



FUTURING CRAFT: THE VALUE OF CRAFT

THE CONFERENCE PROCEEDING



PROCEEDINGS OF

**IOTA24 FUTURING CRAFT:
THE VALUE OF CRAFT
INTERNATIONAL CONFERENCE**

EDITOR

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ACKNOWLEDGMENT OF COUNTRY

The Indian Ocean Craft Triennial acknowledges the traditional custodians of country and culture, where the Indian Ocean Craft Triennial is based, the Noongar nation, and by extension the Aboriginal peoples and Torres Strait Islanders of Australia and to Indigenous cultures across the oceans. We recognise and are inspired by their continuing connection to ancestral knowledge and story, together with their nurture of contemporary culture.

FUTURING CRAFT: THE VALUE OF CRAFT

The Indian Ocean Craft Triennial IOTA-2024
Dr Kevin Murray and Dr Qassim Saad

We are pleased to call for submissions to the international conference **Futuring Craft 24: The Value of Craft**. The conference is part of the Indian Ocean Craft Triennial (IOTA) and extends the 2024 theme *Codes in Parallel*, which aims to explore the various languages inherent in contemporary crafts. Futuring Craft 24 welcomes submissions in the form of either full papers or practice-led research short papers. The conference is scheduled to take place from Tuesday 3–Thursday 6 September 2024 in Perth, Western Australia.

The conference provides a platform for deepening knowledge on topics that reflect the diversity of approaches to craft making and consumption. We encourage proposals from individuals in a variety of creative fields; theorists, academics, craft practitioners, artists, designers, makers, curators, campaigners, and activists. Much like the first iteration, the conference offers opportunities for a variety of submission formats, such as theory presentations, audio-visual documentation of objects and makers, with in-person or virtual presentation options.

Futuring Craft 24 will provide a platform for vigorous debate on the challenges confronting the craft sectors in the Indian Ocean region and beyond, raising major questions:

- What is the future of craft practice in the Indian Ocean Region?
- How does the evolution of the handmade underpin micro and macro economies?
- What role do crafts and makers play in socio-political, cultural and environmental healing?
- How can communities challenge the craft paradigm?
- Technology and the digital age, a game changer?

WHAT IS THE VALUE OF CRAFT IN THE BIG PICTURE?

In the progress narrative, human capacity is advanced by the invention of technologies that overcome our bodily limits. By contrast with this linear development, making things by hand is seen as “backward”. The challenge for those in the crafts is to demonstrate the wide range of ways in which it is still relevant, even vital, today. Craft can have practical benefits, such as personal wellbeing, aesthetic capacity to make our world beautiful, and ethical uses that support marginalised peoples. What is the thread that links all the values of craft together?

THE CONFERENCE THEMATIC TRACKS

1 Homo curare - the role of humans in the world

The story of homo faber, man the maker, has underpinned the story of craft. This supports a human exceptionalism that distinguishes humans from other animals. But human exceptionalism may have its limits. We are becoming increasingly aware of the need to work in dialogue with the non-human world. Some propose homo curare, man the carer, as an alternative model to the heroic story of human achievement. The idea of humans as a custodial species was presented by First Nations scholar Tyson Yunkaporta in *Sand Talk* (Yunkaporta, 2019). Can craft play a meaningful role in the human responsibility for ensuring that life flourishes on earth?

2 Non-western perspectives

Our understanding of the value of craft has been largely informed by Western culture. This has emphasised the role of the individual in skilfully making objects of enduring value and beauty. Is this common across other cultures? How does this relate to the use of craft in other Indian Ocean cultures where handmade is often involved in ceremonial practices such as temple worship or ephemeral events such as festivals and masquerades? A global picture of the value of crafts needs to include its cultural and spiritual purposes.

3 The challenge of artificial intelligence

The advent of ChatGPT has placed additional stress on the concept of human exceptionalism. The issues faced by handweavers with the introduction of the machine loom are being revisited as we see core human activities like writing potentially replaced by Large Language Models. Crafts have an important voice in the conversation about the ongoing role of humans.

4 New and old communities for telling craft stories

2024 is the 60th anniversary of the World Crafts Council as well as its Australian chapter, WoCCA. While being proud of this longevity, it's important that there is a forward vision that affirms the relevance of such organisations. New associations such as the Knowledge House for Craft, make use of new technologies for connecting us together. We welcome papers that reflect on the history of craft associations and offer new models of how we can work together.

