

DESIGN VALUES IN THE MEDITERRANEAN



PAD. Pages on Arts and Design

International, peer-reviewed. open access journal

founded by Vanni Pasca in 2005

Editor-in-Chief

Marinella Ferrara

Design Professor, Politecnico di Milano, Italy

Advisory Board

Tevfik Balcıoğlu

Arkin University, Kyrenia, Turkey

Murat Bengisu

Izmir University of Economics, Turkey

Isabel Campi

Design History Foundation, Barcelona, Spain

Eduardo Corte Real

UNIDCOM/IADE, Lisbon, Portugal

Antonio da Cruz Rodrigues

Universidad Lusofona, Lisbon, Portugal

Soumiya Mikou

Moroccan Design Association, Casablanca, Morocco

Ely Rozenberg

RUFA, Rome University Fine Art, Italy

Mireia Frexia Serra

Gracmon, Universitat de Barcelona, Spain

Andreas Sicklinger

Università di Bologna, Italy

Fedja Vukić

University of Zagreb, Croatia

Managing Editor

Chiara Lecce

Politecnico di Milano, Italy

Editorial Assistant

Giorgia Bonaventura

Politecnico di Milano, Italy

Editorial Board

Giuseppe Amoruso

Politecnico di Milano, Italy

Helena Barbosa

University of Aveiro, Portugal

Stefania Camplone

Università di Chieti-Pescara, Italy

Roberto De Paolis

Politecnico di Milano, Italy

Cinzia Ferrara

Università degli Studi di Palermo, Italy

Francesco E. Guida

Politecnico di Milano, Italy

Ashlev Hall

Royal College of Art, London, England

Elif Kocabivik

Izmir University of Economics, Turkey

Lia Krucken

Creative Change, Brazil and Germany

Carla Langella

Università degli Studi della Campania Luigi Vanvitelli, Italy

Giuseppe Lotti

Università di Firenze, Italy

Tomas Macsotay

Pompeu Fabra University, Spain

Nicola Morelli

Aalborg University, Copenhagen, Denmark

Alfonso Morone

Università Federico II, Napoli, Italy

Raquel Pelta

Universidad de Barcelona, Spain

Daniele Savasta

Yasar University, Izmir, Turkey

Alessandro Squatrito

Politecnico di Milano, Italy

Rosanna Veneziano

Università degli Studi della Campania Luigi Vanvitelli, Italy

Li Zhang

Beijing Information Science and Technology University, China

Publishing Consultant

Vincenzo Castellana, Architect, Italy

Art Direction

Francesco E. Guida

Web Site

Pietro Forino

Correspondents

Amina Agueznay (Morocco), Hèla Hamrouni (Tunisia),

Vesna Kujovic (Montenegro), Can Özcan (Turkey), Ana Perkovic (Croatia), Filip Roca (Montenegro),

Azadeh Sabouri (Iran), Marco Sousa Santos (Portugal),

Pascale Wakim (Lebanon)

Reviewers

Alaa Elanssary, Alfonso Morone, Alberto Bassi, Andreas Sicklinger, Anty Pansera, Burcu Yagiz, Carla Langella, Cigdem Kaya, Debora Giorgi, Dolly Daou, Elena Formia, Elif Kocabiyik, June Tolsby, Martina Motta, Murat Bengisu, Oscar Huerta, Osman Demirbas, Reham Mohsen, Rossana Gaddi, Tarek Abdellatif, Vera Renau

PAD

via Festa del Perdono 1 - 20122 Milano - Italy via Roma 171 - 90133 Palermo - Italy info@padjournal.net - editors@padjournal.net

Publisher

Aiap Edizioni

via A. Ponchielli 3 – 20129 Milano – Italy aiap@aiap.it - www.aiap.it

PAD © ISSN 1972-7887

#21, Vol. 14, December 2021

www.padjournal.net

O. EDITORIAL #21

The Value of Design in the Mediterranean by Andreas Sicklinger, Çiğdem Kaya & Reham Mohsen	006
I. MAKE	
Intersections between Design and Science in the Mediterranean Food Landscape by Carla Langella, Gabriele Pontillo & Roberta Angari	022
A Cup of Coffee between Tradition and New Cross-Cultural Experimentations by Irene Caputo, Marco Bozzola, Claudia De Giorgi	046
Mediterranean Design: Action-Research on Capodimonte Porcelain by Claudio Gambardella & Ilaria Masullo	069
Ceramic Design Culture in Kütahya and Reflections of Cultural Diversity by Yasemin Kutlay, Necla İlknur Sevinç Gökmen & Burcu Akdağ Çağlar	095
The Reinvention of Tradition in Making and Exhibiting of Dowry in Anatolian Culture by Aybeniz Gökmen & Fatma Nur Gökdeniz Zeynali	125
Genius Loci and Emerging Sustainable Fashion Strategies. Two Significant Case-Histories in Italy and Tunisia by Gabriele Goretti & Sonia Chikh M'hamed	153
II. FOCUS	
The Recovery of Vernacular Interior Design as a Value for the Modern Movement. Bridges between Le Corbusier, Gruppo 7 and GACTPAC by Sara Coscarelli	179
The Impact of Crisis and Diaspora on Design Culture and Events by Elena Vai & Lorela Mehmeti	210
Design for Responsible Innovation. Social Impacts of Products and Services Laura Succini, Margherita Ascari, Elena Formia, Valentina Gianfrate & Michele Zannoni	235
Transition Design as a Tool to Achieve Sustainability in Product Design by Osama Youssef Mohamed & Yasmin Mosad Hashem Sherif	256

Photography Testimony of Artisanal Values. The Boat Project as a Historical Memory of the Mediterranean by Antonio de Feo Design Perspectives. Placebeing on an Island in the Mediterranean by Spyros Bofylatos, Helen Charoupia, Vasiliki Nikolakopoulou & Paris Xintarianos-Tsiropinas

IV. BIOGRAPHIES

III. PROJECT

About the Authors	330
-------------------	-----

022

Intersections between Design and Science in the Mediterranean Food Landscape

Carla Langella, Gabriele Pontillo & Roberta Angari Università degli Studi della Campania "Luigi Vanvitelli"

Keywords

Design and Science, Food Design, Cultural Landscapes, Mediterranean Diet, Design Experimentation.

Abstract

Over the last few decades, design has become part of the realm of food in an increasingly incisive way, with the designing of both functional and communicative products at the service of nutrition as well as of food itself.

Design for food, through the interpretative filter of contemporary sciences and interdisciplinary experiments, takes the opportunity to consider the future scenarios of nutrition along with the possibility of finding adequate solutions to the increasingly stringent needs for well-being, health, and sustainability.

