



01

Table of Contents

01

CREATIVE FOOD CYCLES AS DRIVER FOR URBAN RESILIENCE

- 17 **Circular Design for urban resilience**
Jörg Schröder
- 33 **Creative Food Cycles—Multiscalar challenges**
Manuel Gausa Navarro
- 47 **The role of food plans in the transition towards sustainable food systems in Italy**
Luca Lazzarini
Marco Mareggi
- 59 **Designing Food Cycles:
Three pathways toward urban resilience**
Sabrina Sposito
- 69 **Creative ecosystem services for new urban-rural communities:
the VàZapp experience**
Maria Cerreta
Massimo Clemente
Gaia Daldanise
Giuliano Poli
- 83 **Socio-ecological connectivity for productive, circular and resilient territories**
Sara Favargiotti
Angelica Pianegonda
Alessandro Betta
Mattia Andreola
Francesca Forno
Marco Ciolli
Alessandro Gretter

- 97 From the global food system to the local dimension: the urban food strategies**
Giorgia Tucci
- 107 Trueque based urbanism**
Alissa Diesch
- 117 Approach for the analysis of self-cultivation as an expression of the resilient capacities of migrants in Barcelona during the twentieth century**
Germán Guillén-Espallargas
Carles Llop i Torné
- 125 Food cycles and hydrogeological risk mitigation: the Kezersrande Natural Farm project**
Mathilde Pitanti

02

CREATIVE FOOD CYCLES AS SOCIAL INNOVATION

137 Food waste as a transitional key factor towards circular economy

Silvia Pericu

149 Be[e] the Creative Food of Social Innovation

Raffaella Fagnoni

159 Foodways: diasporic explorations at the age of (digital) discoveries

Emanuele Sommariva

**Development of sustainable packaging based on agricultural residues
173 and others**

Elizabeth Palomino Nolasco

**185 Remix El Barrio: a co-creation journey to foster innovative ecosystems
crafting and micro-fabricating with food surplus and waste**

Anastasia Pistofidou

Marion Real

Milena Juarez Calvo

197 The Uovo di Colombo Lab: designing against food waste

Cristian Campagnaro

Raffaele Passaro

Barbara Stabellini

211 Food Cycles: active engagement and new urban communities

Federica Scaffidi

**223 Food Revolution. Services and Social Innovation as a reaction to
lockdown**

Chiara Olivastri

235 Zitsa Wine Hub

Andreas Nikolovgenis

245 Design for Companion Species: developing collaborative multispecies Urban Environments

Chiara Farinea

253 German potatoe: analysis towards sustainability

Aldana Bouzas Mendoza

263 Designing at the service of rural territory

Daniela Cifuentes Avendaño

Iris Andrea Reyes Forero

273 Alimentar el barrio: farmers' market, a new opportunity to drive change

Giulia Damiani

Chiara Moretti

283 Eating with Type: designing a letterpress workshop based on typeful thinking approach for food education

Carlotta Belluzzi Mus

Alessio Caccamo

Andrea Venditti

291 Quarantined sobremesa

Gabriela Aquije Zegarra

301 Food design as a strategy for the global community

Ivo Caruso

Silvia Cosentino

Carlo Martino

03

CREATIVE FOOD CYCLES BASED ON DIGITAL TECHNOLOGIES

313 Foodshift 2030: a citizen-driven transition of the European food system (EU Horizon Project)

*Kate Armstrong
Emily Whyman
Luke Schafer
Christian Bugge Henriksen
Dirk Wascher*

323 Cultivating social capital—resiliency against adversity

Thiago Vasconcelos

335 Food Reality Experience

Kedy C. Cellamare

345 Urban revolution at times of Creative Food Cycles

Nicola Canessa

357 Myco-scape

Mohamed Elatab

367 Strange is Better: an effort to biologically convert polystyrene into organic matter using mealworms

*Eve Nnaji
Madhavi Ojha*

375 Pizza Toppings – Multiplayer Approach to Preparing a Pizza in Virtual Reality

Jan Philipp Drude

Victor Sardenberg

385 Waste-no-Taste: animated video recipes to prevent domestic food waste

Giulia Panadisi

Vincenzo Maselli

393 Rural studio farm

Elena Barthel

401 Platform Synthesis: the augmented domesticity

Melinda Bognar



Taste x no x Waste

Animated Video Recipes

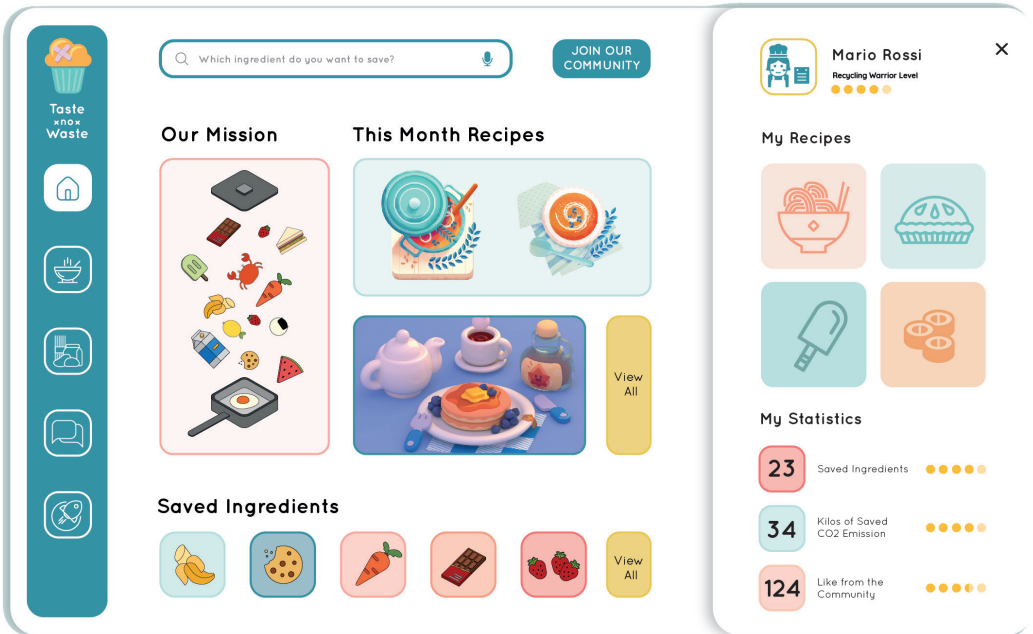


Figure 1. taste-no-waste logo © Giulia Panadisi, Vincenzo Maselli (2020)

Figure 5. taste-no-waste online platform interface. Concept design © Giulia Panadisi, Vincenzo Maselli (2020)

