Design challenges in creative systems

THEORIES, METHODS AND PRACTICES
FOR SUSTAINABILITY AND INCLUSION

Edited by
Paola Cordera and Raffaella Trocchianesi

Design International series

The Design International series was launched in 2017 as a place for cultural exchange between the different design souls. Over the years, the series has consolidated its position as a point of reference for international research, outlining a continuously updated research map. The Scientific Committee, consisting of experts in fashion, interiors, graphics, communication, product, service, social interaction, innovation and emotional design guarantees the level of the accepted texts. The Editorial Board, consisting of young experts in the different branches of design, supports the work of the scientific committee. After an initial evaluation by the two committees, the texts undergo international double revision.

FrancoAngeli

SERIES - OPEN ACCESS CATALOG

Design challenges in creative systems

THEORIES, METHODS AND PRACTICES
FOR SUSTAINABILITY AND INCLUSION

Edited by
Paola Cordera and Raffaella Trocchianesi

DESIGN FOR
SYSTEMIC CHANGE

FrancoAngeli
DESIGN INTERNATIONAL

Contents

Territories and Local Development

4. Reframing design for hospitality towards a cultural and sustainable approach to tourism

Elena Elgani

4.1 Unsustainable tourism

In the era of the Great Acceleration (McNeill and Engelke, 2014), tourism is still considered one of the main tools for territorial development and for regenerating communities, as affirmed by the UN World Tourism Organization: «an ever-increasing number of destinations worldwide have opened up to and invested in tourism, turning tourism into a key driver of socio-economic progress through export revenues, the creation of jobs and enterprises, and infrastructure development» (UNWTO, 2014). Tourism experiences can promote the cultural development and the transmission of the cultural heritage of a specific geographical context (Faro Convention, 2005).
The processes of globalization and time-space compression have determined the popularization of international travel and the accompanying global expansion of the tourism industry (Niewiadomski, 2020). The tourist experience has become an integral and constant part of the lives of a significant number of people, and the places and hospitality spaces where tourist experiences take place are multiplying.

Tourism is defined through a complex combination of several services spread across multiple touchpoints, including spaces for hospitality. Tourism experiences involve systems of spaces-products-services in which spatial, and in particular interior design has a strategic role. Indeed, design has moved from product-oriented research to a strategic, systemic and *integrative* focus (Buchanan, 1992), because of its capacity to connect and integrate knowledge from different disciplines into the creative processes that enable the definition of complex systems.

The massification of the tourist experience has made tourism unsustainable, leading to phenomena such as overtourism and, above all, the exploitation of natural and local resources, causing damage to the environment, heritage and local communities.

Established tourism models promoted on a global scale are focused on fixed business models, repeated formats, high profits and short-term feedback. The tourism experience often revolves around a hospitality space: primarily a hotel or hostel, but also a home booked through a hospitality web platform. All the welcoming spaces that make up what is known in the English-speaking world as the hospitality industry are often subject to refurbishment processes (Perkins and Will, 2021) and have a significant impact on the environment (UNWTO, 2018).

Nowadays, as tourism recovers back to pre-pandemic levels, and the effects of climate change are increasingly evident, there is a need to rethink the entire tourism sector to transform unsustainable behaviours, and harmful economic models and processes, aiming to create innovation in experiences and related spaces to preserve the ecosystems in which the world's human citizens are moving ever more rapidly. In fact, the urgent question that arises is: how can design promote a transition in the tourism sector capable of creating meaningful and valuable experiences linked to a system of spaces and services while preserving natural and cultural contexts? A new approach would go beyond mere guest satisfaction to create a deeper and more emotional connection with the natural environment, cultural heritage and local community, leading to the promotion of responsible behaviour.

4.2 Design research for post-pandemic tourism

The pandemic has introduced a period of uncertainty (Murphy-Greene, 2022), a polycrisis situation in the environmental, geopolitical and economic spheres, which is becoming permanent (Ciravegna *et al*., 2023).

According to Gaziulusoy (2021), there is a need for radical transformations and structural changes in society (Loorbach, 2010) that require a new ecological mindset, a systemic approach (Battistoni *et al*., 2019) and long-term vision (Ceschin and Gaziulusoy, 2016).