In this perspective, the scientific literature underlines the benefits of the Mediterranean diet, whose antioxidant, anti-inflammatory, soothing properties, as well as the presence of vitamins, mineral salts, and fibers, constitute a precious heritage to be enhanced and translated into contemporary lifestyles, as they favor the prevention and reduction of various pathologies.

This important baggage of scientific knowledge opens up new and unexplored fields of design experimentation for the discipline of design that is able to guide, convey and modulate the values and potential benefits of Mediterranean food culture through the design of artefacts that can be imbedded into everyday life, becoming an instrument for the treatment of psycho-physical well-being.

1. Introduction

Over the last few decades, the discipline of design has entered the dimension of food in an increasingly incisive way, through the designing of functional and communicative products at the service of nutrition and foods themselves. What has played an important role in this context, is the development of the most advanced and complex declinations of food culture, that is linked to the international interest in the food sector as an important value for culture, health, and sustainability, aspects highlighted by the multiplication of initiatives dedicated to food and its future - e.g., Expo 2015, Feeding the planet, energy for life, held in Milan. Among the numerous scenarios studied, the most interesting ones are molecular cuisine, nutraceuticals, and Sci-Fi Food, in which futuristic perspectives of food models are prefigured on the basis of the current promises of science and studied through chemical/ physical components.

In this perspective, thanks to the interpretative filter of contemporary sciences, design for food takes the opportunity to reflect on future food scenarios, along with the possibility of finding adequate solutions to the increasingly stringent needs for well-being, health, and sustainability. Designers, through interdisciplinary experiments, explore alternatives to current food production, proposing new materials, new ways of living, cultivating, communicating, and transforming, taking advantage of the energy and natural resources used in the food sector as well as the use of innovative digital technologies, such as 3D printing and artificial intelligence (Beckley et al., 2017).

This vision is even more significant when considered within the context of the cultural and productive landscapes of the Mediterranean, in which food has always represented an identity value, recognised and appreciated throughout the world, due to the virtuous combination of conviviality, multisensory enjoyment, attention to detail and beneficial properties for health, as highlighted by the experiments carried out in the early 2000s on some of the main foods of the Mediterranean diet (Visioli et al., 2005). From a purely scientific point of view, the literature highlights how the Mediterranean diet, rich in fruit, vegetables, fish, olive oil, and poor in foods of animal origin, can protect against the risk of chronic and degenerative diseases, cardiovascular disorders, and cancer (Esposito et al., 2017), preserve brain health (Squillaro et al., 2018), along with other elements maintains cognitive abilities as well as prevent Alzheimer's and dementia in the elderly (Perrone et al., 2020).

In addition to being associated with a reduction in mortality and the risk of contracting chronic metabolic diseases, the Mediterranean diet also reduces the impact on the environment, reducing carbon emissions and water consumption, thanks to the elevated number of food resources of plant origin – higher in the Mediterranean than in Northern Europe – due to the biodiversity of plants and cultures.

2. The "Design for Mediterranean Food" Project

This important baggage of scientific knowledge opens up new and unexplored fields of experimentation for the discipline of design that can guide, convey and modulate the values and potential benefits of Mediterranean food culture through the designing of communicative products, tools, packaging, functional foods (Bogue, Collins & Troy, 2017), and accessories that are grafted into the frenzy and frugality of everyday life to be translated into lifestyles and tools for the treatment of psycho-physical well-being.

In this context, was carried out the *umbrella* project *Design for Mediterranean food*, started in 2010 within the Hybrid Design Lab¹ (HDL) at the Department of Architecture and Industrial Design (DADI) of the University of Campania Luigi Vanvitelli, which have benefited since 2017 of the collaboration with the Department of Advanced Medical and Surgical Sciences (DAMSS) of the same University².

The project includes several hybrid activities (Langella, 2007) involving interdisciplinary research between design and science, didactic activities conducted in Design courses (Santulli & Langella, 2010), and collaboration and consultancy activities with companies, in order to integrate these different dimensions to converge towards a very important theme for contemporary society. Some of the activities carried out in the project are financed by research funds or companies or conducted in collaboration with the Città della Scienza Museum in order to spread these activities in an international scientific context. The results of these activities are projects in which design expresses its different speculative and proactive attitudes, inducing correct eating habits through the design of communicative artefacts, accessories, tools, and processes.

Coordination: Carla Langella.

² The activities described were funded as university research on the theme: *Design and nutra-ceutical science* coordinated by Carla Langella, and subsequently formed a research area within the TRANSITION project funded with inter-university VALERE funds in 2019.

All the products that will be described below, and that are part of the *Design for Mediterranean food project*, share the same methodology that links design skills, technical/scientific knowledge, production processes, and user's participation (Langella, 2019). The methodological approach, which is based on the collaboration with scientists, is structured as follows:

- Analysis of the design problem, defined by the hybrid team of scientists and designers through an intersection between the emerging scientific matters, recognised by scientists, and the society emerging needs, observed by designers using interviews, observation or focus group.
- Definition of the type of users and involvement following a user centred approach (Holtzblatt, Wendell & Wood, 2004; Giacomin, 2014).
- State of art analysis (scientific scenario of reference and design cases study).
- Concept definition. In this phase, the importance of a hybrid (design and science) approach is essential in developing strategies to induce and facilitate healthy behaviours and lifestyles, based on the values of Mediterranean agrofood culture, which can help to prevent and reduce the effects of some diseases through synesthetic and pleasurable experiences.
- Definition of morphology, structure, materials, processes and using models. These complex choices are oriented by the main objective of facilitating the adoption of designed artifacts and the integration in the user's life through a pleasant and easy experience. This is important to improve the quality of the relationship between people

and food and therefore the user's quality of life and their awareness of the impact that daily choices can have on their wellbeing. In this phase, that is led by designers and scientists, users and companies are involved through meetings and interviews.

Prototyping and trial tests, and exhibition³.

In the project *Design for Mediterranean food* the design discipline expresses its persuasive attitude, capable of inducing people to make specific actions and choices while making these actions simpler, more pleasant, fun, exciting, persistent, and continuous. In addition to this potential, there is the attitude of design for communication to convey the most recent scientific knowledge on the relationship between food and health, making it more accessible and easily memorized so that people become more aware and therefore able to make their choices on the basis of scientific knowledge.

