at Pfarrlandplatz since 2015. Ma(h)lzeit is a table out of concrete and 15 meters long. Additionally, there are some mobile stools around the table. The project's surface design is based on a co-operation of students and artists of Hannover-Linden. They made the table being an eye catcher and above all a place where people can meet, connect, interact, and share food.

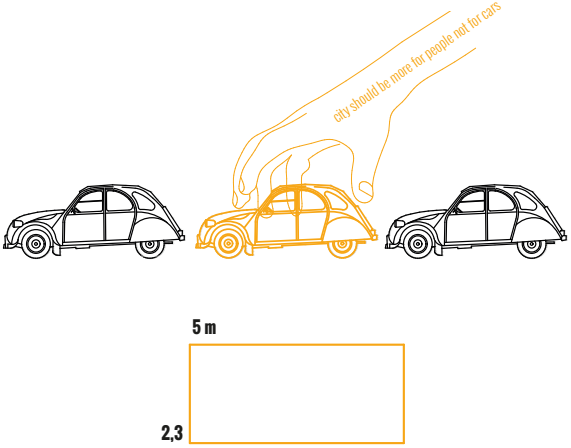


Figure 4. Food Cycles Pop-Up Workshop: PorTable. More space for people than for cars.

CONCEPT

By reflecting our vision and combining it with our research projects, we noticed that food could be more than just something that keeps you alive. It helps to connect and involve creativity and communication. So we developed the idea of a big table that works similar to Ma(h)lzeit. On the other hand, our design had to be mobile and flexible alike the Yatai Cart.

Instead of using "otherwise-awkward in-between spaces among two buildings" our table should be able to be contracted to the scale of a parking lot. PorTable is an unfolding Table for the neighbourhood—on the rooftop a bed with herbs. Therefore, there is also an interaction with the city while "parking", cause the neighbourhood can get its herbs there, and it is also a meeting point. For a smaller intervention the table can be unfold just a few meters, so that it can be also used on 2–3 parking slots together.

Figure 5. Food Cycles Pop-Up Workshop: PorTable. Behind the scene.

In case there is a bigger intervention planned in the neighbourhood for a special event, the table can be moved on the street. It can be unfolded up to circa 20 metres. Everybody who wants to join can bring there the own chair, so that PorTable creates a "public living room", where you can meet and eat together. Of course it can also be used for other aspects of coming together.

Every neighbourhood could have its own table in a different colour.

and action!
prototyping

hannover 2025

application for the cultural capital

geographical coordinate	52°30 N 9°40 E
district population	532.163 inh.
typology	municipality
activity sector	application for the cultural capital 2025
n. employees	-
main productions	community space
food cycles contribution	-
audience involvement	inhabitants of Hannover

HANNOVER
HIER JETZT ALLE FÜR EUROPA 2025

Hannover is currently applying to become Capital of Culture in 2025. European Capital of Culture is a title awarded to European cities annually since 1985 by the European Union. The title comes from the cities that best develop the cultural similarities of the European idea with a meaning beyond their own country and Capital of Culture year in their programme.
The aim is to represent the cultural diversity of Europe and to facilitate a better understanding of each other. The programme must be developed jointly with the participation of the people in the city and should be of sustainable and long-term value.

For this reason PorTable could be one project for the "Kulturhauptstadt 2025", because it is something for all inhabitants, meeting and connecting each other in different aspects of culture.

„Es geht bei der Bewerbung in erster Linie nicht darum, was eine Stadt schon hat, sondern um die Frage, wohin sich eine Stadt weiterentwickeln will. Zugespitzt formuliert geht es nicht um einen Preis, den man gewinnt, für etwas, das man bislang besonders gut gemacht hat, der Titel ist eher ein Stipendium, um als Stadt einen kräftigen Sprung in die Zukunft zu machen."

"In the first instance, the application is not about what a city already has, but about where a city wants to go. To put it bluntly, it's not about winning a prize for something you've done well so far, the title is more of a scholarship to make a big leap forward as a city."

Zitat: Dr. Ulrich Fuchs Interview HAZ am 11.05.2018

References
www.khh25.de

Platz da! & hannovercyclechic

whole Hannover

geographical coordinate	52°30 N 9°40 E
district population	532.163 inh.
typology	city actor, initative
activity sector	creating space for neighborhoods
n. employees	many volunteers
main productions	cultural diversity projects with participation of the people
food cycles contribution	-
audience involvement	european citizens

Our project is based on the trend that city should be more for people and not for cars. Therefore our most important stakeholders are the two organisations platz da! and hannovercyclechic, which are both working on that issue and creating a liveable city for people.

Platz da!

This organisation is an initiative of inhabitants of this city for all people living in city, it is voluntary, non-partisan and independent. Overall, the most important aim for them is to rethink the infrastructure situation and create a liveable city for more interaction between inhabitants in the same neighbourhood.

They promote community actions in public space such as picnics, children's flea market, yoga, or joint fitness exercises and PorTable could be a part of it. Basically, it can create a "public living room". In detail Platz da! has the ambition to reduce cars and strengthen the bike ride in Hannover, so that the roads are not longer exposed of the noise of traffic and that there is more space for wider foot and cycle paths.

Their first project, which was crowdfunded with hannovermachen.de, conquered the "Lindner Marktplatz" together with the inhabitants. Through so-called virtual parking slots sponsorships, every citizen could activate one parking slot with his or her own ideas.

hannovercyclechic

"hannovercyclechic is everything that brings people to cycling" says the initiative about itself and this is also its major issue.

It also demands that money should be spent more for a better cycling network, traffic lights for safe crossings and bigger bicycle paths. Role models for this project are cities like Copenhagen, where the bike is more important than the car. The ecological aspect for the climate is also an important motivation.

References

www.hannovercyclechic.wordpress.com

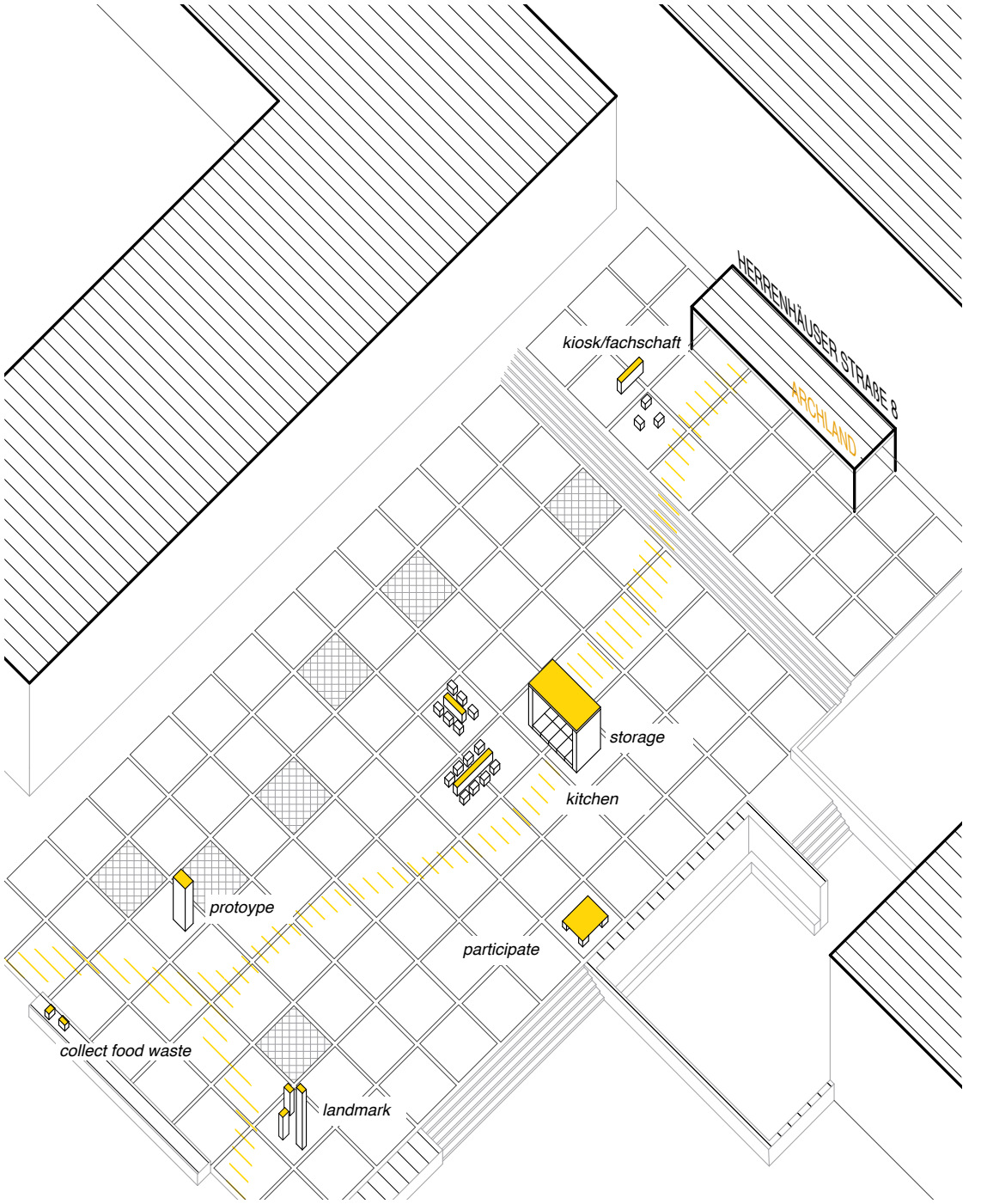


Figure 1. Food Cycles Pop-Up Workshop: Leftover Performance.
Graphic and design: Marsha Dinse, Julia Theis.

Leftover Performance

GROUP 3 Marsha Dinse, Julia Theis

Imagine: each person in the EU is throwing 173 kg of food each year! That's about 88 million tons of food waste, just in the EU. Most of the time, food waste that is in good shape went into the trash.
Produced food that we did not eat, or so much plastic in our ocean are some of the effects of mass consumption in most of the cities in the EU and the recklessness towards food. A lot of people never think about where food comes from, they shop every day as if it is all.

Our society lives more wastefully than ever before. We believe that out leftover kitchen is a first step to change the mass consumption and leftover problem in your city and neighbourhood. We want to address the consciousness of people in order to motivate them to think more about where the food in the supermarkets is sourced. We bet for all of us it is difficult to create a nice dish out of some leftovers. We are too lazy or too picky using "old" food (close to expiration date) and decide to throw it away straight to the bin. But what if all people around the globe will meet and put all their leftovers together? Possibly, we can create more than three courses for an extensive amount of people—who otherwise would have nothing. Why not doing that on a smaller scale? In small parts of the city, where neighbours come together with leftovers and cook nice dinner in company?

This is meant to raise awareness, talk about what happens in this time of mass consumption, and remember what is important about food, namely that it is delicious and can act as a communal activity. In that case we are doing good to our environment and our planet and also for the relationship with our neighbours—to get in touch with people around your area. For example, it could be introduced as a Sunday ritual.

You might realise there is just some random food in your fridge to join the public kitchen and share your leftovers to become part of a delicious course. Some restaurants or bars can join that event as well with their food from the last day.

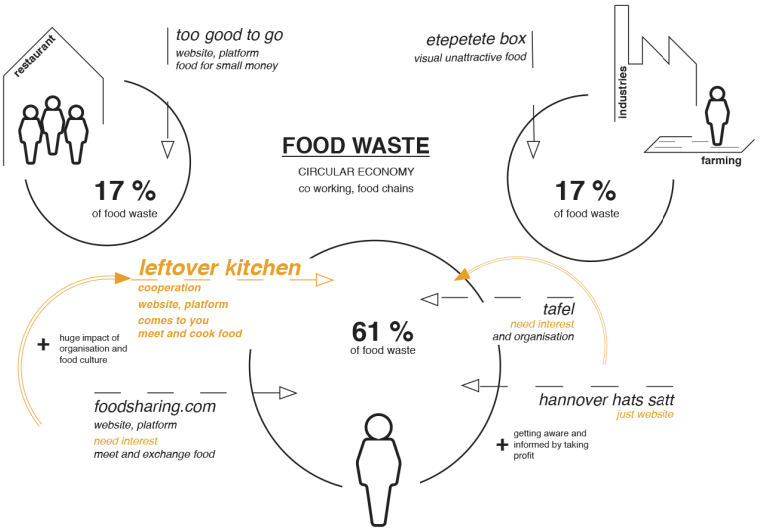


Figure 2. Food Cycles Pop-Up Workshop: Leftover Performance. Analysis of food waste & mass consumption

There are already some projects and initiatives which are dealing with food waste and leftovers. However, they all just use the waste out of industrial and public food waste. There is no one directly dealing with personal food waste. There are just platforms like "hannover hats satt" and "foodsharing.com" where you can get and share on-line information. But in those ways, there is always an inhibition for the user to participate.

After a lot of researching and analysing we finally designed such a leftover kitchen in the intense tree-day workshop.

At first we had a vision of collecting leftovers fast and easy in the whole city. Therefore we thought about spreading yellow painted fruit baskets out in the city. With this idea people could easily get in touch with sharing their leftovers. If you come home and see the yellow baskets in your street you directly know that there will be a leftover cooking action in your neighbourhood the next day or evening. So, you also take your leftovers and put them without much effort in the basket. And, if you have time to join the leftover cooking you can get in touch with your neighbours, debate about food, and share the best recipes. The aim is to sensitise you about your own amount

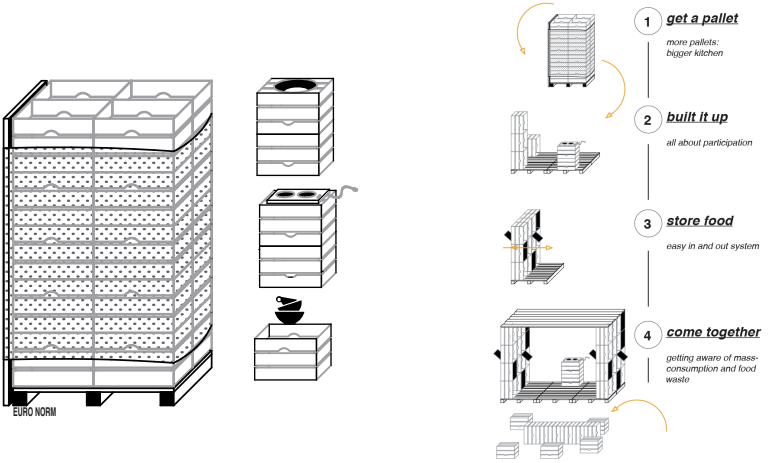
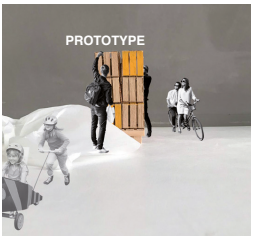


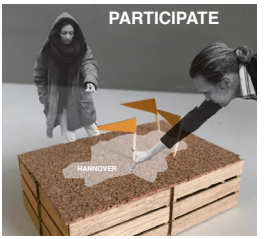
Figure 3. Food Cycles Pop-Up Workshop: Leftover Performance. How it works.

of food waste. We also thought about combining the kitchen and the collecting boxes with the kiosk and market culture of Hannover. For instance you have a kiosk in your district with an owner who is interested in the topic. Then you could also have a storage space and a fridge in this kiosk, the owner could collect the boxes in the streets, and the leftover kitchen could happen in front of his/her kiosk, additionally selling to people some drinks and giving like a stage for the happening.

In the further process it was important for us to create something that could easily 'pop up' in the city. For that reason we decided to use already existing elements like a fruit basket and a euro pallet. Out of those we designed a new element as city furniture.
The prototype of the leftover kitchen contains as a base an Euro pallet; on the pallet there are a certain amount of fruit baskets. Some of the baskets are provided with a special design element like a sink or a stove. Moreover, there are already some bamboo dishes and cooking ware included. You can even use the wrap of the pallet to build up your kitchen and use it as side panels. All materials are re-cycled and can be used for a long time.

Figure 4-5. Food Cycles Pop-Up Workshop: Leftover Performance. The pop-up market.





How does it work? The pallet is meant to get ordered from a neighbourhood, a pop up market or people who want to cook in community. At first you just get the whole pallet and its content really compact and wrapped like it was transported. Then you built it up in common and decide how it should look like. The pallets are for the ground and out of the fruit baskets you build up walls to store food, sitting spots and the cooking areas. After that, everybody can store the leftovers in the sides and people can come together and cook. You talk and have fun while cooking and eating and, in the meanwhile, you get aware of the problem of mass consumption and food waste.

For the pop-up market on the courtyard, in front of the faculty of architecture and landscape architecture in Hannover, we designed like a walking path. Basically all the elements are out of the leftover-kitchen-pallets.

At first when you pass the university on the pedestrian way you can see the 'landmark'. It is made out of fruit baskets just stacked together in the high of food waste. It is meant to attract people who are passing by. Furthermore, you can see the delivered pallet at its own. So you can imagine how it looks like when you would order a leftover kitchen with your neighbourhood. There is also another element to be further engaged and decide where you would like to have a leftover kitchen in the city by putting a pin in a city map. After this informing part you get closer to the main kitchen and sitting areas where you can cook, drink and see how the system works.

Too good to go

in Hannover

geographical coordinate	52° N 9° E
district population	532.163 inh.
typology	app based organisation
activity sector	online
n. employees	26-50
main productions	meditation between consumers & sellers
food cycles contribution	against food waste
audience involvement	consumers groups / restaurants

Too Good To Go is mainly an app to check which restaurant/supermarket or bar is selling food in the evening really cheep with the effort to not throw food away.

"We are a motivated bunch of food savers, united by the desire to re-invent our consumer behaviour! We are firmly convinced that everyone plays an important role. Take a look and become part of our mission!" (www.toogoodtogo.de)

They created this app to reduce the food waste and are already based in a few countries. Even if it is just an online website/App, it is well organised with a lot of employees. It was founded in 2015 and this is how they describe their story:

"Every day we are confronted with all the problems of the world and some are easier to ignore than others. While no one likes to see the amount of food wasted, there are some that are easier to ignore than others. But the truth is that it is common in almost every gastronomic establishment and household, every day. It was clear to us that something had to be done when we watched how completely flawless food was thrown away after a buffet. Food that was too good to go. As soon as the idea was born, various tech-loving entrepreneurs from all over Europe came together and developed the solution that seems so simple to us today: an app that allows everyone to make a contribution against waste while at the same time getting tasty food and supporting shops in their own environment. Companies are less able to dispose of waste and attract new customers. And together they protect the environment. A win-win-win situation!" (www.toogoodtogo.de)

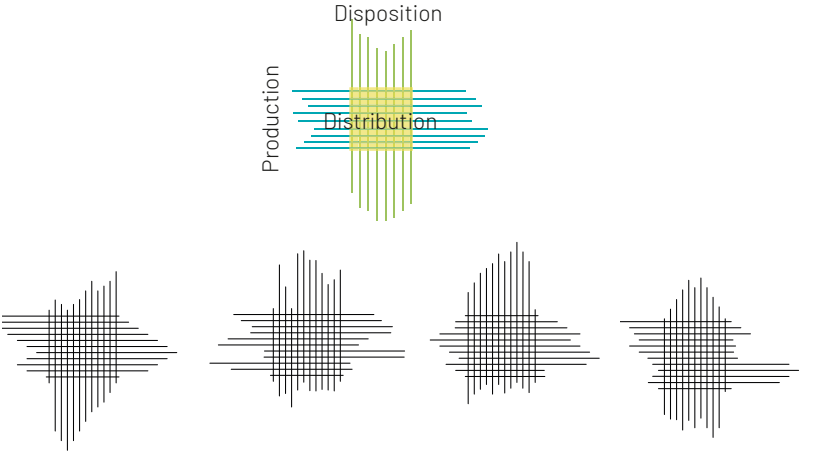
Like we said in the beginning Too Good To Go is a nice app to meditate between private people and official markets and restaurants where a lot of food is thrown away. But this is not focusing on the private household problem, in which we want to stop the food waste. We would like to fill this gap and work together with Too Good To Go because they might have the platform we could join to draw attention to mass consumption in private households.

Figure 1: Food Cycles Pop-Up Workshop: Food Machine.
Graphic and design: Michel Grändorf, Leona Schubert.

Food Machine

GROUP 4 Michel Grändorf, Leona Schubert

Food is the essence of most of our social activities; it is connecting people and giving us the necessary energy we need for our daily life. We need it for nutritious aspects to gain energy for our bodies to function and for our mental state to flourish.
Therefore, it was only natural to focus more on this huge topic and find a way of sharing it through the Creative Food Cycles. Before starting with our concept and explaining how we try to connect the topic with architecture, we need to focus on the roots of food: What are we defining as food? "Food is any nutritious substance that people or animals eat or drink, or that plants absorb, in order to maintain life and growth." (www.NutritionYouCanTrust.com)
In other words, everything we need for surviving is defined as food.
A further question can be then formulated. Can everything we need for being social and mindful to maintain a sense of mind, be also defined as "mindfood"?
Can we count this also into the big bowl of food?
At least we know that the culture around food, food culture, is covering a part of the sense in it. Kisha Solomon writes: "An individual or group's food culture is more than just what they eat for dinner, more than a single, iconic dish. Food culture is a complex mishmash of history, geography, climate, and social values that go into what food is served, when, where and by whom. It's an important way of preserving and transmitting the culture as a whole." If the food culture is influenced by the history, social values etc., then we can question every food by its outcome. What can we tell about the culture by eating a special dish? What is the main essence of the dish? What do we need to have as a surrounding to get the whole sense of the dish? And out of these questions the next one is appearing naturally: Can we change the amount of each ingredient in a dish or even the ingredients and still recognise the dish? Working on this project we asked ourselves which parts of dishes are needed to recognise a dish as such.



1. Italian Pizza; 2. Spanish Patatas Bravas;
3. German Grünkohl and Pinkel; 4. Japanese Ramen Soup

Figure 2. Food Cycles Pop-Up Workshop: Food Machine.
Concept of food cycle and menu/shape.

REFERENCE STUDIES

Before continuing with our idea we want to present other interesting projects, which influenced our design. The Creative Food Cycles Catalogue is offering many interesting examples. Our project, called Food Machine, was especially influenced by the Digital Urban Orchard.
The architecture object is placed on the roof of the IAAC building in Barcelona; it is built with wood pieces, which are all shaped with the same width but different lengths. With this easy concept it was possible to shape a complex architectural proposal, covered by day with the shadows of itself. It is a living object defined by light.
Furthermore, especially the D&M chair by Ted Zhang influenced our idea. He was able to design a chair that uses the innovation of dividing one element to become two. The chair can be disconnected and become two chairs. Through this movement the chair is changing its density but still serving the same purpose, at the same time offering a stronger use. Through this single movement more space within the same amount of material is provided.

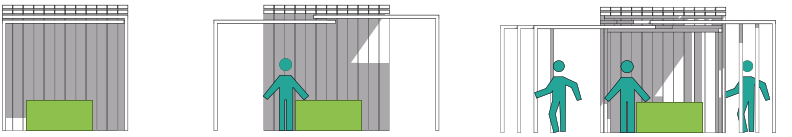


Figure 3. Food Cycles Pop-Up Workshop: Food Machine.
Concept of communication

CONCEPT

The food machine is a concept playing with the density of a box. The shape of the architecture is giving the viewer information about the use. The first step and the object shape in the unused position is a box. The end length is defined by the grid system in front of the Leibniz University Hannover, Faculty of Architecture, by 3,78 m x 3,78 m. The height is orientated to the human scale by Le Corbusier 2,26 m. The food machine is built out of L-shaped frames, which are connected to the frame on the opposite side. One layer is placed above the other, thus forming a box with four layers on top of each other at the roof. They are connected by steel pieces. The steel pieces are stopping the frames before getting disconnected. At the same time those connections are giving the construction a certain amount of strength.

The food machine is located on the courtyard in front of the architecture faculty. If the food machine is not in use, it is filling one square of 3,78 m x 3,78 m. In case of use, it can fill out up to five squares. Furthermore, tables and benches are located around the five squares and arranged in a compo-

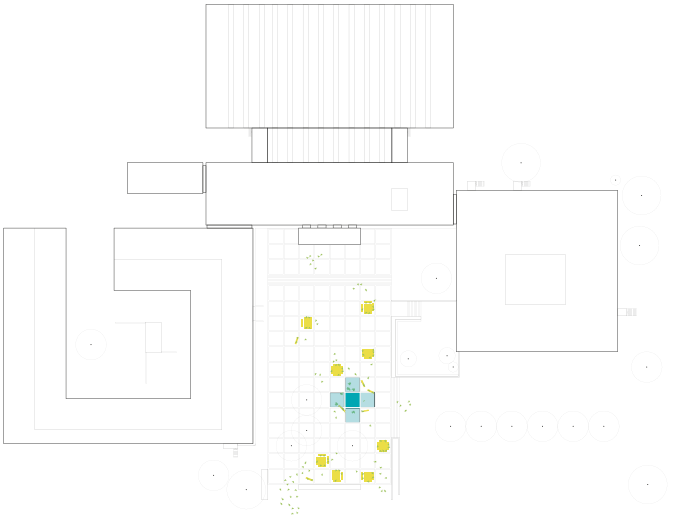


Figure 4. Food Cycles Pop-Up Workshop: Food Machine. Siteplan.