'FUTURING CRAFT' SUBMISSION FORMAT

The conference welcomes submissions from around the world. Futuring Craft 24, will accept submission formats as:

1. **Full Papers** that articulate the value of craft today. This can be in its specific form as a utilitarian, aesthetic or ethical use. Or it can offer an overarching framework for bringing these elements together. The submission format requires a short abstract (300 words max, using the conference template; see the link). Accepted abstracts will be invited to submit the full paper (5000 Words Max using the conference template) for the blind review process.
2. **Practice-Led Research Papers.** (including craft, art, and design practices). The format includes research as well as studio practice aligned with the conference thematic tracks and Futuring Craft context. The call is for case studies, craft pedagogy, and indigenous craft and art practices. These promote societal development, empathy, connectivity, and enhanced experience. Practice-led presentations can take on various forms and media; audio-visuals, posters, artefacts, storyboards, interactive workshops, etc.

Submission format requirements: A short abstract (200 words max, using the conference template) supported by up to 5 photos, screenshots, and draft illustrations of the submission content. Accepted abstracts will be invited to submit the full paper (3000 Words Max using the conference template) for the blind review process.

'FUTURING CRAFT' ACCEPTED AND PRESENTED PAPERS

- [ID 1-2] **The Pacific and the Indian Ocean – Threads of Modernist Movements in the Collection of the Iwalewahaus** Katharina Greven and Sarah Böllinger
- [ID 1-4] **Landscape is no longer relevant (and Nature is dead)** Dr Annette Nykiel, Dr Perdita Phillips, and Dr Nien Schwarz
- [ID 1-5] **Sharing: craft, skill, design and art** Marian Hosking
- [ID 1-6] **Olfaction Collar** Joanna Quake
- [ID 1-7] **Crafting Belief: Unravelling Cultural Narratives of Temples in Himachal Pradesh** Lalita Waldia
- [ID 1-9] **"Our veins/swallow": exploring ecological fragility through corrosion casting** Tineke Van der Eecken Ba Ma
- [ID 1-11] **The Impact of Colonialism on the Western Distinction between Art and Craft** Prof. Dr Richard Read
- [ID 1-12] **Healing Country – The Five Elements** Dr Helen Bodycomb, with Aunty Lee-Anne Clarke
- [ID 1-14] **Sacred Spaces And The Codification Of The Cloth** Wafa Ali and Muhammad Umer Rehman
- [ID 1-15] **Art, Alam, and Adat: Creative Bornean responses to traditional practices and contemporary realities** Catriona Maddocks Borneo Bengkel and Sonia Luhong Wan Borneo Bengkel
- [ID 1-16] **Re-imagining the Social Lives of Materials Through Play: Balsa Wood** Laura-Jane Atkinson
- [ID 1-18] **Experimenting with Circularity and Dissolvable Design Objects** Matthew Harkness
- [ID 1-20] **Contemporary Body Ornament in a Global South Asian Context** Anvita Jain
- [ID 1-21] **Tangible and Intangible Qualities in Craft Development: A Global North and Global South Perspective** Fauzy Prasetya Kamal
- [ID 1-24] **The Value of Craft** Prof. Dr Susan Luckman
- [ID 1-26] **Tealeaves, Clouds, Rice: Object Making, Place and Identity** Dr Bic Tieu
- [ID 1-27] **In Our Hands: Nepali Nature inspired climate solutions in the Anthropocene** Dr. Inge Panneels (lead author), Dr. Robert Phillips, Saurav Dhakal, Anil Chitrakar, and Sujana Chitrakar
- [ID 1-29] **Slow fashion in action: Creating value in handcrafted textiles through consumer experience of Indian traditional textile communities' making processes and social fabric** Dr Deborah Emmett
- [ID 1-30] **Inclusive Craft: Tactile Sensory Approach to Empower Person with Blindness with Ceramic Making Skills** Fitorio Leksono and Toufiq Panji Wisesa
- [ID 1-31] **Crafting Knowledge: The Art of Mapping and the New Craft of Data Visualization for Cultural and Creative Industries** Prof. Andreas Sicklinger Simona Colitt, and Lorela Mehmeti
- [ID 1-32] **Unweaving the Fabric of Hierarchy: Decolonisation in Curatorial Practices for Indonesian Art and Craft** Christine Toelle
- [ID 1-35] **A Cosmology of Care: The Creative & Curative Expression of Balei Pancur of The Semai People of Malaysia** Wen Di Si
- [ID 1-36] **Crafting Waste Toward a Future Creative Circular Economy** Dr. Niklavs Rubenis, Caroline Cumberbatch, and Dr. Rohan Nicol
- [ID 1-37] **Craft Villages along the Red River Delta in Vietnam: Nurturing Tradition, Community and Modernity** Prof. Andreas Sicklinger, Chi Le Quynh, Federica Natalia Rosati, and Federica De Vigili
- [ID 1-38] **Interlacing the Known and the Unknown: Lace, ancestry and practice-led research** Molly Ryan
- [ID 1-42] **Futuring Handloom Weaving in the Indo-Pacific: Balancing Digital Technologies with Artisan Practice** Dr Cecilia Heffer
- [ID 1-45] **The embodiment of feeling in stitch and cloth** Dr Joy Denise Scott
- [ID 1-50] **Stitch as Code: Non-Traditional Practice in Research** Dr Aleksa Bijelovic and Dr Anne Farren
- [ID 1-54] **Crafting communities, crafting policy - the formation of craft policy networks in Australia** Bridie Moran
- [ID 1-55] **Hearing the Message Sticks: Sharing and making in communal, cultural and intergenerational settings with Nhanda artists of Ku'arlu Mangga (Good Nest)** Colleen Drage, Mauretta Drage, and Marina Baker