WASTE-NO-TASTE: ANIMATED VIDEO RECIPES TO PREVENT DOMESTIC FOOD WASTE

Giulia Panadisi

Vincenzo Maselli

In recent years numerous service and communication design projects have faced the problem of food waste and helped make the fight against it more efficient. How motion design tools can contribute to prevent this problem? The paper presents a project that consists in creating a shared platform of animated video recipes, prepared by using food at the end of its lifecycle. Participation, community, education, information and technology are the “ingredients” of the project, that operates through an online sharing platform. The platform has an attractive interface, and bring together ludic aspects, technological tools and animated contents. Addressed audience, indeed, collects animated video recipes in a “personal cookbook”, leaves feedbacks and suggestions, and participates in activities such as quizzes and scoring games. Animated representation of food also evokes a meaningful tradition that charges the action of cooking with a strong symbolic value, and makes it an instrument of knowledge of culinary, cultural and social traditions. The goal of the paper is to test project’s attractiveness, effectiveness, margins of development and variation before releasing the beta version.

food waste / consumption phase / animated recipes / shared platform / education



Figure 2. Food Waste stages and percentages (2000-2016). Data have been collected from <http://www.fao.org/platform-food-loss-waste/flw-data/en/>. © Giulia Panadisi, Vincenzo Maselli (2020)

Food waste is a serious issue in contemporary society, and can have destructive consequences on the environment. A report carried out by FAO acknowledged that approximately 1.6 billion tons of food produced for human consumption gets wasted every year (Gustavsson et al., 2011). Others studies confirmed that almost 50% of the food produced in the world ends up in the garbage, although it is largely edible (FAO, 2019a, 2019b; Institution of Mechanical Engineers, 2013). Food waste occurs for numerous reasons and at different stages of food lifecycle, both during cultivation and harvesting stages, and during industrial processing, distribution, and final consumption (FAO, 2019c; BCFN & National Geographic, 2012)(fig. 2). Especially in developed nations food experiences a great loss in the domestic consumption phase, as it becomes abundant and gets discarded although it still fits to be consumed.

In recent years numerous projects have faced the problem by making organization of production more efficient, by optimizing dialogue between subjects involved in the process, by looking for new uses of deteriorated material, by encouraging awareness actions and correcting people's bad habits. Projects and social campaign aimed at recovering unsold goods still appropriate for consumption in favour of charities or non-profit organizations (e.g. Last Minute Market, 2003; Buon Fine,

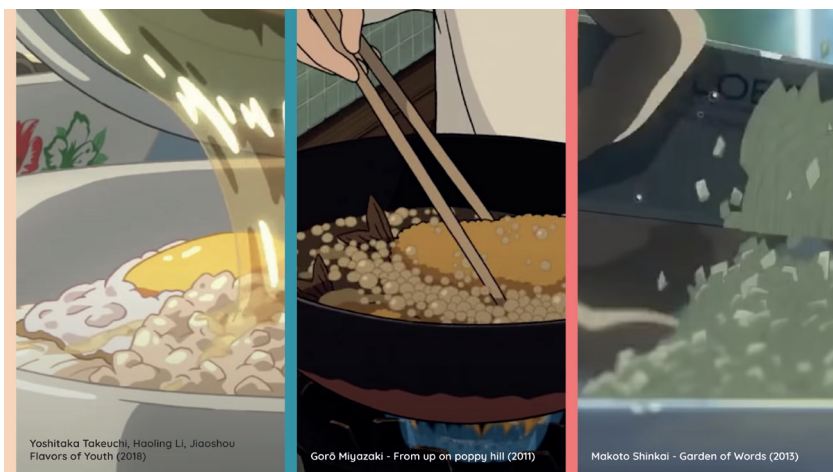


Figure 3. Anime references' still images © Yoshitaka Takeuchi, Haoling Li, Jiaoshou, Comix Wave Films (2018); Gorō Miyazaki, Studio Ghibli (2011); Makoto Shinkai, Comix Wave Films (2013)

2006; Leftovers 2016), at providing information and creating awareness about good behaviours (e.g. BCFN foundation, 2009), at encouraging the consumption of "imperfect foods" (e.g. Melasi, 2008; #LoveTheUgly, 2013; Cosipernatura, 2020) or at connecting stores and restaurants that have unsold food to customers who can buy these products at a more convenient price (e.g. Too Good To Go, 2015) have been developed. These activities are only a few examples of existing participatory and online initiatives set to creatively intervene in the consumption phase of the food life cycle, to demonstrate how design and digital technologies have helped make the fight against food waste easier, by using online sharing platforms, social networks and mobile Apps. None of described projects bring together ludic aspects, technological tools and audio-visual contents.

The project taste-no-waste, was born with the aim of educating children to reduce food waste, by using fun and unconventional tools, through the creation of a platform that hosts animated video recipes that use food at the end of its cycle of life. Animated language and interactive experience are the ideal tools to attract the interest of the selected target of children aged 10 to 18 (Xiao 2013; Islam et al. 2014) who have already had some basic information on the theme of recycling and sustainability. According to Emma Calvet (2017, 6) Cartoons "are powerful hooks es-

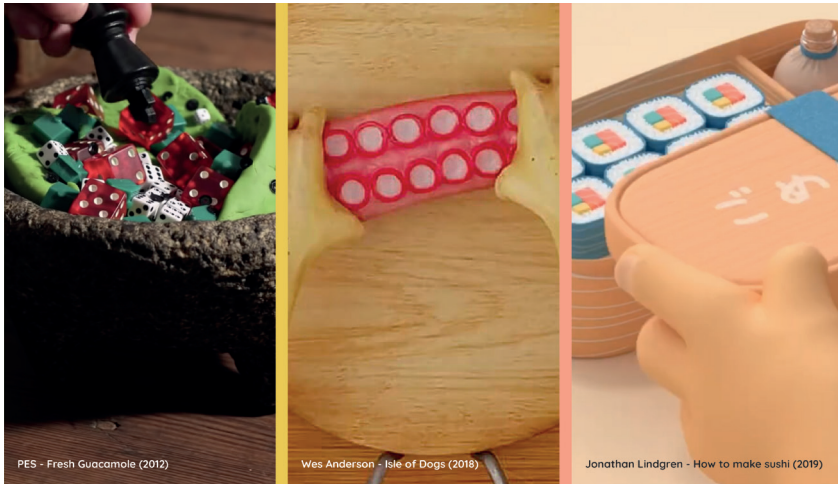


Figure 4. Stop-motion and 3D animation references' still images © PES (2012); Wes Anderson, American Empirical Pictures, Indian Paintbrush, Scott Rudin Productions (2018); Jonathan Lindgren (2019)

pecially popular with young children, who process visual images more easily than verbal messages.” The impact of such products has been amplified over recent years, as animated representations spread through the internet. Gaming activities, as well, are crucial elements for audience development since they are part of an entertainment and loyalty strategy. Animated representation of food has an exotic appealing and the animated artefact has frequently staged food preparation in perfect detail.

