24

P

AD

FUTURE

HERITAGES

IV. BIOGRAPHIES

DIGITAL ARCHIVES
NEW MATERIALITY
AND INTANGIBLE HERITAGE

III

Born Digital, Die Digital
Potentials and Risks of Digital Archives

Roberta Angari
Università degli Studi della Campania "Luigi Vanvitelli"
Orcid id 0000-0001-6890-1487

Keywords
Digital Archive, Digital Memories, Born-Digital, Digital Humanities, Data Visualization.

Abstract
The contribution deals with the theme of preservation and access to knowledge, with particular attention to the approaches and methodologies employed in the design of digital platforms useful for preserving culture and memory, guaranteeing access for future generations. An analysis of the relevant scientific literature and state of the art shows how, especially in the face of the pandemic emergency, experiences have been consolidated and centered on the design of platforms, such as digital archives, which, while preserving culture and memory, also make them accessible, regardless of the possibility of access to physical structures.
The change generated by the digital has redefined the relationship between society and culture, and between people and memory and has led to the need to think about how people access to memory and cultural heritage, in particular to a new category of artifacts, the born-digital ones, which risk dispersion and deterioration due to technological obsolescence.
The contribution, therefore, addresses these issues to identify, through context analysis, a methodology useful for the creation of a digital archive, attempting to overcome those limits dictated by self-referential systems, which do not guarantee democratization and access to culture for a non-specialist audience.

1. Introduction

The spread of digital technology and its influence on everyday life are established aspects, which have transformed – among other things – the way knowledge is accessed (Levy, 1998; Greengard, 2015).

The pandemic emergency, which has had a disruptive effect on the digital transition, has also further accelerated both the debate and the succession of experiences related to the design and adoption of digital approaches and tools, also in the field of culture, which are of particular interest for the present contribution, since digital tools and environments allow democratic and heterogeneous access to any kind of information available online.

To preserve digital memory and information (Cerf, 2014), it becomes necessary to study methods and approaches that can protect the expression of contemporary culture, which is embodied in digitized or born-digital artifacts, by rethinking how this heritage is made accessible online.

This area of research belongs to the domain of the Digital Humanities, a hybrid discipline born from the intersection of information technology and humanities (Burdick et al., 2012), and studies themes such as the open access to culture through digital.

It is therefore possible to deduce the relevance of the project of digital platforms and archives for the reference scenario, a relevance underlined by the diffusion of numerous experiences undertaken by organizations and institutions, and whose aim is to protect memory and guarantee democratic access to culture and knowledge, favoring the process of investigation

aimed at constructing one's narrative or opinion, through logical-relational tools (Rebuffo & Sisto, 2019).

It is in this context that the research activity, described in this contribution, is set, through the study of the emerging issues in the field, and the analysis of the scientific literature and the state of the art on the subject, aimed to identify an approach in the design of a digital archive that could consolidate the relationship between digital and human memory, guaranteeing the protection, preservation, and valorization of those archived units, that by their nature risk dispersion and obsolescence (La Guardia, 2013) predetermining the possibility of future access to digital data, through strategies and techniques useful for the cataloging and visualization of heterogeneous digital media, without depriving them of the multidimensionality that characterizes them (Burdick et al., 2012).

2. Background

Archiving is concerned with identifying useful standards that enable the management and care of hardware, software, and formats of digital documents, preserving them from their fragility and obsolescence (Ries & Palkó, 2019), to disseminate culture, through online consultation services (Bulegato, 2013). Identifying approaches and methodologies, useful for preserving digital memories and guaranteeing their access for future generations, is an open question, both from a technological point of view – i.e. related to the preservation of the computer data that constitute the genetic heritage of digital artifacts – and from a visual/usable point of view – i.e. the visualization of the archived asset. Necessary skills, in order to

meet these needs, are digital archival and curatorship and IT skills (Aprea, 2018), interface and experience design (Bollini, 2020), as well as diagrammatic data representation, which can play a strategic role in the visual presentation of cultural information (Windhager et al., 2018; Manchia, 2014).