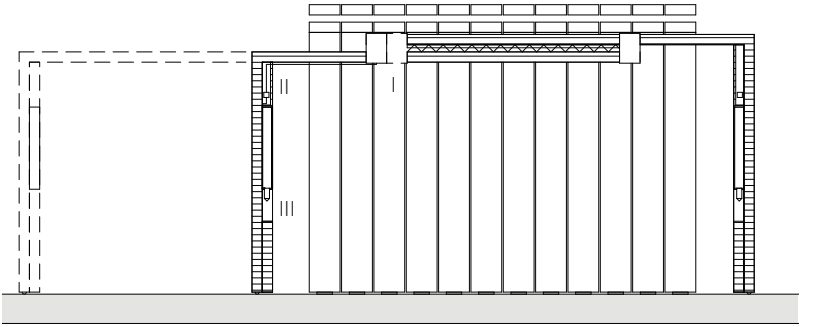
sition. The architecture is visible from the street, catching the interest of by passers through its shape and welcoming to interact with it.
The main idea is to include all three aspects of the food cycle—production, distribution, and disposition—into the object. Two sides represent the food production by having plant pots with vegetables and containers with dried foods. The centre of the cube holds a kitchen and a chef, which represent distribution. The other two sides of the cube hold containers for the food waste, which represent disposition.

At the beginning the box is showing no entrance and no information for the user or viewer to interact with. In case of use, the first step of change is appearing. When the object is starting to become alive, the frames are becoming shifted out by one meter. This is enough for the viewers to see the entrances into the object. If they are moving inside the formed space they find a kitchen in the middle of all the frames. The viewers are getting a plate that they can fill up with different ingredients.
However, they are not getting their meal directly like in a restaurant. Guests need to decide the amount of each ingredient by moving the frames away from the centre of the food machine.

The guest needs to rethink the dish and the necessity of each part in it. It is helping to re-think why a dish is constructed the way it is and if it can or cannot be served differently. Each frame on the production sides of the cube is holding either a plant pot with vegetables and herbs or a tube/dispenser from LoLa, der Loseladen (a local stakeholder) with an ingredient. If the user is moving the frame and holding a plate under the tube, the tube construction is opening, giving the needed amount of food to the user. The tube is open as long as the guest is pushing the frame of the box. Therefore, the guest is getting an amount of ingredient depending on the distance the frame is pushed. Further information regarding the construction is provided later.

After the users collected all their ingredients they are turning to the centre of the food machine where they find the distribution part of the object. They give the plate to the cook, who is then preparing the dish. The meal can be eaten at one of the tables around the food machine. After the meal, the guest can go back inside and put the waste into one of the frames on the disposition sides so it becomes compost and can feed the plants on the production side of the box. In this way, the food cycle is represented in the object.

When the guest is moving the frames, different shapes of the food machine are appearing. The architecture is living through the food and the decisions of the guests. Each meal is having a different architectural shape. To give the user an idea about meal options there is a menu in front of the food machine. Different to other menus, it is not showing the precise ingredients but a picture of the architecture shape that needs to be constructed to get a certain dish. Therefore, the user learns to associate a certain dish to a shape of the box. They are creating more information in their mind about the topic of food culture: a kind of information that was not there before, a shape of different intensity.



I: Steel runner for switsching from maximum to minimum extension

II: Raspberry Pi with a connection to the moving points I and III

III: Funnel controlled by the Raspberry Pi

Figure 5. Food Cycles Pop-Up Workshop: Food Machine. Technical details.

VISION AND DETAIL

The food machine is designed with many details because of the option of movement. The first one is the general structure. A wooden construction out of the same wooden pieces as the frames is holding the L-shaped frames. Furthermore, the construction is done out of a general lower frame connected to an opposite one.

On top of these, there are two more small frames that are holding the second layer of frames. So that each frame is only connected to the opposite one and is able to move freely without touching the other pair of frames shifted to them by 90 degrees. The frames are lying on industrial wheels. They make the movement smoother. The wheels are positioned on top of the general low frames and also on top of the smaller higher frames.

The second necessary details are the tubes inside the frames. They are shaped in the same thickness as the frames and are thought as a part of

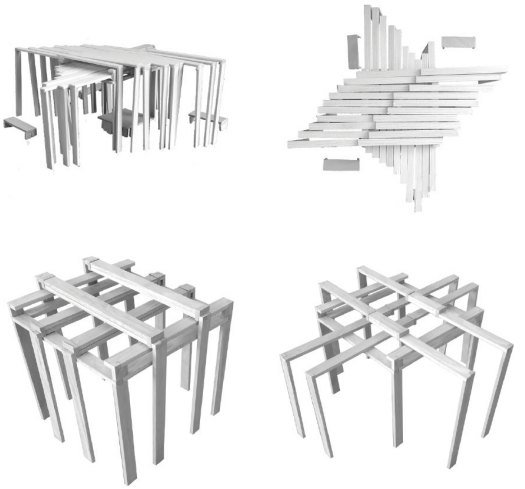


Figure 6. Food Cycles Pop-Up Workshop: Food Machine.
Prototype, closed/open configurations

them by using the same geometry. Positioned on a height of 1,10 m they are manageable by each person.
To open the tubes the user needs to move the frame in the direction out of the centre. The movement is getting detected by a tension spring located in the upper part of the frame. The tension spring is connected to the tube opener and is defining the amount of time the tube is giving out ingredients. This is all defined by a Raspberry pie, which is transmitting the information from the frame into the opener of the tube. Furthermore all the frames are connected to each other by thicker tension springs which are then moving the frames back to their starting position in case of hitting the steel stop at the edge of each frame. This is happening at the moment of the furthest movement of a frame. The steel stoppers are detecting that moment by an electronic signal of the two steel parts. And then sending this electronic signal to the bigger main raspberry pie, which is then giving the information to the big tension spring and is moving by that signal the frame back to its starting position.

LoLa, der Loseladen

Teichstraße 1, 30449 Hannover

geographical coordinate	52°22 N 9°42 E
district population	45.091 inh.
typology	economic actor
activity sector	store
n. employees	20
main productions	dry foods, e.g. grains, noodles, rice without packaging
food cycles contribution	production to distribution
audience involvement	consumers groups / bio-shops

The Großmarkt Hannover is the central trading and logistics platform for the regional supply of fresh fruit, vegetables, and many other products. The catchment area of Großmarkt Hannover covers a range of approx. 100 km and more than 3 million consumers around Hannover. With an area of 230,000 m2 and more than 1,000 employees of the companies located here, it is one of the five largest markets of this kind in Germany.

The Großmarkt Hannover is unique in the country with its variety of products of incomparable freshness and quality.
The traffic-favourable situation in Hannover and the good infrastructure enable a fast purchase for the wholesale customers as well as a fast loading and unloading for the delivery traffic. Many of our companies also supply their customers directly.

As an active member of the network GFI Deutsche Frischemärkte eV, the Großmarkt Hannover is also involved nationwide in supplying its consumers with varied and high quality fresh produce as well as healthy nutrition and sustainable business practices.
From its origins as a pure fruit and vegetable wholesale market, it has today developed into a high-performance retailer of various services.

In the agricultural land of Lower Saxony, high quality food is produced for the national and international markets. Therefore, Hannover, the large supermarket in the state capital, also represents the efficiency of the agricultural production of Lower Saxony and offers a rich palette of regional products. The offer ranges from fruits and vegetables from apples and strawberries to various salads, asparagus, and tomatoes to cabbage. In total, more than 55,000 products are offered at the Großmarkt Hannover.

Figure 7. Food Cycles Pop-Up Workshop: food interactions.
Photo by Pierre Martin for LUH Regionales Bauen und Siedlungsplanung.

CREATIVE FOOD CYCLES

portable

CREATIVE FOOD CYCLES INSTALLATION

CREATIVE FOOD CYCLES
2018-00 co-funded by the European Union
Creative Europe Programme

Partners:
Leibniz Universität Hannover LUH
(Chair for Regional Building and Urban Planning)
IAAC Institute of Advanced Architecture of Catalonia
University of Genoa UNIGE
(Department of Architecture and Design)

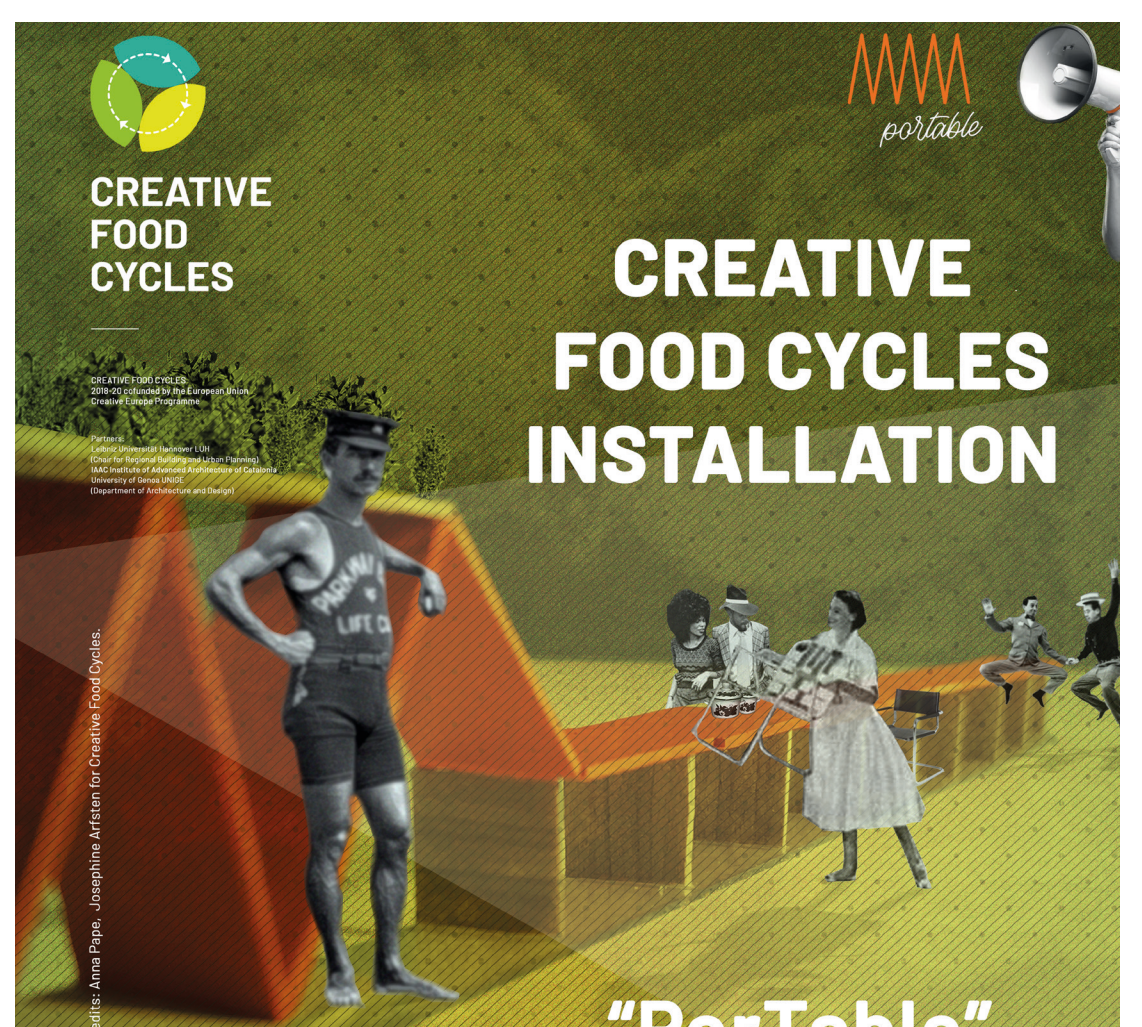


Illustration credits: Anna Pape, Josephine Arfsten for Creative Food Cycles.

"PorTable"

HANNOVER
15-16-17 OCTOBER
at

Leibniz Universität Hannover

follow us

more info at:
www.creativefoodcycles.org

Creative Food Cycle Installations are meant to be artistic-exchange and public engagement moments, in which knowledge creation across the food topics will showcase a physical and spatial manifestation of the proof of concepts developed during the Creative Workshops.

Co-funded by the Creative Europe Programme of the European Union

Creative Food Cycles Partners:
Leibniz Universität Hannover
Iaac Institute for advanced architecture of Catalonia
Università di Genova

INSTALLATION "PorTable"

Installation

Hannover, 15-17 / 10 / 2019

In recent years, we are witnessing a greater consciousness on food impacts on urban societies. This relates to the concept of regional foodshed referring to a geographical region in which food is produced, processed, and distributed for a precise population. Tracing the complex and non-transparent trajectories that food need to take in order to reach our plates is very complicate, often taking for granted that food supply will be endlessly replenished, every time that we go shopping, or dining into a restaurant. The rediscovery of cooking and food manufacturing as self-production and of cooking and dining as social practice is mirrored in direct broadcasting, showcasing, instagramming, networking, and digital interaction: practices that are shaping new visions of spatial use both for private living space and public open realm.

Food-flows affect the metabolism of territories, underlining the complexity of urban food systems and the necessity to conceive sustainable supply models, in which markets, kitchens, and tables can be entry points for innovation. In this, the empowerment of local communities, cultural operators, and civic actors is key to shaping sustainable urban futures through food culture. As such, innovative concepts for a pop-up market to form new urban-rural networks, food rituals, and urban commons have been the focus of 'Food Cycles Pop-Up' Workshop.

Of the outcomes produced during Hannover workshop, the one related to sustainability interpreted the low-carbon model by designing an unfolding movable table integrating a community kitchen garden to reactivate unused parking slots. ***'PorTable'*** has been scaled-up and realised as a pop-up installation, able to aggregate rituals of conviviality and to transform urban streetscapes. The necessity to put higher the role of open public space, as a real aggregator of socio-cultural manifestations, recall the idea of a tactical urbanism empowered by local residents in an effort to turn derelict space into new community nodes.

PROGRAMME

Hannover, Day 1 15/10/19

WORKING SESSION

18:00 **Unfolding PorTable**
Launch of the Hannover Installation

18:15 **Opening speech**
Jörg Schröder (LUH — CFC Principal Investigator)

EVENT SESSION

18:30 **FOODSHED CONVIVIUM | 20 Art-dishes presentation**
Moderation: Emanuele Sommariva (LUH)

19:30 **CFC SHARING DINNER | Talks on PorTable Installation**

Lecture | Connecting the Dots —
São Paulo Urban-Rural Sustainability Programme
Carlos Leite (MPU São Paulo)

Discussants: Jörg Schröder, Carlos Leite (special guest);
Emanuele Sommariva, Sabrina Sposito, Chiara Farinea,
Giorgia Tucci, Riccarda Cappeller, Alissa Diesch,
Federica Scaffidi, Listen Prima, Maria Giada di Baldassare,
Aldana Bouzas Mendoza, Marie Schwarz, Rebekka Wandt,
Greta Gleich, Victor Sardenberg, Nils Kerpen.

PROGRAMME

Hannover, Day 2 16/10/19

LUNCHTIME LECTURES

12:00 **Presentation | The Installation PorTable**
Anna Pape, Josephine Arfsten, Julia Theys (LUH)

12:15 **FOOD INTERACTIONS CATALOGUE**
Introduction and Moderation
Sabrina Sposito (LUH)

Lecture | Catalogue Phase 1 — Production to distribution
Chiara Farinea (IAAC)

Lecture | Catalogue Phase 2 — Distribution to consumption
Emanuele Sommariva (LUH)

Lecture | Catalogue Phase 3 — Consumption to disposition
Giorgia Tucci (UNIGE)

12:45 **Urban Metabolism Debate**
Moderation: Sabrina Sposito (LUH)

FOOD & MUSIC INTERACTION

13:15 **CFC Jazz 'n Cakes |** in collaboration with:
Hochschule für Musik, Theater und Medien Hannover
Julian Scarcella (*guitar*) and Christoph Wirtz (*drums)*

Figure 1. PorTable. Design: Julia Theis, Anna Pape, Josephine Arfsten, Michel Grändorf, 2019.
Photo by Mohamed Hassan for LUH Regionales Bauen und Siedlungsplanung.

Figure 2. PorTable: concept.
Graphic: Anna Pape, Joephine Arfsten.

Concept

Hannover, PorTable

The design and construction phases have involved a number of young creatives in intensive prototyping, 3D computer numerical control (CNC) milling and building process with the support of the Modelling and Digital Lab of the Faculty of Architecture and Landscape, Leibniz Universität Hannover, and Metallbau Dühlmeyer for the provided artistic metal details.

The Pop-up installation 'PorTable' is designed by Anna Pape and Josephine Arfsten, developed together with Julia Theis and Michel Grändorf, and prototyped by Marsha Dinse, Jacob Fielers, Kim Flottmann, Kerstin Glöckner, Regina Hoffmann, Chloe Hönisch-Gravel, Neele Lemke, Gia Hana Lotzer, Christina Mauersberg, Mara Piel, Aysil Sahin, Lenya Schneehage, Ann Christin Timke, Sarah Trubjansky, Marie Waldminghaus and Nis Weller.

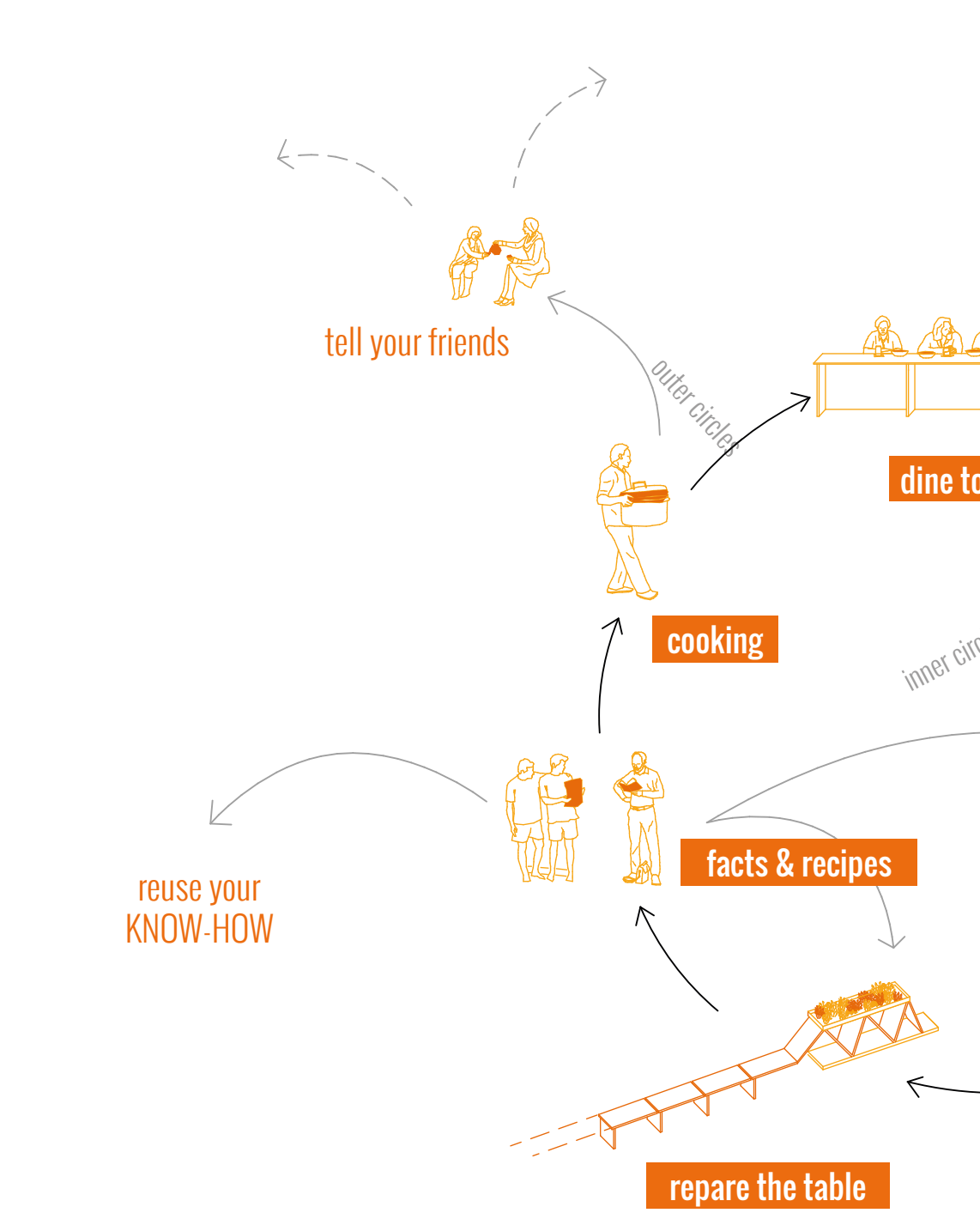
Through a cultural approach to design and food cycles, the installation forms a common living room to create and share art-dishes: a pop-up open stage to debate Food-Art-Space potentials enriched by creative manifestations, with the active role of young architects and designers. Rituals and conviviality are based on knowledge, exchanges and social practices, on cross-fertilisations and bonds: through a direct and manifest force in cities, they offer contributions to the reshaping of food flows in terms of catalytic materialisations.

In this regard, three moments have been conceived to enrich the cultural programme of the event surrounding the installation:

1. Unfolding the PorTable module and setting up a stage for everyday rituals of conviviality, to engage with local communities and neighbourhoods.

2. Recollecting and valuing recipes, culinary narratives, and identities to explore the potentials of the regional foodsheds.

3. Sharing a dinner in the form of a Foodshed Convivium as a medium to promote ecological food cycles.


tell your friends
outer circle
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cooking
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KNOW-HOW
repare the table

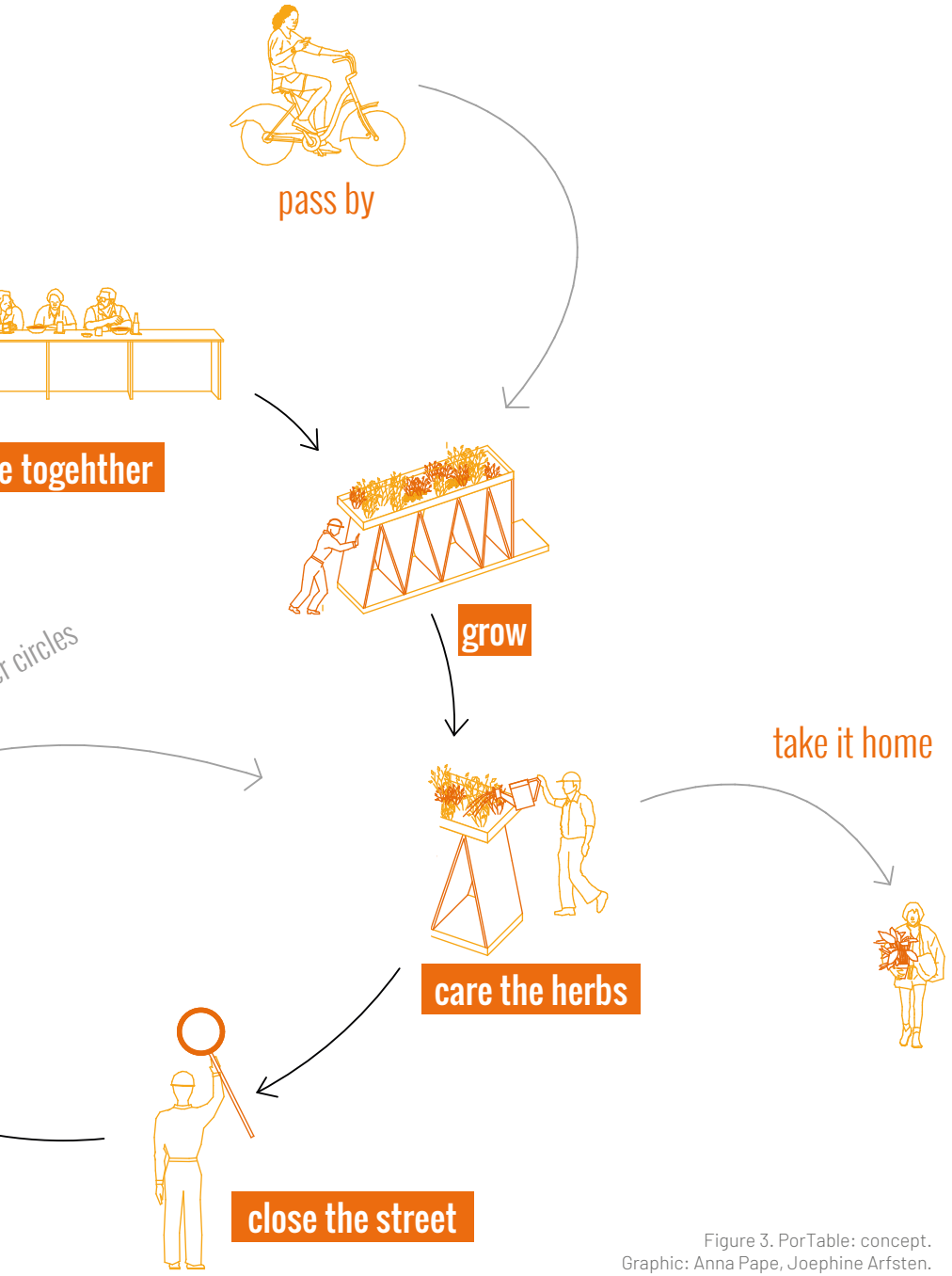


Figure 3. PorTable: concept.
Graphic: Anna Pape, Joephine Arfsten.