3. Design to Promote Correct Eating Habits

Even if everyone is aware of the benefits of the daily consumption of fruit and vegetables, it is still relatively low in the most industrialized societies. The reason of this resistance is due to the difficulty of transporting and eating this type of food outdoor – e.g., at work – an issue highlighted by the Italian National Institute of Statistic (ISTAT), which statistics underline that people who eat out prefer to take food that is easy to transport,

³ Most of the products are exhibited in international science exhibitions promoted by Città della Scienza such as *Diatom de-Science, Intersections between Design and Science* (2014), *Italy: the beauty of knowledge* (2018-2020), *Italy: the art of science* (2021), *Futuro Remoto* (2017-2020).

that does not rise, that can be eaten with the hands, at room temperature, and without the need for additional tools. The consequence of this trend is the reduction in food quality. A possible answer to this problem is the *Dia_paper*⁴ project, one of the results of the research activities carried out within the HDL, whose aim is to facilitate the transport of fruit to consume out of home, reducing the risk of ruining it thanks to a single-fruit packaging with an origami morphology that protects its content. The project is realized in a special paper obtained experimentally by including diatomaceous powder⁵ in the cellulose in an increasing percentage, allowing to obtain a porous structure characterized by progressive gradients of moisture absorption and substances responsible for the rotting of fresh fruit, such as ethylene (Lee et al., 2015; Wei et al., 2020) (Fig. 1). Another reason for the low consumption of fruit and vegetables is distraction. People tend to forget to eat before-mentioned foods or drink water as if they are secondary actions to the basic meal consumed frantically. In these cases, design, through the creation of apps, communication tools, and products, can act as a reminder to eat fruit and vegetables. The Sensory Dishes⁶ collection aims to induce people to consume fruit and vegetables by evoking the colours, textures, and shapes of nature in a multisensory way, correlating the taste experiences to the psycho-physical benefits induced, aimed at the rediscovery of the body's needs (Lyman, 2012; Méndez-Balbuena et al., 2015).

⁴ Design by Mara Rossi; Coordination: Carla Langella.

⁵ Residual fossil diatom.

⁶ Design by Valeria Papa and Maria Bellanca; Coordination: Carla Langella.



Figure 1. Mara Rossi, *Dia_paper*, experimental single-fruit packaging obtained by including diatomaceous earth powder in the cellulose, 2014. Coordination: Carla Langella.



Figure 2. Valeria Papa and Maria Bellanca, Sensory Dishes, 2021. Coordination: Carla Langella.

This is possible thanks to the work done on the surface of the plates that, for example, is coloured and textured like an orange, to associate a multisensory stimulus to the experience. Infact scientific studies reveal that there is a correspondence between food, colours, and the body's needs. The intention of the project is to change the way of relating to food through a pleasant experience that is based on user's unconscious memory, and whose results are energetic and beneficial effects, both on body and mood, due to the consumption of fruit and vegetables (AlAmmar et al., 2020; Rooney et al., 2013) (Fig. 2).

As in the previous case, the Fresh_it⁷ fruit bowls aim to facilitate and encourage the consumption of fruit and vegetables by integrating different containers that simplify the washing, drying and consumption phases of this type of food. The work carried out on the surface, through the use of holes and grooves, not only allows the different containers in the kit to be stacked, but also the collection of excess washing water. The intention behind this project is to align the design of a product with the lifestyle of its users, through a single set of containers that simplifies and speeds up the washing, preparation, and consumption of a specific category of food (Fig. 3).

The relevance of the projects discussed in this section is the attempt to reverse a currently rampant lifestyle that sees a reduction in the consumption of foods such as fruit and vegetables both at home and away from home.

Design by Giovanna Montano; Digital design support: Gabriele Pontillo; Coordinator: Carla Langella.



Figure 3. Giovanna Montano, *Fresh_it*, 2021. Coordination: Carla Langella; Digital design support: Gabriele Pontillo.

In order to do this, it is considered that the development of products that can be an incentive towards a healthy diet, adapting their consumption to the lifestyle of the users, is a strategic choice in terms of their well-being and health.

These aspects are linked to those more closely related to therapeutic agenda for chronic, degenerative, or cancerous diseases, which impose very strict dietary regimes in the already difficult life of patients, characterized by a prevalence of vegetables and whole foods, as well as specific methods of preparation, conservation, and consumption. This leads to a series of psychological, cultural, economic, social, and anthropological problems that can be addressed through the tools of *design for food* (Zampollo & Peacock, 2016; Batat & Addis, 2021; Massari, 2021) and *design for all* (Aslaksen et al., 1997; Bendixem & Benktzon, 2015; Persson et al., 2015), which allow

032

the creation of artefacts that make medical indications more acceptable and adoptable. In this perspective, the intention of the projects developed at the HDL is to respond to needs such as the assimilation of antioxidant nutrients or reducing the intake of fats and sugars, both for pathological and borderline situations (stress, depression, old age), in order to rebalance body awareness, the ability to perceive, feel and modulate external sensory and multisensory stimuli, based on the most recent neuro-physiological mappings.

To do this, particular attention is paid to the design of nutraceutical foods, tools that simplify and speed up the preparation of meals, as well as accessories for the transport and consumption of meals themselves.

An example of what has been stated is the *BomBum*⁸ project (Fig. 4), whose purpose is to improve and simplify the preparation of healthy food at home, thanks to a multi-component measuring and moulding spoon that allows individual foods to be dosed into spherical snacks. The aim of the project is to become a useful tool for users who, for health or wellness reasons, need to take a certain amount of certain types of food – e.g. polyphenols – generally available as supplements in pill form, drinks, etc. With *BomBum*, the user can shape the snack autonomously by creating a multi-textured structure consisting of a more solid and compact outer shell, and an inner core of nutraceutical liquids or seeds (Hussain et al., 2021) that are injected into the shell through a small internal piston with different injection sections.

⁸ Design by Chiara Bottari, Benedetta Cuomo, Margherita Cuomo, Rossella Di Maro; Digital design support: Gabriele Pontillo; Coordination: Carla Langella.

BomBum consists of three main elements, the handle, designed to suit both left and right-handed users, with a cavity through which the syringe for injecting the liquid texture passes. The handle is attached to the hemisphere, which can be used as a spoon during preparation, and once this stage is complete the upper part of the hemisphere is used to shape the snack shell. Both halves, detached from the shell and hooked together, form the packaging of the snack. The relevance of this project lies in the possibility of enclosing in a single object the preparation, conformation, transport and consumption of a highly functional food, as it is customised to the specific needs of a user.

4. New Digital Technologies for Food Design

Among the products developed during the study, there are also systems of products and services for the tasting of foods of excellence of Mediterranean culture aimed at valorising the ancient and rooted production traditions in a contemporary key, which highlight the nutritional values, achieved through innovative digital technologies, such as 3D printing and artificial intelligence.