In a study dedicated to the convergence of digital archiving and information technology, Giovanni Aprea highlights the need to study databases to reduce the redundancy of data and make logical and physical connections that optimize the representation of data through hierarchical relationships that link the general to the particular and the single to the whole (Aprea, 2018). Making the ordering, and thus the management and access to resources, more functional are actions that change the concept of the database, from a technical and technological tool to a means of cultural appropriation, useful for making the archive a tool for collective knowledge (Angari, 2023). This issue also presents a twofold challenge, since while on the one hand, it is necessary to determine a structure that allows us to define the cultural object, it is also necessary to be able to collect and catalogue its metadata (Windhager et al., 2018), which are the element that allows any information available online to be analyzed and made accessible (Pomerantz, 2015). A further relevant aspect, related to databases, is that they can also be used as a documentary basis for the realization of data mappings and visualizations, whose filtering categories coincide with those of the database itself.

From the design point of view, the aspects described so far participate in modifying how one approaches the conception

and realization of a digital archive since it is necessary to start from the archived data and then structure the database, an activity that is considered fundamental and preparatory to the project itself.

About the aspects more strictly related to the use of the archive, to allow navigation and research to different types of users, it is important to conceive the project in ecosystemic terms, to realize an "interconnected system in which the elements that are part of it interact with each other and with the environment" (Bollini, 2016, p.12). This approach is particularly useful, as it offers the possibility of understanding the archived object as part of a dynamic and interactive system, capable of changing based on the relationship that the user establishes with the platform.

Defining the archive as a mediating tool between user and culture allows for overcoming its traditional limits, linked to its use by a specific type of user, characterized by a certain level of expertise on a given subject, who can easily navigate through the archived resources (Huvila, 2008). On the other hand, the change in the structure and architecture of archival platforms allows an increase in the target, thanks to the simplification and facilitation of navigation through a non-linear model that enables interactions creating connections and autonomous discoveries (Angari, 2023).

To increase the potential of what Ayers defines as the hypertextual nature of the digital archive (2001), and to offer the user flexible navigation and interaction, facilitating access to heterogeneous information and media linked by multiple

paths that constitute what Landow defines as open research (1997), it is possible to make use of different navigational models and diagrammatic representation techniques, which are becoming increasingly popular in the field of digital culture and archiving (Manovich, 2012), as they activate the cognitive and analytical capacity of the user who, through interaction with visualizations with spatial properties (Shiffrin & Börner, 2004), can dynamically gather information in a process that increases his or her capacity for knowledge appropriation (Macdonald-Ross & Waller, 2000) through the experiential dimension (Masud et al., 2010).

3. Methodology and State of the Art

Designing digital platforms, enriched by the use of mappings that become a critical and interpretative filter of culture, is an open issue that, although it has its recent tradition, requires further investigation, especially from the methodological point of view and the analysis of experiences in the field, in which the need to identify new ways of representing culture, going beyond the common keyword approach, is emphasized, to ensure greater access to cultural collections (Windhager et al., 2018), transferring archival and curatorial approaches to new information spaces (Ruecker, Radzikowska & Sinclair, 2011; Whitelaw, 2015), characterized by logical-relational representations.

Two main models emerge from the analysis of this scenario (Bollini, 2004; Rosenfeld, Morville & Arango, 2015; Resmini & Rosati, 2011; Bollini, 2016). The first, known as the hierarchical or cascading model, is particularly suitable for users

who are familiar with the subject, and therefore, through lists or directories, can quickly access data or information. The second model, which is defined as exploratory or hub-based, reproduces the logic of hypertext through mappings in which all data are visible, and through horizontal navigation, which differs from the vertical approach of the first model, allows users with different levels of knowledge to move easily between data, creating associations and/or unpredictable connections.

Although both models are widespread, an open question is related to the evaluation of effectiveness from the perspective of user interaction, as - in both cases - the risk lies in introducing additional complexity that is counterproductive for the user's experience and understanding (Karjaluoto, 2015).