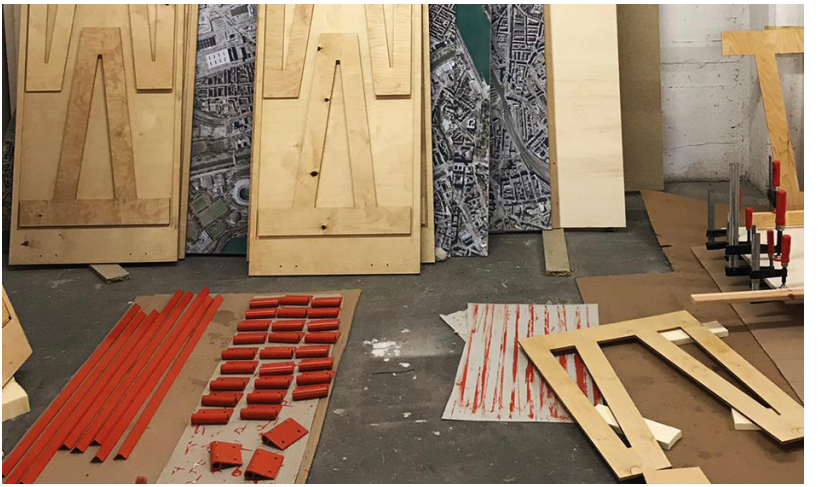


Figure 4. PorTable: technical details.

Figure 5. PorTable: building process.
Photo by Mohamed Hassan for LUH Regionales Bauenund Siedlungsplanung.

Design

Hannover, PorTable

PorTable has developed the concept of a mobile **urban food hotspot** able to aggregate rituals of conviviality and to transform urban streetscapes. The necessity to put again at the centre of our urban agenda the role of open public space is linked to the challenges posed by a rapid changing urban society towards sustainable transportation models. Less traffic and fewer cars, indeed, denote more unused (parking) spaces and this could open a broad range of micro initiatives, which recall the idea of a *tactical urbanism* empowered by local residents in an effort to turn derelict space into new community hubs. Advocating the '*right to use*' principle, Portable is a modular and movable unfolding table covered by a raised cultivating bed in which culinary or wild herbs can grow. The project, in detail, consists of two interrelated parts.

- a **folding table** consists of a stall containing 15 wooden modules (160x65 centimetres each) with W-legs that fold up against the tabletop. The modules are connected to each other with ad hoc manufactured metal hinges. In its closed configuration, the stall occupies the size of a normal parking lot (2,3x5 metres); for a small event the table can be unfold just a few meters; when completely unfolded the table reaches about 22 metres of total length.

- a **raised bed** covers the table stall by mimicking a freestanding crop bed (300x80 centimetres) of 15 centimetres depth where is possible to densely cultivate a selection of culinary herbs (Thyme, Basil, Rosemary, Parsley, Chives, Dill, Sage) or eventually edible wild herbs, while providing a splendid variegated display.

PorTable creates a public living room, where you can meet, eat together by promoting the idea that shared public space needs the care of everyone. The installation can be customized according to different colours, communication needs and open-air uses; it is able to shape different spatial configurations becoming a multipurpose stage for displaying, sharing, distributing, cooking and marketing Food-Art-Creative events, supporting neighbourhood's social life.

Figure 6. PorTable: building process.
Photo by Mohamed Hassan for LUH Regionales Bauen und Siedlungsplanung.

Figure 7. PorTable: crop bed with a selection of culinary herbs. Photo by Mohamed Hassan for LUH Regionales Bauen und Siedlungsplanung.

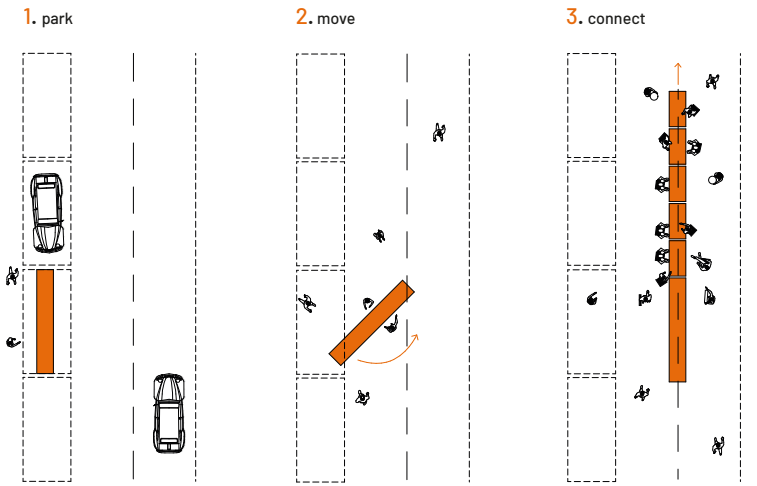


Figure 8. PorTable: concept. Reactivating parking slots with PorTable installation. Graphic: Anna Pape, Joephine Arfsten.

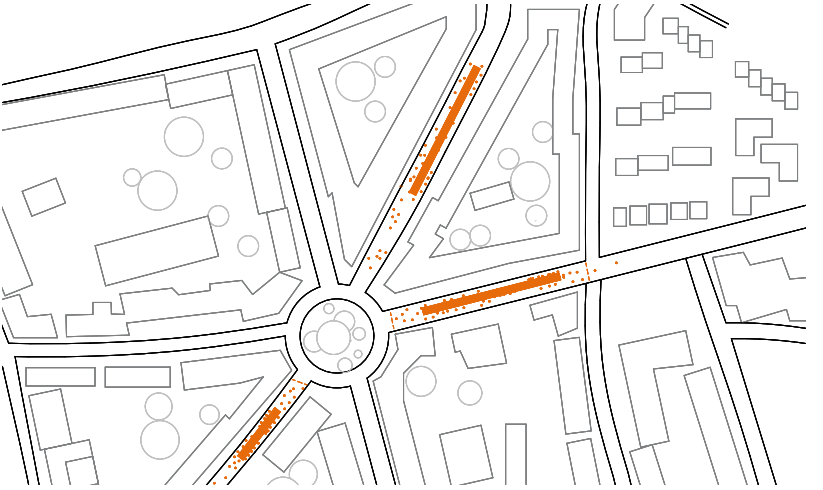
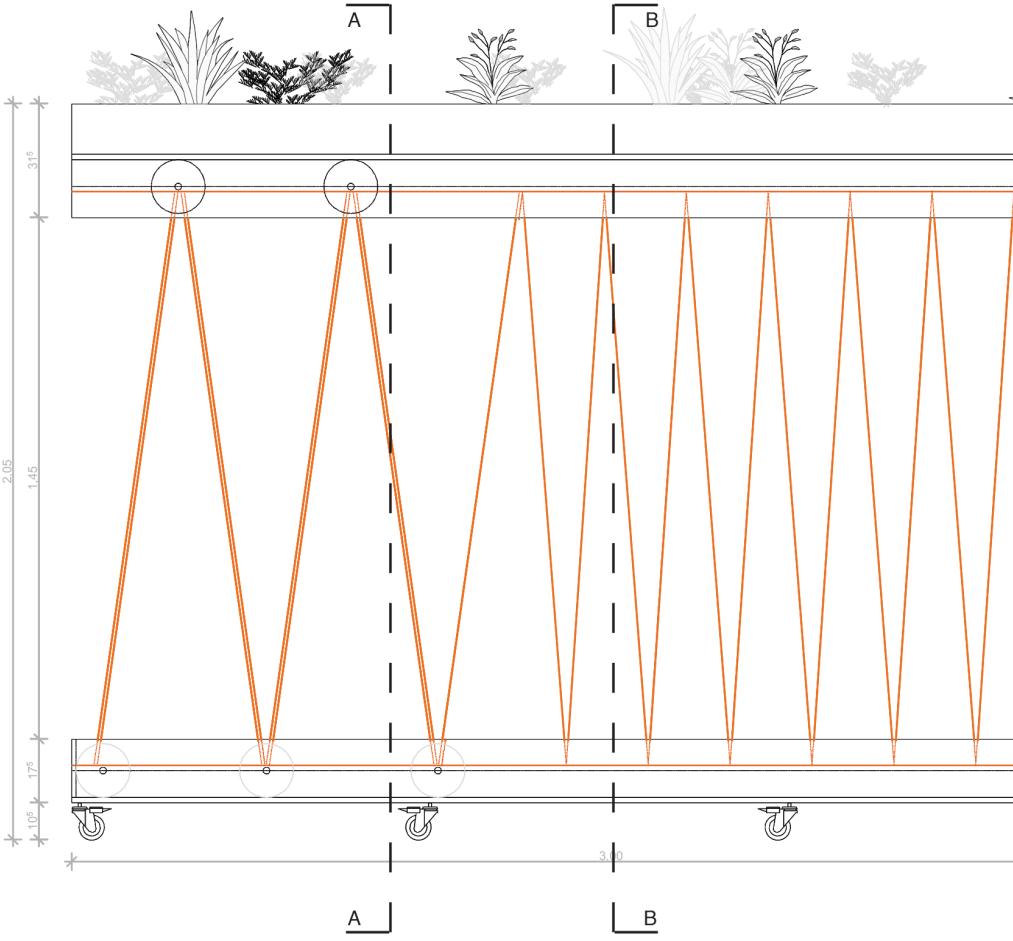


Figure 9. PorTable: concept. Streetscape transformation with PorTable modules. Graphic: Anna Pape, Joephine Arfsten.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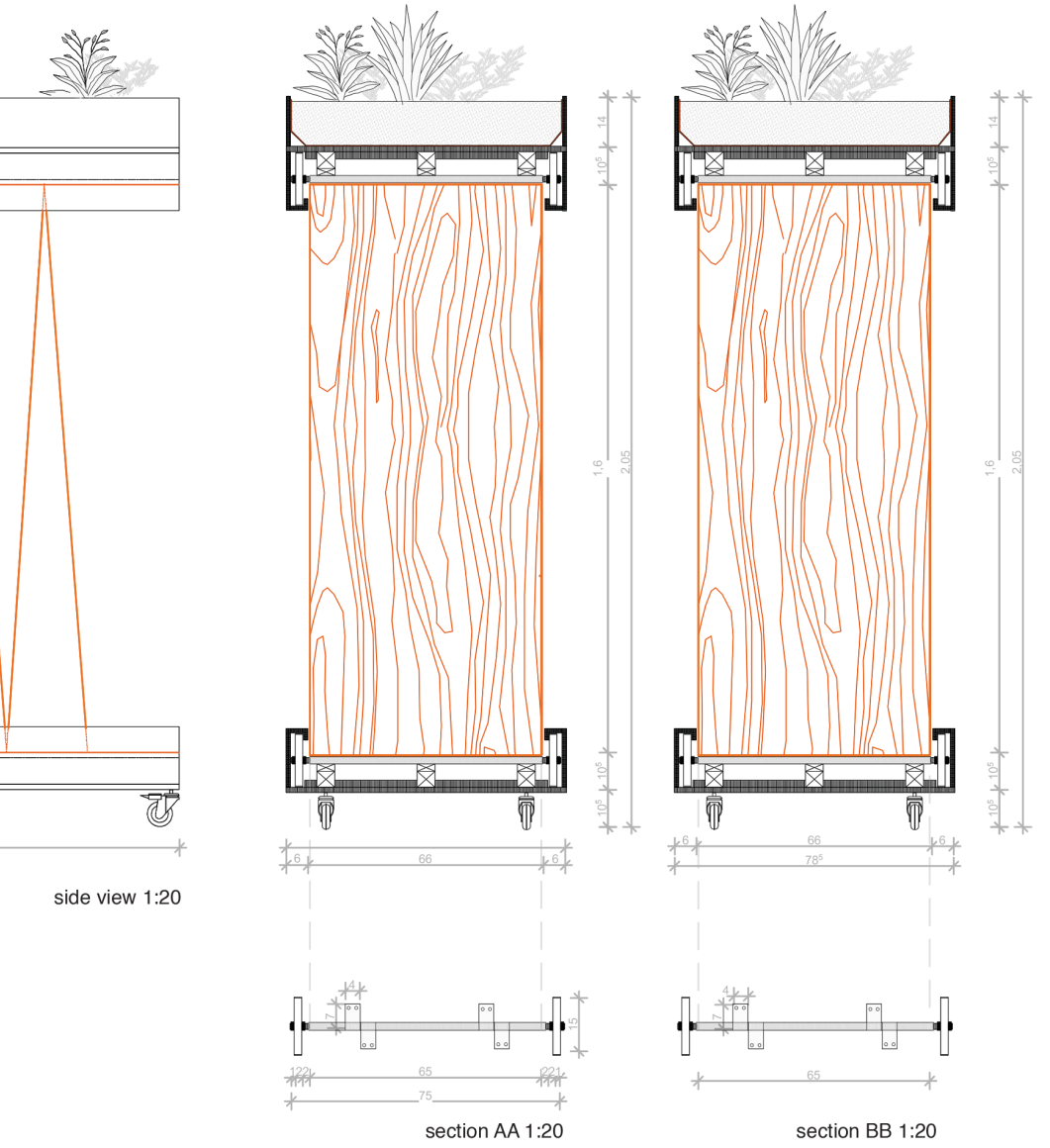


Figure 9. PorTable: technical drawings. Graphic: Anna Pape, Joephine Arfsten for CFC.

Figure 10 . The Foodshed Convivium: presentation of reciepes and regional food connections

Figure . Foodshed Convivium: a shared dinner.

Event

Hannover, PorTable

The Foodshed Convivium has been organised as a moment of critical reflection and exploration about the impacts of current food supply chains over local cuisines, trying to understand their inter-regional and global scale connections, influences and modifications. By analysing a selection of recipes (organic, conventional, experimental) mainly coming from German, European or Fusion cuisine, territorial evidences of food ingredients variations have been collected according to the following four main lines of inquiry and related cross-cutting issues:

1. Low-impact cuisines connected to daily diets, healthy lifestyles, and zero waste production.
2. Recipe of memory exploring the origins and evolutions in relationship to territorial identities.
3. Food innovation and multiculturalism aspect of cross-overs.
4. Waiting cuisine for trail cooking, quick snacks or to-go cuisine.

This exploration has been represented through infographic techniques displayed on a continuous tablecloth decorating the Portable Installation during the launch event, which everybody can access. The sequence of foodshed diagrams (160 x 30 cm) that hosted the space for multiple tablemates, provided also a visual guide about the recipe ingredients, preparation process, regional-global influences connected to the tasting experiences of the different meals. The outputs ranged from traditional to diasporic cuisine recipes, but with a look to traceability and seasonal availability of ingredients to reimagine meals by means of creative testing. One of the main tasks requested to the participants of the Foodshed Convivium has been the replacement of commercial ingredients with local supply ones, producing lower impacts both on nutritional and environmental aspects (e.g. goulash variations), or again with those capable of responding to climate variations. In other cases, changes to the consolidated records of regional cookbooks and crossovers produced uncommon results or new interpretations enriching participants' personal view on changing food consumption habits (e.g. abendbrot, zigara börek).

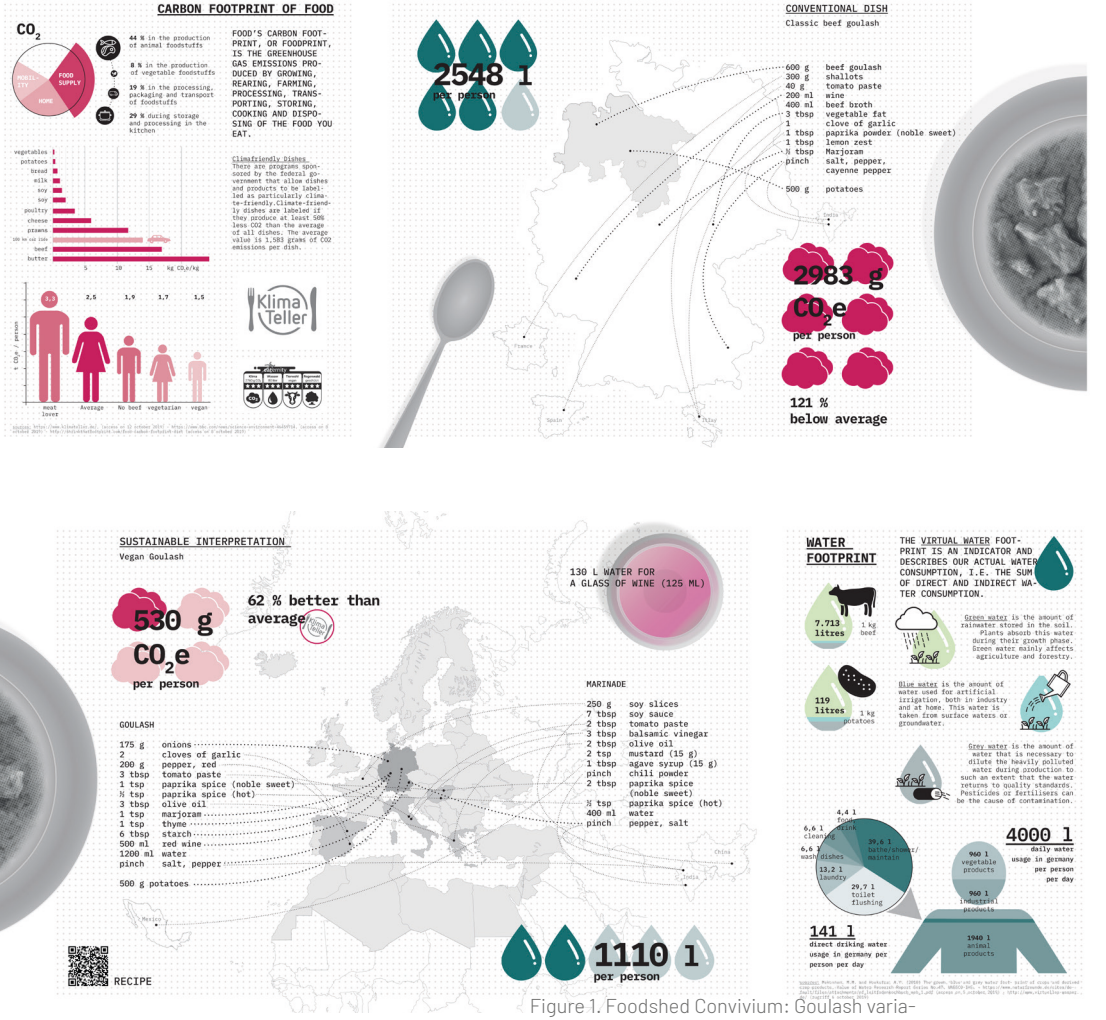


Figure 1. Foodshed Convivium: Goulash variations. Graphic: Jacob Fielers.

Goulash variations

A comparison of water and CO2-Consumption

Jacob Fielers

I wanted to cook a contemporary interpretation of a classic germanhungarian recipe and compare it especially in terms of water consumption and the value of CO_2-Emissions. So I chose goulash as interesting case study due to the water/ingredients proportions: a soup of meat and vegetables usually seasoned with paprika and other spices. A hearty dish, which I would describe as home-style and also associate with grandparents' food. I eat meat myself. But I had goulash rather rarely at home. Nevertheless a comparison, by the high meat portion in the classical goulash, with a vegetarian/vegan alternative interested me.

During the research of the ingredients i discovered different variantions of the original recipe, according to the venison portions, the quantitiy of paprika and spices. The Hurngarian original recipe has been cooked since the 16th century and becoming one of the national dishes since the 18th century.

In order to get a comparability with the vegan variant, I bought the products in the normal supermarket, since also the calculations for the water and CO_2-Consumption of the products are based on average values. The ingredients for the classic goulash can also be found in Germany with a few exceptions and also regionally. Since in the vegan variant the soy meat still has to be marinated and seasoned to give it an intense taste, considerably more spices and products are needed here. Also the soy is only little cultivated in Europe and straight spices, Soja sauce and oils are however often only with difficulty regionally to acquire and come from the south European or asiatic area, resulting in a less-local vegan varaition. The question therefore arises as to whether it is not nevertheless a more resource-efficient dish.

WATER FOOTPRINT

The virtual water footprint is an indicator and describes our actual water consumption, i.e. the sum of direct and indirect water consumption. It differentiates between green water, blue water and grey water and shows the actual consumption. Green water is the rainwater that a plant or creature absorbs. Blue water is the additional water needed for irrigation. Grey water is the amount of water needed to clean contaminated water. A person from Germany consumes about 4000 litres of water per day. However, only 141 litres of it are directly recognizable. For example when showering or washing up. This is why also the 1 kg of beef have an water footprint of over 7,000 liters water. On average, one kilogram of potatoes consumes 119 litres of water.
Vegan goulash consumes less than half as much water as classic goulash, at 1,110 litres per person/court. In particular the meat renouncement shows up here positively. The large number of spices used in vegan goulash, however, is also associated with high water consumption and long transport routes. But they are also very efficient and account for only a small proportion of the total meal.

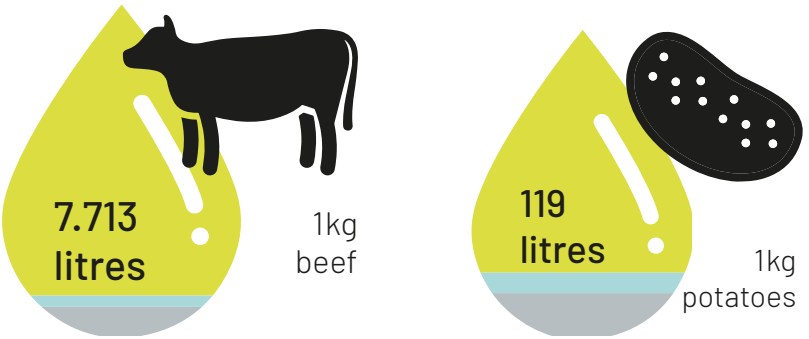
CARBON FOOTPRINT OF FOOD

Food's carbon footprint, or foodprint, is the greenhouse gas emissions produced by growing, rearing, farming, processing, transporting, storing,cooking and disposing of the food you eat.

31% of CO_2-Emissions are caused by food production. A large proportion of this is due to the production of animal products and the storage and preparation of food. Butter, beef and lamb are among the most climate-damaging foods. In terms of CO_2-Consumption, 1 kg of shrimp is comparable to 100 km of driving.

Meanwhile, there are programs and certifications that distinguish dishes that have a particularly low CO_2-Footprint. For example, dishes that have a 50% lower CO_2-Emission than the average are awarded as Klima-Teller. This is 1.583 grams per dish. Restaurants and manufacturers can use it to label their products.

The classic goulash comes to almost 3000 g CO_2 per person. This makes it one of the more environmentally harmful dishes available. In particular, the high proportion of meat is a major drawback.Vegan goulash, on the other hand, produces only 530 g CO_2 per person, 62% better than the average. Consequently, it could be awarded the Klimateller label.



SOURCES

Mekonnen, M.M. and Hoekstra, A.Y. (2010) The green, blue and grey water foot - print of crops and erived crop products, Value of Water Research Report Series No.47, UNESCO-IHE.

http://www.virtuelles-wasser.de/ (access on 6 october 2019)

https://www.klimateller.de/, (access on 12 october 2019)

https://www.bbc.com/news/science-environment-46459714, (access on 8 october 2019)

http://shrinkthatfootprint.com/food-carbon-footprint-diet (access on 8 october 2019)

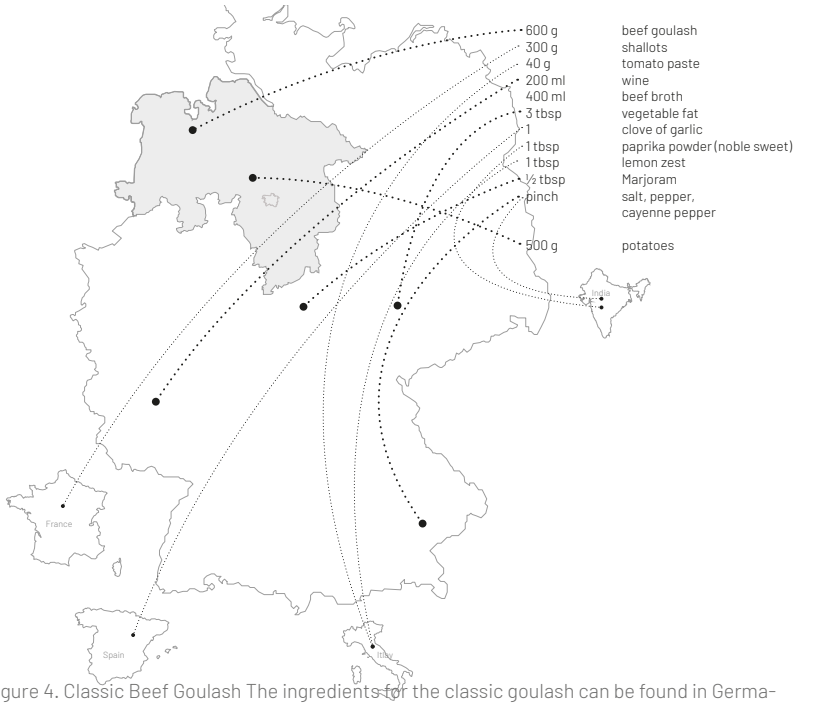
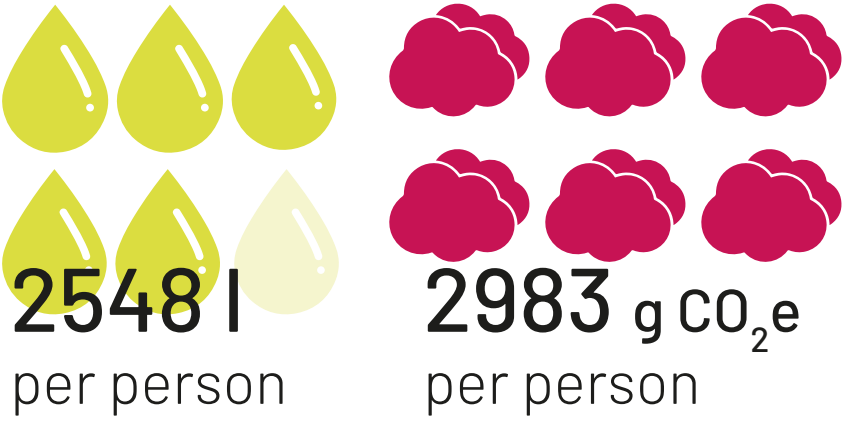


Figure 4. Classic Beef Goulash The ingredients for the classic goulash can be found in Germany with a few exceptions and also more regionally than for the vegan goulash.



