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Proceedings of IASDR 2023: Life-changing Design

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THE 2023

IASDR Congress

Life-
changing
design

Milan 9th–13th October

PROCEEDINGS OF IASDR 2023

EDITORS:

Daniela De Sainz Molestina

Laura Galluzzo

Francesca Rizzo

Davide Spallazzo



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Life-Changing Design

Proceedings of the 10th Congress of the
International Association of Societies of
Design Research (IASDR 2023)

EDITORS:

Daniela de Sainz Molestina

Laura Galluzzo

Francesca Rizzo

Davide Spallazzo

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The Tenth IASDR congress. An Introductory Address from the IASDR Board

IASDR 2023 is the 10th biennial congress of IASDR, and the first to take place after the crisis of COVID-19. With this congress we re-confirm the importance of discussion and debate for the network of researchers in design, as well as the importance of developing younger researchers for the future of the Association.

The International Association for Societies of Design Research (IASDR) was established in 2005 through a collaboration of four academic societies: Chinese Institute of Design (CID), the Design Research Society (DRS), Korean Society for Design Science (KSDS) and Japanese Society for the Science of Design (JSSD).

The history of international collaboration in Design Research in the Asian region can be traced back to 1996 when JSSD organized the first Japan-China Industrial Design Symposium which was hosted by Beihang University in Beijing, 1996. This started a series of international conferences in design research known as the Asian Design Conference. Conferences took place in 1997 (Daejeon, Korea at KAIST), 1998 (Taichung, Taiwan at National Taichung University of Science and Technology), 1999 (Nagaoka, Japan at Nagaoka University of Technology), 2001 (Seoul by National Seoul University), and 2003 (Tsukuba, Japan at Tsukuba International Congress Center). At the 2003 congress – the 6th Asian Design Conference – the three Asian academic societies agreed to welcome the Design Research Society into a new association.

We thus began the International Association of Societies of Design Research for the field of design research in 2005, in Taiwan. Since that time, we have enhanced the network of researchers and fields of design research and promoted design research education. We will continue to build this incomparable network of design research as we move towards our 2025 congress, at Tapei, Taiwan.

Our deepest thanks go to Luisa Collina, and the entire Politecnico Milano team who have worked so hard, as hosts for IASDR2023, to ensure its success. Your leadership throughout the process has been excellent and we think the result will be much appreciated by the IASDR design research community.

Toshimasa Yamanaka
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On behalf of the IASDR Board
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Life-Changing Design.

Introduction to the Tenth IASDR congress

The International Association of Societies of Design Research (IASDR) has long been at the forefront of advancing design research, providing an international platform for researchers, scholars, and practitioners to engage in robust discussions, share insights, and explore the ever-evolving landscape of design research. IASDR 2023, the association's 10th Congress, stands as a pivotal juncture in the trajectory of design research, offering a comprehensive perspective on its current state while charting its future directions.

Over the past decade, design research has witnessed a remarkable transformation. From its roots in aesthetic considerations and form-centric approaches, design research has evolved into a multifaceted discipline, extending its influence beyond traditional boundaries. Contemporary design literature now encompasses a wide array of facets, each addressing critical aspects of design's impact on diverse domains, including organisational culture, public policies, product development, and the creation of immersive spaces, services and systems. This transformation underscores the dynamic nature of design research, as it continuously adapts to our society's changing demands and challenges.

The central theme of IASDR 2023, "Life-Changing Design", resonates profoundly in the wake of global events, particularly the unprecedented disruptions caused by the COVID-19 pandemic. This theme invites us to reflect on the profound transformations that have unfolded and continue to reshape our world. The pandemic has brought to the forefront questions about the role of design in navigating these changes, challenging us to explore how design can facilitate adaptation, resilience, and innovation in a rapidly changing world.

IASDR 2023 has been organised and host by Politecnico di Milano, where design keeps strong roots in the made in Italy tradition and where at the same time design opens up to the new territories of design research and to the new trajectories of innovation.

IASDR 2023 encompasses an array of thematic tracks, each dedicated to exploring critical dimensions of design research. These tracks serve as focal points for discussions and investigations, providing a framework for researchers to delve into specific areas of interest.

The following thematic tracks guide our exploration:

[Changing] Organizations and Policies

This track examines the transformative potential of design in the realm of public sector organisations and policies. It aims to foster social justice and sustainability by challenging traditional notions of prosperity. Researchers investigate how design equips itself with tools, methods, and frameworks to support systemic transformation, thereby promoting well-being and addressing complex societal challenges.