The *Sunder*⁹ project is based on the valorisation of the Sorrento IGP walnut and its derivatives, through a kit that aims to provide a synesthetic experience that integrates taste (Cardello & Schutz, 2003) and touch to amplify the qualities of the walnut, to favour its consumption (Ni et al., 2021) as well as reactivating the local micro-economy, while averting the risk of the disappearance of walnut trees.

⁹ Design by Cinzia Gervasio, Claudia Improda, Simone Martucci, Vincenza Pellegrino, Alessia Schettino; Digital design support: Gabriele Pontillo; Coordination: Carla Langella.





Figure 4. Chiara Bottari, Benedetta Cuomo, Margherita Cuomo, Rossella Di Maro, BomBum, multi-component measuring and moulding spoon for healthy homemade food. Coordination: Carla Langella; Digital design support: Gabriele Pontillo.



Figure 5. Cinzia Gervasio, Claudia Improda, Simone Martucci, Vincenza Pellegrino, Alessia Schettino, Sunder, nut tasting kit, 2021. Coordination: Carla Langella; Digital design support: Gabriele Pontillo.

The intention of this project is to trigger the curiosity of the user through gestures that can enhance the experience and convey the strong identity of this type of food. In this case, an integral part of the methodology applied is bio-inspiration; the kit designed includes different components for the study of each of which was inspired by nature: the nut-opener, for example, is bio-inspired to the structure of the beak of the *Haematopus ostralegus* which uses the beak to open oysters, while the tool used to extract the nut from the shell is inspired by the skeleton of the *Pedicellaria echinoidea*. Other components of the kit are a small hook, a fork, and a straw to taste the walnut liqueur.

The next stages of the project described above involve conducting perception and usability tests. With regard to its production, the material chosen for all the accessories is zirconium oxide, a ceramic material already used in the production of utensils for food use (Fig. 5).

The description of the Sunder project shows how additive technologies can be used to rapidly produce an object that can be analysed and evaluated from various points of view. Nevertheless, the use of 3D printing is not limited to the production of accessories, but also of food, as it allows the development of functional foods, custom-designed in terms of both ingredients and configuration according to the nutritional needs of the individual – prevention of allergens, animal products, religious restrictions, weight control, hypersensitivity –, characterised by complex and elaborate geometries and textures.

Through 3D food-printing, it is, therefore, possible to enrich the nutritional composition of food, in which precious alternative raw materials – such as insects, algae, seed husks, animal proteins grown in the laboratory or proteins of plant origin – are introduced, and at the same time, shape the food products on specific consumer needs, maintaining visually appealing shapes and ethically sustainable production (Lupton & Turner, 2016). A reality in the Campania region that deals at an experimental level with the additive production of food is Stampa3DSud, which through this technology has developed nutraceutical products through foods such as carrots and potatoes, inspired by the geometries of nature, such as the nautilus, and the ramifications of corals (Fig. 6).



Figure 6. Stampa3DSud, 3D printed food experiments, 2021.

Even if it is mainly applied to the military and space sectors, as well as gourmet cuisine and food for the elderly, the development of health and wellness products can become a reason for the use of 3D printing in food for expanded distribution. Digital gastronomy introduces issues related to culinary experiences that go beyond simple taste, investing all the aspects

of gastronomy (Van Bommel & Spicer, 2011). 3D food-printing, therefore, allows consumers to "continue eating experiences" – visual, material, nutritional, etc. – and enjoy food while the meals are being prepared and consumed. Nevertheless, there is still a long way to go in this area, in terms of both experimentation and production, from the point of view of aesthetics, acceptability and commercialisation of 3D printed food.

5. Design for Awareness of the Relationship between Food and Health

The results of the *Design for Mediterranean food* study consist not only of products but also of visual artefacts, the aim of which is to improve the quality of the relationship between food and people, informing users about the food choices that facilitate healthy behaviours and lifestyles.

An analysis of current scientific literature highlights how the relationship between food and health is consolidated for different age groups, cultural backgrounds, and health states (AlAmmar et al., 2020). This relationship becomes even more evident when comparing users suffering from diseases such as Neurofibromatosis type 1, diabetes, obesity, as well as psychological pathologies such as depression.

In line with what was previously stated, there is the awareness that healthy diets, such as the Mediterranean diet, make it possible to prevent the risks associated with chronic diseases: for example, scientists study *dietary patterns*, who rather than looking at individual nutrients or foods, propose an analysis of the food model which, in a more predictive way, can quantify the *extended* benefit that food combinations, such as

those of the Mediterranean diet, can have on individuals (Del Chierico et al., 2014).

Communication design, and in particular information design, therefore acquire a central role concerning the possibility of conveying information and disseminating knowledge among heterogeneous groups of users, thanks to the visual translation of data that allow improving food choices and portions, triggering an improvement in the state of mind and health, while also preventing some pathological conditions. The project activity described in the current paragraph was carried out thanks to the collaboration with the Department of Advanced Medical and Surgical Sciences of the University of Campania Luigi Vanvitelli, and in particular with the research group coordinated by Prof. Mariarosa Anna Beatrice Melone, who made it possible to acquire the necessary scientific information as well as experiment with visual forms and graphic layouts that could best convey easily decodable information. Thanks to the methodology described in the previous paragraphs, and to an approach based on the convergence between the rigour imposed in the treatment of technical/scientific data, and their visual and at the same time narrative translation for a better dissemination of the contents (Star & Griesmer, 1989), two different types of products were created: one dedicated to digital use via the web, the other conceived as a printed leaflet. The infographics created for the web were designed to be used as a dissemination product on the most popular social networks. Created using a mixed graphic-photographic technique, this visualization aims to relate the number of different foods that satisfy the daily requirement of vitamin C, D, polyphenols, and omega3.



Figure 7. Roberta Angari, Food infographics, quantitative infographic on foods containing specific nutrients, 2021.



Figure 8. Roberta Angari, Portions and proportions, guide to the ideal proportions for a healthy lifestyle, 2021.

The project is characterised by the amazement of the user in understanding how very different quantities can give the same amount of vitamins or nutrients needed by the body (Fig. 7). The printed leaflet is meant to be a guide to the ideal portions of food, which allow maintaining a healthy lifestyle. The hierarchy of information that is articulated between the outside and the inside makes it immediately clear how making healthy meals is one of the most important first steps to take not only for physical fitness but above all health. Few rules such as drinking a lot, reducing the consumption of oils, eating lots of seasonal fruit and vegetables and many colours, as well as dedicating a part of the meal to carbohydrates and proteins, guarantee the creation of a balanced meal, optimal for daily needs (Fig. 8).