- [ID 1-57] **The Magic of Making or Crafting as Cure: Supporting Resilience in Middle-Grade Girls Through Creativity and Craft Practice** Sarah Hutt
- [ID 1-63] **Madras Check: Colour, Circulation and Consumption** Uthra Rajgopal
- [ID 1-64] **Does Tradition have a Timeline? A dialogue on collaboration between urban designers & rural weavers** Gunjan Jain
- [ID 1-65] **Memento Mori Adorned: Aesthetics Death** Supavee Sirinkrapor and Khajornsak Nakpan

FUTURING CRAFT SCIENTIFIC REVIEW COMMITTEE*

- Agatha Dinarah Sri Rumestri, Institut Teknologi Telkom Purwokerto, Indonesia
- DR Aleksa Bijelovic, Curtin University, Australia
- PROF. Andreas Sicklinger, University of Bologna, Italy
- Dr Annette Nykiel, Australia
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- Dr Bic Tieu, University of New South Wales, Australia
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- Dr Michael Gray, Curtin University, Australia
- Dr Monika Lukowska-Appel, Curtin University, Australia
- Dr Niklavs Rubenis, University of Tasmania, Australia
- **Associate Prof. Dr Qassim Saad**, The Conference Convenor and the Chair of the Reviews Committee, Curtin University, Australia
- Prof. Dr Susan Luckman, University of South Australia, Australia

*Alphabetical order

FUTURING CRAFT ORGANISING TEAM

- Jude van der Merwe
- Heli Donaldson
- Melissa Cameron

FUTURING CRAFT KEY DATES

- **31 October 2023:** Closing date for abstract submission using the conference template.
- **30 November 2023:** Notification of abstract acceptance.
- **28 February 2024:** Submission of the first draft of the full paper & the practice-led short paper for the blind peer-reviewing process.
- **15 March 2024:** Registration for the conference ends.
- **30 April 2024:** The reviewing process feedback sent to author.
- **31 May 2024:** Submission of the revised version of the paper using the conference template.
- **15 June 2024:** Notification of acceptance of the revised submission.
- **3–6 September 2024:** Conference

FUTURING CRAFT SUBMISSIONS REVIEW GUIDELINE

- **Content:** Is it thoughtful, complete, and insightful
- **Significance:** Is it useful, useable, and desirable for conference audiences
- **Originality:** Does it present new knowledge or methods
- **Thematic relevance:** Does it align with the 'futuring craft' thematic tracks
- **Presentation:** Is it visually attractive and easy to understand
- **Audio-Visual quality:** Is it clear, well-constructed, and above-average quality

FUTURING CRAFT PRESENTATION FORMAT

The conference was held at the School of Design and the Built Environment, Curtin University-Perth, Western Australia. Authors can select the presentation format as an in-person presentation or a pre-recording and online presentation. The conference will be presented in dual format, allowing for virtual attendance.

FUTURING CRAFT PROCEEDING

All presented papers will be published digitally in the *Futuring Craft 24: The Value of Craft* conference proceeding with an ISBN number. This digital booklet will be available from the IOTA 24 website.

FUTURING CRAFT REGISTRATION

The conference registration fees of AU\$ 300, for all submission formats. To include the submission in the conference proceedings at least one of the authors, must register and present the work in the conference; either in-person or virtually.

The registration fees cover:

- Admission to the conference sessions, workshops, keynote presentations.
- Between-sessions coffee breaks, and lunch for in-person registrants.
- Closing session and celebration.
- Networking

The registration fees do not include:

- Transportation expenses
- Accommodation

FUTURING CRAFT ENQUIRIES

Contact the conference organiser at:
conference@indianoceancrafttriennial.com

FUTURING CRAFT ENDORSEMENT AND SPONSORSHIP

- Curtin University, School of Design and the Built Environment.
- The Western Australian Government, through the Department of Local Government Sport and Cultural Industries
- Australian Cultural Diplomacy Grants Program Business Events Perth
- Regional Arts WA, the Western Australian Museum
- World Crafts Council Australia.