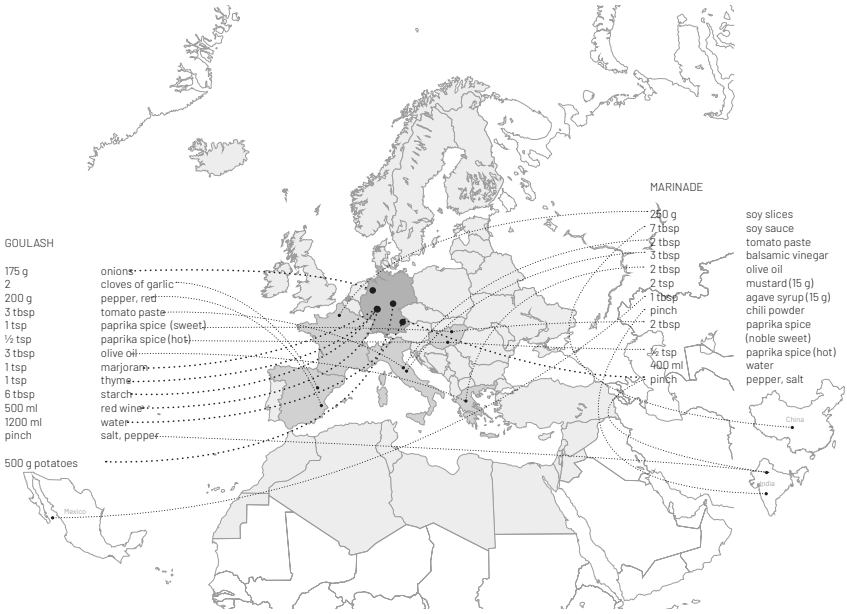


Figure 5. Vegan Goulash For the soy and the marinade are used foods from international regions. Nevertheless, the vegan goulash has a significantly reduced CO_2-Footprint and lower water consumption.

1110 l
per person

530 g CO_2e
per person

Vegan Goulash

Sustainable interpretation of a classic recipe

Information

course: Main Course
cuisine: Hungarian/European
keywords: gulash, soy, vegan

prep. time: 30 min (+ up to 1 Day)
cook time: 50 min
total time: 1 h. 20 min.

Servings: 4-6 people
Calories: 378 kcal

Preparation

1. Mix all ingredients for the marinade with the soy meat. Leave to soak overnight or for a few hours.
2. Sauté the soy with the olive oil in a large pot for 5 minutes.
3. Chop peppers and onions, add and fry again for 5 minutes. Stir in the tomato paste together with the garlic and sauté briefly.
4. Add the spices and fold in the sauce powder. Then add the red wine.
5. Let the goulash simmer for at least 30 minutes on a low heat. Add the water in portions to achieve the right consistency. Tastes best with potatoes or noodles.

Ingredients

Marinade

250 g	soy slices
7 tbsp	soy sauce
2 tbsp	tomato paste
3 tbsp	balsamic vinegar
2 tbsp	olive oil
2 tsp	mustard (15 g)
1 tbsp	agave syrup (15 g)
pinch	chili powder
2 tbsp	paprika spice (noble sweet)
½ tsp	paprika spice (hot)
400 ml	water
pinch	pepper, salt

Goulash

175 g	onions
2	cloves of garlic
200 g	pepper, red
3 tbsp	tomato paste
1 tsp	paprika spice (noble sweet)
½ tsp	paprika spice (hot)
3 tbsp	olive oil
1 tsp	marjoram
1 tsp	thyme
6 tbsp	brown sauces powder or starch
500 ml	red wine
1200 ml	water
pinch	salt, pepper

500 g	potatoes or
200 g	noodles

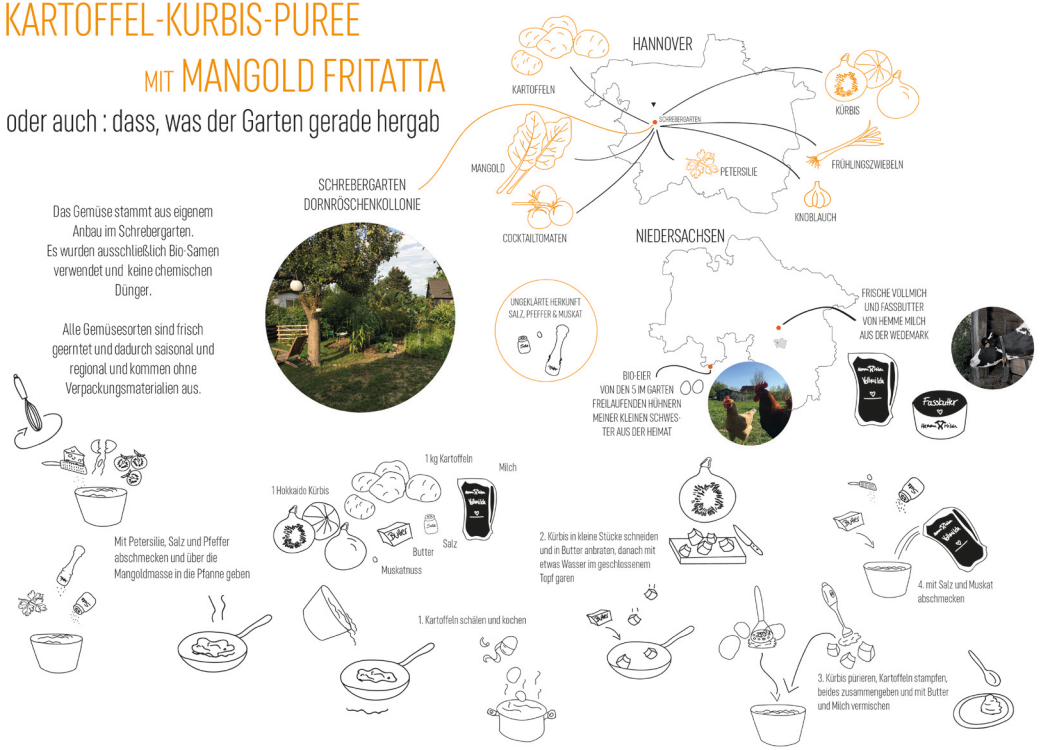
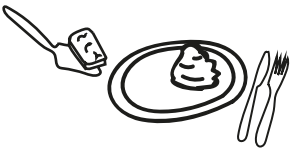


Figure 1. Foodshed Convivium: Family recipies. Graphic: Kim Flottmann.

Family recipies



potato-pumpkin mash with mangold frittata

Kim Flottmann

The traditional kitchen garden, also known as a potager (from the French *jardin potager*) is chracterised by ornamental plants and lawn areas. Most vegetable gardens are still miniature versions of old family farm plots, but the kitchen garden is different not only in its history, but also its design: from an informal organisation and patches of plants, to the careful arrangments of plants patterns.

With increased interest in organic and sustainable living, many people are turning to vegetable gardening as a supplement to their family's diet. Food grown in the back yard consumes little if any fuel for shipping or maintenance, and the grower can be sure of what exactly was used to grow it.

Organic horticulture and urban gardening has become increasingly popular for the home gardener.

The recipe here described serves as a sample of the compilation of foods, that mostly the garden gives me at this time of the year, actually. Since 2018 I have been busy in the allotment garden. In spring, all vegetables, herbs and fruits were sowed. During summer, the plants were cared for and watered. So, it's not just seasonal, but what the garden still has to offer.

Over the summer until late autumn I was able to harvest different kind of vegetables and to experiment them in cuisine. It's always exciting to develop new recipes, depending on what you are harvesting at the moment. All seeds are organic and it natural fertilizer is used, exclusively. Furthermore, I wanted to cook something that needs just a few other products, since I am eating preferably vegetarian, due to environmentally conscious. In the past Mangold was used instead of spinach, nowadays spinach is the people's favourite, but Mangold is more and more coming back. Mangold is particularly healthy and tastes finely spicy. Especially the mangold is growing all summer long, is very robust and grateful. It grows fast and can be used for many dishes.

I get eggs regularly when I'm at my family's home. The 5 free-range hens have a wonderful life with all freedoms on a 2 hectars property. As they are exclusively fed with organic feed, these eggs are organic. The diversity of

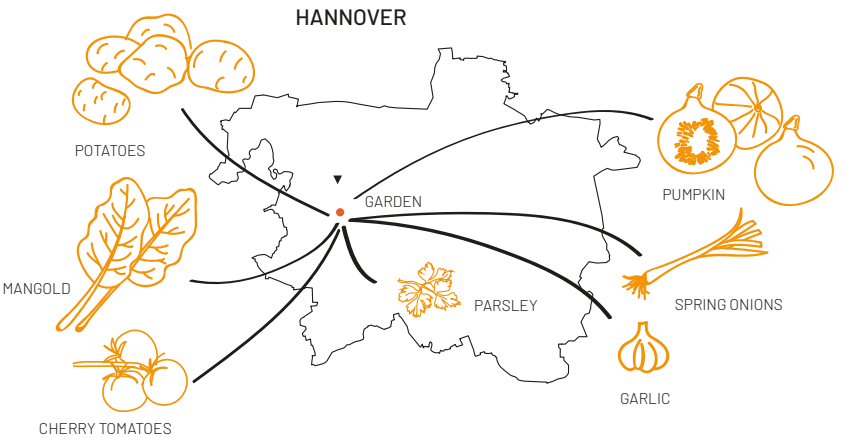


Figure 2. Home grown ingredients The ingredients were sown, fostered and harvest from our family allotment garden in Hanover

nature is particularly exciting. In contrast to the eggs from the shop, my sister's eggs are brown, black-green and white, from different size (usually much larger than in the shop), with uneven surfaces and often with 2 egg yolks. I bought the dairy products in the local supermarket, while making sure that the milk comes out of the local region. Hemme milk is relatively well known in Hannover, because they come from the local region. Additionally, they invite you to their farm, they have a cafe and offer farm tours to make their business transparent and to make the young and old happy.
The Hemme products are not organic products, all other foods are. So, if you had regional organic milk products, the recipe would be from organic farming and perfectly regional, only. All named ingredients came without any packaging material, apart from the dairy products. So, if you bought unpacked regional organic dairy products, the recipe ingredients would be organic, regional and without any packaging and moreover cultivated and harvested with love by myself.

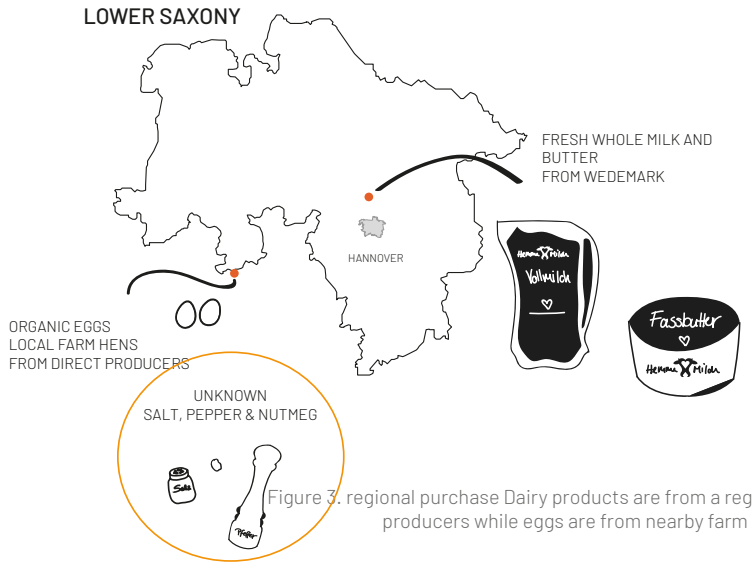
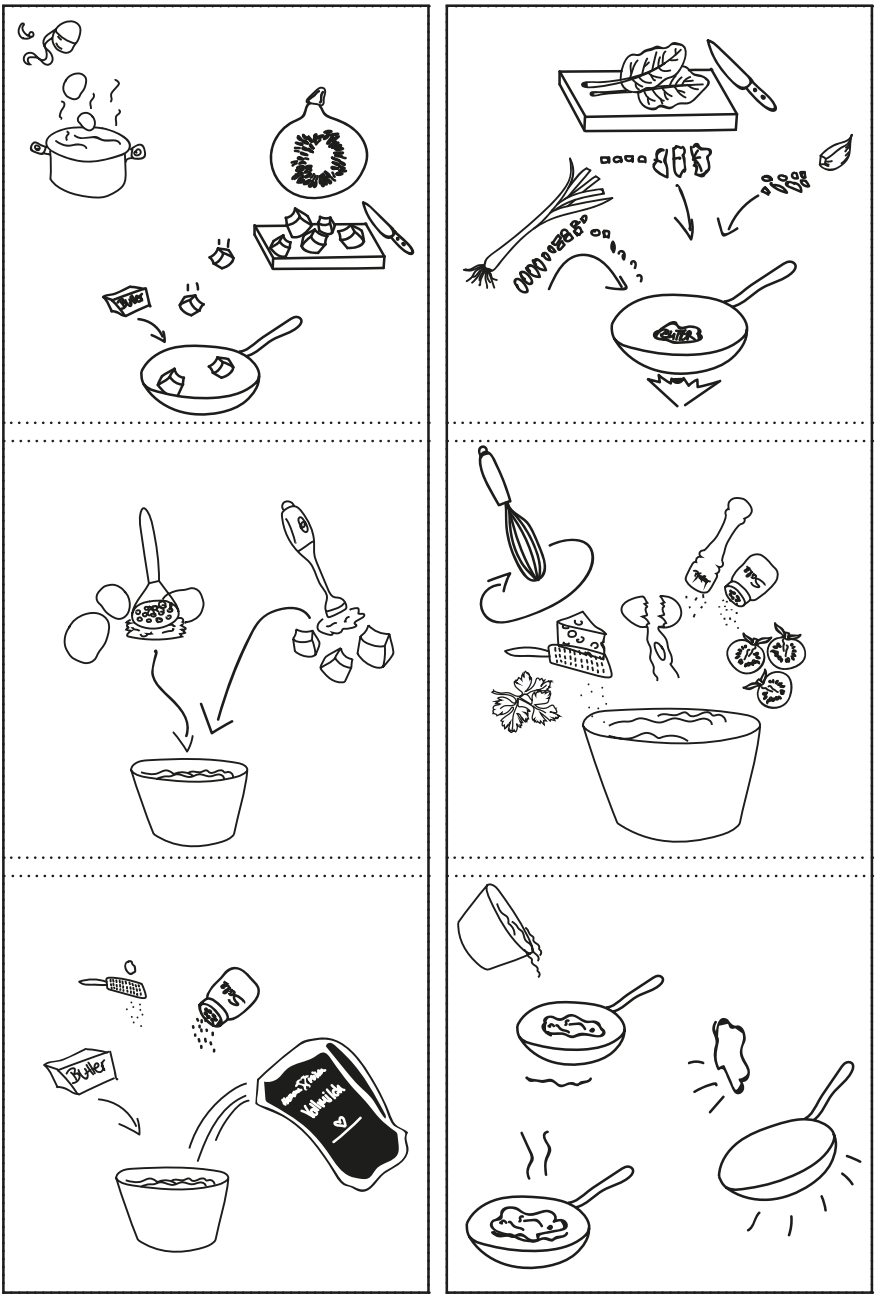


Figure 3. regional purchase Dairy products are from a regional producers while eggs are from nearby farm hens

Figure 4. regional purchase Dairy products are from a regional producers while eggs are from nearby farm hens


Butter
Butter

Vegetable mash frittata

Just a simple mix of what the garden gave

Information

course: main course
cuisine: german
keywords: mash, frittata

prep. time: 35 min.
cook time: 20 min.
total time: 1 h. 10 min.

Servings: 6 people
Calories: 210 kcal

Ingredients

Potato-pumpkin-mash
1000 gr. potatos, 1 pumpkin
100 gr. butter, 300ml milk
salt and nutmeg

Mangold fritatta
circa 20 mangold letters
3 spring onions, 2-3 garlic
10-12 cherry tomatoes
10 Eggs
40gr. butter, 150gr. cheese
salt, pepper and fresh parsley

Preparation

1. Peel potatoes, cut them into small pieces and cook
2. Cut the pumpkin into small pieces and fry it in butter, cook it with some water in a closed pot afterwards
3. Puree the pumpkin, stomp the potatoes, combine both and mix it with butter and milk
4. Season with salt and nutmeg

1. Chop the leaves and stalks of Mangold, the spring onions and garlic and fry everything in butter
2. Mix eggs, tomatoes and cheese
3. Season with parsley, salt and pepper give it over the Mangold mass in the pan
4. Wait until the egg mass has stabilized and turn it then in one, let it cook for some minutes on low heat with a lid
5. Serving and bon appétit!

Figure 1. Foodshed Convivium: Not Quite New York Cheesecake. Graphic: Regina Hoffmann.

Not Quite New York Cheesecake

Regina Hoffmann

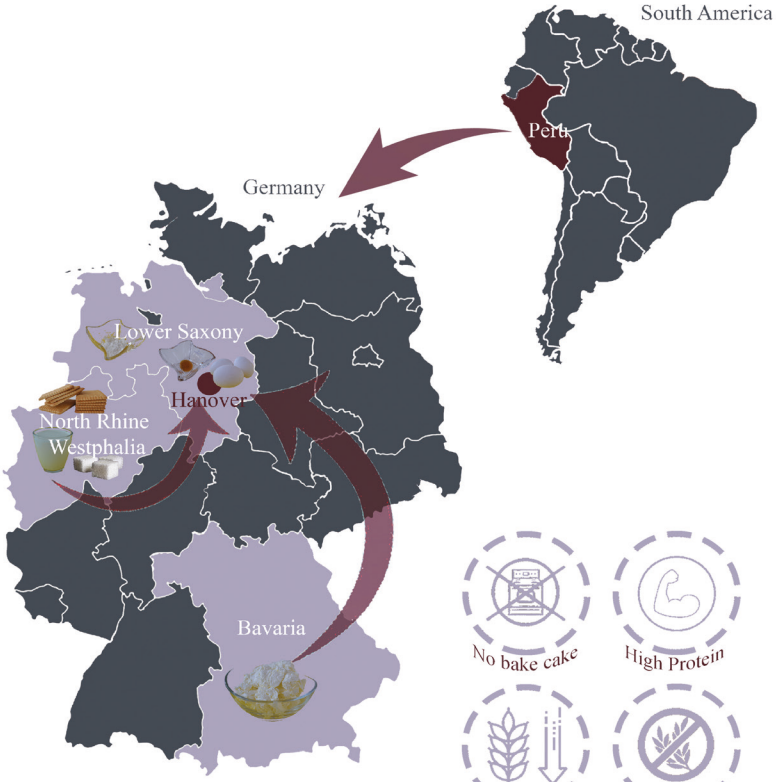
Although my family has russian roots and the most recipes in our house are either Russian or German, this cake was accepted in our cookbook as a constant. For this reason, this receipe can be considered a food culture crossover that fits well in the category "Recipe of Memory" with a focus on "orgins vs. evolutions". I thought as a typical German dessert with a history in nearly every country of the world it would fit very well. I started to analyse the historical traces of the first cheesecake recipes, the evolution it made throughout the centurys and cities and looked at different variations and interpretations the recipe developed.
Even though it`s called "New York Cheesecake" the recipe I am used to is from a German youtuber. Indeed, this recipe has marked my childhood and my family holidays.

The earliest extant of a cheesecake is by the Greek physician Aegimus (5th century BCE), found in Cato the Elder's De Agri Cultura, which includes recipes for three cakes for religious uses: libum, savillum and placenta. Of the three, placenta is most like most modern cheesecakes were made from curd cheese and sour cream, having a crust that is separately prepared and baked.
Cheesecake as we know it in Germany today was established in the 14th century. Nowadays the dessert is available in nearly every country around the world, with their very own interpretations. The receipe did not evolve untill the modern commercial American cream cheese was developed in 1872 by William Lawrence. Over the years, many varieties of cheesecake have developed. Whether with or without a crust, vegan, high protein, low carb or no bake - the cake serves every trend. It can also be baked with stone fruit or berries and other flavors like lemon or vanilla. The most known recipe of cheesecake comes from United States, in two different variations. Along with the baked one, some cheesecakes are made with uncooked cream-cheese on a crumbled-cookie or graham cracker base. Strawberry or New York Cheesecake, is very popular as well, where the curd cheese is replaced by cream cheese. Even Japan has its own cheesecake baking tradition and is made of only three ingredients: eggs, white chocolate and cream cheese.

Despite the fact, I did not choose to focus my research on the topic "Zero Waste" or "Regional Cuisine" I also analysed where the ingrediantes came from and developed awareness for the mileage products bear and want to share my perceptions with the readers of this work.

Nowadays with the climate debates everyone especially politicans and econimists are concerned about the carbon dioxide emission. Therefore supermarkets are offering more locally produced and grown products. Unfortunately there are still a lot of products which come a long way and are environmentally more harmful than regional available goods. Especially cheap commodities are often not made in circuit of 50 to 100 kilometers. Together with the only seasonal obtainable articles the support and correlation of the local producers is aggravated.

One particular insight of this resaerch concerned the blueberries supply chain. In order to satisfy European supply (+50% in 2018), Peru may be become the world's largest blueberry exporter. Three destinations accounted for 90% of the blueberry exports, those being the United States, the Netherlands, and China; accounting for 57%, 22%, and 10%, respectively.
The opening of new markets results in a greater presence in the international economies On the other hand, the global exchange of goods is depressing the environment tremendously and do not encouraging the local varieties and productions.



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Vanilla Extract from Burgwedel distance 24km.

Eggs from Isernhagen Distance 15km.

Butter from Hamburg distance 150km.

Cornstarch from Quakenbrück distance 160km.

Cookies from Gronau distance 220km

Cream from Dusseldorf distance 280km.

Sugar from Cologne distance 290km.

Cream Cheese from Buchloe distance 635km.

Blueberries from Peru distance 10.500km.

<50km | -100km | -150km | -200km | -250km | -300km | >600km | >1000km

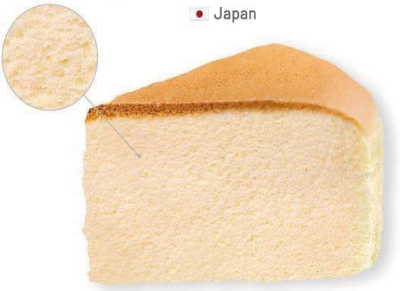
NEW YORK CHEESECAKE

USA

BASE	CHEESE	TEXTURE & FLAVOR
sponge cake or graham cracker	cream cheese	dense, smooth, rich

JAPANESE CHEESECAKE

Japan



BASE	CHEESE	TEXTURE & FLAVOR
no base	cream cheese	pillowy/soft, fluffy texture, wobbly conistency

KASEKUCHEN

Germany

BASE	CHEESE	TEXTURE & FLAVOR
shortcrust pastry	quark cheese	slightly fluffy, sweet and sour

SERNIK

Poland

BASE	CHEESE	TEXTURE & FLAVOR
crumbly base or shortcrust pastry	twarog	light, creamy, various flavourings

Figure 2. German Global reach. Most ingrediantes are produced in Germany but still traveled a high distance. Even though there are many blueberrie fields in Germany, the higher producer is Peru

Not Quite New York Cheesecake

Reginas Signature Cake

Information

course: Desserts
cuisine: German/American
keywords: cake

prep. time: 35 min. (+20 chill)
cook time: 60 min. (in oven)
total time: 1 h. 55 min.