Design, by its anticipatory nature, can contribute to transforming tourism, starting with how contexts are interpreted and how spaces are designed. Indeed, «designers and artists are able to formulate, through artifacts and concepts, urgent political questions that cannot rely solely on regular processes to enter public discourse. In regard to the environment and all associated concerns, in particular, state policy is driven towards reform by the priorities that researchers, designers, activists, scientists, architects and citizens set forth» (Antonelli and Tannir, 2018, p. 29). In this sense, design can drive change to achieve the shared prosperity goals (UNWTO, 2023) focussing on: economic growth and job creation; inclusive development; cultural preservation and revitalization, and environmental protection in the post-pandemic era.

Therefore, this paper discusses how a regenerative approach based on strategic design for sustainability can support the transition of hospitality space-product-service systems into sustainable systems. The focus is on the design of hospitality spaces. In addition, how can design support the definition of responsible tourism practices to influence people's behaviours towards adopting responsible attitudes? The focus is on the relationship with the environment, cultural heritage and local communities, reducing the impact of tourism activities. In fact, cultural and creative industries can move the tourism experience into a sustainable dimension by giving special attention to hospitality spaces.

In the first part, the paper presents a research-based approach that offers a conceptual framework for integrating regenerative

design-oriented processes into the development of tourism experiences focussing on the design of spaces for hospitality.

The second part presents two research projects developed using a design practice-based approach. Starting from the reading of different situations, both the case studies are presented in terms of the way they draw innovation trajectories in the design of future spaces for hospitality, able to foster environmental and social sustainability in tourism. The reflections explored and the practice-based projects are part of an ongoing funded research project in the Design Department of Politecnico di Milano.

The paper contributes to the study of sustainable interiors for hospitality. Starting from a new way of understanding hospitality spaces, and improving sustainable design strategies that implement the cultural approaches to design for hospitality, the aim is to promote systemic change in tourism.

4.3 Regenerative approach applied to hospitality spaces

Considering tourism as a complex system (Thackara, 2005), based on a mix of tangible products and spaces and intangible services designed and combined so that they are jointly capable of fulfilling the end-client's needs (Tukker and Tischner, 2006), a design-led approach can be used to connect the needs of new generations of guests with cultural and natural environments. Indeed, «systemic and interconnected problems need systemic and interconnected solutions» (Battistoni *et al*., 2019).

Design promotes a regenerative approach that «departs from the sustainable development paradigm by positioning tourism activities as interventions that develop the capacities of places, communities and their guests to operate in harmony with interconnected social-ecological systems» (Bellato *et al*., 2023).

The practice-led regenerative development paradigm (Mang and Reed, 2011; Mang and Haggard, 2016), applied to spaces for hospitality (Hes *et al*., 2015), has been explored little in relation to hospitality design (Inversini *et al*., 2024). It is therefore important to apply it to

hospitality spaces, with the aim of introducing high-tech and/or low-tech practices and technologies that reduce the impact of human actions on the environment. Above all, however, a regenerative approach serves to identify processes that can restore biodiversity, repairing the damage caused directly or indirectly by human actions, and promote well-being. An additional aim is to engage local communities and provide accessible and inclusive cultural experiences, based on transmission of the cultural, tangible and intangible heritage for all types of tourist. Design operates through an interdisciplinary approach, applying different tools such as metadesign processes and storytelling, and oriented strategies. This supports the spread of awareness, knowledge sharing and promotion of behaviour change (Del Bò, 2018) for a new *tourist's gaze* (Urry, 1990).

This is a paradigmatic shift that will drive the restoration of conditions in which plant, animal and human species can coexist and co-evolve in nature, establishing unexplored connections (Wakkary, 2021). This means that a sustainable approach to design expands from a technical and product-centric focus towards large-scale system-level changes in which sustainability is understood as a socio-technical challenge (Ceschin and Gaziulusoy, 2016). The process-based, multi-scale and systemic approach (Ceschin and Gaziulusoy, 2016) may lead to a reconnection between humans, culture and nature, while also aiding in the restoration of ecosystems.

The aim for the future is to enable people to access responsible tourism experiences, transforming tourism activities to restore biodiversity and regenerate communities, achieving the *2015 United Nations Sustainable Development Goals* (SDGs). Thanks to its ability to connect different fields and establish new relationships between social trends, lifestyles, scientific developments and technological tools, design can help to materialize «possible and desirable futures, making them tangible through design thinking» (Bertola, 2022).