In this perspective, the state-of-the-art analysis took into account different models of navigation and information access to analyze their strengths and weaknesses. An interesting case is the *Letterform Archive*, whose aim is to identify a specific terminology for the design domain to be applied for the cataloguing of artifacts in the sector, thus freeing them from the specific terminologies of the art and architecture sectors (The Letterform Archive, 2019). This operation, which starts with an in-depth study of the context of reference and the archived object, is instrumental in adapting metadata standards to the more circumscribed sphere of graphic design, and for this reason, the relevance of the *Letterform Archive* lies in its move away from standard cataloguing methods, favouring instead information relevant to designers. In this case, the

navigation model is hierarchical, since, although there are filters that allow customization of the search, it requires a known-item input.

Different from the first case, at least as far as aspects related to the navigation model are concerned, is the *Australian Prints & Printmaking* platform, which is equipped with various sections and survey tools, including diagrammatic ones, that combine text and images, to make navigation and end-user search more intuitive (Butler, 2013).

At least, we mention the case of the *People's Graphic Design Archive*, which relevance lies in the interaction and participation of users, to create an "archive built from the bottom up" by expanding the history of graphic design also thanks to the active collaboration of the community. Thanks to the *Submit* section any user can upload any type of material to the platform, as long as it dates back to a given period and is inserted in the prescribed format, an operation which allows the platform to be enriched day by day, and has the purpose of making the archive a point of reference for scientific research, for those in search of inspiration, for students and teachers, or society (Sbarbati, 2021). In this case, the navigation model follows a grid system, which can be modified through different filters or sorting.

In conclusion, the analysis of the methods and experiences reported, highlights - for the realization of the applied research case - the need to study both the archived object and the cultural domain of reference, to identify useful cataloguing terms to define and enhance the units in the archive.

Subsequently, from the point of view of interface design, the relevance of images, as a protagonist visual element, is to be taken into consideration whatever navigational model is chosen. In this regard, the possibility of jointly employing both navigational models – hierarchical and explorative – is considered to represent an advancement concerning the reference state of the art, to guarantee use to different types of users, reducing barriers determined by asymmetrical knowledge and specialized knowledge.

4. Results

The case of applied research described in this contribution is the result of a research doctorate carried out at the IUAV of Venice, which led to the realization in prototype form of a digital archive, dedicated to visual communication artifacts. The project aims to identify a methodology useful for the realization of archival platforms that, on the one hand, seek to respond in advance to the need to protect and preserve contemporary digital memories – in particular relating to the domain of graphic design – on the other hand, intend to achieve a greater level of dialogue with users, facilitating them in their research, and overcoming the limits dictated by asymmetrical knowledge.