Servings: 8-12 people
Calories: 427 kcal

Ingredients

110 g. Cookies
80 g. Butter
900 g. Cream Cheese
390 g. Sugar
30 g. Cornstarch
175 ml Cream
3 Eggs
1,5 tsp. Vanilla Extract
450 g Berries
Water

Preparation

1. Put the cookies into a freezer bag and crumble them with a rolling pin. Melt the butter in the microwave and pour it to the cookies. Once both ingredients are well combined spread them on a eight inch baking pan and bake it for about ten minutes at 350 degrees fahrenheit.
2. While it´s baking prepare the batter. Take one third of the cream cheese, half the sugar, the cornstarch and mix it with a blender for three minutes. Afterwards add all the remaining ingredients except the water and combine them.
3. Take two pieces of tinfoil and place them above each other like a cross. Place the baking pan in the middle and wrap the foil over. Lastly you need to pour some water on the baking plate so that the cake base is covered in two centimeters of water. The cake will bake about sixty minutes at 350 degrees fahrenheit.
4. For the topping take 150g of the berries, put them in a small pan, add a bit of water with 70g sugar and cook it till it`s a nice liquidly marmalade. Let it cool for 20 minutes and pour it over the cake.

Figure 1. Foodshed Convivium: the German "Abendbrot".
Graphic: Christina Mauersberg, Neele Lemke.

The german "Abendbrot"

Christina Mauersberg, Neele Lemke

As the Germans say "Eat breakfast like an emperor, lunch like a king and dinner like a poor man". Research shows that among Europeans, meal portion sizes are increasing and quality family time spent around the table for conviviality is decreasing. To counter these trends, many Northern European families are more and more adopting the German "Abendbrot", as a tradition of sharing a light and healthful evening meal in company. It means simplicity and lavish designed food at the same time.

Literally translated as " the evening bread," yet the term implies more than eating bread in the evening, serve between 6 and 7 pm. On one evening there is only rye bread and some few toppings on the table were as on other days the table will be fully covered with all sorts of food. Cheese, Sausages, fruits, vegetables and other toppings decorate the table. People laugh and chat throughout the evening asking for butter from the other side of the table and enjoying favorite toppings on the bread. The "Abendbrot" is changeable and adaptable to every kind of taste. Always with the bread in the spotlight it can be sustaining, spicy, sweet or simple. Even though the bread from the bakery is quite delicious there is nothing like a homemade bread knead with your hands and baked in oven, filling the whole house with a warm, fresh smell.

The history of the German "Abendbrot" goes back to 14th centruy. Due to a flourishing trade in the North of Germany the people had access to valuable resources, which could be used to create a lavish meal with bread. During that time lunch was the main meal of a day and for this reason were conceived as hot meal, to provide energy for the most of the working day. Then, during the evening a simple supper with bread, butter and some cheese, sausages or smoked fish was the most common practice. Especially with the influence of the Haseatic League, this tradition spread towards the southern areas of Germany, particularly diffused among the travelling merchants. Depending on the region where you are from in Germany this meal goes by names like "Abendbrot", "Vesper", or "Brotzeit".

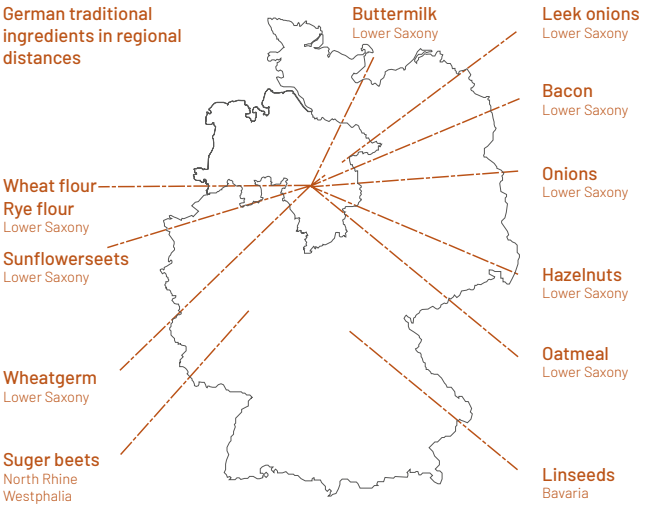


Figure 2. Regional / local connections. The main ingredients for the Bread are found in Lower Saxony and Hanover metropolitan region.

In contemporary society we often eat a hot meal for dinner together with family and friends. But with our recipes you can create your own "Abendbrot" and see how different it can be.

Today the question of sustainability affects also food and supply chains. We have the ability to import all sorts of foods from all over the world, but the impact we produce on the environment is enormous. Moreover, climate change urgencies will affect food production extensively. When we want to protect the environment for future generations, we have to rethink the way we consume, process and transport food globally. One way to reduce the own CO^2 impact, is to shop local products and by doing so to shorten the distance of food supply chains. By choosing a dish which is eaten since the 14th century in Germany, we wanted to make sure, that the ingredients are available and processed in Hannover region or in close proximity.

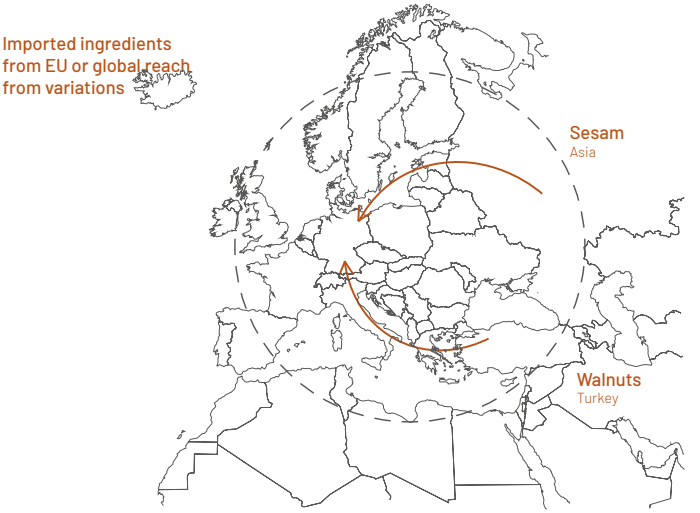
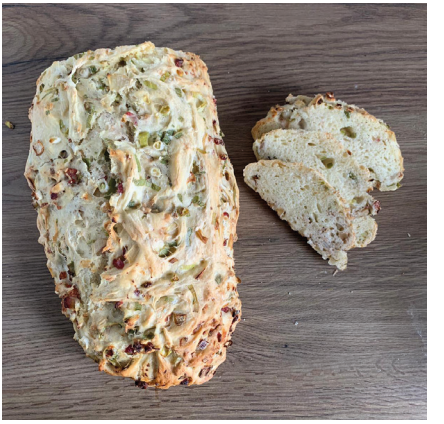


Figure 3. National / Global reach Due to Global supply chains different exotic ingredientscan be included to vary the original recipe

Wheat, rye and dairy products are the staple of German agriculture. Special ingredients, such as different types of nuts, spices and vegetables used in the "Schwarz-brot" variation, can also grow in the German climatic area. Because the "Abendbrot" is so versatile, everyone can decide to add flavours or side-ingredients to the receipe. For example the "Schwarzbrot" we made contains walnuts which are from Turkey and sesame, which is importet from Africa or Eastern Asia. The "Bauernbrot" und "Speckbrot" are mostly made from rustic farmers' products: with a dough mixed with pork-bacon, nuts or wild fennel, mixed in a bowl, in which the bread rests half a day before baking it in your oven.


Raffinade
ZUCKER
Qualitäts-
Weizenmehl
JOD
SALZ
MILSANI
Deutsche
Markenbutter


Goldähren
Qualitäts-
Weizenmehl
JOD
SALZ
MILSANI
Deutsche
Markenbutter



Abendbrot, Speckbrot

Homemade recipe for bread variations

Information

course: Dinner
cuisine: German
keywords: pastry

prep. time: 10 min. (+60 chill)
cook time: 40 min. (in oven)
total time: 1 h. 30 min.

Servings: 4-6 people
Calories: 238 kcal

Ingredients

500g flour
1 EL salt
15g softend butter
1/2 cube yeast
1 EL sugar
1 handful of walnuts
1/2 bunch ramson
1 onion
50 g diced bacon
2 EL fine oat meal

Preparation

1. Pre-heat oven to 180°C
2. Mix flour with salt and add butter dissolve the yeast in 300 ml of warm water. Add the mixture to the flour and knead the batter with your hands until everything is fully mixed.
3. Let it sit for 45 minutes at a warm place.
4. Chop the walnuts into rough pieces. Wash, dry and cut the leek onions. Peel and cut the onion in small pieces.
5. Add walnuts, leek onions, onions, bacon and oat meal to the batter and knead until mixed up. Let it sit for further 15 min.
6. Knead again and form a bread on a baking paper. Cut the surface lightly with a knife. Put a little bit of water on the surface and place a bowl of water in the oven.
7. Bake the bread for 40 min until it looks gold/ brown.
8. Enjoy hot with salted butter.

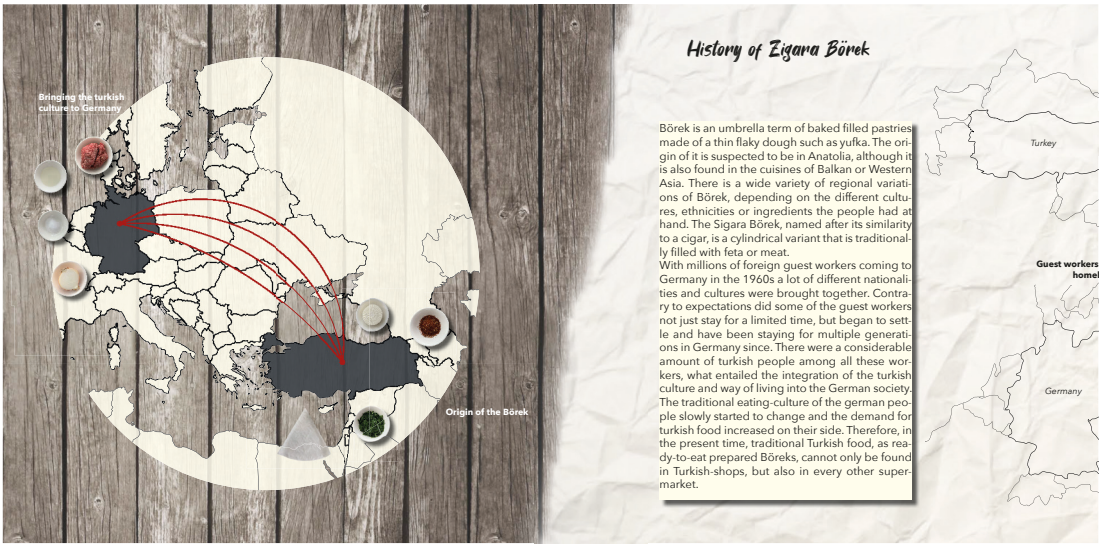


Figure 1. Foodshed Convivium: Zigara Börek.
Graphic: Aysil Sahin, Nis Weller.

Zigara Börek

Aysil Sahin, Nis Weller

Börek was a popular element of Ottoman cuisine, and it has been introduced among Central Asian Turks and descendant of the pre-existing Eastern Roman (Byzantine) classical baked layered dough and cheese dish. Soon become a very common Turkish dish for in between meals or just used as a snack, because it is very easy and fast to make, but still very tasty. Despite the prominence in Turkey it is quite popular in the present time in Germany as well. Börek is also very popular in the South Slavic cuisines, Mizrahi and Sephardic Jewish traditions.

Börek is indeed an umbrella term of baked filled pastries made of a thin flaky dough such as yufka. There is a wide variety of regional variations of Börek, depending on the different cultures, ethnicities or ingredients the people had at hand. The Zigara Börek, named after its similarity to a cigar, is a cylindrical variant that is traditionally filled with feta or meat. With millions of foreign guest workers coming to Germany in the 1960s a lot of different nationalities and cultures were brought together influencing mutually the cusines and tastes. There were a considerable amount of Turkish people among all these workers, what entailed the integration of the Turkish culture and way of living into the German society. The traditional eating-culture of the German people slowly started to change and the demand for Turkish food increased on their side. Therefore, in the present time, traditional Turkish food, as ready-to-eat prepared Böreks, cannot only be found in Turkish-shops, but also in every other supermarket.

If you would take a walk through Turkey and ask how the "original Zigara Börek" is made you would probably get a couple of different answers. That is because the people originally made the Börek with feta cheese, potatoes, parsley and sometimes with minced meat or sausage, are used to modify the original recipe according to personal taste and the availability of local products. Especially today with the global supply chains, the recipe continues to evolve. Nevertheless two "traditional" ways of making the Zigara Börek are reported in official cookbook. As shown in our recipe, there is one way of making them by using Feta or with minced meat.

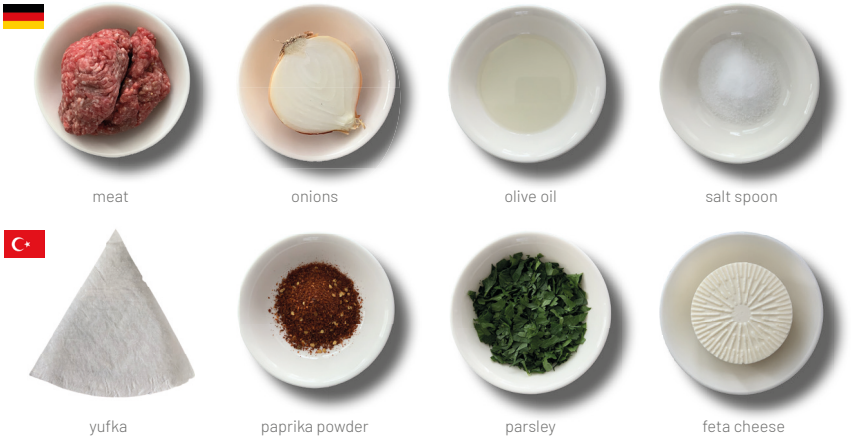


Figure 2. Global / regional connections
Bringing the turkish tradition and culture to Germany by using turkish ingredients.

The beautiful thing about a Börek is that you can easily create your own way of doing it. As a Zigara Börek you can understand everything that is wrapped up in yufka – meaning not only the traditional fillings. Try creating your own type of Zigara Börek with local or seasonal ingredients such as mixedvegetables, mushrooms, lettuce, eggs, bacon, chicken, varieties of cheese or something else.

Depending on our individual cultural influences from the families, the food definitely means something different according to the uses connected to it. When there is no deeper connection to the culture, the dish has its origin in, you probably only see it as a quick but delicious snack. But whenever the food is connected to a culture that plays a bigger role in your life, because of your own family traditions or even the reminiscence of common friends, an deeper emotional level is added to the recipe. Therefore a food can also contain special memories, in this case, due to the type of the dish, memories of family celebrations, birthdays or weddings.

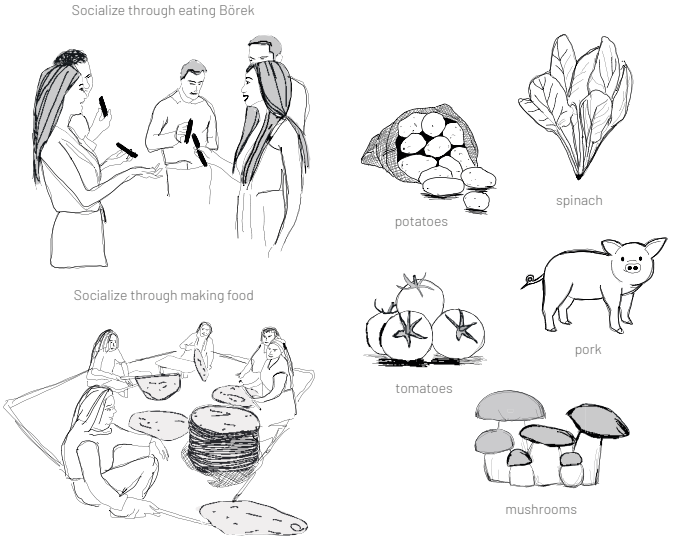


Figure 3. Cultural /social connections
The socializing through Börek by cooking together and learning by doing

As an appetizer or snack in between meals, the Böreks will make the atmosphere more relaxed, because it is uncomplicated to have a longer or deeper talk while having a quick snack. Therefore it could be understand as some kind of waiting cuisine. Another interesting and very special way of socializing is happening during the traditional way of making the Zigara Börek. Originally the yufka is not bought ready from supermarket, meaning that usually the mother in a family had to make it on her own.

In order to not be alone, the women would meet and make the dough for the Böreks or other dishes together. Sitting around the oven, talking and making fresh dough is still a common thing in the Turkish culture to this day. It clearly shows that not only the eating itself but also the making of a dish can be a social part that brings people together. These are so called food rituals that the project Creative Food Cycles wants to explore. So why not grouping up with friends creating your own Zigara Börek ?

Zigara Börek

Traditional turkish snack

Information

course: Snack
cuisine: Turkey
keywords: Börek

prep. time: 10 min
cook time: 5 min (in hot oil)
total time: 15 min

Servings: 6-8 people
Calories: 225 kcal

Ingredients

Filling with feta
200 g feta
half bunch of parsley

Filling with meat
250 g minced meat
3 tb oil
1 tsp paprika powder
half of an onion
pinch of salt

Preparation

1. Once you have your fillings ready, the yufka dough needs to be cut in a triangular shape, if it not already is.
2. In the next step you choose one filling start to put it into the yufka as shown. It is important to leave some space to the lower, left and right edge.
3. Now you will need to fold in the outer corners. They should not touch each other, because that would mean that you Börek will be pretty small.
4. After the outer corners are folded in, you can begin to roll the Börek up. Therefore you have to fold the lower part of the yufka around.
5. After continous rolling the Börek up, it is important that your are doing this step with some pressure on the Börek while rolling it up, so it is form will be solid and compact in the end. At the end, the tip of the yufka must be moistened with some water.
6. The last thing you need to do is to fry all of your Böreks in oil to make them warm and crispy. They might no be perfect on the first try, but the more you make them the better they will become.

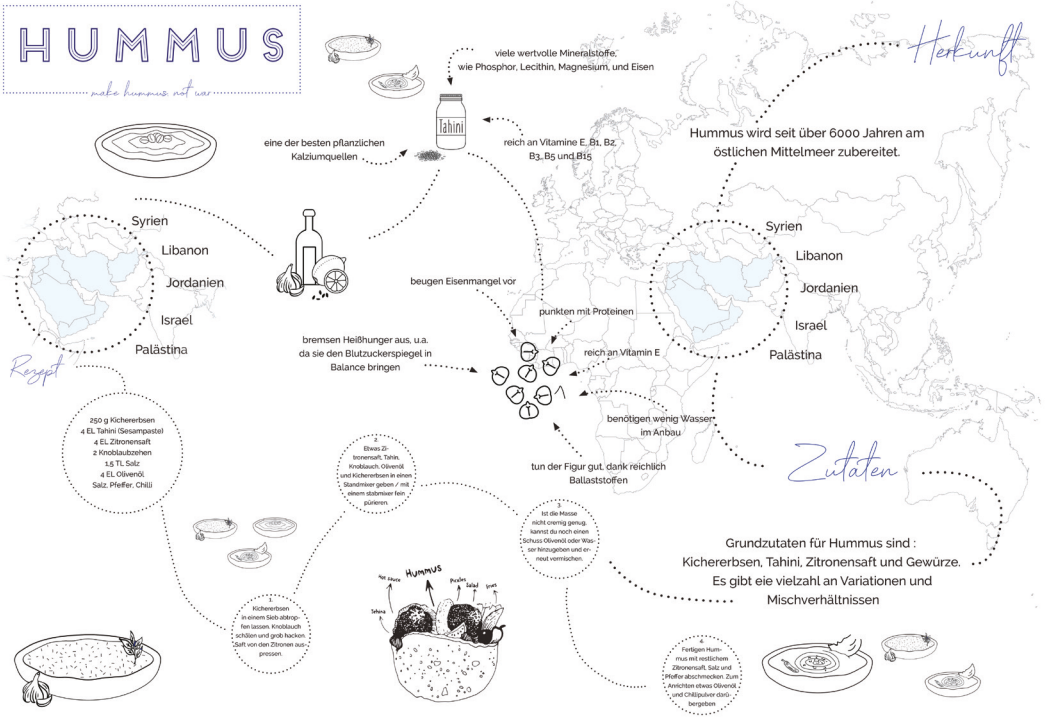


Figure 1. Foodshed Convivium: Hummus for sharing.
Graphic: Lenya Schneehage.

Hummus for sharing

Lenya Schneehage

Hummus comes from the Arabic culture and it refers to a cold purée of chickpeas with vinegar and pickled lemons with herbs, spices, and oil, but no tahini or garlic. This dish always reminds me of my study time in Israel. Living abroad means a lot for the personal growth: getting to know a new country, its culture, traditions, people and of course its cuisine. I remember the typical Wednesdays at University Campus in Haifa, when some families from the nearby region were preparing and bringing food to a big shared table and everyone was welcome to join. It helped to get together with locals and other students, especially the foreigners. That is the place, where I tried the best homemade hummus, baba ghanoush and other Arabic dishes, that accompany my stay.

The debate over the origin of hummus is probably as old as Arabic culture. The honest truth is that no one really knows for sure. According to several historical sources, the earliest mention of hummus dates back to Egypt in the 13th century.

Historical documents show a dish, very similar to the hummus we eat today, being consumed in old Cairo: a purée of chickpeas and tahini called hummus kasa appears in the Kitab Wasf al-Atima al-Mutada. Hummus is a very versatile dish.Some eat it as an appetizer and dip, others scoop hummus with flatbread, such as pita. It is also served as part of a meze or as an accompaniment to falafel, grilled chicken, fish, or eggplant. Regardless it origins, hummus can be traced in different areas of Middle East, so it's become a great example of a so-called "crossover" food. All of the ingredients in hummus are easily found in Palestinian gardens, farms and markets, thus adding to the availability and popularity of the dish. In Palestine, hummus is usually garnished, with olive oil, "nana" mint leaves, paprika, and parsley. A related dish popular in Palestine and Jordan is laban ma' hummus ("yogurt and chickpeas"), which uses yogurt in the place of tahini and butter in the place of olive oil and is topped with pieces of toasted bread. All the ingredients are easily found in the middle east, means everything is local.

Figure 2. Cultural / food heritage Multiple theories on the origins in the Middle East but Lebanon claimed a Geographical Status right

Today, the main chickpea production takes place in warm countries like India and Australia. In 2017, India produced 67% of the world total for chickpeas and Australia 14%. Other countries like Turkey, Myanmar or Ethiopia produce only little in comparison. Mature plants will be 40-80 cm tall, heavily branched and appearing as small bushes. The most used Kabuli chickpea usually matures in 110 to 120 days. The benefit of the chickpea production in subtrobical areas is that the need of water is very little for the plants. Chickpeas are a nutrient-dense food, providing rich content of protein, dietary fiber, folate, and certain dietary minerals, such as iron and phosphorus.

Thiamin, vitamin B6, magnesium, and zinc contents are moderate, providing 10–16% of the daily value. A 100 g serving of cooked chickpeas provides 164 kilocalories (690 kJ). Cooked chickpeas are 60% water, 27% carbohydrates, 9% protein and 3% fat.

Figure 3. Ingredients processing.

Eeven if chickpeas are not quite a local product for the Europeans and it takes a long transportation journey, the dried and canned chickpeas are long-lasting and do not mind a slow transportation by ferry. Compared to other transportation the ferry is the CO2-mission wise the best solution. Chickpeas and especially Hummus has a long tradition and is part of a culture. It does not need a lot of ingredients, but is also flexible of adding different spices and add-ons to it. Whatever you have left in the garden or kitchen, you can blend it to hummus. For example beetroot, carrots, capsicum, curry powder, thymine, rosemary. I usually eat it as a dip for dinner with fresh vegetables and pita bread as a reminiscence of this food culture.

Hummus

Appetizer and dip recipe for a shared table

Information

course: snack
cuisine: middle east
keywords: hummus, snack, easy

prep. time: 20 min.
cook time: 0 min. (in oven)
total time: 20 min.

Servings: 4-6 people
Calories: 170 kcal/100g

Ingredients

1 can chickpeas
3 cloves garlic
1/3 cup tahini
4 tbsp lemon juice
3/4 tsp sea salt
4 tbsp olive oil

** best served with pita bread, cucumber and red bell pepper

Preparation

1. If you use dried chichpeas: Place the dry chickpeas in a large bowl or pot and fill with water so that the water is at least 2-3 cm above the peas. Let them soak overnight in the fridge.
2. Drain the chickpeas. Place them in a pot and fill with fresh water, a pinch of salt and baking soda.
3. Bring the chickpeas to a boil. Once the water is boiling, lower the heat so that it is a low boil. Cook the chick peas for an hour. They should soften so they can easily be smushed with your fingers.
4. You can also use canned chichpeas, the result will be the same. Drain the chickpeas and keep some of the liquid.
5. Combine all ingredients (chickpeas, olive oil, tahini, lemon juice, garlic, salt and pepper) in the an big bowl or food processor.
6. Blend hummus until smooth, at least 5 minutes.
7. If your hummus is stiffer than you'd like, blend 2 to 3 tablespoons of the reserved chickpea liquid to thin it out and make the hummus creamier.
8. Best served with pita bread, cucumber and red bell pepper

03 Genova

CFC IN ITALY / PHASE 3 CONSUMPTION TO DISPOSITION

Design cultures today have begun to question and to innovate recycle strategies according to different fields of applications. By exploring the unexpressed potentials offered by the discarded food, the main research focus in Genoa has been the identification of waste as a challenging urban material to be reinvented and reused for the design of services, materials and prototypes. In this sense, food waste and food losses have proved to be not only a crucial topic for scientific debate, but also a powerful tool for raising awareness for sustainable development at the community level. In Genova in recent years, the sensitivity towards recycle paradigm has been applied also to urban neglected spaces and drosscapes of former industrial and port areas. Thinking about urban spaces in terms of recycling means not only to adapt them to a different use, but to provide new meanings and new life cycles with a shared-performative logic able to empower active urban society to be part of this transition. In these terms, also food waste is understood not only as an asset for the productive sector but as a polyvalent and multifaceted resource for enhancing social innovation where new process and services can be developed as inspiration for urban change.