Very often Japanese animated characters, for instance, are staged during meal-times or while cooking delicious and interesting dishes. A few representative and well know examples of full-length films and tv series staging food-cooking moments are: *From Up on Poppy Hill* (2011), *Garden of Words* (2013), *Food Wars!* (2015), *Gourmet Girl Graffiti* (2015), *Your Name* (2016), *Flavors of Youth* (2018), *Adorable Food Goddess* (2018)(fig. 3). Japanese anime are not the only animated products, staging food and food-cooking scenes. Several stop motion animation films staged detailed recipes and characters who cook. A few examples are: LAIKA's *Coraline* breakfast scene (2009), Wes Anderson's astonishing *Sushi Scene* in *Isle of Dogs* (2018), and several videos produced by the American director PES, such as *Western Spaghetti* (2008), the Oscar nominated short film *Fresh Guacamole* (2012)

and Submarine Sandwich (2014) (fig. 4). PES' films are humoristic representation of recognizable and everyday real objects replacing food. In his western spaghetti, for instance, "Pick- up sticks replace the spaghetti, bubble wrap becomes boiling water, foil paper turns into oil and, most unusually, Post- it Notes become the butter" (Robinson 2010, 66).

Starting from these premises, our idea is to design a shared platform of animated anti-waste recipes that can contribute to the education of the new generations: our vision is that the captivating and dynamic language of motion design can lead to the acquisition of healthy eating habits that prevent the waste of domestic food from a young age. Furthermore, an interactive component will be inserted within the animated videos. Through this ludic element, the user-players initiate and receive feedback about their actions, which affects their game play experience (Ritterfield et al., 2009).

The project, therefore, is not just a container of animated videos but aims to deal with the issue with a participatory and interactive approach, typical of contemporary media, performed by the hypothesized target who is already fully capable of it. Through the help of social media (i.e. Instagram stories), a real community of no-wasters will be created, that will choose the ingredients of the next recipe, and share recipes, questions and points of view on the topic, while customizing a virtual "cookbook" with a selection of recipes, both personal and posted by other users. The project is, therefore, based on the shared platform of animated video recipes posted by both platform administrators and users in customized "Personal cookbooks". The online platform represents the exhibition, storage and sharing space of taste-no-waste contents: the website and the app for mobile devices that host video contents, the community, the information collected, the users' feedback and questions. The intuitive and minimal interface design aims to give value to the animated contents and the community, the true and the most important "ingredients" of the project; the user has a profile in which he accumulates scores relating to his recipes and his activity in the community. The home page shows the recipes of the month and the list of the last ingredients saved from waste (fig. 5). The project has a "backdoor" to the real world, and collected points become credits to pay for services and products in affiliated shops and restaurants.

The organization of the project foresees the release of two recipes per month: every two weeks the recipe will come out with a main ingredient proposed by users, in line with the possibilities offered by the season and with the feedback from the community. The recipe will use simple techniques and tools, within the reach of the hypothesized target, with easy-accessible ingredients to be found in every home,

in order not to exclude anyone in the preparation. Traditional recipes from different countries will be proposed to give users the opportunity to learn about other cultures through cooking. Between one release and another, different "tips" on social media will be provided to help understand how to best preserve food, what to buy according to seasonal choices, diets and to keep the community active.

Once the target has been identified and the tools defined (i.e. shared platform, animated videos, viral social tips, set of questions for users), three main phases will take place, to ensure viral diffusion and effectiveness of the contents: (1) guerrilla marketing campaign through social media to anticipate the language and contents of the video recipes, and the organization of ambient marketing events; (2) the online platform and the app will be launched and implemented weekly; (3) community participation and interaction with the platform to animate gameplay and customizing a "personal cookbooks".

Videos will be produced on the basis of data collected, given users feedbacks and comments, regarding: the ingredients that users want to use, the style of representation, the associated storytelling.

In particular, the second and third phases will be essential to bring the platform under the attention of investors or cultural associations that are already operating with local food projects, such as Last Minute Market, and the Danish group Too-GoodToGo. The project is now in the concept design phase and online platform's layout, structure and graphic language need to be defined before realising a beta version, that is expected to be launched in the autumn 2020.

BIBLIOGRAPHY

Barilla Center for Food & Nutrition (2012) *Food waste: causes, impacts and proposals*. Torino, Codice Edizioni.

Calvert E. (2017) *Cartoon Characters and Food: just for fun?* Brussels, Beuc. The European consumer organization.

Coppola G., Farina S., Notarfonso M. (2014) *Food Recovery and Waste Reduction Foodward Project. Progetto sul Recupero e la Riduzione degli Sprechi Alimentari*. Turkish Food Industry Association.

FAO (2011) *Global food losses and food waste - Extent, causes and prevention*. Rome

- FAO (2018) *Beauty (and taste!) are on the inside*. Available on line at: <http://www.fao.org/fao-stories/article/en/c/1100391/> [Accessed 20.06.2020].
- FAO (2019a). *Food Loss Index. Online statistical working system for loss calculations*. Available on line at: <http://www.fao.org/food-loss-and-food-waste/flw-data> [Accessed 16.07.2020].
- FAO (2019b) *The State of Food and Agriculture 2019. Moving forward on food loss and waste reduction*. Rome.
- FAO (2019c) *Technical Platform on the Measurement and Reduction of Food Loss and Waste*. Available on line at: <http://www.fao.org/platform-food-loss-waste/en/> [Accessed 20.06.2020].
- Institution of Mechanical Engineers (2013) *Global Food: Waste Not, Want Not*. Available on line at: <https://www.imeche.org/policy-and-press/reports/detail/global-food-waste-not-want-not> [Accessed 05.06.2020].
- Islam B., Ahmed A., Islam K., Shamsuddin A. K. (2014) "Child Education Through Animation: An Experimental Study". In: *International Journal of Computer Graphics & Animation* 4(4), AIRCC Publishing Corporation, pp. 43-52.
- Rittelfeld U., Shen C., Wang H., Nocera L., Wong W.L. (2009) "Multimodality and interactivity: connecting properties of serious games with educational outcomes". In: *Cyberpsychology & Behavior*, 12, pp. 691-697.
- Robinson C. (2010) *Animators Unearthed. A Guide to the Best of Contemporary Animation*. New York, The Continuum International Publishing Group.
- Shawn (2018) *Food in Anime - a Reflection of Japanese Cuisine*. Available on line at: <https://animewhiz.com/food-in-anime/> [Accessed 06.06.2020].
- Teleambiente (2020) *Cospiratura, il progetto di NaturaSi e Legambiente contro lo spreco alimentare*. Available on line at: https://www.teleambiente.it/spreco_alimentare_naturasi/ [Accessed 20.06.2020].
- Xiao L. (2013). "Animation Trends in Education". In: *International Journal of Information and Education Technology* 3(3), pp. 286-289.
- Yem C. S. (2019) *25 Best Cooking Anime Shows*. Available on line at: <https://www.fandomspot.com/cooking-anime-series/> [Accessed 06.06.2020]

A u t h o r s

Mattia Andreola / University of Trento / Sociologist, Research fellow at the Department of Civil, Environmental and Mechanical Engineering, University of Trento. During his internship and his Master Thesis, he participated in the institutional project "Nutrire Trento", where he has developed his interests in the fields of sociology of consumption and environmental sociology. Coordinator of the project "Nutrire Trento #fase2" (2020). Member of Research Unit of the European project: SATURN - System and sustainable Approach to virtuous interaction of Urban and Rural Landscapes (2020-ongoing). *mattia.andreola@unitn.it*

