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28 November 2024

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1ST INTERNATIONAL CONFERENCE
ON DESIGN & INDUSTRY · 2024

MAY, 20 - 22 2024

BOOK OF ABSTRACTS »

MARIA JOÃO FÉLIX | FÁTIMA POMBO | FERNANDO MOREIRA DA SILVA | PAULO CRUZ | RITA ASSOREIRA ALMENDRA

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BOOK OF ABSTRACTS FOR THE DESIGN COMMIT 2024 CONFERENCE

INTRODUCTION

This Book of Abstracts is a collective endeavor and an academic commitment from the participants of the Design Commit 2024 Conference. All abstracts have undergone a meticulous peer-review process, orchestrated by our Scientific Committee and executed under strict guidelines of anonymity and impartiality. Our goal is to present a compilation of research that not only reflects innovation and diversity in the field of design and industry but also fosters constructive dialogue on sustainable futures and social responsibility within these realms.

SUBMISSION AND REVIEW PROCESS

Each submitted manuscript underwent an initial review to ensure relevance to the conference theme and adherence to established guidelines. The subsequent double-blind peer review was employed to safeguard the integrity of both reviewers and authors, supporting fair and unbiased judgment. We recognize the importance of authentic academic discourse and as such, are dedicated to a zero-tolerance policy on plagiarism and a commitment to originality.

EDITORIAL ETHICS AND CONTENT USAGE

This book is a copyright-protected work, with all rights reserved. Any use of the content herein, outside the scope of private study, research, criticism, or review, requires explicit authorization from copyright holders. We underscore the importance of ethics in academic information usage and encourage practices that promote scientific integrity and collaboration.

CONTRIBUTIONS AND AUTHORSHIP

We clearly outline the responsibilities of authors, from initial submission to the presentation process. Contributions should reflect the work of no more than five collaborators, with the designation of the corresponding author established to facilitate communication and ensure accountability. We emphasize the value of transparency and the proactive declaration of any potential conflicts of interest.

COMMITMENT OF REVIEWERS AND COMMITTEES

Both the members of the Scientific Committee and reviewers are integral parts of this process, committed to maintaining the academic rigor and excellence that are the hallmark of Design Commit. They are dedicated to thoughtful evaluations, enhancements of submissions, and the efficacy of academic communication.

CONCLUSION

The DESIGN COMMIT 2024 Secretariat wishes to express gratitude to all contributors, whose works comprise this volume. May the abstracts presented here serve as catalysts for ongoing innovation and inspiration for all those committed to the advancement of design and industry.

DESIGN COMMIT conference is an event organized by the **Lisbon School of Architecture** (FA ULisboa), in partnership with the **School of Design** (ESD) of the **Polytechnic Institute of Cávado and Ave** (IPCA), the **Department of Communication and Art of the University of Aveiro** and the **OIKOS research group** of the **Research Institute for Design, Media and Culture** (ID+), the **School of Applied Arts** (ESART) of the **Polytechnic University of Castelo Branco** (IPCB), and **Rethink – Research Group on Design for the Territory** (CIAUD); and **School of Architecture, Art and Design of the University of Minho** (EAAD) and the **Design and Technology Group** (DeTech) of the **Laboratory of Landscape, Heritage and Territory** (Lab2PT).

The conference operates under the scope of the **Research & Education in Design research group** (REDES) from the **Center for Research in Architecture Urbanism and Design** (CIAUD).

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ABOUT US

The first edition will be an in-person international event, consisting of a wide variety of plenary sessions, and bringing together researchers, academics, designers, rapidly expanding technology companies, emerging companies, business associations and policy makers, with the objective of fostering and actively developing a joint reflection, in a transdisciplinary scientific exchange, which enhances innovation through Design and Industry for a better future with a strategic vision.

Fields that will stimulate responses to the challenges of climate change and environmental degradation will be proposed, paving the way to achieve the goals of the 2030 agendas.