The University of Genova - Department of Architecture and Design has developed in this phase an intensive action-research programme focussed on the reuse of food waste (and food-related discarded packaging) as the main rationale of co-creation workshops and fabrication process with young creatives in order to develop new industrial design products. In parallel these experiences are developed as participatory actions with the aim is to persuade users to change their behaviors about food waste, exploring at the same cultural creativity and social sharing events (real and virtual "banquets", in the best tradition of the Mediterranean way of life) where to consume experimental food with supplies produced by food waste in a new conviviality.
The main outputs developed by UNIGE-DAD, has been the design of proof of concepts, products and prototypes derived from food waste displayed in a way that implied an active role for visitors - artistic performances and co-creation workshops; understanding the relationship between ethical factors linked to the new ways to produce, consume and recycle in our urban society. This topic evidently represents an essential field of investigation where design disciplines can contribute by assuming both a reactive and innovative education role.

Silvia Pericu, Manuel Gausa, Giorgia Tucci, Chiara Olivastri, Nicola Canessa

CREATIVE FOOD CYCLES

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4th June 2019

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CREATIVE FOOD CYCLES
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IAAC Institute of Advanced Architecture of Catalonia
University of Genoa UNIGE
(Department of Architecture and Design)

17-21 JUNE GENOVA

FOOD SHAKERS | FOOD REMAKERS WORKSHOP

Rebel Matters IV and International Meeting

at

SUQ GENOVA

DAD
University of Genoa
Architecture and Design Department
Polytechnic School

DAD, Department Architecture and Design, UNIGE
Stradone Sant'Agostino 37, Genova
SUQ Festival, Ponte Embriaco, Genova

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Photo credits: Spices at market - Image by Peter H (CC0)

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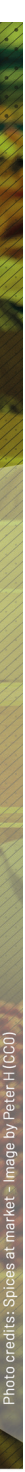

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FOOD SHAKERS I FOOD REMAKERS

Rebel Matters IV and International Meeting

Genova, 17-21 June 2019

The mandatory radical change for the pursuit of sustainable development goals requires a positive and creative attitude to reinterpret the reality that surrounds us and the objects of everyday life. Among those, food waste represents a fertile field either for experimentation either for fully understanding the relationship between ethical elements and the new aesthetic dimension. Considering food waste as an opportunity to develop new products and materials is a revolutionary action and, like all revolutions, must be illustrated and made acceptable by an audience as wide as possible.

The aim of the call is to explore the process that brings food from consumption to disposal, by offering new potentials meaning and spatial combination in design reinterpretation. In this regard, one of the main urgencies that architects, designers and artists are called to respond is how to configure new design and creative experiences from discarded products (from waste to resources) and include a wider public as possible in the process, making sustainable more compelling and more attractive.

Food Shakers | Food Remakers Workshop will investigate the after consumption phase of FOOD CYCLES and how design based on creativity and conviviality can express new interactive ways to enhance circular economy in everyday life activities. The aim is to explore experiences about FOOD WASTE as new material – from organic food waste to the creation of new industrial materials – or FOOD WASTE and food packaging for new products – from organic food waste to real product for consumers.

Workshop participants will have the possibility to showcase the designed prototypes within the 2019 edition of SUQ Intercultural Food, Art&craft, Music Festival that, with its emphasis on Mediterranean food culture and performing arts, represents the opportunity to make this revolution comprehensible and acceptable to all, through the immediacy of the artistic language.

PROGRAMME

Genova, Day 1 17/06/19

OPENING SESSION

09:00 **Introduction to the Food Shakers | Food Remakers Workshop**
Manuel Gausa and Silvia Pericu (UNIGE)

WORKING SESSION

09:30 Groups brainstorming

13:00 Lunch break

14:00 Design studio

17:30 Open Table Discussion / Reviews on Design

PROGRAMME

Genova, Day 2 18/06/19

DESIGN SESSION

09:00 Design studio

13:00 Lunch break

WORKING SESSION

14:00 Design studio

17:30 Open Table Discussion / Reviews on Design

PROGRAMME

Genova, Day 3 19/06/19

DESIGN SESSION

09:00 Prototyping

13:00 Lunch break

14:00 **Preparatory session**
Exhibition within the SUQ Festival

EVENT

18:00 Coffee Puzzle
Educational Workshop for children

18:45 Artistic Performance "Lay the table"
in collaboration with SUQ Festival

20:30 Social dinner

PROGRAMME

Genova, Day 4 20/06/19

09:30 **Introduction to the International Meeting**
Manuel Gausa and Silvia Pericu (UNIGE)

LECTURES: CFC PROJECT

10:30 **Introduction and Lecture |**
Food waste as resource: new materials
Giorgia Tucci (UNIGE)

11:00 **Lecture | Food Cycles Pop-up**
Sabrina Sposito (LUH)

11:30 **Lecture | Resilient InFOODstructures**
Emanuele Sommariva (LUH)

12:00 **Lecture | Advanced Urban Farming**
Chiara Farinea (IAAC)

12:30 CFC Round Table
Moderation: Silvia Pericu, Chiara Olivastri, Giorgia Tucci

13:00 Lunch break

PROGRAMME

Genova, Day 4 20/06/19

LECTURES: EXPERT PANEL

14:30 **Introduction and Lecture | Social food processes**
Silvia Pericu (UNIGE)

15:00 **Lecture | Rice Hulls: from waste to resource**
Marco Baudino (VIPOT)

15:30 **Lecture | Material tinkering from agrofood waste**
Carlo Santulli (UNICAM)

16:00 **Lecture | AMIU project**
Ilaria Marzoli, Nicoletta Piersantelli, Cristina Pizzorno (AMIU)

CLOSING LECTURE

17:30 **Introduction General Lecture**
Raffaella Fagnoni (UNIGE)

18:00 **Lecture | From the fridge to the city. The project of foodwaste**
Luca Mazzari (Archifax)

18:30 Open discussion
Moderation: Manuel Gausa, Raffaella Fagnoni, Nicola Canessa

PROGRAMME

Genova, Day 5 21/06/19

CLOSING SESSION

09:00 Final Presentation

12:00 **Closing Lecture**
Manuel Gausa (UNIGE)

Figure 1. Food Shakers | Food Remakers Workshop. Photo by Matteo Paolillo for UNIGE.

VOTA IL TUO PROGETTO PREFERITO!

VOTE YOUR FAVOURITE PROJECT!

BIORIGAMI

Martina Caprari
Vanessa Sanna

BIS

Giulia Centineo
Margherita Lequio
Changrui Li
Xinran Shi

BOFISH

Francesca Mercadante
Omar Tonella

COFFEE PUZZLE

Sharon Giubilo
Daniele Rossi
Ludovica Sabbatini
Serena Vaglica

DISHBRATTA

Andrea Montaldo

F-ANANAS

Liu Fei
Liu Xiaodong

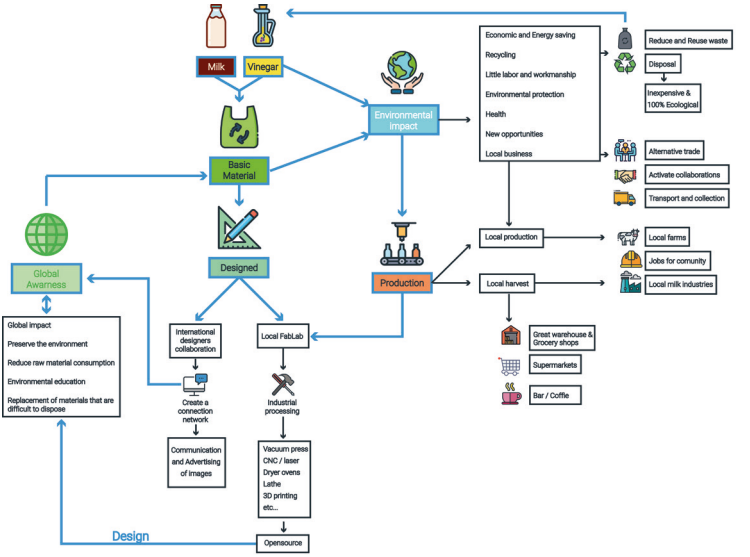


Figure 1. Food Shakers | Food Remakers Workshop: Galalight. Graphic and design: Luca Cangialosi, Pierre Picozzi. Photo by Matteo Paolillo for UNIGE.

Figure 2. Food Shakers | Food Remakers Workshop: Galalight. Graphic and design: Luca Cangialosi, Pierre Picozzi. Photo by Matteo Paolillo for UNIGE.

Galalight

#milk #casein #vinegar #bioplastic #100%Natural #ecofriendly #durable #disposable

GROUP 1 Luca Cangialosi, Pierre Picozzi

Galalith is a synthetic plastic material manufactured by the interaction of casein and formaldehyde. The commercial name is derived from the Greek words gala (milk) and lithos (stone). It is odourless, insoluble in water, biodegradable, non-allergenic, antistatic and virtually nonflammable. It was produced under other names such as aladdinite (in the USA).

Galalith can be considered a 100% natural bioplastic material. Especially hard, is odourless, non- inflammable and resistant to acids and solvents. Like wood, it can be sawed, lathe-worked, drilled, milled, glued, polished mechanically or by hand. At the early stage of production, it can be dyed in many colours and given various aspects: ivory, ebony, marble, scales, horn, etc.

Having taken into consideration the works of decorative industrial production of the 1930s such as buttons, pen pins and bijottery objects. The idea of creating table lamps formed by the union of pieces obtained from simple and linear molds so as to accelerate the process of drying the material, and also its subsequent processing by hand, which is expected only as the finishing of a piece already industrially printed. The study of the various compositions has led us to design examples where the key words are only: geometry, naturalness and elegance.

Figure 1. Food Shakers | Food Remakers Workshop: Biorigami. Graphic and design: Martina Caprari, Vanessa Sanna. Photo by Matteo Paolillo for UNIGE.

Figure 2. Food Shakers | Food Remakers Workshop: Biorigami. Graphic and design: Martina Caprari, Vanessa Sanna. Photo by Matteo Paolillo for UNIGE.

Biorigami

#origami #bio #recycling #mater-bi #exagon #food #packaging #alternative

GROUP 2 Martina Caprari, Vanessa Sanna

The BIORIGAMI project consists of creating alternative packaging in both form and function. Combining the art of origami with biodegradable it was possible to create a product in perfect harmony with nature. The packaging structure is made by folding the typical origami paper and using a single joint at the ends.

Three types of measurements are available with two different destinations: large packaging serves as a container for take-away food, while medium and small packagings are used as gift packages. The project aims to create a completely biodegradable packaging that can follow a completely organic production and disposal.

The three containers are made of the same completely organic material: MATER-BI. This was supplied by Novamont, which in addition to producing tableware for large world chains with this material, also offers its products at the Suq festival.

The three Packaging, although having different shapes and functions, all have a triple function: container, pot for planting seeds and can be inserted directly into the earth thanks to their perfect ability to biodegrade completely.

The seeds offered together with the container, which are inserted under a label, reproduce the plant of the food contained inside. Consequently, if you have the container for take-away food, the seeds contained will be the main spice of the dish, while if you have the gift package containing spices, the seeds will be spice contained. All the spices are those present at the Suq festival and therefore can be purchased at individual banquets both in the form of a meal and a gift bag.

Figure 1. Food Shakers | Food Remakers Workshop: Bis. Graphic and design: Giulia Centineo, Margherita Lequio, Changrui Li, Xinran Shi. Photo by Matteo Paolillo for UNIGE.

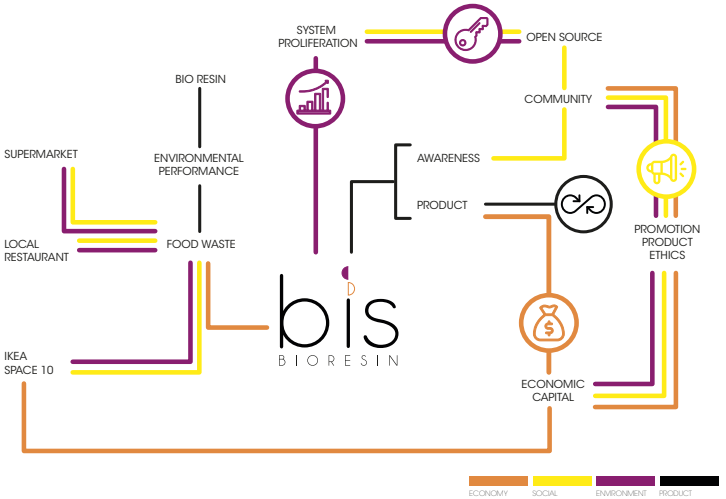


Figure 2. Food Shakers | Food Remakers Workshop: Bis. Graphic and design: Giulia Centineo, Margherita Lequio, Changrui Li, Xinran Shi. Photo by Matteo Paolillo for UNIGE.

Bis

#bioresin #bio #recycling #compostable #biodegradability #food #dishes #alternative

GROUP 3 Giulia Centineo, Margherita Lequio, Changrui Li, Xinran Shi

Bis products are the result of two different concepts that can be traced back to a common element: the reuse of food waste.

The Bis Compostable material has biodegradability as its main characteristic, its goal is to use food waste as an excellent substitute for plastic, especially the disposable one. Bis Compostable is obtained through the drying of any vegetable waste, minced and combined with simple water and flour. After drying it is rather resistant and takes any shape through the mold. The key idea of the project is to be able to make a substitute material for plastic at home.

The form of Bis Compostable is based on the study and analysis of plates and glasses of bioplastics, or of recycled paper. Following the principles of the circular economy, a new design is defined for the table: cups of different sizes, totally compostable and natural, deriving from food waste and flour.

From today, even finger food takes on completely new connotations. Since the Bis Compostable Material is easily feasible, there are no defined shapes, but they depend on the stencil found in your homes. Depending on the use and type of waste they can vary in shape, size and tone.

Figure 1. Food Shakers | Food Remakers Workshop: F-ananas. Graphic and design: Cao Zheng, Liu Fei, Liu Xiaodong. Photo by Matteo Paolillo for UNIGE.


Figure 2. Food Shakers | Food Remakers Workshop: F-ananas. Graphic and design: Cao Zheng, Liu Fei, Liu Xiaodong. Photo by Matteo Paolillo for UNIGE.

F-ananas

#textile #ecology #recycle #cellulose #foodwaste #sustainability #fashionindustry #ananas

GROUP 5 Cao Zheng, Liu Fei, Liu Xiaodong

F-ananas aims to provide a new type of raw materials, thereby reducing the demand for cotton and linen, and setting off a new wave in the textile industry.

It recycles the discarded pineapple leaves, and fabricates the fiber ropes by extracting fibers and weaving out different kinds of table lists with these fiber ropes, bringing natural and special style to the restaurant.

Using these table mats can make your life more refined and different from the past; because these products are hand- woven, you will feel a holiday style and bring you high-quality product experience. And the heart of the craftsman.

With the continuous development of technology and the increasing population, people's demand for fabrics is constantly increasing, so it is necessary to consume a large amount of fabric raw materials: cotton and hemp; for this, we are thinking: Can we find a sustainable?

The developed materials can replace some of the products made of cotton and linen. Therefore, we considered plant fiber, because the fiber of pineapple is very strong and long, and finally, we chose pineapple fiber.

Figure 1. Food Shakers | Food Remakers Workshop: V.pot. Graphic and design: Nicol Guglielmi, Chiara Lorenzo, Mirko Sostegni. Photo by Matteo Paolillo for UNIGE.

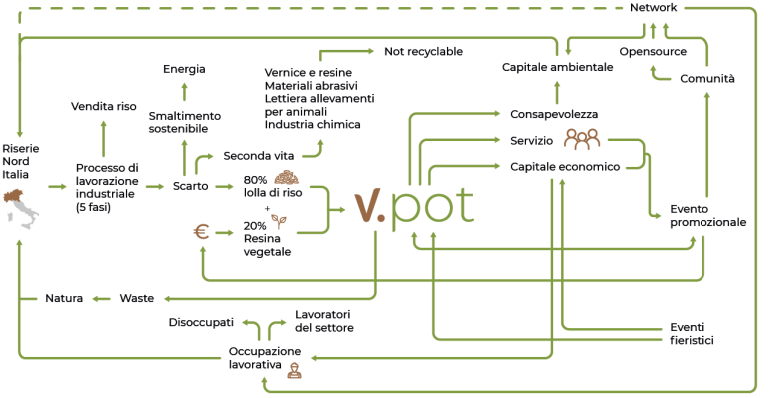


Figure 2. Food Shakers | Food Remakers Workshop: V.pot. Graphic and design: Nicol Guglielmi, Chiara Lorenzo, Mirko Sostegni. Photo by Matteo Paolillo for UNIGE.

V.Pot

#tray #dish #food #foodwaste #rice #newmaterial #vipot #recycle #sustainability

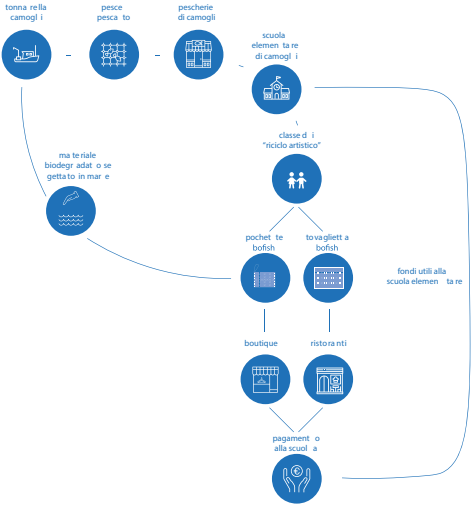
GROUP 7 Nicol Guglielmi, Chiara Lorenzo, Mirko Sostegni

During the concept phase, several researches were carried out on the trays used in festivals, parties and at home, focusing on the ergonomic aspects of this product. This solution was designed on the basis of the crowded context that we took in the studio.

The size chosen for the plate comes from the observation of the dishes served during the Suq and tries to have as its strength the adaptability to a large number of foods. Form and function of the product has led us to choose a material derived from the lollo of rice, waste processing of the latter. This material has already been used by an Italian company called Vipot and we felt that its characteristics were perfectly suited to our product and its use.

The tray can be placed in relation with other products made by Vipot such as the glass and the cutlery, cancelling the waste that could be created in an event of this kind.The intent is to bring the consumer to not throw your own tray but to keep it as gadger remember the event. In fact, the product will be able to have a new life in the environment. This makes it an ideal dish for aperitifs, appetizers and meals. In relation to the Suq event, the following hypothesis is defined to vary the colour of the product from year to year.

Figures 1. Food Shakers | Food Remakers Workshop: Bofish.
Graphic and design: Francesca Mercadante, Omar Tonella.



Figures 2. Food Shakers | Food Remakers Workshop: Bofish.
Graphic and design: Francesca Mercadante, Omar Tonella.

Bofish

#fish #fashion #bioresin #foodwaste #natural #newmaterial #recycle #camogli

GROUP 9 Francesca Mercadante, Omar Tonella

BOFISH is an innovative material obtained from bone and cartilaginous waste from fish, especially those from tuna caught in the waters of Camogli from tonnarella. The fish waste is minced with variable grain and then mixed with a particular natural resin and natural pigments, until a liquid compound is obtained which, once hardened, possesses the mechanical properties of the resin. Considering the state of this compound it is possible to give the desired shape through silicone molds.

Valuable species and blue fish caught in the middle of the Ligurian Sea, but also sea bream, sea bass and farmed molluscs.Traditional fishing and aquaculture are two sides of an important economic sector.In Liguria, professional fishing is mainly local coastal fishing.

With over 28 kilos per capita a year, Italy ranks 1st among the member countries of the European Union. "From the 1990s to today, the trend has been reversed, returning overall to percentages less than 10% of the total but with great variations both according to the area and the fishing method. Over 90% of the waste in fact derives from industrial fishing and therefore from the use of large trawlers, while small fishermen tend to discard much less. According to the FAO report, around 230,000 tons of fish are discarded per year in the Mediterranean, about 18% of the total."

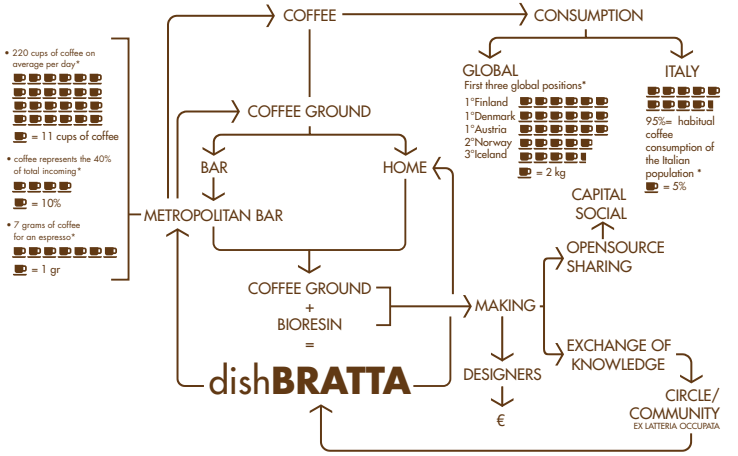


Figure 1. Food Shakers | Food Remakers Workshop: Dishbratta. Graphic and design: Andrea Montaldo. Photo by Matteo Paolillo for UNIGE.

Figure 2. Food Shakers | Food Remakers Workshop: Dishbratta. Graphic and design: Andrea Montaldo. Photo by Matteo Paolillo for UNIGE.

Dishbratta

#coffeeground#homedecor#coffee#bioresin#dishbratta#newmaterial#recycle#designproduction

GROUP 10 Andrea Montaldo

The goal of DishBratta is to make the community aware of the amount of coffee that does not have a real application in the recycling chain.

The DishBratta line is made by mixing coffee ground and a biological resin. It consists of a set of two dishes, a dinner plate and a deep dish, a fork, a spoon and chopsticks. Each object was made following specific steps: to make the dishes, the meal glass and the coffee glass the mixture was poured into each of these everyday objects.

After covering the objects with a peel-off material, in order to create the mold, an object of the same type was placed on top, placing a weight on it, in order to level the mixture and thus make the finished product uniform. Regarding the fork, the spoon and the chopsticks, was followed a different process: previously was made a laser cut wooden mold, subsequently isolated, so that the resin poured into the molds did not stick to the wood. Finally, everything was left for 24/36 hours to coagulate and dry.
The finish is rough and porous to the touch to send the feelings surrounding a coffee cup.

This project is addresses to: product design industry for home decoration.

Figure 1. Food Shakers | Food Remakers Workshop: participants group picture at SUO Festival 2019, Genova. Photo by Matteo Padlillo for UNIGE.


F-ANANAS
v.pot

CREATIVE FOOD CYCLES

CREATIVE FOOD CYCLES
2018-20 cofunded by the European Union
Creative Europe Programme

Partners:
Leibniz Universität Hannover LUH
(Chair for Regional Building and Urban Planning)
IAAC Institute of Advanced Architecture of Catalonia
University of Genoa UNIGE
(Department of Architecture and Design)

CREATIVE FOOD CYCLES INSTALLATION

"Food (re) makers"

GENOVA
29-30-31 OCTOBER
at

dAD
University of Genoa
Architecture and Design Department
Polytechnic School

within the programme of

[*] Festival della Scienza

Illustration credits: Food scraps turn into compost - recology.com

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more info at:
www.creativefoodcycles.org

Creative Food Cycle Installations are meant to be artistic-exchange and public engagement moments, in which knowledge creation across the food topics will showcase a physical and spatial manifestation of the proof of concepts developed during the Creative Workshops.

Co-funded by the Creative Europe Programme of the European Union

Creative Food Cycles Partners:
Leibniz Universität Hannover
Iaac Institute for advanced architecture of Catalonia
Università di Genova

INSTALLATION "Food (re) makers"

Installation

Genova, 29-31 / 10 / 2019

The Creative Food Cycles installation explores one of the great topics of sustainability that involves our daily life: the food surpluses and the way in which these become new materials - from organic food waste to the creation of new industrial materials - and how the food waste and discarded packaging turns into new products for consumers.
The necessary radical change for the pursuit of sustainable development objectives requires a creative attitude capable of reinterpreting the reality that surrounds us and the objects of everyday life. Among these, the issue of food waste represents a fertile field both for experimentation and for a full understanding of the relationship between ethical elements and new aesthetic dimensions. Considering food waste as an opportunity to develop new products and materials is an urgency to which architects, designers and artists are called to respond.
By developing up new project approaches, the Genova Food (re)makers Lab Installation wants to raise public awareness on the potential transformability and new life-cycles of discarded products and waste, and to make sustainable more attractive thanks to a design based on creativity and conviviality. The inclusion of diversified audiences in this process is significant in order to widen the discussion on circular economy challenges into the activities of everyday life.
The goal of the Genova Installation "Food (re)makers" Lab is to explore the process that takes food from consumption to disposal, offering new potential meanings and spatial combination in the reinterpretation of product design. In this way, the prototypes designed during the Food Shakers | Food Remakers workshop, as part of the Creative Food Cycles project, will be implemented through educational laboratories organized as open days.