'FUTURING CRAFT' PRESENTATION SCHEDULE

DAY 1

TUESDAY 3 SEPTEMBER

3:15–4:00pm	REGISTRATION & NETWORKING	
4:00–5:00pm	Conference Opening Welcome: Dr Qassim Saad, Conference Convenor Keynote Speaker: Asim Waqif / India In Conversation with Jimmy Thompson, MJA Studio / Australia	LEVEL 3
5:30–6:00pm	Stitch as Code Exhibition Opening	GROUND FLOOR
6:00–7:30pm	Cultural Celebration Featuring Indian–Indigenous Australian music & dance collaboration, produced by Saraswati Mahavidhyalaya (SMV) and 'Salama' music & dance band from La Réunion, Mauritius, Seychelles, and Madagascar, produced by Kaleidoscope Multicultural Arts Management.	GROUND FLOOR

Crafting Knowledge: The Art of Mapping and the New Craft of Data Visualization for Cultural and Creative Industries

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Presentation Link



The Abstract

The research by the Advanced Design Unit at the University of Bologna explores mapping cultural and creative industries (CCIs) in the region. This project creates meta-maps that showcase the ecosystem of CCI interactions through detailed desk and field research, incorporating data from festivals, events, and institutions. These meta-maps serve as dynamic canvases for both qualitative and quantitative analyses, promoting the discovery of new practices and tools through open-source innovation. Focusing on cross-sectoral and multi-actor collaboration, the research transforms mapping from mere orientation into a co-created mode of knowledge. This method can uncover missing links and underdeveloped areas within the CCI, and is transferable to other contexts, such as the IOR region. Collaborative mapping, a trend in development discourse, enables communities to actively influence the mapping process, generating new knowledge and metadata that describe the craft world's material and immaterial aspects. Data visualization plays a critical role, creating new maps of the creative world and embedding within the mapping process to verify results iteratively. Advanced data visualizations facilitate participatory approaches, enhancing awareness, education, and knowledge. Representing data in accessible forms becomes central, especially for intangible outcomes of CCIs. Thus, designing a mapping-visualization-communication and archiving process becomes a powerful tool, allowing experimentation with new narratives and graphical representations in various geographical areas of the global system.

meta-narratives; data visualizations; culture and creativity; crafting ecosystem; interdependency

1. Introduction

Innovation represents a collaborative endeavour characterized by the exchange of information among individuals, enterprises, and institutions, thereby facilitating the genesis and conversion of ideas into tangible products or services. Consequently, it becomes imperative to collectively scrutinize the mechanisms through which various actors within Cultural and Creative Industries (CCI) value chains—comprising companies, research institutions, policymakers, CCI networks, innovation agencies, and communities—engage and make decisions. This raises pertinent questions regarding the specific contributions of entities in academic research and projects towards fostering innovation and creativity, and whether this dynamic can be precisely delineated.

The purpose of mapping out these interactions has been collaboratively devised to highlight the shared underpinnings of CCI diversity across the participating nations within the project called "Crafting Knowledge: The Art of Mapping and the New Craft of Data Visualization in Cultural and Creative Industries". The repository of case studies serves to transcend preconceived notions associated with the research-to-practice divide by fostering collaboration within the entire CCI ecosystem. Moreover, it furnishes empirical evidence on the interactions between design centers and myriad stakeholders from diverse sectors, facilitated through activities and methodologies geared towards engendering engagement, mutual trust, and acknowledgement.

Intended as a mapping and data-viz model, the mapping of Cultural and Creative Industries is an abstract tool and can be applied on various contexts, either on generic/specific aspects of CCI's different geographic areas, or both. In this sense, the paper aims to imagine the possibility of extending a mapping to geographical areas within the Indian Ocean Region (IOR) through the example of the Red River Delta in Central Vietnam. The area is characterized by a collection of around 1000 villages, making it one of the largest contiguous areas of rural production areas in the world within an extensive river and waterway system. Here the differences and similarities of crafting can be mapped within a system of craft villages that form micro-economic cells each, as a huge "open-air" factory. Most of the villages have individual characteristics and specialization in certain production techniques and outcomes.

The patterns of available craftsmanship are altering due to changing environmental conditions initiated by the construction of a hydroelectric dam, and changing water resources affecting the growth of raw materials are the basis of most craft manufacturing processes. In addition to the already social impact of advancing globalization, the area is facing important challenges that shake their very own fundamentals. The representation of existing cultural and creative industries as the basis of the economic system is intended to meet the changing needs of product categories that can be commercialized. The mapping aims to potentially replenish the missing and lost product services that enable the complex system of villages to withstand ongoing modernization, as well as the power of cultural and social institutions that aim to strengthen the fabric of socio-economic strengths of century-old human settlements.

Especially the last-mentioned institutions (such as Hanoi University which is working already on a coherent mapping of the Red River Delta villages) are mainly intended to show up in their characterizing duties and activities, based on a comparison with other geographic mapping where the geographic impact between industrialization and craftsmanship is mature.