Kate Armstrong / Institute for Advanced Architecture of Catalonia / Designer; Master of Arts and Society, interested in critical design, media literacy and plural futures. Design and Communications lead at Fab Lab Barcelona, Institute of Advanced Architecture of Catalonia. Master in Design for Emergent Futures Faculty, Master City and Technology Theory Guest Faculty. Platform coordinator of EU Distributed Design Platform and strategic communication and dissemination lead of REFLOW EU, FoodSHIFT EU under H2020 program. *kate.armstrong@iaac.net*

Elena Barthel / Auburn University Rural Studio, Alabama / Architect, PhD, Lecturer at Department of Urban Design and Planning University of Florence (2006-08). Unit master at AA London (2006-08), since 2008 is Adjunct professor at School of Architecture Auburn University. Her research interests focus on design and build practices associated to community work. She lectured, among others, at Tel Aviv and Rome Eco Week, Quito Biennale, Rhode Island School of Design, Turin Polytechnic, Syracuse and California State University, Trento University, R.E.D.S Venice and Matera. *barthellelenaa@gmail.com*

Carlotta Belluzzi Mus / Sapienza University of Rome / Product Designer, Master graduated in Product Design at the Sapienza University of Rome (2019). For years she took part in the activities organized by the Department of Planning, Design and Technology of Architecture, at the same University. Her research interests include user-centered design, social innovation and design for education, as a hybrid discipline between product design practice and psycho-pedagogical methodology. *belluzzimus.1493638@studenti.uniroma1.it*

Alessandro Betta / Edmund Mach Foundation / Architect, PhD, graduated in Architecture at Politecnico di Milano (2015). He tutored in several urban design and landscape architecture studios both at Politecnico di Milano and University of Trento. His research interests focus on planning and design strategies for hybrid territories and green infrastructures, in particular within urban fringes. Currently, he works for the Edmund Mach Foundation as project manager for EIT Climate-KIC funded projects after working on the Interreg Alpine Space LOS_DAMA! project, as project officer for the City of Trento. alessandro.betta@fmach.it

Melinda Zsófia Bognár / Budapest University of Technology and Economics / Architect, DLA researcher at the Faculty of Architecture. MRes at UCL Bartlett School of Architecture, London, UK. Her interests include the digital theory of architecture, museum typologies and the holistic understanding of architectural space involving socio-economic effects, such as food consumption and food cycles.
bognarmelindazsofia@edu.bme.hu

Aldana Bouzas Mendoza / Food process engineer. Degree at the Universidad Nacional de Quilmes (Bicentenary scholarship). Master degree in agri-food and environmental science and technology at the Faculty of Sciences, Universidad de Vigo (Foreign Youth Excellence Scholarship Program 2018). Her research interests include circular economy, sustainability, smart chain, sustainable development goals, zero food waste. Researcher in Rio Neiva - Associação Defesa Ambiente (2020), junior researcher in the Creative Food Cycles project (2019), process engineer in Fundació Espigoladors (2019). aldana.bouzas@gmail.com

Christian Bugge Henriksen / University of Copenhagen / Prof. Climate and Food Security. Scientific Coordinator of the EU H2020 FoodSHIFT2030 project. His research interests focus on smart agriculture and sustainable food production systems. Working on innovative solutions for food system transformation and climate change mitigation by applying crop modelling, environmental indicators, life cycle analysis and GHG accounting to increase resource use efficiencies in the food value chain. Lead Pillar 1 in the H2020 LANDMARK project developing the online Soil Navigator Decision Support System . cbh@plen.ku.dk

Alessio Caccamo / Roma Tre University / Visual Communication Designer and Research Fellow at the Department of Education. Graduated in Design, Visual and Multimedia Communication at Sapienza University of Rome, he combines theoretical research in the academic field with practical experimentation. He collaborates

with public and private bodies in the fields of visual, multimedia, UX, UI, data viz, museum path layout with specific attention to educational aspects. Awarded with SID Design Research (2019) he focusses his research in design for education and new technologies (VR, AR). alessio.caccamo@uniroma3.it

Milena Calvo Juarez / IAAC Fab Lab Barcelona / Brazilian environmental engineer, Master in Interdisciplinary Studies in Environmental, Economic and Social Sustainability and specialization in Urban and Industrial Ecology at the Universitat Autònoma de Barcelona. With a large experience in applied research, she has been involved in interdisciplinary projects in the field of circular economy, resilient cities, co-creation, and sustainable food. She currently coordinates the REFLOW EU project at IAAC and works as an action researcher for the SISCODE and Food-SHIFT2030 EU projects. milena@fablabbcn.org

Cristian Campagnaro / Turin Polytechnic / Associate professor at the Department of Architecture and Design. He teaches scenario design and concept design at the Bachelor's degree in Design and Communication at Politecnico di Torino. His research interests focus on both design for social inclusion and eco-design for sustainable processes. Author of essays and scientific coordinator of research project on participatory programme, implementing interdisciplinary workshops with citizens, students, policymakers, and social operators. He is founder and scientific coordinator of the Polito Food Design Lab. cristian.campagnaro@polito.it

Nicola Valentino Canessa / Università degli Studi di Genova / Architect, PhD in Architecture at Graduate School of Architecture and Design, 2012. His research interests focus on the Mediterranean City, urbanization trends in coastal areas and infrastructural development for coast-land linkages. Since 2009 coordinator of GIC-LAB research cluster, founded and directed by Prof. Manuel Gausa. Designer at Stefano Boeri (2004-08) he founded Goagroup (2009) and Go-Up Architecture Office (2015) with Paolo Raffetto. He is currently Adjunct professor of Urban Design and Planning at the University of Genoa. nicolavalentino.canessa@edu.unige.it

Ivo Caruso / Sapienza University Rome / International PhD in Design and Innovation. Since 2010 he is involved in tutoring and teaching activities at the Degree Course in Industrial Design of Sapienza University of Rome. He has been editor for the scientific journal *Disegno Industriale* and author for *The Great Encyclopedia Treccani*, for *ADI Design Index* and for various Italian and foreign journals. He has participated in conferences and lectures in universities both Italian and interna-

tional. He is an ordinary member of SID (Italian Scientific Society of Design) and of ADI (Italian Association for Industrial Design). ivo.caruso@uniroma1.it

Kedy Claudia Cellamare / Cozinha Nomade / Learning experience designer, Maker, Food designer. Post-graduate on “Masterfood Experience Design” (2011) at Milan Politechnic. Her research interest is on educational and territorial storytelling using co-design techniques for civic and social innovation projects. She developed culinary installations and catering in “Cartaelatte events and food design” (2015). Co-founder of Cozinha Nomade (2017) where she is responsible for designing workshops, events, citizen actions. In 2020 she started “Priscio’s plastic” for the production of recycled plastic building materials. kedyclaudiacellamare@gmail.com