The designers of the prototypes will interact with the public, involving them in co-design activities and stimulating the understanding of the topics addressed by Festival della Scienza 2019 programme.

Festival della Scienza

Genova, 24 ottobre _ 4 novembre 2019

Elementi

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Home › Programma 2019 › Food Shakers IFood Remakers

Food Shakers IFood Remakers

Creative Food Cycles

Quando
31 ottobre
ore 10.00 - 18.00

Dove
Facoltà di Architettura - Aula Cisterna
Stradone Sant'Agostino, 37

Età consigliata
Da 11 anni

Tipologia e disciplina
Installazione
Scienze umane, arte e filosofia

Cosa | Dove

Il necessario cambiamento radicale per il perseguimento di obiettivi di sviluppo sostenibile richiede un atteggiamento creativo capace di reinterpretare la realtà che ci circonda e gli oggetti della vita quotidiana. Tra questi, il tema dello spreco alimentare rappresenta un campo fertile sia per la sperimentazione, sia per la piena comprensione della relazione tra elementi etici e nuove dimensioni estetiche. Considerare lo spreco alimentare come un'opportunità per sviluppare nuovi prodotti e materiali è un'urgenza, a cui architetti, designer e artisti sono chiamati a rispondere, configurando nuove esperienze di progetto che partono proprio dai prodotti scartati e dai rifiuti, per diventare risorse, e rendendo ciò che è sostenibile più attraente grazie ad un design basato sulla creatività e sulla convivialità. L'inclusione di un pubblico il più ampio possibile in questo processo permetteinoltre di portare i temi dell'economia circolare nelle attività della vita quotidiana. L'obiettivo dell'installazione è quello di esplorare il processo che porta il cibo dal consumo allo smaltimento, offrendo nuove potenzialità di significato e combinazione spaziale nella reinterpretazione del design, ma anche di esplorare le esperienze in cui le eccedenze alimentari diventano nuovo materiale - dagli scarti alimentari organici alla creazione di nuovi materiali industriali - e lo scarto alimentare e gli imballaggi si trasformano in prodotti reali per i consumatori. La mostra espone i prototipi progettati durante il workshop Food Shakers IFood Remakers, come parte del progetto Creative Food Cycles (CFC), cofinanziato dal programma Creative Europe dell'Unione Europea. I designer che hanno partecipato alla concezione dei prototipi interagiranno durante l'installazione con il pubblico coinvolgendolo in attività interattive e stimolando la comprensione delle tematiche affrontate

A cura di
Università degli Studi di Genova - Dipartimento Architettura e Design

UNIVERSITÀ DEGLI STUDI DI GENOVA

Associazione Festival della Scienza
Associazione Festival della Scienza
Corso Perrone 24, 16152 Genova
P.IVA 01378140998

› L'associazione

Infoline / callcenter
010 8934340
dal 23/09 al 23/10 ore 8.30-17.00
dal 24/10 al 4/11 ore 8.30-18.00
sabato, domenica e 1/11 ore 9.30-19.00

› Scrivi al Festival

Ufficio Stampa
ufficiostampa@festivalscienza.it

› Stampa

Newsletter
Iscriviti

Seguici

Festival della Scienza is an annual thematic event held between the end of October and the beginning of November in Genoa since 2003.
A great opportunity to meet for researchers, science enthusiasts, schools and families One of the major international scientific events in Northern Italy. 11 days during which the classical barriers between mathematic, natural and human science fall down to take an intedisciplinary approach, explore and investigate science with no limits.

Every year the program presents exhibitions, workshops, interactive educational courses, conferences, roundtables, film screenings, photographic and artistic exhibitions, theatrical / musical performances and open demonstrational laboratories— such as Food (re)makers Lab — organized throughout the city during the Festival days.

In 2006, with more than 250.000 visits, the Genoa Science Festival has been selected as the only Italian initiative among the 10 best European events in the field of promoting scientific and technological culture. Intimately tied to the city of Genoa and to the region of Liguria, the Science Festival also features a high international level. Panel discussions and face-to-face meetings with Italian and foreign top experts make every year a unique event fully dedicated to science, establishing longlasting partnerships and networking with prominent personalities and institutions from all over the world.

The event was Open to the Public within the official "Festival della Scienza" 2019 program:
http://festival2019.festivalscienza.it/site/home/programma-2019/food-shakers-food-remakers.html

Figure 2. Installation Food (Re) Makers Lab. Photo by Matteo Paolillo for UNIGE.


VOTA IL TUO
PROGETTO PREFERITO!

PROGRAMME

Genova, Day 1 29/07/19

10:00 **Event: Food (re)makers Lab Installation**
10 prototype x 10 discarded food products
Galalight – Biorigami – BIS – Loofah – F.Ananas
Coffee Puzzle - V.Pot – Hanging Plates – BoFish
DishBratta – Modurouz

PROGRAMME

Genova, Day 2 30/07/19

WORKING SESSION

11:00 **Food waste for Thoughts:**
Launch of Food (re)makers Lab Installation
Manuel Gausa, Silvia Pericu (UNIGE)

11:30 **Lecture | Food as Urban Material: the Metabolic rift**
Emanuele Sommariva (LUH)

11:50 **Lecture | Hannover Workshop & PorTable Installation**
Sabrina Sposito (LUH)

12:00 **Lecture | Barcelona Workshop & Mycoscape Installation**
Chiara Farinea (IAAC)

12:30 **CFC Round Table**
Manuel Gausa (UNIGE – Advanced Architecture and Co-design Expert)
Silvia Pericu (UNIGE – Citizen Participation and Co-creation Expert)
Raffaella Fagnoni (UNIGE – Design for Social Innovation Expert)
Giorgia Tucci (UNIGE – Urban co-design practices Expert)
Chiara Olivastri (UNIGE – Service Design Expert)
Nicola Canessa (UNIGE – Urban Design and Participation Expert)
Emanuele Sommariva (LUH – Resilient Urban Metabolism Expert)
Sabrina Sposito (LUH – Resilient Urban Metabolism Expert)
Chiara Farinea (IAAC – Advanced Nature Based Solutions Expert)

EVENT SESSION

14:30 **Food (re)makers _ showcooking with food waste**
in collaboration with:
Cooking School _ Sale & Dede: Laboratorio di Cucina

WORKING SESSION

15:00 **Opening speech: Think Tank and Brain Storming**
with PhD candidates
UNIGE Doctoral School in Architecture and Design

PROGRAMME

Genova, Day 3 31/07/19

OPEN LAB SESSION

10:00 **Educational Laboratory:**
3D modelling & prototyping from Foodwaste
Open Day Lab _ in collaboration with Festival della Scienza 2019

15:00 **Educational Laboratory:**
Experimentations with Bio-resins and prototyping
Open Day Lab _ in collaboration with Festival della Scienza 2019

Figure 2. Installation Food (Re) Makers Lab: Think Tank Roundtable.
Photo by Matteo Paolillo for UNIGE.

Figure 3. Installation Food (Re) Makers Lab: Think Tank Roundtable.
Photo by Matteo Paolillo for UNIGE.

THINK TANK
Genova, Food (re)makers

The **Think Tank Round table** involving PhD candidates and Post-docs enrolled at UNIGE Graduate School in Architecture and Design, gave the opportunity to discuss the product, service and event design implications regarding new design concept related to food. Creative methods, action-research, form of visual arts and communication techniques has been the main lines of discussion.

The Creative Food Cycles **Installation Food (Re) Makers Lab** explored one of the great topics of sustainability that involves our daily life: the food surpluses and the way in which these become new materials – from organic food waste to the creation of new industrial materials – and how the food waste and discarded packaging turns into new products for consumers.
By developing up new project approaches, the intensive debate session wanted to offer to the public and opportunity to raise social awareness on the potential transformability and new life-cycles of discarded products and waste. The main goal was to make sustainable paradigms more understandable to general audience and recycling approach more attractive thanks to parametric design principles.

The inclusion of diversified audiences in this process was significant in order to widen the discussion on circular economy practices in everyday life.

Figure 4. Installation Food (Re) Makers Lab: Pot design.
Photo by Matteo Paolillo for UNIGE.

Figure 5. Installation Food (Re) Makers Lab: Pot design.
Photo by Matteo Paolillo for UNIGE.

POT DESIGN
Genova, Food (re)makers

The activity was also included in the **POT Orientation and Tutoring Programmes**, involving secondary school students. The students participated in a workshop parallel to the Creative Food Cycles installation in which they made prototypes of real artifacts using surplus food as a starting material. During the workshops the students were followed by young designers who helped them in the realization of 3D molds and prototypes.
The POT program in collaboration with the CFC project involved about 45 students from different high schools involved in the final workshops and 8 young designers who followed as tutors the various groups of students in the different phases of the workshops.

Figure 6. Installation Food (Re) Makers Lab: Pot design.
Photo by Matteo Paolillo for UNIGE.

Figure 7. Installation Food (Re) Makers Lab. Photo by Matteo Pacino for UNIGE.


LAY THE TABLE

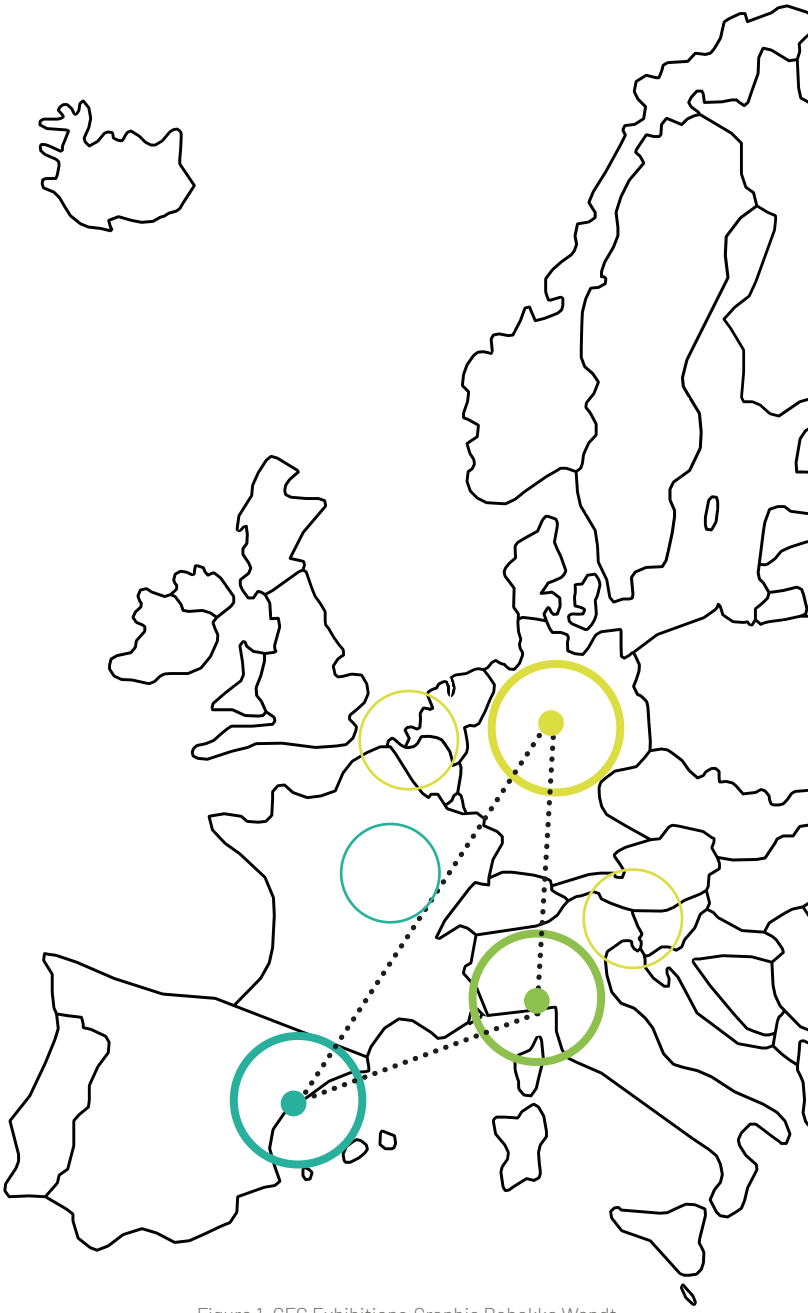


Figure 1. CFC Exhibitions.Graphic Rebekka Wandt

CFC Exhibition Barcelona *IAAC _ Caixa Forum Foundation*

CFC Exhibition Ljubljana *MAO _ Museum of Architecture and Design*

CFC Exhibition Hannover *LUH _ Leibniz Universität Hannover*

CFC Webinar Nancy *ENSAIA _ Université de Lorraine*

CFC Webinar Patras *UPATRAS _ School of Architecture*

CFC Webinar Antwerp *MAS _ Museum aan de Stroom*

CFC Exhibition Genova *UNIGE _ Albergo dei Poveri*

04 Exhibition

EVENTS AROUND THE CIRCLE

The Itinerant Exhibition represents a significant series of international cultural exchanges based on audience development among partner and hosting cities as real knowledge embassies, promoting the philosophy of Creative Food Cycles.The main idea is to display the activities, the practices and the outputs produced so far by the project, such as the Food Interaction Catalogue, or re-collecting the experiences developed through the Crossover Workshops as well as the setting up of the Installations.

In order to reach a wider audience diffusion, the exhibition is open for free and is aimed at professionals from architecture, product/event design and artistic oriented disciplines, at professionals from public organizations and administrations related with urban space as well as to the general public, the latter with the aim of raising interest in food cycles in urban areas among non-professional audiences.

GENERAL PRINCIPLES:

The exhibition consists in 100 printed panels and 3 videoclips collecting interviews with the experts who took part in the project activities, including printed parts of the Best Practice collection and pictures/videos of working session and teaching modules. All partners have contributed with their work to create the exhibition contents alongside the project.
The implementation of the itinerant exhibition has been carried out according to the open source design principles promoted by IAAC FabLab, part of FabLab international network. LUH and UNIGE contributed to the development and co-design of the exhibition panels proposing alternative spatial configurations according to the specific food cycles phases and communication needs. The basic structure has been conceived as a flexible modular system dry-joinery panels (40 x50 x0.5 cm/each), in order to enhance the portability of the exhibition and the spatial adaptability to the different venues.

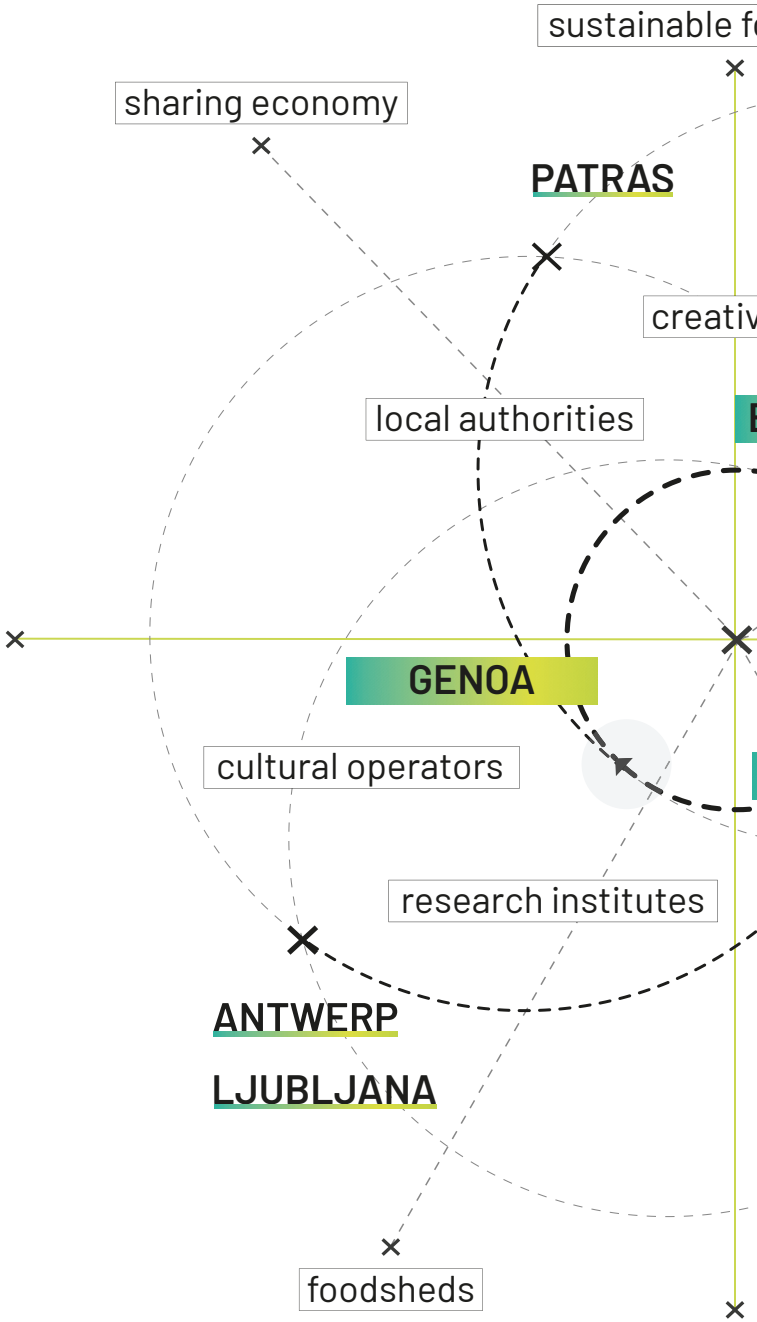
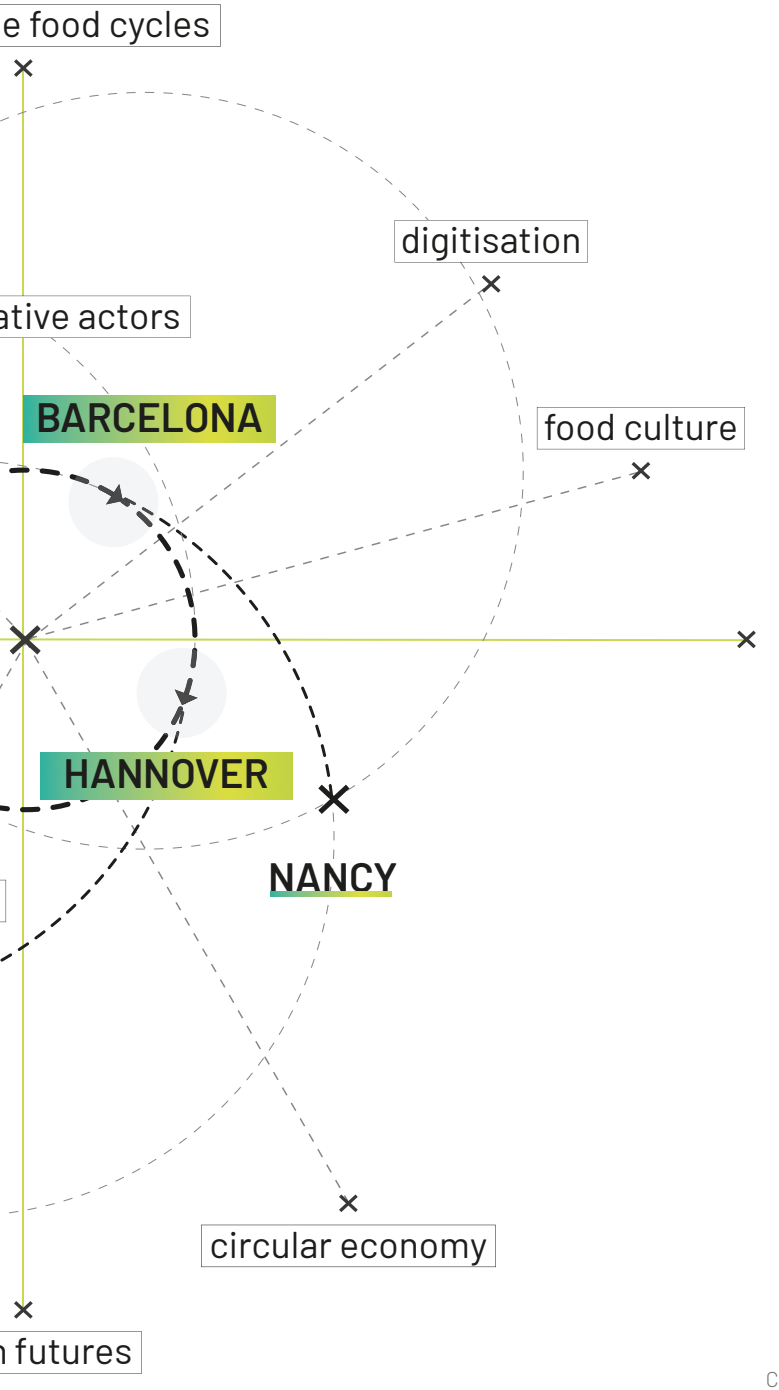


Figure 1. The Creative Food-Cycles partners and hosting cities.
Image: LUH Regionales Bauen und Siedlungsplanung.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digitisation
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BARCELONA
food culture
HANNOVER
NANCY
circular economy
n futures

Figure 2. CFC Exhibition Barcelona. © IAAC, photo by Mohamad Elatab

The itinerant exhibition is displayed for two weeks each of the partner cities in parallel to local cultural events and is hosted by cultural spaces according to the following calendar:

- **CFC Exhibition Barcelona**
IAAC _ Caixa Forum Foundation — 15-27 Nov 2019
* Responsive Cities Symposium

- **CFC Exhibition Ljubljana**
MAO _ Museum of Architecture and Design — 12-13 Feb 2020
* Future Architecture Fair

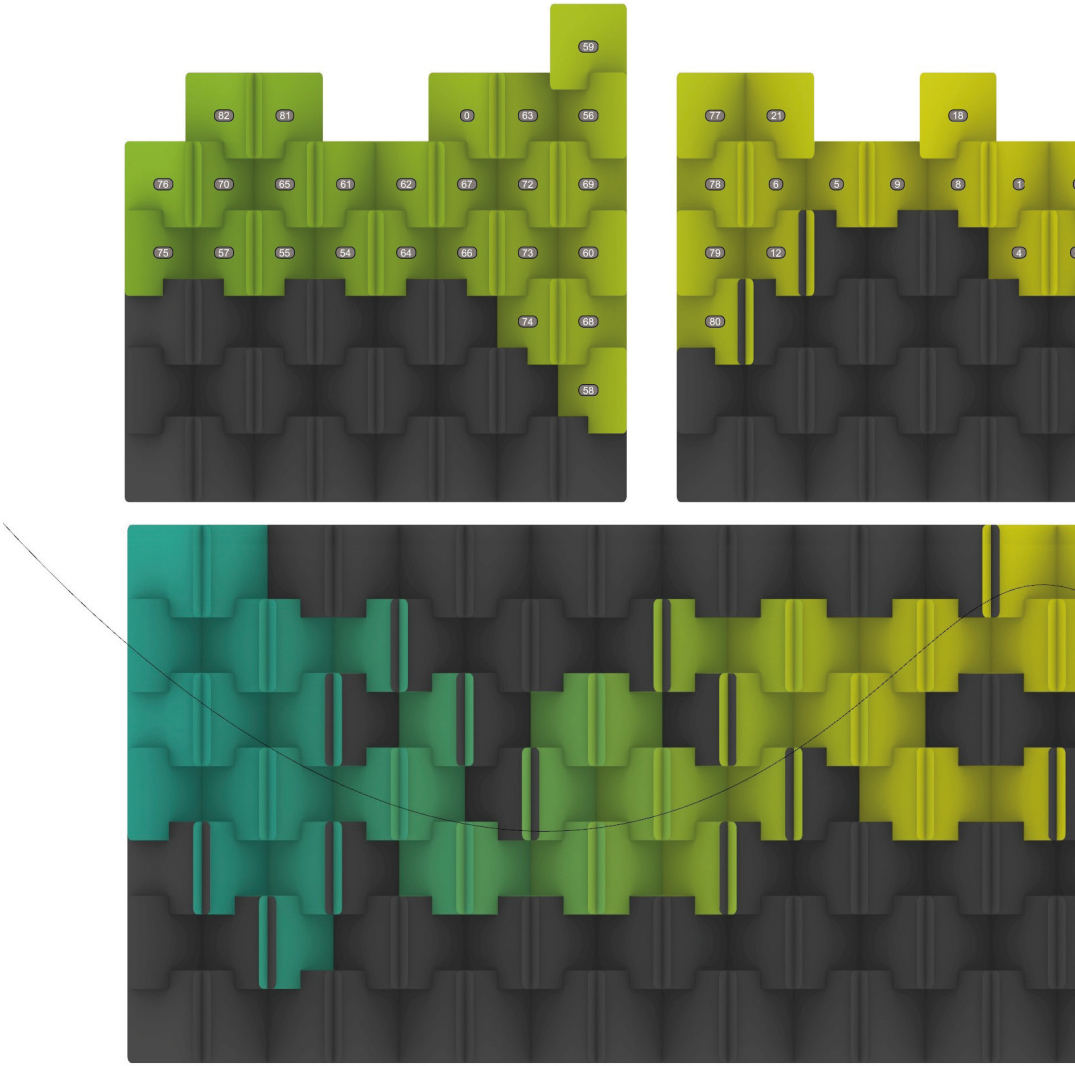
- **CFC Exhibition Hannover**
LUH _ Leibniz Universität Hannover — 13-27 Oct 2020