2. Methodology: meta-mapping of cultural and creative industries

The model which is referred to regards the research project developed by the Advanced Design Unit at the University of Bologna that starts with exploring the art of mapping, focusing specifically on the cultural and creative industries (CCIs) of the region. This CCI project unfolds through meta-maps that reveal the regional ecosystem of CCI interactions and relationships, reflecting a

radical shift in cultural institutions, underscored by the Faro Convention (2004), which shifts the focus from the cultural object to the subjects – citizens and communities, identifying participation as the key to enhancing the value of heritage (Lupo, 2023).

The action of mapping CCIs means identifying the actors through specific, themed events designed over the years to trace and visualize networks of partners and stakeholders involved, in order to build and represent the regional ecosystem of their interactions and relationships (Celaschi & Vai, 2021).

The proposed mapping models are based on desk and field research that have aggregated people, spaces, products and services, and relationships, collected in datasets and displayed on the websites of festivals, events, institutions, administrations, universities and research centers with the intent to configure thematic micro-observatories.

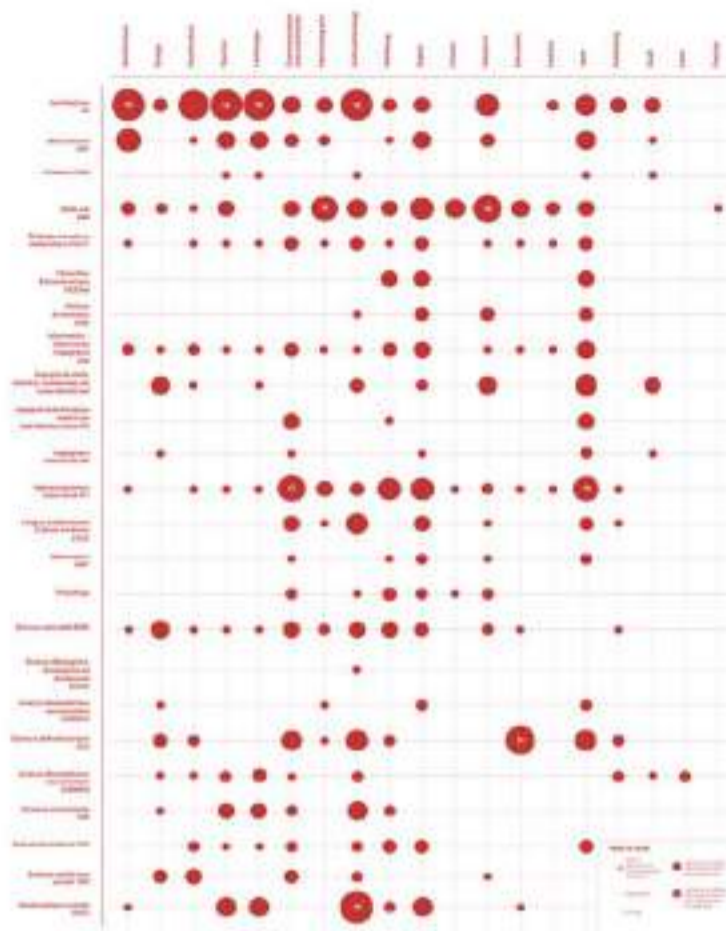
Mapping the maps of experiences and relationships, therefore, means enabling and representing cultural and creative metabolism, making explicit the characteristics, skills, competencies, and experiences of cultural and creative realities through the telling-of-their stories and making the value of it (Celaschi et al., 2020). This meta-map intends to discover and learn about new practices, processes and tools that can be replicated (open-source innovation) and to experiment with new opportunities for crossover between different sectors, in the CCI one.

2.1 Holistic Approach to the CCI UNIBO Mapping

The initial phase of the project focuses on deeply understanding the CCI ecosystem, not just by gathering data using the specific cultural context of the Emilia-Romagna Region (RER) understanding not just the economic aspects but also the social, historical, and political dynamics that influence the CCIs. The methodology is based on a bottom-up approach, valuing the knowledge and experiences of local communities, and facilitating their active participation through workshops, interviews, and collaborations.

Based on the initial input from "Making Value: Storydoing Actions for Cultural and Creative Industries," by Colitti, Liçaj, Mehmeti, and Vai (2024), this study launches a comparative analysis of cultural and creative competencies within the educational offerings at the University of Bologna, employing a variety of sources and tools. The research is anchored on the premise that the existing narratives surrounding the value of cultural and creative disciplines in academia need critical reassessment. The researchers utilized data visualization as a creative tool to facilitate the new frontier of storytelling as a 'story-doing' process, aiming to foster greater awareness and appreciation of these disciplines.