4.4 Hòstraka

The first research project is the regenerative floating resort Hòstraka, developed by Rosanna Caldarella, Giulia Ettori, Davide Grasso and

Elisa Schembri with Elena Elgani, from the Department of Design, Politecnico di Milano. Hòstraka won the Sustainable Hospitality Challenge in 2023. The development of the nautical issue and applied technologies was studied with the support of Andrea Ratti and Arianna Bionda (Department of Design, Politecnico di Milano) and yacht designer Matteo Costa (*costadesign.it*).

Considering that anthropic pressure on extremely delicate places, such as marine ecosystems, is causing irreparable damage, the project focused on both environmental regeneration and community activation. Specifically, the project tries to define how a hospitality space can regenerate the ecosystem in which it is located. The product-space-service system, based on a nature-inspired concept, is structured in a system of spaces anchored to the seabed represented by the common areas mixed with floating private spaces. Hòstraka's life cycle is designed such that circular design strategies are applied in hospitality spaces (Elgani *et al*., forthcoming 2024). The floating suites are low-impact boats for the guests, and each suite has a water filtration system to collect microplastics, combined with immersive experiences for divers to encourage responsive behavioural changes. Through the guest journey, guests can play an active role in the sustainable transition to a cleaner world, being involved in collecting microplastics from the water, as well as educational activities in recycling laboratories, which are open to local communities.

The project is initially located in the Gulf of Aqaba, Saudi Arabia, where there are unique coral reefs, but the development of the project demonstrates its scalability and applicability to different aquatic ecosystems. The design approach of this project still seems to be focused on defining a remedial strategy, known as the end-of-pipe approach, which aims to direct design efforts towards reducing the impact of microplastics on the aquatic ecosystems. However, this project seeks to take a systemic approach to the complexity of the tourism experience. Specifically, it aims to create innovative water-based tourism by innovating in both the hospitality space and the guest experience, with the objective of stimulating the resilience of the environmental context and prompting an active response from the local communities.

Regarding environmental impact, the project aims to create:

- an easily removable spatial system with low environmental impact, ensuring minimal impact on the ground (temporariness). The design approach prioritizes adaptability over time, allowing for variation in aggregate space based on use and enabling structures to be repositioned;
- the system's life cycle is designed with the aim of minimizing its impact in all phases.

Considering the social impact, the project aims to define a community-based tourism model (Bozzato, 2021) that can host activities and services to involve the local community and create positive interactions between guests and locals. The social impact of this system has been examined in two directions:

1. guest oriented. The guest experience relates to the educational dimension of the experience, promoting a cultural approach to the natural context. This is achieved by combining leisure with learning opportunities;
2. local community oriented. The project aims to involve the local community in promoting their cultural and food heritage and natural aquatic environments. Additionally, workshops will be held to teach the local community specific skills related to reusing and recycling microplastics, because collaborative creative processes can have a positive effect over time.

4.5 MODE's suite

The second research project is defined through two interconnected research actions supported by an international cooperation activity. The first activity *Del enfoque sostenible al proyecto de la hospitalidad (muebles textiles/interiors)*, coordinated by Giovanni Conti and Elena Elgani, took place in Cuba for the Italian Design Day 2023 involving young Cuban professionals in a training activity.

A process of analyzing the socio-cultural context of Havana through the lens of the local design community was initiated, leading to the identification of significant themes of Havana's cultural heritage. These would be developed in significant locations to host

tourist experiences designed to overcome a stereotypical view of the city. This provided the means to share different approaches and methodologies related to design processes and tourism development; to foster the dissemination of sustainable tourism strategies in the Caribbean context, with a peer-to-peer approach between researchers and young professionals; and to stimulate reflection on social innovation within the local design community.

The second activity is developed through a collaboration between ICE, the Italian Embassy in Cuba, and the School of Design, Politecnico di Milano. Three young Cuban professionals were invited to participate in a workshop developed in Milan with Teamwork Hospitality (TH), an Italian company specialized in marketing and concept development projects for the hospitality industry. TH is currently realizing a sustainable and LEED-certified hotel called MODE, as a pilot project, the aim being to reduce the environmental impact of the hotel and engage guests to promote responsible behaviours. The developed process can be a benchmark for hospitality operators in Italy, in terms of design, the management of spaces and the provision of services that are guided by sustainability principles.