6. Conclusions

The projects and experiences carried out in the *Design for Mediterranean Food* project, and the scenario described in the contribution, show how design plays an increasingly important role in the creation of artefacts that translate scientific information into everyday action, especially when this action has an impact on the health and well-being of users. This is well described on the one hand by the relevant scientific literature, and on the other hand, albeit in an experimental way, by the projects listed, whose intent is to create experiences around food, emphasising how the consumption of healthy and Mediterranean foods is fundamental to increase the degree of involvement and evolution of users' daily practices. In fact, as stated in the previous paragraph, the Mediterranean diet constitutes a precious reference for the design of future

food landscapes, oriented towards health and widespread well-being, sustainability, and enjoyment.

In addition, a healthier approach to food selection, preparation and consumption, has a further positive impact on users, helping to rebalance the hormonal structure, strengthening the feeling of psycho-physical well-being, as well as preventing and treating some pathological conditions.

As a conclusion, the last but not least aspect is that both, from a product and communication design point of view, design is able to convey values and information, making them an integral part of users' daily lives. This, thanks to the methodology used and described above, constitutes a significant feature of the projects described, as it allows the humanisation of technical objects, through the design of sensorial experiences and the active participation of users, to converge with the rigour required when confronting with the design of an artefact that translates technical/scientific information. This last theme, which is well linked to the issues more closely related to the field of information design, is actually much broader and scalable, mainly if contextualised with the design of artefacts, whether tangible or intangible, related to health and well-being.

Acknowledgements

The authors would like to thank all the researchers involved in the research line *Design for Mediterranean Food*, which through their contribution have allowed to develop the results described. The authors also thank the students of the courses of "Bio-Innovation Design", "Design for Science Visualization" and "Laboratory of Industrial Design III", who contributed to the realization of the aforementioned projects.

This article was discussed and agreed by the three authors and was written having shared the bibliography, readings, researches and reflections. Carla Langella is responsible for the paragraphs "2. The "Design for Mediterranean Food" Project" and "3. Design to Promote Correct Eating Habits". Gabriele Pontillo is responsible for the in-depth study of the paragraph "4. New Digital Technologies for Food Design", while Roberta Angari is responsible for the in-depth study of the paragraph "5. Design for Awareness of the Relationship between Food and Health".

The introductory paragraph and conclusions, were jointly written by the three authors.

References

AlAmmar, W.A., Albeesh, F.H., & Khattab, R.Y. (2020). Food and Mood: the Corresponsive Effect. *Current Nutrition Reports 9*, 296–308. https://doi.org/10.1007/s13668-020-00331-3

Aslaksen, F., Bergh, S., Bringa, O.R., & Heggem, E.K. (1997). *Universal Design. Planning and Design for All*. The Norwegian State Council on Disability.

Batat, W., Addis, M. (2021). Designing food experiences for well-being: a framework advancing design thinking research from a customer experience perspective. *European Journal of Marketing*, *55*(9), 2392-2413. https://doi.org/10.1108/EJM-12-2020-0893

Beckley, J.H., Herzog, L.J., & Foley, M.M. (Eds.). (2017). *Accelerating new food product design and development*. Wiley-Blackwell.

Bendixen, K., Benktzon, M. (2015). Design for All in Scandinavia - a strong concept. *Applied ergonomics*, 46 Pt B, 248–257. https://doi.org/10.1016/j.apergo.2013.03.004

Bogue, J., Collins, O., & Troy, A.J. (2017). Market analysis and concept development of functional foods. In D. Bagchi & N. Sreejayan (Eds.), *Developing New Functional Food and Nutraceutical Products* (pp. 29-45). Academic Press.

Cardello, A.V., & Schutz, H.G. (2003). The importance of taste and other product factors to consumer interest in nutraceutical products: Civilian and military comparisons. *Journal of Food Science*, 68(4), 1519-1524.

Del Chierico, F., Vernocchi, P., Dallapiccola, B., & Putignani, L. (2014). Mediterranean Diet and Health: Food Effects on Gut Microbiota and Disease Control. *International Journal of Molecular Sciences*, *15*, 11678-11699. https://doi.org/10.3390/ijms150711678

Esposito, T., Schettino, C., Polverino, P., Allocca, S., Adelfi, L., D'Amico, A., & Melone, M.A.B. (2017). Synergistic interplay between curcumin and polyphenol-rich foods in the mediterranean diet: Therapeutic prospects for neurofibromatosis 1 patients. *Nutrients*, *9*(7), 783.

Giacomin, J. (2014). What is human centred design? *The Design Journal*, *17*(4), 606-623.

Holtzblatt, K., Wendell, J.B., & Wood, S. (2004). *Rapid contextual design: a how-to guide to key techniques for user-centered design*. Elsevier, p. 320.

Langella, C. (2007). *Hybrid design: progettare tra tecnologia e natura*. FrancoAngeli.

Langella, C. (2019). Design e scienza. List-Lab.

Lee, S.Y., Lee, S.J., Choi, D.S., & Hur, S.J. (2015). Current topics in active and intelligent food packaging for preservation of fresh foods. *Journal of the Science of Food and Agriculture*, *95*(14), 2799-2810.

Lupton, D., & Turner, B. (2016). Both fascinating and disturbing: Consumer responses to 3D food printing and implications for food activism. In T. Schneider, K. Eli, C. Dolan, & S. Ulijaszek (Eds.), *Digital Food Activism*. Routledge.

Lyman, B. (2012). *A psychology of food: More than a matter of taste*. Springer Science & Business Media.

Massari, S. (2021). Transdisciplinary Case Studies on Design for Food and Sustainability. Elsevier.

Méndez-Balbuena, I., Huidobro, N., Silva, M., Flores, A., Trenado, C., Quintanar, L., ... & Manjarrez, E. (2015). Effect of mechanical tactile noise on amplitude of visual evoked potentials: multisensory stochastic resonance. *Journal of neurophysiology*, *114*(4), 2132-2143.

Ni, Z. J., Zhang, Y. G., Chen, S. X., Thakur, K., Wang, S., Zhang, J. G., ... & Wei, Z. J. (2021). Exploration of walnut components and their association with health effects. *Critical Reviews in Food Science and Nutrition*, 1-17.

Perrone, L., Sampaolo, S., & Melone, M.A.B. (2020). Bioactive phenolic compounds in the modulation of central and peripheral nervous system cancers: Facts and misdeeds. *Cancers*, *12*(2), 454.

Persson, H., Åhman, H., Yngling, A.A. et al. (2015). Universal design, inclusive design, accessible design, design for all: different concepts-one goal? On the concept of accessibility-historical, methodological and philosophical aspects. *Univ Access Inf Soc, 14*, 505-526. https://doi.org/10.1007/s10209-014-0358-z

Rooney, C., McKinley, M. C., & Woodside, J. V. (2013). The potential role of fruit and vegetables in aspects of psychological well-being: a review

of the literature and future directions. *Proceedings of the Nutrition Society*, 72(4), 420-432.