Maria Cerreta / University of Naples Federico II / Associate professor, PhD in “Evaluation Methods for the Integrated Conservation of Architecture, Urban and Environmental Heritage” at the Department of Architecture (DIARC). Coordinator of the Second Level Master in “Planning and Sustainable Design of the Port Areas” and Director of the Advanced Course in “Real Estate Market and Urban Regeneration (MIRU). Since 2019 is also Professor at CNR-IRISS, scientific coordinator and Member of Research Units of different national and international projects; currently in the H2020 REPAiR, and European HERA PuSH. maria.cerreta@unina.it

Daniela Cifuentes / National University of Colombia, Bogotá / Currently coordinator at Academic Extension Center of the Arts Faculty. With experience in graphic design and service design, always oriented to cultural management and the development of experience design. Participated on the Latin-American Congress of Food Design. Santiago de Chile. (2018-2). Academic exchange at the university of Buenos Aires (2017). dacifuentesav@unal.edu.co

Marco Ciolli / University of Trento / Assistant professor, PhD, teaches at the Department of Civil, Environmental and Mechanical Engineering, in Master and Doctoral courses of Applied Ecology. His research interests focus on biodiversity conservation, GIS modelling of natural resources, landscape ecology, remote sensing, natural hazards, tropical ecology, invasive species, ESS evaluation. Coordinator of research projects: EIT Climate-KIC Holistic Resilience (2020); Deep Demo Forging Resilience (2019-20); SATURN (2018-ongoing). Co-chair UNESCO in Engineering for Human and Sustainable Development. marco.ciolli@unitn.it

Massimo Clemente / IRISS National Research Council of Italy / Professor and Director of the Institute for Research on Innovation and Services for Development (IRISS) of Italian CNR since 2020. Research Director in “Urban Planning and Landscape Enhancement”, since 2001, he is also Director of the Scientific Committee of “RETE Association for the Collaboration between Ports and Cities”. He coordinated several research projects, advanced training and field experimentation on urban planning and urban regeneration, with a focus on the urban-maritime regional systems, coastal urban areas and port waterfronts. *m.clemente@iriss.cnr.it*

Silvia Cosentino / Sapienza University Rome / Product Designer, PhD Student at the Faculty of Architecture, Department of Planning, Design and Architecture Technology. *silvia.cosentino@uniroma1.it*

Gaia Daldanise / IRISS National Research Council of Italy / PhD in Urban Planning and Evaluation, she is currently research fellow at CNR IRISS, working on collaborative urban planning for the city-port system regeneration and cultural heritage valorization. She has worked in international research projects (e.g. H2020 Circular models Leveraging Investments in Cultural Heritage adaptive re-use) and in collaboration with international organizations, such as RETE Association for the collaboration between ports and cities. Awarded with the project Play ReCH (Reuse Cultural Heritage). *g.daldanise@iriss.cnr.it*

Giulia Damiani / Independent researcher, ELISAVA Barcelona / Systemic Designer, graduated at the Polytechnic of Turin in Systemic Design (2018). Member of the Hygiene First team of the Polytechnic of Turin, with the NGO IOP Italy (2017–2018). Graphic designer at Energy Center and at Department of Energy, Polytechnic of Turin (2017–18). Freelance designer at Ticino Val Grande Verbano UNESCO Biosphere Reserve (2019). Winner of 1^o edition of the “Premio Barcellona 2019” for an Eco-design residence. Her research interest focus on sustainable development, circular economy, responsible consumption, co-design. *giulia.damiani93@gmail.com*

Alissa Diesch / Leibniz University Hannover / Architect, University researcher and lecturer at the Institute of Urban Planning and Design / PhD Candidate at TUM / Teaching assignments at Technical University Munich (2016–2017). Researcher, lecturer and leader of the research group Hábitat Socio-Cultural at the Universidad La Gran Colombia, Bogotá (2015–2018). Architect at Zwischenräume Architekten (2012–2014). Her research interests include participatory knowledge generation, post-colonial spaces, research to design concepts, urban-rural relations and

transformations. diesch@staedtebau.uni-hannover.de

Jan Philipp Drude / Leibniz University Hannover / Architect, PhD Candidate, University Researcher and Lecturer since 2017 at the Chair for Digital Methods in Architecture, Faculty of Architecture and Landscape Sciences. His research is based around novel design approaches to modular structures, using virtual reality and augmented reality. He presented work and led workshops at internationally acclaimed conferences on the digital in architecture. drude@iat.uni-hannover.de

Mohamad El Atab / Institute for Advanced Architecture of Catalonia / Architect, Master in Advanced Architecture at IAAC Barcelona, member of the Advanced Architecture Group. His research interests focus on computational design and digital fabrication applied to natural-based solutions in cities, such as bio-photovoltaic systems, urban farming, hydroponic cultivations, mushrooms cultivation experimental structures. Faculty member of Digital Bio Systems - Digital fabrication and biological synthesis, he has been shortlisted for participating the Lebanese pavilion at the 17th Venice Architectural Biennale 2020. mohamad.elatab@iaac.net

Raffaella Fagnoni / IUAV University of Venice / Architect, Full professor at IUAV since 2019, where she teaches in Design Laboratories. Previously, at the University of Genoa, Department of Architecture and Design, as coordinator of the Degree Course in Product and Event Design and coordinator of the PhD in Design. She has carried out teaching and research activities also at other universities outside Europe (Tehran and Beijing). She is a member of the Steering Committee of the Italian Design Society (SID). Her research activity concerns social and environmental issues, designing for territories, social innovation. Raffaella.fagnoni@iuav.it

Sara Favargiotti / University of Trento / Associate professor of landscape architecture at the Department of Civil, Environmental and Mechanical Engineering. Her research and teaching investigate the multiple identities of the landscape with a research by design approach based on transformation through adaptation and innovation. M.Arch in Architecture (Genoa, 2009), international Ph.D. (IUAV, 2014), visiting scholar at the Office for Urbanization (Harvard GSD, 2016), member of the Directive Board of IASLA (since 2018). Member of research projects: PRIN Branding4Resilience (2020-ongoing). sara.favargiotti@unitn.it

Chiara Farinea / Institute for Advanced Architecture of Catalonia / Architect, Urban Planner, PhD. Master in Architecture at Polimi Milan (2004), Post-graduate Master

in Advanced Architecture at IAAC Barcelona (2007), doctoral thesis at IUAV Venice on Urban and Environmental planning (2014). Currently she is Head of European Projects at the Advanced Architecture Group Department at IAAC, coordinator of research projects related to education, co-design action and nature-based solution implementation. Her research focuses on digital fabrication applied to natural-based solutions in cities, eco-design of living systems. *chiara.farinae@iaac.net*

Francesca Forno / University of Trento / Associate professor of Sociology. Her research interests include civic participation social change, political consumerism, collaborative consumption, grassroots initiatives, social eco-innovation and alternative food networks (AFNs). Her work has appeared leading journals including, among others: The Annals of the America Academy of Political and Social Science, the Journal of Consumer Culture, Southern European Society and Politics, International Journal of Consumer Studies, European Societies, the British Food Journal as well as in collections of essays. *francesca.forno@unitn.it*