The regenerated hotel will be built in 2024 via a process of adapting and reusing an existing hotel in Rimini, with the intention of revitalizing an area that has significance for the history of local tourism. The project – which is of modest size but representative of the Italian hotel building scene – involved eleven design studios that are researching sustainability in hospitality design, for nine suites and indoor and outdoor common spaces. This approach differs significantly from the established design process in the hotel industry, but it is inspired by a similar approach developed in 2004 during the construction of the Puerta America hotel in Madrid. This conceptual approach originated from the Grand Hotel Salone exhibition at the Milan Furniture Fair in 2002.

The design workshop, organized with TH and attended by Cuban professionals and students of the Interior Design course at the School of Design, aimed to stimulate a cultural exchange on tourism and to create different scenarios that anticipate new tourist experience models on the Riviera Romagnola, the first Italian destination for mass tourism in the 1960s that has a long-standing history. The aim of the meta-design process is to realize different concepts

for the same suite, focussing on the application of design strategies for sustainability to the interior of an existing hotel building.

The concepts developed from these scenarios cater to various sensitivities. Subsequently, TH decided to conduct further research and the executive design of the *From Rimini to Havana* concept, developed by an Italian-Cuban team of young professionals and students (Elisa Cattaneo, Rolando Antonio Escobar Hidalgo, Benedetta Franci, Elisa Panizza and Erika Spanu).

The research and executive design phases have begun at the Design Department of the Politecnico di Milano, a collaboration between Francesco Scullica, Elena Elgani, Cinzia Pagni, Claudia Borgonovo and Federico Salmaso. The executive design of Suite no. 2 of the MODE Hotel allows the first strategies identified in the concept phase to be developed and implemented in order to realize the space.

In particular, the project team has focused on the processes of:

- research and selection of sustainable technologies and materials for the FF&E [furniture, fixtures, (finishes) & equipment design]. In line with the design concept, technologies and materials are selected to ensure durability in performance, confirmed by product certifications, for use in the hotel sector and to achieve LEED certification;
- re-use and refurbishment (Talamo, 2022) of existing furniture, which will furnish the room by innovating on the traditional criteria used to select facilities for hotel interiors.

The aim is to create a prototype of a sustainable room that can show the workings of an innovative design process and propose to guests new responsible approaches to interiors.

4.6 Beyond Tourism

In both research experiences, the metadesign approach is used to prefigure scenarios, considered a tool for shaping possible futures, concepts and projects with the aim of defining new fields where sustainable innovation in tourism can be expressed.

The case studies explore the creative role of design in connecting cultural approaches and technical competences, defining a more

sustainable space-product-service system for hospitality.
In the short to medium term, these spatial prototypes will support responsible approaches to tourism. Both projects affirm how a renewal of tourism experiences can also start from the hospitality spaces.

This means interpreting the permeable and porous edges of spatial design by considering various social, cultural and emotive, but also technical and material, exchanges between the design of spaces, sustainable strategies, and tourism experiences. Therefore, recognizing «interiors as unbounded and undefined – more as actions than as forms – constructed from constellations of relations and interactivities» (Tipene and Preston, 2021).

Additionally, sustainable processes of rethinking spaces and connection with communities can generate audience development, understood as those dynamic, strategic and interactive processes that aim to make arts and culture as accessible as possible to all (*Engage Audiences. EU Research Report*). In this sense, the tourist experience that is materialized through the relationship to a system of spaces-products-services is considered a cultural experience of discovery, encounter, and relationship with the natural and historical cultural heritage. To achieve a truly sustainable transition in environmental, social, economic and, above all, cultural terms, the strategic design approach can make cultural content and specific competences more accessible, more understandable and less remote, considering the bio-regional contexts (Atelier LUMA), the environmental impact of certain behaviours, and the proactive role that individuals can play in the multi-species relationship.

Design becomes a driving force capable of promoting both experimentation and unexplored interactions, through innovative processes that shift the focus from the environment and heritage to be preserved to the environment and heritage to be reactivated and regenerated, involving those who participate in the tourist experience.

This process of inclusion can be achieved through the specific tools of design, such as storytelling, which can work by stimulating the senses and reason, allowing the public to be more easily involved by proposing experiences that can be transformed into a personal or collective memory heritage. In this way, contemporary uncertainty becomes an opportunity, and design provides a route to «dream new

dreams…, designing for how things could be» (Dunne and Raby, 2013), considering not only technical and material solutions, but also new universes of meaning.