The methodological framework of this study comprises a comparative analysis of key documents that regulate the cultural and creative economy across different scales (international, national, and regional). The research then proceeded with an exploratory desk analysis to develop an accessible dataset. Findings from the study suggest that data visualizations can significantly aid in enabling story-doing processes, thus generating increased awareness and value for cultural and creative industries. The below map exemplifies this intricate system of CCI actors on a human-based extraction and analysis model of representative CCI categories.



[Fig. 1: Cultural and creative disciplines in the University of Bologna ecosystem. A data visualization based on a human-based extraction and analysis model.]

2.2 Technology Integration in Data Visualization

Advanced technological tools and applications are used to collect and elaborate data, hence technological innovation plays a crucial role in the success of the project. Data visualization is not seen merely as a result but as an ongoing process of interaction and feedback between researchers and participants. The use of interactive platforms, augmented reality, and advanced data visualization techniques enables the presentation of data in ways that stimulate interest, understanding, and engagement from the audience. This methodological shift from static to dynamic in data visualization aims to make information not only accessible but also meaningful to different audiences.

The integration of digital technologies within the Cultural and Creative Industries (CCIs) has dramatically transformed the accessibility and engagement of audiences with cultural content. A prime example of this transformation is evident in Stefan Pullen's "Vincent van Gogh - The Virtual Gallery," which employs design data-driven visualizations to provide an immersive and interactive user experience. This virtual platform not only enhances the understanding of Van Gogh's work but also extends the traditional confines of art appreciation, leveraging advanced technologies to create a new form of engagement with art (Pullen, 2024).

The mapping actions in the CCI sector are functional to build supra-regional and trans-national ecosystems, to satisfy the need for collection and representation tools that integrate multiple dimensions and multiple datasets. In this metalinguistic exercise, data-viz design can enable these representational processes. Data visualization today can be considered the new maps able to embody the dual function of representations that can "orient" in the world and, at the same time, "invent" new worlds. As a tool, data viz can evoke, through graphical-figurative synthesis and infographics, qualitative and intangible values, such as in the culture and creativity field, through associations, clustering of relational and symbiotic processes, combining processes with a hierarchical-associative structure, typical of mind maps, with relational processes to explicate the network of relations among different concepts, typical of concept maps. (Bihanic, 2015; Eppler & Burkhard, 2007)

In conclusion, the application of digital technologies in CCIs, showcases the evolving relationship between art, technology, and audience engagement. It needs to highlight the growing trend towards more accessible, interactive, and immersive cultural experiences, underscoring the potential of technology to enhance public understanding and appreciation of the arts (Smithsonian Magazine, 2017; Rethinking the Future, 2024; Pullen, 2024).

2.3. Interdisciplinarity as an Innovation Tool

Besides the use of advanced technologies for collecting, elaborating and visualizing data, a further essential element in mapping regards interdisciplinarity to address the complexity of the CCI sector. The project requires collaboration from experts across various fields: economics, sociology, art history, design, computer science, and more. This collaboration aims to create a common language and develop new methodologies capable of capturing the multifaceted nature of CCIs. Through the interaction between different disciplines, the project seeks to generate new knowledge and innovative approaches to mapping and data visualization.

In essence, the methodology proposed for "Crafting Knowledge: The Art of Mapping and the New Craft of Data Visualization in Cultural and Creative Industries" seeks to overcome traditional limits through a holistic, technologically innovative, and interdisciplinary approach. This approach not only enriches the understanding of CCIs but also promotes more active and meaningful participation from the communities involved. The challenge lies in translating this complexity into visualizations that are not only informative but also capable of inspiring and engaging, turning data into meaningful narratives that reflect the richness and diversity of the cultural and creative sector.

This methodology requires continuous reflection and adaptation to local realities, ensuring that the project remains sensitive to the needs and aspirations of the communities it aims to serve. Only through this collaborative and inclusive process can we hope to create data visualization tools that are truly capable of representing the complexity and dynamism of the cultural and creative industries.

2.4 Case Study: Atlante Calvino - Qualitative Mapping Platform

The Atlante Calvino project¹, developed by the University of Geneva and the DensityDesign Lab at Politecnico di Milano, explores Italo Calvino's works through qualitative mapping and data-driven techniques. The platform uses interactive data visualizations to illustrate thematic, geographic, and temporal connections in Calvino's narratives. Users can interactively explore locations and themes, combining quantitative data on the frequency and distribution of works with qualitative analysis of themes and metaphors. These visualizations serve as both descriptive and interpretative tools, revealing new phenomena and perspectives. The project promotes interdisciplinary collaboration between humanities scholars and designers, resulting in intuitive visual representations. By making Calvino's work accessible and engaging, the platform attracts a diverse audience and serves as a valuable resource for students and researchers. Engaging visualizations stimulate public interest in literature and culture, promoting deeper interaction with the texts. Atlante Calvino exemplifies how digital technologies and data visualization can enhance cultural heritage, offering new analytical tools and methods of engagement. This project highlights the potential of qualitative mapping in promoting and preserving literary works within the cultural and creative industries.