The DESIGN COMMIT 2024 will take place during the 7th Braga Economics Week, an initiative promoted by InvestBraga, aimed at addressing economic issues, involving various types of events, and promoting the exchange of ideas among economic agents, institutions, and citizens.

PURPOSE

This international conference aims to explore models that prioritize a post-growth economy, with **modern**, **resource efficient**, **smart**, **sustainable** and **inclusive** principles, focused on enhancing human health and education, promoting knowledge and inter-sector collaboration, and a digital society for all. And, in this way, contribute to the transition towards a more sustainable, equitable, and resilient future that considers the well-being of both people and the planet.

Amid pandemics, wars and environmental disasters, designers and industries have been forced to imagine a world in which the only way to move forward is to look back. Design and Industry need to understand the role they can play in removing obstacles to social progress and work together to create healthier societies.

PREFACE TO THE DESIGN COMMIT 2024 CONFERENCE

A Word from the Conference Chairs

Dear participants and collaborators,

It is with immense pleasure and honor that, on behalf of all the chairs of Design Commit 2024, we welcome you to this unique event, dedicated to the fusion of design and industry and their vital role in shaping a resilient and sustainable future.

In a world of constant transformation, where sustainability and innovation have become imperatives, Design Commit emerges as a beacon of knowledge and collaboration. Our mission is to unite thinkers, creators, educators, and industry leaders to discuss, share, and promote practices that lead to excellence and responsible innovation.

This year's conference presents an exceptional program, filled with inspiring keynotes and discussion panels that promise to stimulate critical thinking and the exchange of ideas. Each session has been carefully planned to reflect the challenges and opportunities presented to our global community.

Through this Book of Abstracts, we offer a glimpse of the innovative research and studies that will be showcased. The abstracts reflect the depth and diversity of the participants' contributions and serve as a window into the future directions of design and industry.

We wish to express our profound thanks to the members of the Scientific Committee, the organizing team, and everyone who contributed to making Design Commit 2024 possible. Your tireless commitment to excellence and the exchange of knowledge is the driving force behind the success of this event.

We invite you to delve into the following pages and join us on the journey of learning and discovery that we promote. May the discussions and insights generated here inspire actions and innovations that transcend the boundaries of this meeting.

With high expectations and a sense of enthusiastic anticipation, we move forward together to explore the boundless potential of design and industry in creating a more promising future for all.

Warm regards,

The Chairs of Design Commit 2024

MARIA JOÃO FÉLIX, FÁTIMA POMBO, FERNANDO MOREIRA DA SILVA, PAULO CRUZ, RITA ASSOREIRA ALMENDRA

OVERVIEW AND OBJECTIVES OF THE DESIGN COMMIT CONFERENCE

OVERVIEW

Design Commit stands at the forefront of interdisciplinary dialogue, bringing together innovators, visionaries, and thought leaders from the realms of design and industry. As we gather in the bustling heart of creativity, our agenda is driven by the challenges and possibilities of integrating sustainable practices within these dynamic fields.

At the core of Design Commit is the dedication to fostering a community where collaboration transcends traditional boundaries, encouraging a synergy that fuels transformation and growth. We convene under the shared belief that design is not just an aesthetic choice but a pivotal tool for societal and industrial evolution.

OBJECTIVES

- **To Inspire Innovation:** By showcasing cutting-edge research and case studies, we aim to spark new ideas that participants can take back to their own work, driving the frontiers of design and industry forward.

- **To Facilitate Networking:** Providing a platform for professionals from various sectors to connect, share insights, and forge partnerships that have the power to reshape the market landscape.

- **To Educate:** Through keynotes and panel discussions, we offer learning opportunities that enhance skills, expand knowledge, and offer new perspectives on tackling the design and industry challenges of today and tomorrow.

- **To Promote Sustainability:** Emphasizing the importance of eco-friendly and socially responsible design, we encourage discussions and solutions that contribute to a sustainable future.

- **To Advance Research:** Encouraging the exchange of academic findings and engaging with the latest in scholarly work, thus nurturing a space where theory meets practical application.