References

Antonelli P. and Tannir A. (2019), *Broken Nature. XXII Triennale di Milano*, Mondadori Electa, Milan.

Atelier LUMA (2023), *Bioregional Design Practices – Pratiques de design bioregional*, Atelier LUMA, Arles.

Battistoni C., Giraldo Nohra C. and Barbero S. (2019), "A Systemic Design Method to Approach Future Complex Scenarios and Research Towards Sustainability: A Holistic Diagnosis Tool", *Sustainability*, 11: 4458-4488.

Bellato L., Frantzeskaki N. and Nygaard C.A. (2023), "Regenerative Tourism: a Conceptual Framework Leveraging Theory and Practice", *Tourism Geographies*, 25, 4: 1026-1046.

Bertola P. (2022), *Reading Tomás Maldonado: Back to Design Research Future*, in Califano P., ed., *Exploring Tomás Maldonado*, Fondazione Giangiacomo Feltrinelli, Milan.

Bozzato S. (2021), *Turismo Comunità Territori. Frontiere di sostenibilità*, Mimesis Edizioni, Milan-Udine.

Buchanan R. (1992), "Wicked Problems in Design Thinking", *Design Issues*, 8, 2: 5-21.

Ceschin F. and Gaziulusoy I. (2016), "Evolution of Design for Sustainability: From Product Design to Design for System Innovations and Transitions", *Design Studies*, 47: 118-163.

Ciravegna E., Giardina C. and Pletto D. (2023), "There's No Plan(et) B. Sustainable Transitions to Systemic Planet-Centric Design", *DIID – Disegno Industriale Industrial Design*, DSI 1, 30-39. Doi: 10.30682/diiddsi23t1a.

Council of Europe. (2005), *Framework Convention on the Value of Cultural Heritage for Society*, Faro, 27th October 2005.

Del Bò C. (2018), *Etica del turismo. Responsabilità, sostenibilità, equità*, Carrocci Editore, Rome.

Dunne A. and Raby F. (2013), *Speculative Everything: Design, Fiction and Social Dreaming*, The MIT Press, Cambridge.

Elgani E., Caldarella R., Ettori G., Grasso D. and Schembri E. (forthcoming 2024), "Regenerative Spaces for Hospitality. Exploring Innovative Design Strategies for Sustainable Tourism Experiences", *Proceedings of EIMAD'24 – International Meeting of Research in Music, Arts and Design*, Castelo Branco, Portugal, 27th-29th June 2024.

Hes D. and Du Plessis C. (2015), *Designing for Hope. Pathways to Regenerative Sustainability*, Routledge, London.

Inversini A., Saul L., Balet S. and Schegg R. (2024), "The Rise of Regenerative Hospitality", *Journal of Tourism Futures*, 10, 1: 6-20. DOI 10.1108/JTF-04-2023-0107.

Gaziulusoy I., Veselova E., Hodson E., Berglund E., Erdoğan Öztekin E., Houtbeckers E., Hernberg H., Jalas M., Fodor K. and Ferreira M. (2021), "Design for Sustainability Transformations: A Deep Leverage Points Research Agenda for the (Post-) pandemic Context", *Strategic Design Research Journal,* 14, 01: 19-31.

Gilmore J. H. and Pine B. J. (1999), *The Experience Economy*, Harvard Business Press, Cambridge.

Loorbach D. (2010), "Transition Management for Sustainable Development: a Prescriptive, Complexity-based Governance Framework", *Governance*, 23, 1: 161-183.

Mang P. and Haggard B. (2016), *Regenerative Development: A Framework for Evolving Sustainability*, John Wiley and Sons, Hoboken.

Mang P. and Reed B. (2011), "Designing from Place: a Regenerative Framework and Methodology", *Building Research and Information*, 40, 1: 23-38.

McNeill J. R. and Engelke P. (2014), *The Great Acceleration: An Environmental History of the Anthropocene since 1945*, Harvard University Press, Cambridge.

Murphy-Greene C. (2022), *Environmental Justice and Resiliency in an Age of Uncertainty*, Routledge, New York.

Niewiadomski P. (2020), "COVID-19: from Temporary De-globalisation to a Re-discovery of Tourism?", *Tourism Geographies*, 22, 3: 651-656.

Perkins and Will (2021), *Net-Zero Now. Hospitality*. Available at: https://issuu.com/perkinswill_london/docs/net-zero_now_hospitality_issuu. Accessed October 2023.