¹ <https://atlantecalvino.unige.ch>

3. Common Design, Community Generation and Representation: CCIs as a Contemporary Form of Mapping

Universal Expositions have been historically used over decades to showcase and promote geographical and cultural excellence, contributing strongly to the identity of regional production f.e. Made in Italy (Dellapiana 2022). Besides this, thematically themed temporary events can be considered complex cultural systems that have had and still can stage imaginaries, stories and narratives, anticipations of the future, specific skills and communities of crafts. The productions of the cultural and creative sectors in cities are still made manifest through events, fairs and festivals, temporary occasions to enhance and communicate innovations, experimentations, prototypes, and technologies (Vai, 2021). Events have been recognized as immaterial and dynamic service-product components capable of "centralizing and generating communities and inducing changes in the state of the system that takes place in a given place and time" (Bertola & Manzini, 2004).

The role and enabling capacity of culture, creativity, and cultural heritage in generating social cohesion and new community economies are increasingly widespread and topical, as evidenced by the creation of the first Knowledge Innovation Community in the European Institute of Innovation and Technology (EIT) Culture and Creativity project (EIT, 2021). The project aims in the first year of the startup grant agreement to define the methodologies for the mapping of different and articulated dimensions of the phenomenon widening it up to the principle of sectors; mapping of existing programs running within the university/educational partners in the ICE consortium²; mapping of the lifelong learning practices for Cultural and Creative Sectors and Industries (CCSI) with an innovative interdisciplinary, cross-sectorial approach; mapping, structuring, systematization and evaluation of existing lab-to-market approaches, experiences, methods and success factors with special focus on audio-visual/media, gaming, textile/fashion, architecture and design; mapping of successful experiences and best practices of digital, green and/or social transformation schemes/roadmaps as the basis for principles for the green, digital and social transition of CCSIs, and more.

This enormous action of collecting data on the European scale, not only with a geo-localized and quantitative approach but also qualitative, about the dynamics of the relationships among CCIs activate a network of stakeholders able to mobilize and lead to reflections on which methodologies and tools to adopt, how to represent these multi-scalar relationships, as pre-conditions for the design of a pan-European policies' ecosystem.

This process has potentially infinite degrees of complexity. In the following, we suggest a methodological perspective that is scalable across cities, which attempts to cluster mapping actions into increasing stages of complexity and structure:

- Events as a map of culture and creativity;
- Mapping events: meta-map of culture and creativity;
- Mapping the CCI ecosystem: data-viz as new maps of the creative world.

4. Collaborative Mapping: Guidelines

Back in 2004, OpenStreetMap³ offered an anticipatory worldview, thanks to the model of new open access, co-produced and shared knowledge that allowed anyone on Earth to view, modify and use

² <https://www.iceconsortium.com>

³ <https://www.openstreetmap.org/>

geographic data in a collaborative approach (Panek & Rostislav, 2019). The process by which the platform has succeeded over the two decades in distributing free geospatial data has occurred progressively through the release of Creative Commons licenses and the release by private entities of datasets made public for use and sharing.

Based on these premises, focusing on the map not only as an orientation system but as a co-created mode of knowledge allows us to achieve dual knowledge of the world and culture. Collaborative mapping through community engagement became a new trend in the development discourse that allows communities to become part of the power structures and influence what is mapped and what/who is on the map (participation process). In this perspective, the leitmotiv of mapping the existing is justified as an action both geo-localizing and generating new knowledge.

The research question is: what is the role of design nowadays in drawing new maps and generating new worlds? In seeking answers to this question, the paper aims to develop the hypothesis that the generation of creative communities depends symbiotically on several variables:

- their capacity for representation
- the need to be recognised: through mapping activities;
- the possibility of being represented and interconnected: through data visualization of enabling networks and clusters.

These conditions enable their recognition and awareness of their role and, consequently, their right to exist. This recognition has evolved over the last two decades, and this evolution has depended in considerable part on the emergence of tools enabling encounter and co-creation through dynamic mapping (Bakshi et al., 2013).

This CCI project unfolds through meta-maps that reveal the regional ecosystem of CCI interactions and relationships, reflecting a radical shift in cultural institutions, underscored by the Faro Convention (2004), which shifts the focus from the cultural object to the subjects – citizens and communities, identifying participation as the key to enhancing the value of heritage (Lupo, 2023).

In the research carried out by the Advanced Design Unit of the University of Bologna, the action of mapping CCIs means identifying the actors through the events designed over the years to trace and visualize networks of partners and stakeholders involved, to build and represent the regional ecosystem of their interactions and relationships.

The project followed a structured approach encompassing three primary phases:

1. Collaborative Workshop – Defining & Crafting: Engaging co-design sessions among the involved researchers aimed at delineating and outlining the categories and attributes of the case studies and practices to be mapped out.