To do this, the project made use of the study of the scientific literature of reference and the state of the art, and for this reason, the first aspect ventured was the analysis of the archived object and the construction of a database that could be used as a documentary, registry and descriptive base, but also for data visualizations.
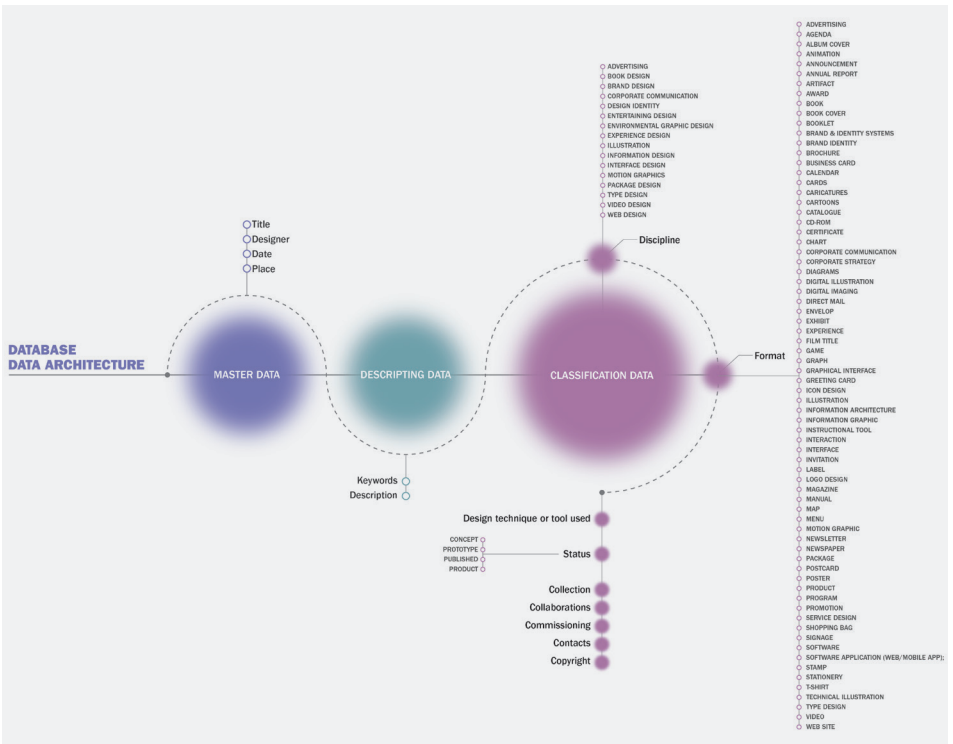
Figure 1. Diagram of the database architecture. Roberta Angari, 2022.

The database is structured in several parts, the first of which aims to collect the master data of the archived unit, i.e. title of the work, designer, date of design or publication, and location. The second block of information gathers descriptive information, such as keywords and a brief description of the archived object. The third section of the database has the purpose of classifying the units, and consists of disciplines – e.g. design identity, experience design, information design, interface design, etc. –, format – i.e. the type of project such as ADV, animation, digital information, graphical interface, software application, web site –, design technique or tools

used, the status of the project – concept, prototype, published and/or product –, collection, collaborations, commissioning, and at least contacts and copyright.

The individual data obtained, in addition to providing the documentary basis of the existing database, can then be used, as well as for mapping, for the creation of a format that can be filled in by the user, as will be seen below, for uploading materials or projects onto the platform (Fig. 1).

Once the cataloguing phase of the archived units was completed, we moved on to the design and prototyping of the platform.

In order to be used by different kind of users, the archive has been designed by integrating both the hierarchical and exploratory models, through which various survey tools were created. The first section is the *Overview,* which is configured as an interactive timeline populated by images, ordered through the time parameter – x-axis – and the brightness and saturation parameter – y-axis. For the realization of this visualization, a specific dataset was confirmed, the parameters of which allow the visual media to be ordered, generating the mapping described.

From the point of view of interaction, once the user selects an object from the *Overview,* it is possible to access the *Unit Data Sheet*, where the master and technical information obtained from the archive database is displayed. From the *Unit Data Sheet*, the user accesses the *Network*, an interactive dendrogram that through user exploration allows the visualization of the relationships between the archived elements that emerge from the classification and categories of the database.
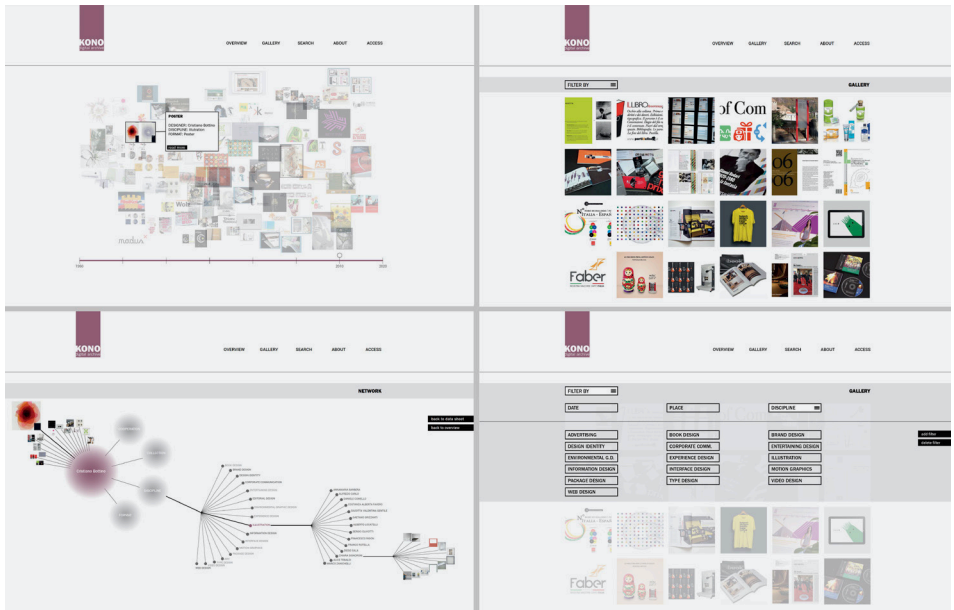
Figure 2. Some interfaces of the digital archive designed. Roberta Angari, 2020.