Rawsthorn A. and Antonelli P. (2020), *Design Emergency: Building a Better Future*, Phaidon, London-New York.

Talamo C. (2022), *Re-manufacturing Networks for Tertiary Architectures. Innovative Organizational Models Towards Circularity*, FrancoAngeli, Milan.

Thackara J. (2005), *In the Bubble. Designing in a Complex World*, The MIT Press, Cambridge.

Tipene L., Preston J. (2021), "Introduction: Extra's Ordinary Interiors", *Idea Journal*, 18, 01: 13-25.

Tukker A. and Tischner U. (2006), "Product-services as a Research Field: Past, Present and Future. Reflections from a Decade of Research", *Journal of Cleaner Production*, 14, 17: 1552-1556.

Urry J. (1990), *The Tourist Gaze: Leisure and Travel in Contemporary Societies*, Sage, London.

Wakkary R. (2021), *Things We Could Design. For More-Than Human-Centered Worlds*, The MIT Press, Cambridge.

World Tourism Organization (2014), *UNWTO Tourism Highlights, 2014 Edition*, UNWTO, Madrid.

World Tourism Organization (2018), *UNWTO Tourism Highlights, 2018 Edition*, UNWTO, Madrid.

World Tourism Organization (2023), *Tourism: A Driver for Shared Prosperity – Key insights*, UNWTO, Madrid.

Authors

Giuseppe Amoruso: Civil Engineer, Associate Professor at Politecnico di Milano, Department of Design, from 2020, Scientific Habilitation as Full Professor, PhD in Drawing and Measured Drawing. He investigates CAD&BIM, heritage studies, and experimental museology. He is the author of 175 publications. Chair of INTBAU ITALIA, the International Network affiliated with the King's Trust in London, and of the project *Regenerating Amatrice*. An expert in cultural cooperation, he recently directed the *Program for the definition of a strategic plan for the improvement and the enhancement of the Folklore Museum, the Museum of Popular Traditions, and the site of the Roman Theatre in Amman* (2023).

Suzie Attiwill: Professor of Interior Design at the School of Architecture & Urban Design, RMIT University, Australia. She holds a PhD (Architecture & Design), a Master of Arts (Design), and Bachelors' degrees in Interior Design & Art History. Since joining RMIT in 2000, Suzie has regularly taught undergraduate & postgraduate interior design students, and supervises practice research PhD Interior Design candidates in Australia, Europe, and Asia. Her research is conduct-

ed through a practice of designing with a curatorial inflection that arranges and re-arranges spatial, temporal, and material relations to intervene in contemporary conditions and experiment in the production of interior and interiority.

Ilaria Bollati: Architect and designer with a PhD in Economics of Culture. Previously, she worked at Studio Azzurro and Fabbrica del Vapore. Currently a researcher in Politecnico di Milano's Department of Design, she seamlessly integrates research, planning and design within the realm of cultural economics. As an external consultant, she collaborates with institutions such as Pinacoteca di Brera, Biblioteca Nazionale Braidense, and Fondazione Pini. Ilaria specializes in producing exhibitions, designing set-ups, and curating content. Her expertise extends to teaching and advocating for the adoption and benefits of digital technologies. She focusses on the intricacies of cross-media cultural experiences, and takes unconventional approaches to studying the evolving demand for culture.

James Bradburne: Anglo-Canadian architect, designer and museologist who has designed world exhibition pavilions, science centres and international art exhibitions. Educated in Canada and England, he holds a degree in architecture from the Architectural Association and a doctorate in museology from the University of Amsterdam. Over the past twenty years, he has carried out exhibitions, research projects and conferences on behalf of UNESCO, national governments, private foundations and museums in various parts of the world.
From 2006 to March 2015, he was Director General of the Fondazione Palazzo Strozzi, dedicating himself to transforming the Palazzo into a dynamic cultural centre. Now retired, from 2015 – 2023 he was Director General of the Pinacoteca di Brera and the Braidense National Library.

Laura Carugati: Designer and Research Fellow at the Design Department of Politecnico di Milano. Her research interests include delving into the themes of digital archives, innovative approaches to visualization, and communication of cultural heritage and culture proximity. Furthermore, she explores and examines experimental and participatory curatorship, with a dedication to advancing knowledge in the field

of design history and culture, and exploring effective methods for its dissemination.