- **CFC Webinar Nancy**
ENSAIA _ Université de Lorraine — 15 Oct 2020

- **CFC Webinar Patras**
UPATRAS _ School of Architecture — 30 Oct 2020

- **CFC Exhibition Antwerp**
MAS _ Museum aan de Stroom — 09 Nov 2020
* Antwerp à la Carte

- **CFC Exhibition Genova**
UNIGE _ Albergo dei Poveri — 11 Dec 2020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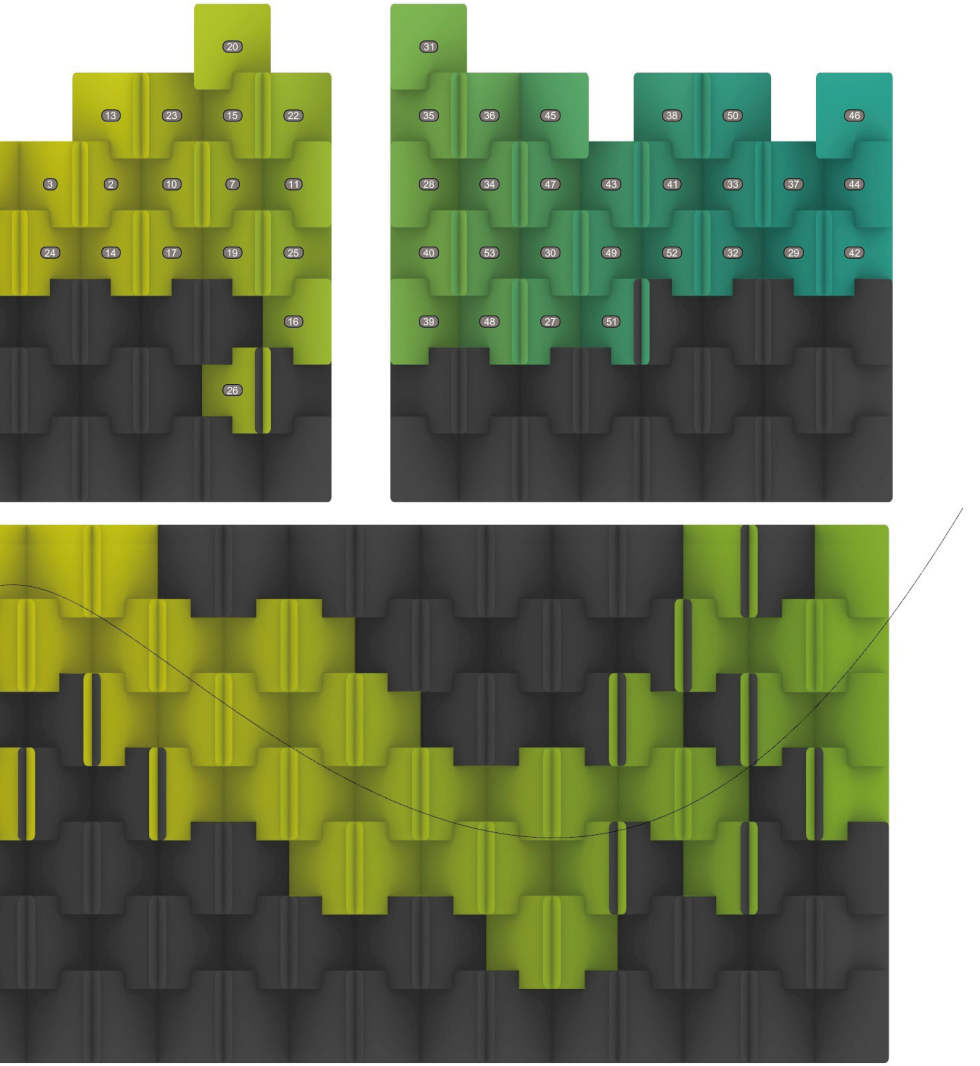

Figure 3. CFC exhibition overview. Design by IAAC Barcelona, Advanced Architecture Group Mohamad Elatab

ITINERANT EXHIBITION

in collaboration with Responsive Cities 2019
Open for free!

Join to see us!

CREATIVE FOOD CYCLES

CREATIVE FOOD CYCLES
2018-20 cofunded by the European Union
Creative Europe Programme

Partners:
Leibniz Universität Hannover (LUH)
(Chair for Regional Building and Urban Planning)
IAAC Institute of Advanced Architecture of Catalonia
University of Genoa UNIGE
(Department of Architecture and Design)

15-27 November
CREATIVE FOOD CYCLES
Exhibition Barcelona

launch event 15.11 _ 19:00
IAAC, Main Exhibition Hall
Responsive Cities 2019

Iaac Institute for advanced architecture of Catalonia

IAAC _ Institute for advanced architecture of Catalonia
within Responsive Cities Symposium 2019
Pujades 102, Poble Nou - 08005 Barcelona

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Photo credits: Enrique Muda Bull for IAAC, 2019 | Creative Food Cycles

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Iaac Institute for advanced architecture of Catalonia

Università di Genova

Responsive Cities Expo

IAAC _ Caixa Forum Foundation

The Caixa Forum Barcelona (Caixa Barcelona; the Social and Cultural Centre of "la Caixa" Banking Foundation in Barcelona) is located on the he Montjuïc hill, occupying the former Casaramona textile factory designed in 1909 by Josep Puig i Cadafalch. Recognised in 1976 as national protected heritage, and restored in 2002 by the Japanese architect Arata Isozaki, the cultural centre houses an extensive programme of art/photographic exhibitions, international conferences in the realm of architecture, city and film-making and educational activities aimed at all audiences.

In this venue, the Advanced Architecture Group of IAAC Institute for Advanced Architecture of Catalonia will organise the 2019 edition of Responsive Cities Symposium "Disrupting through Circular Design" in partnership with Creative Food Cycles project, co-funded by the Creative Europe Programme of the European Union. Alongside the two-days Conference event, Creative Food Cycles, as main partner of the initiative ,will launch its Itinerant Exhibition to promote its activities for the implementation of circular design thinking and innovative food cycles in urban environments.

The CFC Itinerant Exhibition will been hosted on 15-27 November 2019 at the IAAC main exhibition hall in parallel to the work of Responsive Cities 2019 Symposium, as part of the its dissemination programme, to support international gathering, discussions and exchange of experiences among project partners, key-note speakers, architects, and other professionals who will attend the conference.

Figure 1. CFC Exhibition Barcelona: Launch event and food interaction.
© IAAC, photo by Enrique Muda Bull.

Figure 2. CFC Exhibition Barcelona: Panel design.
© IAAC

Figure 3. CFC Exhibition Barcelona: Launch event.
© IAAC, photo by Enrique Muda Bull.

Figure 4. CFC Exhibition Barcelona: Launch event.
© IAAC, photo by Enrique Muda Bull.

Figure 5. CFC Exhibition Barcelona: Panels setup.
© IAAC

Figure 6. CFC Exhibition Barcelona: open tour.
© IAAC, photo by Enrique Muda Bull.

Figure 7. CFC Exhibition Barcelona: Prototypes exhibition.
© IAAC, photo by Enrique Muda Bull.

Figure 8. CFC Exhibition Barcelona: Prototypes exhibition.
© IAAC, photo by Enrique Muda Bull.

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Future Architecture Fair

MAO _ Museum of Architecture and Design

The Muzej za arhitekturo in oblikovanje (MAO; Slovenian for Museum of Architecture and Design) is located in the premises of the Renaissance Fužine Castle, alongside the Ljubljanica River, in the east side of the city of Ljubljana. Established in 1972, the Slovene museum collects, investigates, and exhibits materials belonging to the spheres of architecture, urban planning, design, and photography, representing more than 1,000 artists.

Since its establishment, the museum has been organising the Biennial of Design (BIO) and, since 2015, it has been coordinating the Future Architecture Platform, the first pan-European platform of architecture museums, festivals and producers.

The CFC Itinerant Exhibition will be hosted on 12-13 February 2020 during the Future Architecture Fair, part of the Creative Exchange 2020 event—an international gathering organised by the Future Architecture Platform supporting an intense exchange of ideas among platform members, invited guests, architects, designers, and creative thinkers about the future trends and opportunities of architecture. Running in parallel, the Future Architecture Fair will provide curators, cultural operators, architects, and other professionals a space to exhibit their creative works, an opportunity to network, discuss and present achieved results during the Pitch Cocktail, thematic sessions, and informal meetings.

Figure 2. MAO Slovenia.
Photo by Sabrina Sposito for LUH Regionales Bauen und Siedlungsplanung.

Figure 3. CFC Exhibition Ljubljana: Exhibition tour and discussion.
Photo by Sabrina Sposito for LUH Regionales Bauen und Siedlungsplanung.

Figure 4. CFC Exhibition Ljubljana: Exhibition tour and discussion. Photo by Riccarda Cappeller for LUH Regionales Bauen und Siedlungsplanung.

Figure 5. CFC Exhibition Ljubljana: CFC Presentation at the Pitch Cocktail. Photo by Riccarda Cappeller for LUH Regionales Bauen und Siedlungsplanung.

Figure 6. CFC Exhibition Ljubljana: CFC Presentation at the Pitch Cocktail.
Courtesy of MAO Slovenia. Future Architecture: CEx2020,
Architecture Fair 12. - 13. February 2020, MAO. Photo by Iztok Dimc.

Figure 7. CFC Exhibition Ljubljana at the Fair.
Courtesy of MAO Slovenia. Future Architecture: CEx2020,
Architecture Fair 12. - 13. February 2020, MAO. Photo by Iztok Dimc.

Figure 8. Creative Exchange 2020 at MAO Museum.
Courtesy of MAO Slovenia. Future Architecture: CEx2020,
Architecture Fair 12. - 13. February 20, MAO. Photo by Iztok Dimc.

Figure 9. CFC Exhibition Ljubljana at the Fair.
Courtesy of MAO Slovenia. Future Architecture: CEx2020,
Architecture Fair 12. - 13. February 2020, MAO. Photo by Iztok Dimc.

ITINERANT EXHIBITION

co-funded by the Creative Europe programme 2018-2020

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IAAC Institute of Advanced Architecture of Catalonia
University of Genoa UNIGE
(Department of Architecture and Design)

13-27 October
CREATIVE FOOD CYCLES Exhibition Hannover

Leibniz University Hannover
Faculty of Architecture and Landscape Sciences
Exhibition Hall, Grand Foyer

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Leibniz Universität Hannover

Leibniz Universität Hannover
Fakultät für Architektur und Landschaft
Herrenhäuser Str. 8 - 30419 Hannover

Photo credits: Julian Martitz for LUH, 2019 | Creative Food Cycles

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Food Cycles Exhibition Hannover

LUH _ Leibniz Universität Hannover

The Fakultät für Architektur und Landschaft, Leibniz Universität Hannover (LUH; German for Faculty of Architecture and Landscape Sciences) is located close to the Harrenhausen Castle and Hannover's city Royal Gardens, one of the best-preserved Baroque gardens of Europe, offering the backdrop for a variety of events, art-festivals, musical and theatrical performances throughout the year.

The Faculty itself constitute the second cultural aggregator of this area. The building, which design ties in with the Bauhaus style of 1960's, has been originally established as Hannover Werkkunstschule (School of Applied Arts) where exhibitions and students' work rooms are constantly on view. Now part of the Leibniz University Campus, the School testimonies a long tradition of dialogues between art-education-research for designers bringing together creativity and innovation "from the spoon to the city" (Maldonado, 1970).

The CFC Itinerant Exhibition will be hosted on 13-27 October 2020 during the University Open Days. The beginning of the new academic year represents for designers, architects and practitioners an occasion to exhibit the results of their creative works in a perfect multi-cultural environment, where the CFC exhibition can take place and express its communicative value, showing the experiences carried out by the project.

Photo credits: Julian Martitz for LUH, 2019 | Creative Food Cycles

Figure 2. CFC Exhibition Hannover.
Photo by Rebekka Wandt for LUH Regionales Bauen und Siedlungsplanung.

Figure 3. CFC Exhibition Hannover.
Photo by Rebekka Wandt for LUH Regionales Bauen und Siedlungsplanung.

Figure 4. CFC Exhibition Hannover.
Photo by Rebekka Wandt for LUH Regionales Bauen und Siedlungsplanung.

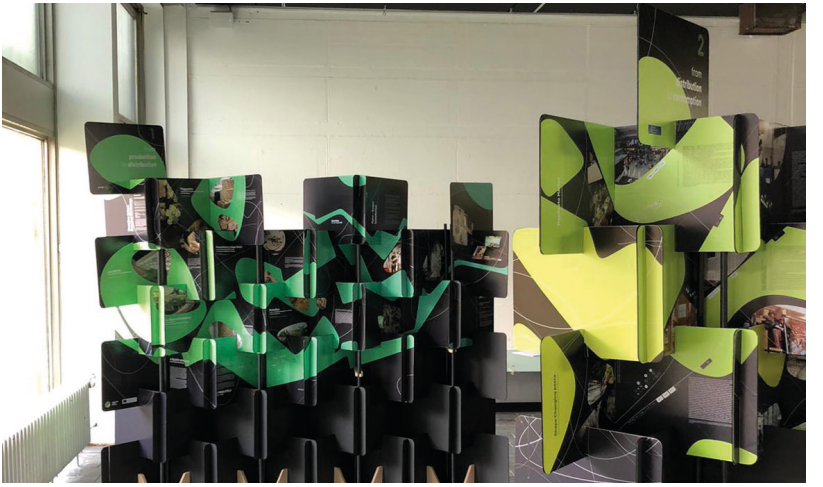

Figure 5. CFC Exhibition Hannover.
Photo by Rebekka Wandt for LUH Regionales Bauen und Siedlungsplanung.
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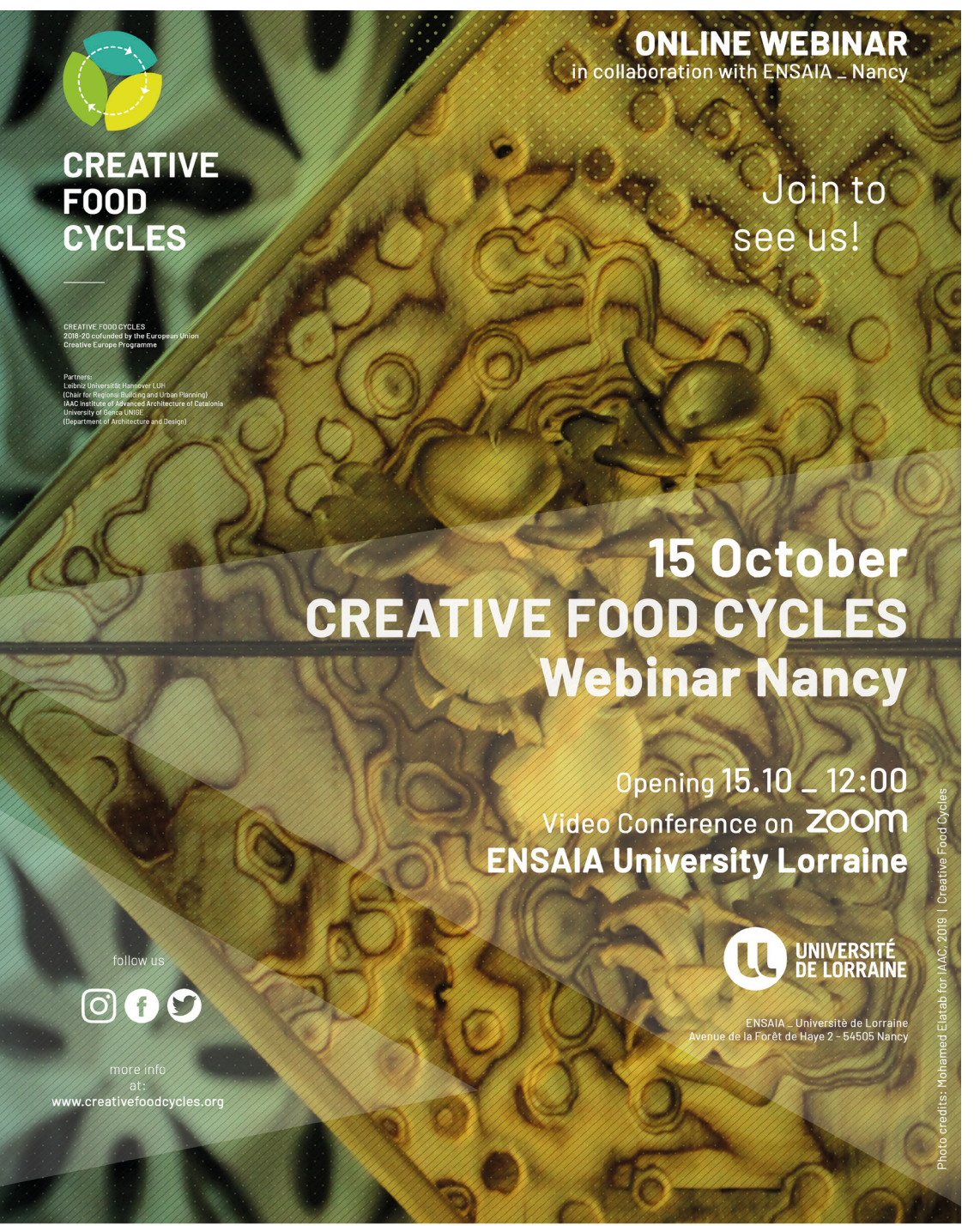

ONLINE WEBINAR

in collaboration with ENSAIA _ Nancy

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Partners:
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IAAC Institute of Advanced Architecture of Catalonia
University of Genoa UNIGE
(Department of Architecture and Design)

15 October
CREATIVE FOOD CYCLES
Webinar Nancy

Opening 15.10 _ 12:00
Video Conference on zoom
ENSAIA University Lorraine

UNIVERSITÉ DE LORRAINE

ENSAIA _ Université de Lorraine
Avenue de la Forêt de Haye 2 - 54505 Nancy

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Photo credits: Mohamed Elatab for IAAC, 2019 | Creative Food Cycles

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Università di Genova

Webinar Nancy

NSAIA _ Université de Lorraine

L'École Nationale Supérieure d'Agronomie et des Industries Alimentaires, Universitè de Lorraine (ENSAIA; French for National School of Agronomy and Food Industries) has been founded in 1971 as one of the French "Grandes Ecoles" which enrolls each year more than 150 Agronomy Engineers and Food Science Engineers. In parallel, the School offers Master programs qualified in Agro-Industries, Food Industries and Biotechnology and Ecological dynamics.

Educational programs at ENSAIA are taught closely with research laboratories housed within the school, with high level of specialization in sciences and technologies used in food engineering sectors, cosmetics, pharmacy or nutri-health and involved in the different levels of production of products destined for consumption. Innovation, marketing, production, risk management, food quality and eco-design are among the many field of expertise of the School.

The involvement of ENSAIA University of Lorraine in the CFC network represents an opportunity to widen the international and cross-sectoral dissemination of project activities and results, especially to Food Engineers and their R&D line of investigations through ICT and digital fabrication inputs.

Nature-based solution can represent in this sense a significant field of inquiry connecting food-creativity and technology in line of the principles promoted with CFC project.

ONLINE WEBINAR

in collaboration with University of Patras

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IAAC Institute of Advanced Architecture of Catalonia
University of Genoa UNIGE
(Department of Architecture and Design)

30 October
CREATIVE FOOD CYCLES
Webinar Patras

Opening 30.10 _ 11:00 Greek Time

Video Conference on ZOOM

University of Patras

Architecture
UNIVERSITY OF PATRAS

UPATRAS _ School of Architecture
Campus Rio Achaia - 26504 Patras

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Università di Genova

Webinar Patras

UPATRAS _ School of Architecture

The UPATRAS; Greek for Department of Architecture, University of Patras was founded in 1999 with the aim of preparing its students for leading careers in the design of the built environment. The Department of Architecture is among Europe's Top–50 Schools of Architecture according to the Domus list; the only School of Architecture in Greece and the Eastern Mediterranean.

The Department of Architecture's "Master in Architecture and Urban Design" Program MAUD Mediterranean Futures, which focuses on advanced architectural design of urban, peri-urban and natural environments, established a collaboration with the Creative Food Cycles (CFC) project by addressing contemporary challenges related to food and urban sprawl, strategic spatial planning and coastal development trends. Profiting from its research framework of Mediterranean Futures, the MAUD pushes for the expansion of the scope of study into contemporary urban phenomena that are common in the entire Mediterranean basin.

The involvement of the University of Patras in the CFC project network represents an added-value to widen the exchanges between creatives, architects, designers and invited guests related to the topic of food within the Mediterranean area, profiting from the multidisciplinary platform of the Master Program. The activities carried out during the two-year project will be discussed in the Webinar among partners, local stakeholders and academic guests, while projects and prototypes will be presented directly by the creatives who developed them.

ONLINE WEBINAR
in collaboration with MAS Museum

CREATIVE FOOD CYCLES

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(Chair for Regional Building and Urban Planning)
IAAC Institute of Advanced Architecture of Catalonia
University of Genoa UNIGE
(Department of Architecture and Design)

09 November
CREATIVE FOOD CYCLES
Webinar Antwerp

Opening 09.11 _ 19:00
Video Conference on zoom
MAS Museum

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MAS _ Museum aan de Stroom
within Antwerp à la Carte Expo, 5th floor
Hanzestedenplaats 1 - 2018 Antwerp

Photo credits: Sarah Blee for MAS Museum, 2018 | Creative Food Cycles

Co-funded by the Creative Europe Programme of the European Union

Creative Food Cycles Partners:
Leibniz Universität Hannover
Iaac Institute for advanced architecture of Catalonia
Università di Genova

Webinar Antwerp

MAS _ Museum aan de Stroom

The Museum aan de Stroom (MAS; Dutch for Museum by the River) designed by Neutelings Riedijk Architects, is located along the river Scheldt in the Eilandje district of Antwerp, Belgium. It opened in May 2011 and is the largest museum in Antwerp.

The central focus of MAS Museum is the city of Antwerp and its connection to the world. MAS develops thematic exhibitions which connect local and global culture, art and history, informing the public using new media and immersive presentations.

Follow the trail of food in Antwerp "Antwerp à la Carte: on cities and food" at MAS Museum explores the historical, artistic and economic impacts of how our food provision influenced and still affect the daily uses of the city. Saunter through markets, inns, cafés and restaurants, be surprised by scent and art installations. The visitor will be involved in a travel from 16th-century recipes towards contemporary tastes and aesthetics, influencing the street scene in Antwerp for centuries through paintings and photography. A vigorous exhibition that represent the best location for the Creative Food Cycles holistic approach.

Photo credits: Sarah Blee for MAS Museum, 2018 | Creative Food Cycles

Co-funded by the Creative Europe Programme of the European Union

Creative Food Cycles Partners:
Leibniz Universität Hannover
Iaac Institute for advanced architecture of Catalonia
Università di Genova

FOOD interACTION

UNIGE _ Albergo dei Poveri

The mandatory radical change for the pursuit of sustainable development goals requires a positive and creative attitude to reinterpret the reality that surrounds us and the objects of everyday life. Among those, food waste represents a fertile field either for experimentation either for fully understanding the relationship between ethical elements and the new aesthetic dimension. Considering food waste as an opportunity to develop new products and materials is a revolutionary action and, like all revolutions, must be illustrated and made acceptable by an audience as wide as possible.

The urban event "FOOD interACTION!" International Festinar (webinar + festival) will be held in Genoa on 11 December, in an abandoned heritage building known as 'Albergo dei Poveri', involving citizens, cultural associations, local authorities, and professionals with the aim to demonstrate the possibility and convenience of recycling materials (including food wastes) as drivers for performative creation, social cohesions, and new economies for the city, by offerng new potential meanings and spatial combination in design reinterpretation. "FOOD interACTION!" International Festinar is focused on three topics: Art, Cinema and Fashion, sustained by a creative-cultural approach like art, video and fashion performances, appyLecture, creative panel and a market of ideas with the contribute of creatives.

The International Festinar is part of the Creative Food Cycles (CFC) project, co-funded by the Creative Europe Programme of the European Union. The event is organised by the Department of Architecture and Design of the University of Genoa (UNIGE), and supported by the Institute of Urban Design and Planning of Leibniz University Hannover (Germany) and the Institute of Advanced Architecture of Catalonia IAAC in Barcelona (Spain),

Photo credits: Chiara Olivieri, for UNIGE, 2019 | Creative Food Cycles

Creative Food Cycles _ Book 2

Edited by Jörg Schröder, Emanuele Sommariva, Sabrina Sposito

The project Creative Food Cycles is coordinated by the Institute of Urban Design and Planning, Leibniz University Hannover, and performed with the partners Institute of Advanced Architecture of Catalonia and Department of Architecture and Design, University of Genoa.

Co-funded by the
Creative Europe Programme
of the European Union

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