Santulli, C., & Langella, C. (2010). Hybridisation between technology and biology in design for sustainability. *International Journal of Sustainable Design*, *1*(3), 293-304.

Squillaro, T., Schettino, C., Sampaolo, S., Galderisi, U., Di Iorio, G., Giordano, A., & Melone, M.A.B. (2018). Adult-onset brain tumors and neurodegeneration: Are polyphenols protective?. *Journal of cellular physiologi*, *233*(5), pp. 3955-3967.

Star, S.L., Griesemer, J.R. (1989). Institutional ecology, translations and boundary objects e amateurs and professionals in Berkeley's Museum of Vertebrate Zoology, 1907-39. *Social Studies of Science*, *19*(3), 387-420.

Van Bommel, K., & Spicer, A. (2011). Hail the Snail: Hergomonic Struggles in the Slow Food Movement. *Organization Studies*, *32*(12), 1717-1744. https://doi.org/10.1177/0170840611425722

Visioli, F., Bogani, P., Grande, S., & Galli, C. (2005). Mediterranean food and health: building human evidence. *Journal of Physiology and Pharmacology*, *56*(1), 37-49.

Wei, H., Seidi, F., Zhang, T., Jin, Y., & Xiao, H. (2021). Ethylene scavengers for the preservation of fruits and vegetables: A review. *Food chemistry*, *337*, 127750. https://doi.org/10.1016/j.foodchem.2020.127750

Zampollo, F., & Peacock, M. (2016). Food Design Thinking: A Branch of Design Thinking Specific to Food Design. *The Journal of Creative Behavior*, *50*(3), 203-210. https://doi.org/10.1002/jocb.148



BIOGRAPHIES

Roberta Angari

She is an Italian graphic designer. In 2015 she graduated in Design for Innovation at University of Campania "Luigi Vanvitelli". In 2020 she obtained a Ph.D. degree in Architecture, City and Design - Design Sciences at University IUAV of Venice with the dissertation "Kono - Analysis and design of a digital archive of visual communication". Main focus of her line of research are data visualization, digital design and digital archive - knowledge acquired during her academic path. Since may 2020 she has a research grant entitled "Scientific Design for Medical Research", with tutor Carla Langella, at the University of Campania "Luigi Vanvitelli" - Department of Architecture and Industrial Design (DADI). At the same Department, she is Teacher Assistant of the course "Visual identity for Cultural landscapes" held by Daniela Piscitelli. roberta.angari@unicampania.it

Margherita Ascari

PhD Student in Architecture and Design Cultures at the University of Bologna. She graduated at the University of Bologna in Product Design in 2018 and obtained a master's degree in Service Design at the University of Bologna in 2020, discussing a thesis about the role of data visualization in participatory processes and in the communication of urban transformations. Her main research topics are related to the use of data visualization as a tool for the democratization of the processes of co-production of services for the city.

margherita.ascari2@unibo.it

Spyros Bofylatos

He holds a doctorate in theory of Design from the Department of Products and System Design Engineering of the University of the Aegean. His research sprawls around Design for sustainability, craft, service design and social innovation. His work is based on creating meaningful dialogue between the theoretical framework and the sociotechnical propositional artifacts that embody different questions in a Research through Design approach. Applying introspective and auto-ethnographic methods to this process he aims to challenge the dominant modernist epistemology of design. At the very core of this process lies the notion that we live in transitional times and fostering the discourse that leads to networks of artifacts that embody alternative systems of values is necessary to move away from today's unsustainable society. bofy@aegean.gr

Marco Bozzola

Associate professor in design at the Department of Architecture and Design of Politecnico di Torino, where he teaches Concept Design and Design for Cultural Heritage at the bachelor degree in Design and Communication. His research fields are design for crafts and territory, design for cultural heritage and packaging design. Research areas that develop through the exploration of the relationships between local artisan production and design in the Piedmont Region and find applicative feedback in research activities and design actions.

marco.bozzola@polito.it

Burcu Akdağ Cağlar

PhD candidate in Design Studies in the Izmir University of Economics. She did her master's in Middle East Technical University in the Biotechnology Department. She is a biochemist. She had her company about biomaterials and worked for three years as R&D in the Republic of Turkey Ministry of Energy and Natural Resources.

She has been working in Izmir Institute of Technology as a lecturer for three years. After biotechnology and chemistry fields, she tries to shift her career into design. Her research interests are biodesign and biomaterials.

burcuakdag@iyte.edu.tr

Irene Caputo

Systemic designer particularly keen on relationships between cultures, and enhancement of territorial identities. She is currently a PhD candidate at the Department of Architecture and Design of Politecnico di Torino, with a research project on the improvement of cultural heritage and cultural accessibility, with the aim of highlighting new approaches in defining the relationships between design, cultural heritage and communities.

irene.caputo@polito.it

Helen Charoupia

She holds a degree in Product and Systems Design Engineering from the University of the Aegean, majoring in Service Design. Since 2020, she has been a PhD candidate in the Department, studying issues related to the emergence of sustainable futures through design.

Using participatory action research she aims to explore the ways in which tacit knowledge can emerge, be understood and leveraged to better design relational services for sustainable futures. This exploration will pivot on the ways of knowing that emerge from the process of design, craft and co-creation as well as on the indigenous practices at the local level. Her research aims to enable the emergence of a new design epistemology, based on concepts like post-humanism as well as on feminist and indigenous theoretical frameworks. This will be accomplished with small groups of people, within which co-creation will occur, following processes of participatory design.

hcharoupia@aegean.gr

Sara Coscarelli

PHD Fellow Professor at EINA, Centre Universitari de Disseny i Art de Barcelona, at the UAB, since 2011. She is doctorate in Humanities (2023), at UPF, and Graduate in Interior Design (2004) at EINA. She combines teaching in Space Design Bachelor at EINA with and researching. She coordinates the Master in Space Design and also she has her own studio of space design Sara Coscarelli Creación de Espacios (2008). Her researches are related with Interior Domestic in the Mediterranean context. She is developing consequences of the Mediterranean Critical Regionalism concept. She has published in many international conference. Moreover, she is an Interior Designer with own studio.