RESULTS: Establishment and development of the IT framework tasked with aggregating the case studies based on the identified categories set forth during the initial workshop phase.

2. Transitional Phase: Facilitating collaboration and data acquisition, researchers were tasked with completing the Case Study Form for a minimum of 10 case studies.

RESULTS: A total of 123 cases were amassed in the repository. The data gathered during the transitional phase were scrutinized and prepared for data visualization by two seasoned service designers from the Advanced Design Unit of UNIBO.

3. **Evaluating Findings and Data:** This workshop aimed to bolster the network of pertinent Culture and Creativity (C&C) stakeholders across the involved regions, including the Regional Innovation Systems (RIS). The objective was to facilitate data collection and foster direct exchanges among stakeholders to address various challenges. The datasets served as discussion material and starting points for formulating potential strategies to leverage the innovative potential of the mapped initiatives. This included considering the complexity inherent in the C&C ecosystem and its stakeholders (Culture and Creative Industries, Public Administration, Communities, and Research/Education System).

RESULTS: Synthesis canvases facilitated working sessions among interest groups and prompted specific reflections, beginning with the imperative of integrating culture and creativity into innovation practices. This process defined the most promising areas for their application and identified the necessary tools for the comprehensive advancement of the C&C sector within the European context.

The results of the experimentation can be synthesised in the following main outcomes, which have also served to consolidate the model:

- **Mapping and collaboration results:**
Presents the outcomes of the hybrid format used in workshops, which increased empathy and engagement, leading to a richer collection of case studies across Europe.
- **The CCI Database:**
Describes the establishment of a comprehensive database, visualizing the penetration of culture and creativity across disciplines and sectors, facilitated by the collaboration among the involved stakeholders.
- **Collaborative mapping and its impact:**
Explains the significance of collaborative mapping in creating a shared understanding of CCIs and the potential for future enhancements through additional funding and strategy development.
- **Recommendations and strategic implications:**
Outlines recommendations for expanding the database and connecting with other mapping exercises, highlighting the role of CCIs in the EU economy and the necessity of fostering connections between the education sector and the market.

5. Conclusions and future steps

In conclusion, the collaborative and interdisciplinary approach outlined in "Crafting Knowledge: The Art of Mapping and the New Craft of Data Visualization in Cultural and Creative Industries" marks a significant advancement in understanding and appreciating the complex landscape of cultural and creative industries (CCIs). By engaging directly with communities, employing cutting-edge technological tools for data visualization, and fostering interdisciplinary collaboration, this research sets the foundation for an innovative, data-driven approach to mapping cultural ecosystems. The model highlights the transformative power of technology in enhancing accessibility, engagement, and understanding of cultural content. Leveraging digital innovations like augmented reality and interactive platforms, the research not only makes cultural data more accessible but also more engaging for diverse audiences. This approach not only democratizes access to cultural knowledge but also facilitates deeper, more meaningful interaction with cultural heritage. Furthermore, the creation of a comprehensive CCI database and the collaborative mapping

activities underscore the potential of collective intelligence and collaborative creativity. The methodology has proven effective in breaking down traditional disciplinary boundaries, enabling a holistic grasp of the CCI landscape. This collaborative effort not only built a community among participants but also significantly enriched the sector's knowledge base. The successful implementation of this project serves as a model for future endeavors aiming to utilize the power of data visualization and interdisciplinarity to understand complex cultural ecosystems. It calls for a continued collective effort in refining and expanding the methodologies and technologies employed, to enhance our understanding and appreciation of cultural and creative industries. The integration of academic research with technological innovation and community engagement is key to unlocking the full potential of CCIs, thereby supporting their vital role in the socioeconomic fabric of the EU and beyond.

The research project is developed on the principle of transferring its methodology in other contexts, led by institutions and stakeholders capable of collecting, analysing and visualising resulting data. This has eventually the goal to open up "new worlds" of pulsing CCI districts that can promote and steer cultural innovation through its mapping such as proposed for the Red River Delta in Vietnam, where already an ongoing mapping is allowing to apply the strategic approach of this research as a potential model for comparison. On a wider scale, therefore, this will ensure a richer, more diversified collection of case studies and facilitate the development of more nuanced and effective mapping strategies globally. Ultimately, this collaborative, innovative approach to mapping and data visualization will continue to shed light on the intricate interconnections within CCIs, fostering a deeper understanding and appreciation of their value and potential. As CCI's output is either tangible or intangible, it refers to economic market strategies that include the export of goods and the transfer of knowledge and well-being. Hence, it offers a significant advantage in aligning various types of local heritage across distances and cultural differences. This adaptability and scalability make it a valuable framework for exploring and enhancing global cultural diversity, encouraging broader and more profound international dialogue.

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