Manuel Gausa Navarro / University of Genoa / Architect, PhD. Full professor of urbanism and landscape architecture at the Department of Architecture and Design (UNIGE_DAD), where he is also Director-Coordinator of the ADD (PHD Program in Architecture and Design) and Director of GICLab (Genoa Intelligent Contexts Laboratory). From 2012 to 2015 he was Dean of the IAAC (Institut d'Arquitectura Avançada de Catalunya, Barcelona) where, as Co-founder and Senior Professor, he is now Lead Professor in Theory and Advanced Knowledge and Member of its Scientific Committee. *gausa@coac.net*

Alessandro Gretter / Edmund Mach Foundation / Senior Technologist. Since 20 years, he is operating in the field of local sustainable development with a specific focus on mountain territories and rural-urban relationships in European Alpine Region. Since 2016 he is representative of the Autonomous Province of Trento within the Action Group 7 "Green Infrastructure - Ecological Connectivity" of EUSALP. Since 2017 has operated as project Leader, WP lead and WP contributor in about a dozen of initiatives financed by EIT Climate-KIC, in particular SATURN of which is the Project Leader. *alessandro.gretter@fmach.it*

Germán Guillén-Espallargas / Polytechnic University of Catalonia / Forest Engineer at UDL (2018); Master in Landscape Architecture by the UPC (2020); Master in Advanced Studies in Architecture MArch -Urbanism specialization- by the UPC (currently). Internship in Anna Zahonero Estudis i Projectes de Medi Ambient i Pai-

satje (2019-20). Founder of JADA Landscape Architecture and Engineering. Awarded for four years with the General and Complementary Scholarship by the Ministry of Education and Science. Selected for the XI Bienal Internacional de Paisatge, Landscape Schools International Prize. *german.gesp@gmail.com*

Luca Lazzarini / Milan Polytechnic / Urban Planner, PhD, Postdoc research fellow at the Department of Architecture and Urban Studies, and lecturer in urbanism at Bilkent University. Visiting scholar at the Countryside and Community Research Institute, University of Gloucestershire, in 2017. Coordinator with S. Marchionni of the Laboratorio del Cammino (LdC) interuniversity research and teaching unit. His main research interests concern urban/rural relationships planning, the analysis of governance processes in metropolitan and city-region contexts and the integration between urban planning and food policies. *luca.lazzarini@polimi.it*

Carles Llop Torné / Polytechnic University of Catalonia / Architect, PhD, specialised in Urban Design, Territorial Planning, Landscape and Urban history. Full professor and director (2008-15) of the Department of Town and Regional Planning (DUOT) at the Escola Tècnica Superior d'Arquitectura del Vallès, of the Universitat Politècnica de Catalunya (UPC). Since 2012 member of the Scientific Committee of the Institut pour la Ville en Mouvement IVM Vedecom (Paris). Co-founder of the architecture and urbanism studio Jornet Llop Pastor Arquitectes, with which he obtained national and international awards. *cllop@coac.net*

Marco Mareggi / Milan Polytechnic / Architect, PhD, Senior lecturer in Urbanism since 2019 at the Department of Architecture and Urban Studies (DASTU). He held intensive post-graduate courses in Brazilian University (2001 and 2014). He obtained the Italian Academic Qualification - Associate Professorship of Urban Design and Territorial Planning (MIUR 2014). His research interests include territorial analysis and urban planning, design of open spaces, studies and planning for fragile territories, design and management of urban time policies, co-design of governance and multi-partner policies, policies analysis. *marco.mareggi@polimi.it*

Carlo Martino / Sapienza University of Rome / Architect and designer, Associate professor of Design at Sapienza University of Rome. He holds Bachelor and Master design course on history and theory of design, materials and technology, both within the University "La Sapienza" of Rome and at other public and private institutions Italians and foreigners. Since 2013 he is a member of the Final Selection Committee of the ADI Design Index. From 2009 to 2011 he has been member of the

Italian Design Council of the Ministry of Cultural Heritage. He is the promoter of numerous initiatives aimed at spreading design culture. carlo.martino@uniroma1.it
Vincenzo Maselli / Sapienza University of Rome / Architect, PhD, attained the title of Doctor Europaeus of “Planning, Design and Technology of Architecture” at the Sapienza - University of Rome in 2018. His research interests focus on animation, the technological evolution of motion design, the study of puppets’ material and technological features in stop-motion animated films, in the frameworks of the animation traditions aesthetic. He is currently a research fellow at the Sapienza - University of Rome and a lecturer in Motion Design at the G. D’Annunzio University in Chieti-Pescara. vincenzo.maselli@uniroma1.it

Chiara Moretti / Independent researcher, ELISAVA Barcelona / Architect, Adjunct professor of the Design Studio in Technology of Architecture at the University of Florence, Italy (2016-19). Winner of Landmark Design Challenge (2017). She participated in sustainable architecture projects with Eco Design Architects and Consultants, Cape Town, South Africa (2019). Winner of 1° edition of the “Premio Barcelona 2019” for an Eco-design residence. Her research interest includes the relationship between food and the urban spaces, low impact technological systems and the entire LCA of materials (life cycle assessment). chiara.moretti03@gmail.com

Andreas Nikolovgenis / University of Patras - Ioannina (Greece) / Architect. Master in Architecture at Harvard University (2015) with grant “Andreas Mentzelopoulos”. Currently he is PhD Candidate and Teaching Assistant, MAUD “Mediterranean Futures”, at the Department of Architecture, University of Patras. Adjunct Lecturer in Architecture and Urban Design at the Department of Architecture, University of Ioannina since 2017. His research interests focus on urban-rural relationships, agriculture landscapes, viticulture landscapes, and the architecture of tourism. nikolovgenis@gmail.com

Eve Nnaji / Institute for Advanced Architecture of Catalonia (Spain) / Architect and Designer, Bachelor of Environmental Design at University of Texas A&M (2011-15), Masters in Advanced Architecture at Institute for Advanced Architecture of Catalonia (2019-21). Founder of Even Designed, an architecturally driven brand. Her research interests include affordable design solutions for developing communities, as well as biological methods for organic design and fabrication. MOE Art Architecture, Lagos, Nigeria (2016-17) A Whitespace Creative Agency (2018-19). eve.nnaji@students.iaac.net

Madhavi Ojha / Institute for Advanced Architecture of Catalonia / Architect and Designer, Masters in Advanced Architecture, Bachelors of Architecture done from Impact school of Architecture India (2013-2018). Assistant professor at Bangalore school of design (2018-2019) and Architect at Design studios Bangalore (2018-2019). Her Research interests include Material research in evaporative cooling, Robotics in architecture and waterfront settlements. *madhavi.ojha@students.iaac.net*