Antonio de Feo

PhD student in Design Science at Università luav di Venezia, designer and photographer. He investigates how the culture of the project can become a tool for reading and social innovation. After graduating in Industrial Design at the Polytechnic University of Bari with a thesis that combines territory, handicraft, design and industry, patented by the Polytechnic, he moves to Venice where he continues his studies at the luav University, graduating in product and visual design with a thesis on photography for design. In September 2020 he becomes a research fellow at the luav of Venice. In his research he intends to analyze representational and transformative technologies as tools to communicate and market a product or a service. In addition, he studies to understand how photography could become a means of analysis and study for design, becoming historical memory of ancient craft values and material knowledge.

adefeo@iuav.it

Claudia De Giorgi

Architect and Full Professor of Design at Politecnico di Torino, she is a researcher in the field of the culture of materials for innovative design, technologies and production processes, investigating the sensory and sustainable dimension in a human-centred approach to design, which pays attention to people real needs: functional, relational and perceptive. The work is carried out in close connection to the regional manufacturing sectors as part of a complex system of relationships which aims to disseminate innovation, develop new technological paradigms and new, more sustainable production scenarios. Scientific Director of MATto, innovative materials archive open to Piedmont SMEs, since 2018 she is Vice Rector for Quality, Welfare and Equal Opportunities at the Politecnico di Torino. claudia.degiorgi@polito.it

Elena Formia

Associate Professor in Design at the Department of Architecture of the Alma Mater Studiorum - Università di Bologna, where she is Director of First Cycle Degree in Industrial Design and of the Second Cycle Degree in Advanced Design.

She is member of the Advanced Design Unit. Her main research topics are advanced design and future-focused processes, design education and the relationship between design sciences and humanistic knowledge.

She wrote articles both in international conferences and journals, such as "Strategic Design Research Journal", "Design and Culture", "Journal of Design History", "MD Journal", "DIID. Disegno Industriale Industrial Design", "The Design Journal". elena.formia@unibo.it

Claudio Gambardella

Architect and designer, Full Professor of Industrial Design at the Architecture and Industrial Design Department of Campania University "Luigi Vanvitelli". He is also affiliate professor (invited) at the School of Design of East China Normal University in Shanghai, the Faculty of Architecture and Design of Özyeğin University in Istanbul and the Department of Architecture of Istanbul Gelişim University.

One of his main lines of research concerns the valorization of that design dialoguing with craftsmanship, strongly anchored to territories of the country, and capable of supporting the Made in Italy development, that is what he names "Handmade in Italy. About this, he is the national coordinator of the ADI Thematic Commission "Handmade in Italy," which he founded in 2017. Since 2020 he is Scientific Committee member of SYMBOLA Foundation for Italian Qualities. claudio.gambardella@unicampania.it

Valentina Gianfrate

Researcher in Service Design and lecturer at the Advanced Design Master's Degree Course. Her fields of expertise are: advanced design approach to support urban transformations through multi-stakeholders collaboration, co-design of urban accessibility, design for preparedness.

She is involved in the development of International projects and in educational cross-city programs about design for responsible innovation.

valentina.gianfrate@unibo.it

Aybeniz Gökmen

Research assistant at Karabük University Industrial Design Department and also a Ph.D. student at Gazi University Industrial Design Department. Her research interests are focuses on Cultural Studies, Making Culture and Post-industrial Production. For the PhD research she is more focused on democratic design platforms on cultural interaction basis. In her current work she and her co-worker argues the current socio-cultural transformation in Anatolian Dowry Culture in the context of reinvention of tradition.

aybenizgokmen@karabuk.edu.tr

Necla İlknur Sevinç Gökmen

PhD candidate in Design Studies at Izmir University of Economics, İzmir, Turkey. She completed her undergraduate and graduate education in Industrial Design Program at Istanbul Technical University. Currently, she is teaching design courses at Istanbul Medipol University. Her research interests are circular design, craft, and design for social innovation.

nisevinc@medipol.edu.tr

Gabriele Goretti

Associate professor at Jiangnan University in Wuxi (China) where is leading the Brand Future UX Design lab and teaching Design management and Design Methodologies and Principles courses. Contract Professor at ESSCA Business School/Shanghai where is teaching Design Innovation for Luxury Market.

From 2007 to 2017 lecturer fellow and then post-doc researcher at DIDA Department of University of Florence, where he led several joint research labs in between Academia and advanced craftsmanship SMES. Professor in Fashion Design and Product Design at undergraduate program in Design of University of Florence. PhD in Industrial design, Environment and History, his professional profile is focusing on relationships between design strategies and advanced manufacturing processes. Academic coordinator at Fashion Design department of IED-Istituto Europeo di Design in Florence from 2014 to 2018. From March 2018 to December 2019, Associate Researcher at Nanjing University/School of Art.

8202001218@jiangnan.edu.cn

Yasemin Kutlay

She is an interior and spatial designer, a design researcher and PhD candidate. She studied Interior Architecture and Environmental Design at the Izmir University of Economics. Additionally, she carried out one of her internships in Chiba University, Japan together with Prof. Kaname Yanagisawa Lab. with a JASSO scholarship. After, she got her MSc. degree from Politecnico di Milano in Interior and Spatial Design where she worked as an intern design researcher at PoliMi Desis

Lab. Currently, she is living and working in İzmir and continuing her studies in neuroaesthetic interiors for wellbeing, and Al technology in design.

yasemin.albayrak@ieu.edu.tr

Carla Langella

Architect, Associate Professor of Industrial Design at the Department of Architecture and Industrial Design, University of Campania "Luigi Vanvitelli".

She teaches Bio-innovation Design and Design for Scientific Visualization in the Master's Degree Course Design for Innovation and Industrial Design Laboratory 3 in the Three-year Degree Course of Design and Communication. In the field of experimental design research, she investigates the opportunities to build hybrid paths that involve advanced scientific contributions in the design project to bring contemporary science closer to people's lives.

Since 2006 she founded and coordinates the Hybrid Design Lab (www.hybriddesignlab.org), the design laboratory dedicated to mutual relations between design and science with particular attention to the experimentation of biomimicry in design and the integration of designers in the development processes of new materials to which the specific Designer in lab project is dedicated.

carla.langella@unicampania.it

Sonia Chikh M'hamed

Associate Professor of Strategy and International Management at ESSCA School of Management in Shanghai. She is also in charge of the research coordination of Shanghai Campus. Prior to her current position, she worked at Renmin University of China as an Associate Professor in Management Control, where she has received the Teaching Excellence Award in 2016. Dr Chikh M'hamed obtained her PhD in Management Sciences from the University of Angers in 2012, an MBA in Audit & Financial Control and a degree of Master Research from the IAE Lyon and EM Lyon Business School. Since 2009 Dr Chikh Mhamed has held several teaching positions in various universities and business schools in France, Italy and China and conducted consultancy in strategy and international business. Her areas of research focus on collective strategies, business models and innovation as well as sustainability, in particular in Europe and Asia. In 2020, she has received a fellowship on the European Green Deal of Konrad-Adenauer-Stiftung in Berlin.