[Changing] Products and Production

This track focuses on the transformation of manufacturing processes and their impact on products and

systems. It explores the proliferation of digital fabrication and digital craft, analysing their potential to revolutionise product development, sustainability, and business models. Researchers delve into how design can envision emerging materials, artefacts, and future scenarios from a sustainable perspective.

Identities and [Changing] Identities

Cultural identities and their evolution in an increasingly multicultural world take center stage in this track. Researchers delve into the roots of design's influence on identity, considering factors such as authorial identities, identity hegemony, and the implications of design on gender, class, and religion. Additionally, this track explores the role of design in translation processes, which involve revising systems, tools, and programs for communicating and preserving identity.

[Changing] Ecosystems

Addressing the imperative transition toward sustainability, this track examines how design contributes to the socio-ethical and economic dimensions of sustainability. It explores design for sustainable materials, energy, business models, and transitions, focusing on fostering positive environmental and social change.

[Changing] Communities

Community empowerment and sustainable behavioural change through design interventions are central to this track. Researchers investigate how design can enhance collaborative processes, co-design knowledge, and tools while addressing urgent public interest issues. The track emphasises shared decision-making, democratic participation, and the evolving roles of individuals, communities, and entities in supporting systemic transitions.

[Changing] Education

This track reflects on the evolving landscape of design education, recognising the complexities and challenges inherent in this domain. Researchers explore the inspirations for change in design education, the transformations it engenders, and the existing gaps and issues. This track seeks to foster clarity, identity, and adaptability in designing educational goals while embracing diversity and differentiation.

[Changing] Spaces and Services

Integrating spatial and service design to create innovative living environments and services is the central concern of this track. It explores how design interventions across various scales, from micro to macro, can drive transformative actions, enhance public participation, and guarantee inclusivity and diversity in service offerings.

[Changing] Interactions

The dynamic interplay between technology, social changes, and design forms the core of this track. Researchers investigate how digital technologies, augmented reality, virtual reality, and mixed environments impact interactions, communities, processes, and professions. This track emphasises the role of Interaction Design in shaping technology-based innovations responsive to social and contextual changes.

[Changing] Heritage

Preserving and reinterpreting cultural heritage in the face of global change is the central focus of this track. Researchers explore how design research can offer novel approaches to knowledge preservation and cultural experiences related to tangible and intangible heritage. This track seeks to activate participation dynamics that reintegrate relevant portions of cultural heritage excluded from current development paradigms.

IASDR 2023, with its overarching theme of "Life-Changing Design" and its diverse thematic tracks, presents an exceptional opportunity for researchers, scholars, and practitioners to engage with the dynamic landscape of design research. The conference serves as a platform for robust discussions, knowledge sharing, and the exploration of innovative solutions to society's complex challenges.

By examining these thematic tracks and their intersection with the central theme, “Life-Changing Design,” we aim to contribute to the ongoing dialogue surrounding design research and its transformative potential, fostering a deeper understanding of design’s role in shaping our world.

Luisa Collina
Alessandro Deserti
Francesco Zurlo

What is the Effect of a Slant Shape in the Design of a UGV Delivery Robot? - UGV Robots and the Effect of Shape on the Perceived Safety

Vithor Hugo Costa da Silva, University of Tsukuba, Japan
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Queer cities. Designing inclusive public spaces through participative and social innovative actions and practices

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1 Introduction

Public spaces aren't neutral: they've historically been created and designed to support and facilitate the traditional roles of the masculine gender and with the perspective of the masculine experience being universally identified as the "norm". (Kern, 2021). In the absence of a different perspective considered when designing something, the outcome will be suited to men: "when planners fail to account for gender, public spaces become male spaces by default". (Perez, 2019, p. 65). Urban space should be able to take charge of the plurality of life forms, facilitating social cohesion between its inhabitants, by being accessible, versatile, inclusive, safe. Instead, the street is one of the most dangerous places for the LGBTQ+ community (and for women too): Italy, according to the Rainbow Map & Index of 2023, is 34th out of 49 in Europe in terms of security level and rights for the queer community, with just 25% of LGBTIA+ human rights achieved. Moreover, 48% of hate-motivated attacks in Italy happen in streets, parks, squares, and parking lots (data of 2019 retrieved on LGBTI Survey Data Explorer).

The term queer, originally used in anglophone countries to indicate something odd, negatively weird, and then as a harmful slur for LGBTIA+ people, was then reclaimed by some activists in the USA at the beginning of the 90s. The term can also be used to indicate places, contexts, and, more generally "whatever is at odds with the normal, the legitimate, the dominant" (Halperin, 1995, p. 62).