As mentioned above, the platform provides for the use of different navigational models: while the *Overview* and the *Network* follow the explorative model, the *Gallery* and the *Search* section follow the hierarchical model. The latter sections allow the user – respectively – to view the archived units according to a gallery, which can be filtered through the cataloguing parameters or to perform a free search through the known-item method (Fig. 2).

To increase how the archived units can be viewed and used (Manovich, 2012), the doctoral research project, therefore, aimed to create a useful database for the archive's population and to create various survey tools, the purpose of which is to broaden the project's target audience.
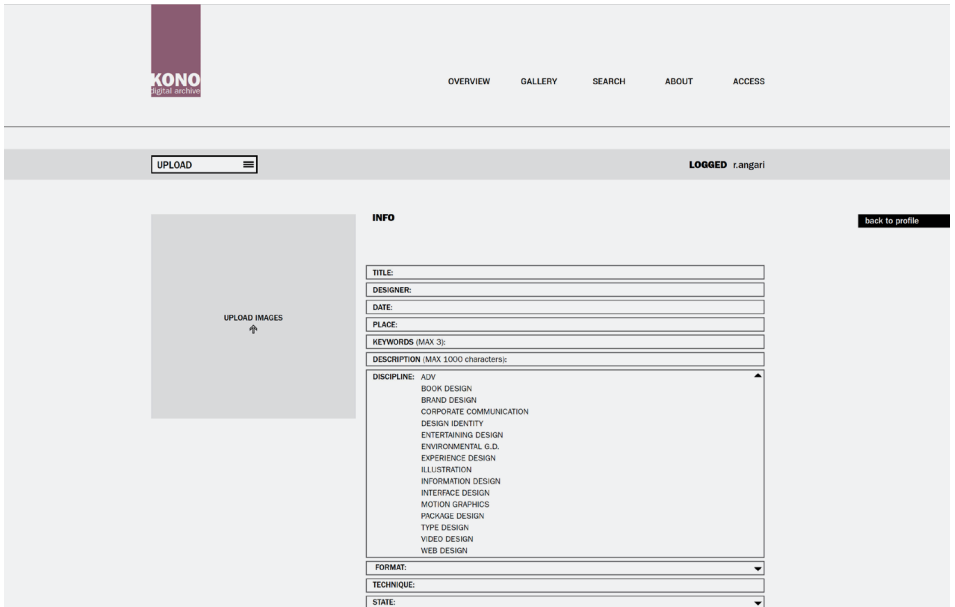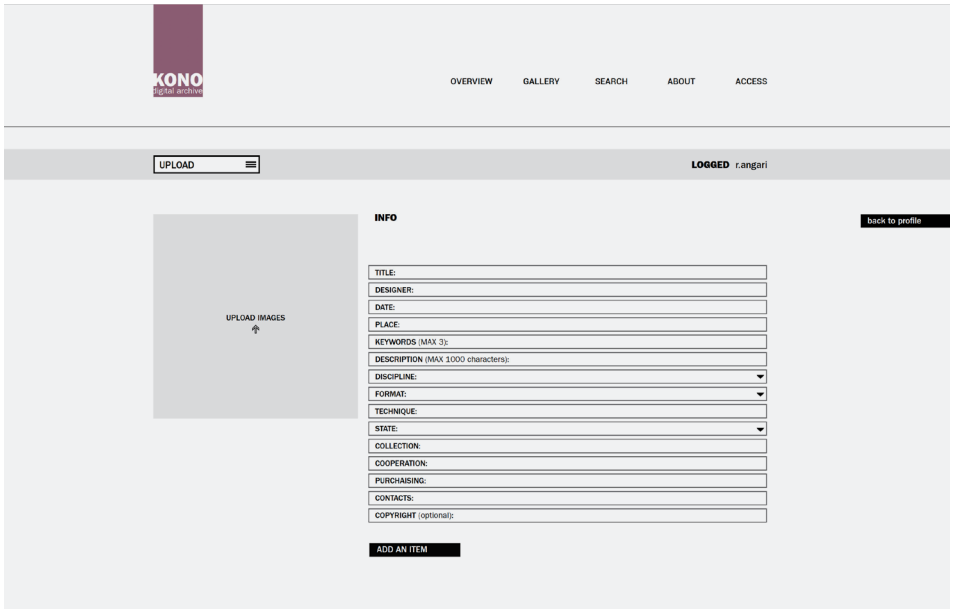
Figure 3. Interfaces of the section of the digital archive designed, dedicated to the upload of a new project through the form based on the facets classification. Roberta Angari, 2020.