Chiara Olivastri / Università degli Studi di Genova / Architect, PhD in Design, Research Fellow in Service Design since 2016, obtained the Italian Academic Qualification – Associate Professorship of Design. Her research interests focus on service design strategies applied to circular economy, social innovation and bottom up processes, collaborating also with local companies and public institutions. She is currently Adjunct Professor in Service and Product Design since 2016. Her doctoral research explored contemporary design strategies for the reuse of urban vacant spaces, in the frame of PRIN Recycle Italy (2012-16). *chiara.olivastri@unige.it*

Elizabeth Palomino Nolasco / Catholic University Sedes Sapientiae, Peru / Industrial Engineer from the Catholic University Sedes Sapientiae. Consultant in social innovation and sustainable development, founder of “La Peruana coffee”. High interest in research and development of new sustainable and highly innovative projects in the paper, packaging and other industries. Member of the TAPPI association of the paper and cardboard industry. *palominonolascoelizabeth@gmail.com*

Giulia Panadisi / Università of Chieti-Pescara G. d’Annunzio / Architect, Master at the Faculty of Architecture of Roma Tre, currently research doctorate at the University of Chieti-Pescara, about Motion Design for social inclusion. Together with the research activities he carries out teaching activities as tutor in the Motion Design course. She worked at the architecture studio C.F. Møller, Copenhagen, before joining Why Worry Production, a production and post-production house in Rome, where she collaborates as a motion designer and 3D artist for TV and web spots and the special effects of international films. *giulia.panadisi@unich.it*

Raffaele Passaro / Turin Polytechnic / PhD student in Management, Production and Design at Politecnico di Torino (2019). His research focuses on projects aiming to promote social cohesion and sustainable development models; specifically, he has been working in these fields: food chains in social marginality contexts, sustainable development of the territory, Do-It-Yourself furniture using appropriate technology. Since 2017 he is a co-coordinator of the Polito Food Design Lab. He is

teaching assistant (2019) during the lectures of “Design I” at Politecnico di Torino. raffaele.passaro@polito.it

Silvia Pericu / University of Genoa / Architect, PhD, Associate professor in Product Design at the Department of Architecture and Design, since 2013. Her research interests focus on design’s capabilities to contribute to territorial development and transformation in relationship to health, safety and sustainability, through a user-centered approach and co-design strategies for social innovation. Coordinator URBACT III Action Planning Network: ‘2nd Chance. Waking up sleeping giants, for a sustainable urban development’; the scientific manager of the Creative EU ‘Creative Food Cycles’ (2018-20) for UNIGE-DAD research team. silvia.pericu@unige.it

Angelica Pianegonda / University of Trento / Architect, Research fellow since 2019 at the Department of Civil, Environmental and Mechanical Engineering, Coordinator of the project “Nutrire Trento #fase2” (2020). Her research interests include the reconnection between Urban and Rural Landscapes, Urban agriculture, Food, Green and Blue Infrastructures. Member of Research Unit of European project: SATURN - System and sustainable Approach to virtuous interaction of Urban and Rural Landscapes (2018-2021). angelica.pianegonda@unitn.it

Anastasia Pistofidou / IAAC Fab Lab Barcelona / Researcher, practitioner and educator on digital textiles, wearable technologies and bio-fabrication. Specialized in hardware development, integration design, rapid prototyping and design to production. Co-founder of fabtextiles.org, a research laboratory on textiles, soft architectures and innovative materials. Co-founder of Fabricademy, Textile and Technology Academy. Combining digital fabrication techniques and crafts, she demonstrates how new technologies can shift to a customized, open source, personal and local fabrication. anastasia@fablabbcn.org

Matilde Pitanti / University of Genoa / PhD student in Architecture. Her research investigates the relationship between urban and river systems. It identifies the recovery of the hydrographic system, and in the recognition of the river-front as a civic and human infrastructure, as important tools for urban reactivation and regeneration. Currently part of the GicLab research group. Visiting scholar at Technische Universität Wien. Graduated with honors in 2016 with the thesis “Mater[i]a OpenLab: da Genova2004 a Matera2019” on European capitals of culture and urban regeneration strategies. matilde.pitanti@gmail.com

Giuliano Poli / University of Naples Federico II / Architect, PhD, currently Research Fellow at the Department of Architecture (DIARC). His research interests focus on integrated evaluation approaches, including Multi-Criteria Decision Analysis and GIS Spatial Analysis. Member of Research Unit for the H2020 project “REpair”, and the European HERA Joint Research Programme “Public Space in European Social Housing (PuSH)” since 2018. Author of many essays based on the results of his academic studies in international journals, he has been appointed as reviewer of many scientific articles. giuliano.poli@unina.it

Marion Real / IAAC _ Fab Lab Barcelona / Systemic Designer, PhD and educator. Her research interests focus on integration design, social transformations and co-design, circular economy and cosmopolitan localism and virtual reality. Member of the Research Unit of SISCODE project to support RRI and co-design approaches in different Fablabs, living labs and cultural places. Research fellow at ESTIA - Chaire Bali and Centre for Circular Design (UAL-London) where she obtained her PhD (2015) in the frame of EU RETRACE project dedicated to emphasize disruptive material and processes for circular fashion. marion@fablabbcn.org

Iris Andrea Reyes / National University of Colombia, Bogotá / Open Ideo Bogotá Chapter Volunteer since March 2020. Experienced in sustainable product design, service design and branding, oriented to project planning and communication of ideas through digital media. Participation on the Latino-American Congress of Food Design. Santiago de Chile. (2018-2) Exchange Industrial Design Research Center. National Autonomous University of Mexico (2018). Research interest on design strategies for Circular Economy and Food design. iareyesf@unal.edu.co

Victor Sardenberg / Leibniz University Hannover / Architect, PhD Candidate, University Researcher and Lecturer since 2016 at the Chair for Digital Methods in Architecture, Faculty of Architecture and Landscape Sciences. Post-graduate Master of Arts with a specialisation in Architecture and Urban Design from the Städelschule Architecture Class. His research interests focus on design as speculation, with particular interest on aesthetics, drawing and digital fabrication methods. He is currently developing computational framework for quantification of the architectural aesthetic experience. sardenberg@aida.uni-hannover.de

Federica Scaffidi / Leibniz University Hannover / Architect, PhD, University Researcher and Lecturer since 2018 at the Institute of Urban Design and Planning. Visiting scholar at Polytechnic of Turin (2015-2016), ETSAM of Madrid (2016), and

LUH (2017). PhD and Doctor Europaeus at University of Palermo (2019). Her research is based on qualitative and quantitative methodologies. Her research interest to date has addressed the territorial development, social innovation and recycling, studying how creative cycles are driving new urban communities and social entrepreneurship models. *scaffidi@staedtebau.uni-hannover.de*

Luke Schafer / University of Copenhagen / Master of Environmental Science, Food system transition and Agroforestry researcher with an interest in science communication at the Climate and Food Security Research Group. Scientific Project Manager for the EU Project FoodSHIFT 2030. Teaching assistant on the Climate Solutions course and Climate Change Impacts Adaptations and Mitigation course at the University of Copenhagen. Worked as an Environmental Scientist at Thies Services focused on data collection, analysis and report writing within the mining region in Queensland, Australia. *schafer@plen.ku.dk*