But what can be defined as a queer space? In history, the queer space does not have much to do with the physicality of the space itself (or, at least, not only). In fact, some scholars argue that "there is no queer space, there are only spaces put to queer uses." (Chauncey, 1996, p. 224).

This reflection is interesting to explicit the connection between queerness and the spatial dimension: "though queerness may not be a place, it is inescapably spatial. [...] Whether through a terrorist act or police intervention, the goal was to destroy a certain physical place in an attempt to destroy the communities who used them. Here space was inseparable from queerness itself" (Pavka 2020).

Hence, when designing and managing public spaces, the challenge is to exit from the realm of heteronormativity and binary gender system in which queer people feel invisible. But the main issue is that in the cases of top-down initiatives, like some recent public interventions, such as the rainbow



street crossings, happens a phenomenon called “usualising” (“Queering Public Space - Arup,” n.d., 2021), in which there is the intention to make the existence of the queer community common to the general public in order to reduce hate-crimes. But these kinds of surface gestures are not enough; moreover, it’s difficult to claim that increased visibility equals to less homophobia (Zarzycki, 2022).

2 Aim of the PhD research

A possible solution, that this research is willing to explore, would be to adopt a bottom-up approach, involving directly, with an intersectional¹ approach, the local actors part of the queer communities that inhabit the public space, and, in collaboration with the public administration, develop and test some possible guidelines designed in a user-and-community-centered way through co-design sessions and workshops within participatory design approaches.

The research aims to investigate, with a Participatory Action Research methodology, what potential is still hidden and unexplored in the intersection between Queer and Design studies, in particular in the context of urban public spaces, exploring the creation of links between Queer studies and Participatory Design for social innovation, in order to make the process of designing urban public spaces more "queer" with public administrations and local stakeholders.

In this research, queerness is not only considered in relation to people identified as queer, their bodies and their sexuality, but is intended to explore queerness as a kind of epistemology that can guide the way we think, plan, participate, live a public space, govern, make decisions, etc.

What are the existing and potential positive relationships between public administrations, the concept of Queer, urban space, and Design, within Italy and other contexts? Which are the most suitable participatory tools to foster dialogue and participation between PAs and local queer communities in processes of designing urban public spaces? Which experimentations and actions could be activated with Milan Municipality in order to queer the processes of Milan’s Municipality in designing and managing public spaces? These are the questions guiding the research, which will include an internship in Milan’s Municipality offices, making possible direct experimentation and prototyping of possible solutions or actions/policies.

References

- Battaglio, M. (2022, May 5). *Cronache di ordinaria omofobia*, Report da maggio 2021 a maggio 2022 – Omofobia.org. Retrieved May 7, 2023, from <https://www.omofobia.org/sito/cronache-di-ordinaria-omofobia-report-da-maggio-2021-a-maggio-2022/>
- Chauncey, G. (1996). Privacy Could Only Be Had in Public: Gay Uses of the Streets. In J. Sanders, *Stud: Architectures of Masculinity*. Routledge. <https://doi.org/10.4324/9781003014720>
- Halperin, D. M. (1995). *Saint Foucault: Towards a Gay Hagiography*. Vol. 26. Oxford : Oxford University Press

¹ Term coined by Kimberle Crenshaw in 1989: "Intersectionality is a metaphor for understanding the ways that multiple forms of inequality or disadvantage sometimes compound themselves and create obstacles that often are not understood among conventional ways of thinking." To read more: Crenshaw, K. (1989). "Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory and Antiracist Policies." University of Chicago Legal Forum 1989, no. 1: 139-167.

- Ilga Europe. (2022, June 15). *Rainbow Europe* - ILGA-Europe. Retrieved May 7, 2023, from <https://ilga-europe.org/rainbow-europe/>
- Kern, L. (2021). *Feminist City: Claiming Space in a Man-Made World*. Verso.
- Pasqui, G. (2022, August 30). *I corpi e lo spazio urbano: proposte per favorire i buoni incontri*. cheFare. Retrieved May 7, 2023, from <https://www.che-fare.com>
- Perez, C. C. (2019). *Invisible Women: Data Bias in a World Designed for Men*. Harry N. Abrams
- Queering Public Space* - Arup. (n.d.). Retrieved May 7, 2023, from https://www.arup.com/perspectives/publications/research/section/queering-public-space?utm_source=twitter&utm_medium=social&utm_campaign=queering_public_spaces&utm_term=n/a&utm_content=ukimea
- Zarzycki, M. L. (2022, August 11). *Wild public: queer spaces for radical ways of being and becoming*. *Architectural Review*. Retrieved from <https://www.architectural-review.com>