Luisa Collina: Full Professor of Design at Politecnico di Milano, with a PhD in Architecture. Her teaching, research and practice are related to interior and service design, focussing on strategies, meta-design, and design-driven innovation. She has previously served as Dean (2016-2021) of the School of Design at Politecnico di Milano. In 2013 she was elected President of Cumulus, the International Association of Universities and Colleges of Art, Design, and Media, and remained in the role until 2019. Since July 2021, she has held a position in the Italian Ministry for University and Research: National Expert for Horizon Europe Cluster 2 – Culture, Creativity and Inclusive Society.

Paola Cordera: Associate Professor at the Politecnico di Milano. She was the Leon Levy Fellow at the Center for the History of Collecting, at the Frick Art Reference Library in New York (2016) and a visiting scholar at the American Academy in Rome (2023-2024). Building upon a multidisciplinary background developed over time through research projects and publications, her research interests include the history of art, decorative arts, and Design from a transdisciplinary perspective in museums and cultural heritage. She is currently the Principal Investigator on the VO Project *Voices of Objects*. *The Italian Design from Museum to Home* (2021-2024) focussing on the travelling exhibition *Italy at Work* (1950-1954) in the framework of post-war Marshall Plan funding in Europe.

Peter Di Sabatino: A licensed architect in California and has held senior positions in significant studios. Since 2016, he is a Professor at Politecnico di Milano teaching in graduate-level degree programs. His research focuses on creative, responsible, and resilient interventions in the city with an open, progressive, and comprehensive paradigm that engages place, time, modernity, and cultural heritage. Peter was previously Professor and Dean of the College of Architecture, Art, and Design at the American University of Sharjah in the UAE, and Professor and Chair of the Department of Environmental Design at Art Center College of Design in Pasadena.

Elena Elgani: PhD in Interior Architecture and Exhibition Design. Research fellow in the Department of Design, at Politecnico di Milano. Her research interests are in the field of interior design, with a focus on design for hospitality. Recently, she has focussed on the relationship between spatial design and environmental sustainability, taking into account customized solutions and furniture systems for interiors (funded research project, 2022-2024) and regenerative spaces for tourism. At the School of Design – Politecnico di Milano she teaches Interior Design, and she is secretary of the Programme Board for the Bachelor's in Interior Design.

Giulia Gerosa: Architect and PhD in Industrial Design and Multimedia Communication. She writes articles, publishes books, and participates in research and conferences focussed on interior spaces, with particular emphasis on the communicative component of the architectural project and the brand identity. She has collaborated with Politecnico di Milano's School of Design since 1998. She is an Associate Professor at the Design Department of the Politecnico di Milano, and Co-Director of the Master's in Interior Design, coordinated by Politecnico di Milano and Scuola Politecnica di Design.

Federica Guarnieri: Interior and Spatial designer and Research fellow at the Department of Design, Politecnico di Milano, where she studies the role of interior design as a tool for identity creation within university campuses, and how it contributes to the quality, creativity and innovation of teaching and research. In parallel, she collaborates with the Department of Design in the implementation of interior renovation projects for other departments of the Politecnico di Milano.

Rossella Locatelli: trained as an architect, Rossella is a PhD candidate in Design at Politecnico di Milano, researching the connections between future approaches and sustainability methods in exhibition design for temporary events. Her interests move between exhibition design and architecture, focussing on trans-disciplinary approaches. From 2011, as architect of AOUMM, she worked in exhibition design for cultural institutions and museums. She has taught and presented in workshops and conferences at design universities and academies, such as the New

Academy of Fine Arts in Milan, the University of Art and Design in Basel, the Geneva Haute École d'Art et de Design, and Paris 8 University.

Eleonora Lupo: Associate Professor at the Politecnico di Milano, with a PhD in Industrial Design and Multimedia Communication. Her main research interests concern product and process design cultures, *humanities-centred innovation*, Design for the Cultural Heritage system, and cultures of design research and scientific publishing, dealing with a pluriversal approach for decentring design knowledge and narratives. She is a member of the Board of the PhD Program in Design at Politecnico di Milano, and of the Collegium of Reviewers of The Design Journal.