Ilaria Masullo

Architect, freelancer, graduated from Sapienza University of Rome, in 2017, with a dissertation on architectural and ladscape design. Worked at an architecture firm first, and then at an engineering firm.

Has collaborated on multiple research projects in the field of design, mostly books and exhibitions. Currently member of the editorial board of the annual magazine "Southern Identity".

ilaria.masullo@uniroma1.it

Lorela Mehmeti

PhD Student in Architecture and Design Cultures at the University of Bologna. Her current work focuses on the analysis of scientific production and critical analyses of design cultures. Her experience on the field working with the civil society in the Balkan area gave her the chance to engage in the project development sector, namely grant-writing for projects and fundraising. These activities have paved her way towards the analysis of project design and new co-design methodologies for strategic inclusion, through culture and creativity as tools for increasing community resilience.

Vasiliki Nikolakopoulou

She holds a bachelor's degree in Mathematics (2012) from the National and Kapodistrian University of Athens, and a master's degree from the Department of Design Engineering of the University of the Aegean (2015). She is currently doing her PhD at the same department (2018), focusing on UX evaluation methods in interactive systems related to cultural heritage. She is also a research fellow and member of the Heritage Management e-Society (HERMeS) NGO.

She has been a Marie Curie Early Stage Researcher (2016) in Cyprus and Austria at an Initial Training Network (ITN) dedi-

cated to digital cultural heritage. The multidisciplinarity of the field she engaged in, emerged numerous research interests covering areas from HCI, participatory and conceptual design, interaction design, and heritage management. v.nikolakopoulou@aegean.gr

Gabriele Pontillo

He is an Italian product designer. In 2015 he graduated in Design for Innovation at the University of Campania "Luigi Vanvitelli". In 2019 he obtained a Doctoral Research Fellowship in Environment, Design and Innovation at the University of Campania "Luigi Vanvitelli".

Main focus of his line of research are parametric design, medical design, and advanced manufacturing – knowledge acquired during his academic path. The Ph.D. course with industrial characterization has allowed him to carry out and consolidate his research activity, as well as at his university, also at the Escuela Técnica Superior de Ingeniería y Diseño Industrial (Universidad Politécnica de Madrid, Spain) and a company from Campania, based in Gricignano di Aversa, to design a system of innovative orthopaedic devices through parametric design.

gabriele.pontillo@unicampania.it

Laura Succini

Architect with experience in strategic design for development of project that links territory, manufacturing and creativity. She is Phd student at University of Bologna, her main research topics are design and collaborative approach within territories and design for responsible innovation.

Since 2018 she is a member of the Advanced Design Unit, the design research group of the Department of Architecture – University of Bologna.

laura.succini@unibo.it

Yasmin Mosad Hashem Sherif

She is an industrial designer, and in 2017 she awarded Bachelor's degree in industrial design from the faculty of Applied Arts, Banha University – Egypt. After graduating university with highest honors, she worked at the same faculty as a Teaching Assistant in industrial design department.

Currently she is working on her Master's degree with topic "Transition Design as an Approach to Products Design under Crises and Societal challenges" to take advantage of the transition design in the face of the changes produced by crises and societal challenges to completely reshape life patterns for creating a more sustainable desirable future for all. vasminsherif2021@gmail.com

Elena Vai

PhD in Advanced Design, she is coordinator of the Research Centre for the Interaction with the Cultural and Creative Industries at the University of Bologna. Since 1995 she has operated as event designer, curator, mediator and producer of cultural and editorial projects on the topic of Cultural and Creative Industries.

Since 2014 she teaches and works in the Advanced Design Unit of the University of Bologna. elena.vai@unibo.it

Paris Xyntarianos-Tsiropinas

PhD candidate in the Department of Product and Systems Design Engineering of the University of the Aegean. He has graduated from the undergraduate program of the same department (2013) and holds a master's degree from the school ELISAVA - Barcelona School of Design and Engineering (2015), in the field of illustration and comics.

He is occupied with street art and mainly with large-scale murals. He's worked individually and with his team, Really? Team, in various parts of Greece.

He also works as a designer, illustrator, street artist and musician. His interests include photography, production and direction of audiovisual works, writing and acting. His research interests revolve around Design, Art and Creation, focusing on the design processes that precede, are subject to and follow the creation of works of Street Art, and how they are qualitatively and quantitatively related to Design, in terms of productivity, quality, performance and user experience.

parisxt@aegean.gr

Osama Youssef

Currently he is professor of industrial design at the Faculty of Applied Arts, Helwan University. The academic history extends gradually, starting from a teaching assistant to a professor. During those periods, he taught at many public and private universities, which have departments of industrial design and product design. He published more than twenty research papers in refereed scientific journals and local and international conferences, supervised many master's and Ph.D. theses, and participated in the discussion and judgment committees for scientific theses. He received the award for the best master's thesis at Helwan University, as well as the medal of the Faculty of Applied Arts. Patent design for a white cane model for the blind. Held several workshops for designing and prototyping in addition to many participations in the field of industry, especially the manufacture of handmade models, as well as community service and volunteer work for people with special needs. drosamayousefm@gmail.com

Michele Zannoni

Associate Professor of Industrial design. He is a member of the Advanced Design Unit at the University of Bologna – Department of Architecture. His publications include articles and books which explore the intersection of interaction processes and visual and product design.

His scientific research is concerned about digital and physical products and interaction design. In his professional activity, he collaborated on several projects of user interfaces and interactive systems.

michele.zannoni@unibo.it

Fatma Nur Gökdeniz Zeynali

Research assistant at Karabük University and PhD student at Gazi University Industrial Design Department. She has studied Industrial Design and before working as a Design Researcher she had some experience as Industrial Designer for the Automotive Sector. Her research interests are focuses on User Experience Design and Models for future concepts. For the PhD research she is more focused on Interaction Centered Models of User Experience on future products such as electric cars. In her current work she and her co-worker argues the current socio-cultural transformation in Anatolian Dowry Culture in the context of reinvention of tradition.

fnurgokdeniz@karabuk.edu.tr



AIAP CDPG, the Graphic Design Documentation Centre. Working to collect, catalogue, archive, enhance and promote any documents related to graphic design and visual communication. These documents (originals as well as layouts of projects, books, posters, prints, catalogues, correspondence, photographs) help to rewrite the history of graphic design in Italy and to support research and educational activities, as it is the CDGP's intention to make these documents widely available.





A HEART BEATS WITHIN AIAP. FIND IT OUT.





via A. Ponchielli, 3 Milano aiap.it – @Aiap ita



PAD. Pages on a and Design

International, peer-reviewed, open access journal ISSN 1972-7887

#21, Vol. 14, December 2021

www.padjournal.net