- **To Advocate for Change:** Pushing the boundaries of what's possible, and advocating for a proactive stance on global issues through the lens of design and industrial development.

As we embark on this journey of discovery and innovation, the Design Commit Conference is more than just an event, it is a catalyst for change, driving a future where design and industry not only coexist but thrive together, fostering an ecosystem of sustainable development and progressive thought.

ACKNOWLEDGMENTS TO SPONSORS, COLLABORATORS, AND SUPPORTING INSTITUTIONS

The realization of the Design Commit 2024 Conference was made possible through the generous support and commitment of our sponsors, collaborators, and supporting institutions. At this moment of gratitude, we would like to express our recognition to everyone who contributed to the success of this event.

To our sponsors, whose financial and in-kind support has strengthened the structure and quality of the conference, we offer our heartfelt thanks. Your vision and understanding of the value of innovation in design and industry are fundamental to our collective progress.

We are immensely grateful to the organizing team, who shared their expertise and passion, enriching the program with insightful talks and discussion panels. Your dedication to excellence and professional development has not gone unnoticed.

A special thank you goes to the supporting institutions, whose partnership and support were essential to expanding the reach and depth of our meeting. Your collaboration allows the ideas discussed here to resonate beyond the conference walls.

We also acknowledge the assistance of various entities and volunteers, whose help behind the scenes was vital for the logistics and organization of the event. Your hard work and attention to detail ensured a smooth and memorable experience for all attendees.

Last but not least, we thank the academic and research institutions that, by supporting their representatives and researchers to participate in Design Commit, underscore the importance of an ongoing commitment to learning and innovation.

Together, we have built a conference that reflects the intersection between creativity, technology, and business, paving the way for the future of design and industry. Our sincere thanks to all of you for being part of this journey.

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GREEN

Design is recognised as a crucial driver of innovation and a facilitator of the transition to a circular economy. While there are numerous strategies to support circular design practices, many tend to prioritise management and engineering processes, overlooking design's aesthetic dimension and its role as a cultural mediator. This research paper aims to revisit the role of design in the circular economy, emphasising its aesthetic and meaning dimensions, and exploring the potential of circular design to trigger socio-cultural change. It develops a framework based on existing literature and examines 14 master design projects developed within a higher education institution in Portugal, using tenets of multiple case study analysis and interpretative approach. The paper proposes a conceptual matrix that connects material function, meaning, and sustainability aesthetics, forming a continuum of design approaches for circular projects. The findings indicate that material exploration and transformation often shape the ethos of the project, while design intention and aesthetics assumes a secondary role. Moreover, the potential to reach a significant human impact is still quite limited. These results highlight the importance of expanding beyond functionalism and rebalancing ontological borders of the field within circular discourse.

Keywords: circular economy; circular design; sustainable aesthetics; sustainable products; design projects

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PAPER ID [104]

APPL(E)AUSE. A FOOD DESIGN EXPERIMENT TO CREATE NEW PROCESSED FOODS FROM APPLE BY-PRODUCTS

Raffaele Passaro *(Politecnico di Torino - Dipartimento di Architettura e Design (DAD), Italy) and* ***Cristian Campagnaro*** *(Politecnico di Torino - Dipartimento di Architettura e Design (DAD), Italy).*

The work addresses the challenges associated with the sustainable management of food resources through the application of knowledge from the discipline of Design. The aim of the research is to identify new scenarios to increase the competitiveness of the Piedmontese agro-industry sector by identifying new uses for the by-products of fruit processing. The work focuses on using apple pomace in the development of new edible products, enhancing local food resources, and proposing new uses for a by-product that is currently destined for disposal. By adopting a transdisciplinary and design-led approach, it was possible co-design new edible processed foods, involving different territorial actors. The first collected results showed the possibility of valorising apple pomace and reintroducing it into the food cycle, adopting a circular economy for food approach.

Keywords: Food Design, Design With Food, Transdisciplinary Approach, Apple Pomace, Circular Economy.

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