Ico Migliore: Professor at the Design School of the Politecnico di Milano, chair Professor at Dongseo University of Busan (South Korea) and member of the Scientific Committee of the Franco Albini Foundation. Architect, three-time winner of the Compasso d'Oro award, co-founder of the studio Migliore+Servetto, he has signed international interventions for some of the main cultural destinations in Europe such as the Egyptian Museum in Turin, the ADI Design Museum in Milan and the Chopin Museum in Warsaw. He was co-curator and art director of the Italian Pavilion 4 *Elements/Taking Care* at the XXII Triennale Internazionale di Milano, *Broken Nature: Design takes on Human Survival* (2019). His books include *Museum Seed. The Futurability of Cultural Places* (Electa, 2024) and *Time to Exhibit* (FrancoAngeli, 2019).

Polina Mironenko: Dipartimento Politecnico di Ingegneria e Architettura - Univeristà degli Studi di Udine. Interior Designer, a graduate of Politecnico di Milano; PhD in Civil-Environmental Engineering and Architecture in experimental museology and advanced simulation. Researcher in *Experiential design for museum interiors and the representation of cultural heritage. Interaction and access strategies to heritage for the representation of Jordanian culture*, Department of Design, 2021-2022. She is an expert in CAD/BIM systems and works with digital systems for Design and advanced visualization of architecture. She focusses on the emerging themes of digital museology to deepen the use of two modelling and simulation environments, BIM and Game Engine.

Agnese Rebaglio: Designer and PhD, she is an Associate Professor at the Department of Design, Politecnico di Milano. Her research activity focusses on the role of Design in the innovation processes of urban spaces, from a perspective of sustainability and inclusion. She is Scientific Director of the Specializing Master's in *Design for Public Spaces* provided by POLI.Design. She has developed research in the fields of Design for urban social inclusion, processes of urban regeneration, energy sustainability promoted by Design, and circular economy for new production chains. She is a promoter for the Interior Design Degree Course of GIDE (Group for International Design Education), a network of European design schools that collaborates in educational programmes.

Dina Riccò: Associate Professor at the Department of Design - Politecnico di Milano. A graduate of architecture, and with a PhD in Industrial Design, her main subject of study is applied synaesthesia to design and multimedia, communicative accessibility in audio-video and museums. She is the author of over 130 publications in books, journals, and national and international conferences, including the recent curations of the books *Accessibilità museale* (FrancoAngeli, 2023) and *Accessibilità comunicativa* (with M.C. Andriello; Rai Libri, 2024).

Raffaella Trocchianesi: Architect and Associate Professor at the Department of Design, Politecnico di Milano, she teaches Interior Design Studio and Exhibit Design Studio at the School of Design. Director of the Specializing Master's *IDEA_Exhibition Design*, she mainly deals with Design for Cultural Heritage in terms of museography and exhibition design, communication and enhancement of local areas, new models and narratives of cultural experiences, and the relationship between design, Humanities and arts. She is currently scientific lead on the project *Sound Design & Cultural Heritage*.

Qing Yu: Interior designer and Research Fellow under the Marie Skłodowska-Curie Actions programme. She is trained in interior architecture and design through her Bachelor's and Master's degrees. She also has experience of conducting Design ethnographic research on a post-disaster architectural construction project in a Fijian village.

In 2022, she started her double-degree PhD research project (co-funded, EU Horizon 2020). Within the RMIT European Doctoral Innovators programme, the project collaborates with Politecnico di Milano, RMIT University, and Triennale Milano. This unique research experience in an innovative PhD programme led to a merging of her roles as an interior designer, researcher, exhibition designer and curator.

This volume focuses on the dynamic systems of creativity and culture within diverse design fields, merging theoretical reflections, case studies, methodologies, technologies, tools, and original practices. Twelve essays underscore design's role in sustainability, emphasizing local growth, community revitalization, and the co-creation of cultural, economic, and social values. In today's global society, crises in productive cycles, amplified by COVID-19, have accelerated change and influenced behaviors. Digital technologies have transformed the media landscape, bridging the gap between designers and stakeholders and expanding possibilities in both real and virtual domains. As a new era emerges, this book revisits concepts like *sustainable culture*, *inclusive sociality*, and *participation* in cultural heritage as a common good. It proposes a holistic approach to the Anthropocene Age's challenges, highlighting creative industries' importance in local development and community engagement. By adopting multidisciplinary approaches, the volume seeks to inspire new models for cultural engagement and community development, contributing to a more inclusive and sustainable future. It redefines issues like accessibility, multiculturalism, and inclusion, reshaping the social and political positioning of the cultural system.