Jörg Schröder / Leibniz University Hannover / Architect and urban planner. Full professor and Chair for territorial design and urban planning, director of the Institute of Urban Design and Planning. Focus on sustainable urbanism, territorial innovation, and design research, particularly on metropolitan and peripheral spatial constellations and emerging creative habitat. Recent R&D projects: Rurbance (EU Alpine Space Programme), Regiobranding (BMBF), Dynamics of Periphery (DAAD), Creative Heritage (VW Foundation); coordinator of Creative Food Cycles (Creative Europe Programme). *schroeder@staedtebau.uni-hannover.de*

Emanuele Sommariva / Leibniz University Hannover / Architect, PhD, University researcher and lecturer at the Institute of Urban Design and Planning. Visiting scholar TUM (2011) and Uni Antwerpen (2018) obtained the Italian Academic Qualification for Associate Professorship of Urban Design and Territorial Planning (MIUR 2017). His research interests include urban recycle, settlements and landscape evolution, urban-maritime regions, Urban-rural strategies and the relationship between urban agriculture, food and the city. Scientific manager of the LUH unit EU project Creative Food Cycles (2018–20). *sommariva@staedtebau.uni-hannover.de*

Sabrina Sposito / Leibniz University Hannover / Territorial Planner, PhD. University researcher at the Institute of Urban Design and Planning LUH (2018–20). Recipient of AESOP YITP Research award (2019), DAAD Research grant for Postdoc Scientists (2017–18), Postdoctoral research fellowship IAS-STG (2016–17). Member of PRIN Recycle Italy (2013–16). Her research interests include urban resilience and circular

urban metabolism, hydro-based scenarios, urban-rural settings, culture-led urban regeneration. *sposito.sabrina86@gmail.com*

Barbara Stabellini / Turin Polytechnic / Ecodesigner, PhD in Management, Production and Design. Her research deals with topic of data visualizations and innovation design, with a particular attention on sustainability. She is co-founder of the Innovation Design Lab, and research fellow and communication support at Polito Sustainable (the Ateneo green team), with the aim of study aspects and communication of the sustainable campus. Member of PoliTo research unit of the European project "QualEnv - Change the Climate" (2020-2023). *barbara.stabellini@polito.it*

Giorgia Tucci / University of Genoa / Adjunct professor in urban planning for landscape at the Department Architecture and Design (dAD). Architect and PhD in Architecture with a research that rethinks the identity of rural coastal cities in the Mediterranean area - MedCoast AgroCities - through territorial strategies (economic, energy, environmental, cultural and social), integrated with the application of new technological systems and innovative planning approaches. Research period at the ETS, Escuela de Arquitectura in Málaga (2017-2018); now part of the GiCLab research group in Genoa. *tucci.giorgia@gmail.com*

Tiago Da Costa Vasconcelos / Royal Danish Academy of Fine Arts Schools of Architecture / Architect, BTECH Honours in Architectural Design and Technology from the University of Johannesburg, South Africa (2016) and Master in Extreme Environments at The Royal Danish Academy, Copenhagen (2019). He is currently Research Assistant at Royal Danish Academy of Fine Arts Schools of Architecture Copenhagen. Co-founder Architecture Studio NEXT, with research experience ranging from Tanzania to Alaska, with focus on sustainable planning and ecological design with performative impacts on territories. *tdcvasconcelos@gmail.com*

Andrea Vendetti / Sapienza University of Rome / BArch at Sapienza University of Rome and Master graduation in Communication, Design, and Publishing at ISIA of Urbino with a thesis on the Historiography of Graphic Design. Visiting scholar at ENSAD in Paris. He's currently PhD Candidate of the Graduate School in Design at Sapienza University of Rome, focusing his research on the history of typography in Italy. In parallel he works as a graphic designer with archives and associations as founder of SLAB letterpress workshop. *andrea.vendetti@uniroma1.it*

Dirk Wascher / SUSMETRO planning and research centre Netherlands / Academic Degree in Landscape planning at Osnabrück University Germany and Master at University of Washington, Seattle. Director of SUSMETRO and Innovation Manager for the EU project 'FoodSHIFT2030 focusing on accelerating citizen-driven food system innovation. Coordinator of the Interreg Project BIVAC on bio-value chains. Worked for the European Commission and its Topic Centre ECNC and for Wageningen UR. Taught landscape architecture at the University of Michigan, Wageningen University and Dayton University. dirk@susmetro.eu

Emily Whyman / Institute for Advanced Architecture of Catalonia / Designer, X-Futures Incubation Acceleration programme 2020 graduate, Master in Design for Emergent Futures (Institute for Advanced Architecture, Catalonia & ELISAVA School of Design and Engineering). Interested in spatial urban environmental and experimental design related to sustainable food production. Content developer for Fab Lab Barcelona at the Institute of Advanced Architecture of Catalonia. Co-initiator of ROOTS aeroponics system. emily@fablabbcn.org

Gabriela Aquije Zegarra / COOP Bauhaus Stiftung, Humboldt University Berlin / Peruvian Architect (ENSAT 2012/PUCP 2015) and MSc. Design Researcher (COOP 2020), with studies in Art, Critique, and Contemporary Culture (MAC 2017). She's currently investigating on food, through the design of critical-eating infrastructures inside the Food Systems. Since 2019 part of the COOP academic partnership between the Bauhaus Stiftung, Hochschule Anhalt, and Universität Humboldt Berlin. Through a critical space exercise, she designs within the public realm: human tissue, cultural material, and space. gabrielaaquijezegarra@gmail.com

Creative Food Cycles _ Book 1

Edited by Jörg Schröder, Emanuele Sommariva, Sabrina Sposito

Scientific committee and peer review: Raffaella Fagnoni, Chiara Farinea, Manuel Gausa, Arethi Markopoulou, Silvia Pericu, Jörg Schröder, Emanuele Sommariva, Sabrina Sposito.

Organisation board: Jörg Schröder, Emanuele Sommariva, Sabrina Sposito, Riccarda Cappeller, Alissa Diesch, Federica Scaffidi, Rebekka Wandt, Anna Pape, Julia Hermanns.



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

This project has been funded with support from the European Commission. This publication reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



© 2020 by Regionales Bauen und Siedlungsplanung, Leibniz Universität Hannover

Texts by kind permission of the authors.

Pictures by kind permission of the photographers/holders of the picture rights.

All rights reserved.

Design and setting: Rebekka Wandt

Printed in the European Union

ISBN 978-3-946296-33-1

Bibliographic information published by the Deutsche Nationalbibliothek:

The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie;

detailed bibliographic data are available on the Internet at <http://dnb.d-nb.de>.

Regionales Bauen und Siedlungsplanung

Leibniz Universität Hannover

Herrenhäuser Str. 8

D-30419 Hannover

www.staedtebau.uni-hannover.de