About this last aspect, and based on the analysis of the state of the art, it was decided to implement the platform with a section for accessing and uploading content. The *Access* section is dedicated to designers, researchers, and students of visual communication design, who can upload digital or digitized projects to the archive, thanks to the compilation of a format, also deduced from the research activity on filing and cataloguing (Fig. 3).

5. Discussion

The case of applied research described in this contribution aimed to address the issues of cultural heritage valorization and memory protection by creating an investigation tool that could overcome the specific and/or asymmetrical competencies of the cultural domain of reference, expanding history – even the current one – through the active participation of the community.

To meet these needs, the project made use of the convergence of different approaches, deduced from the analysis of the scientific literature and the state of the art of reference, which led to the outlining of the project methodology, which is divided into several phases, namely: the analysis of the cultural domain of reference and of the object to be archived; the construction of a database that could serve as the documentary, registry and descriptive basis of the archived units; the design of the survey tools, based on the convergence between different navigational, hierarchical and exploratory models; the definition of a format, based on the database, that could be used to allow users to submit their material or projects; the design of the interfaces and user experience, based on the

standards related to the *Human Interface Guidelines* deduced from *developer.apple.come* and *developer.android.com*, useful for both mobile and web interfaces; the usability testing. Concerning this last aspect, it is specified that this is part of the future developments of the project, and for this reason, requires subsequent and further in-depth studies. Nonetheless, concerning the project described, it is believed that the relevance of the latter is linked not only to the focus on the construction of a database that can allow the valorization of different types of archived units, even uploaded by the end-user but above all to the integration of different navigational models that, as specified above, allow a more extended use to different types of users.

6. Conclusions

When confronted with the current scenario, both from the point of view of artifact design and fruition, the need to reflect on the subject of personal and digital memory emerges. In this perspective, the design of digital archives is a relevant field for the project culture, and needs further investigation from a methodological, technical, and fruition point of view, overcoming the limits of the known-item research and enhancing the cultural heritage by offering a research experience that enriches and broadens the user's knowledge.
In this perspective, the case of applied research allowed us to deepen the themes and approaches that emerged from the study conducted, leading to the definition of a methodology that, through a meta-design/preparatory and design/realization process, centres the activities themselves on the valorization of culture and individual artifacts, on the experience

and interaction of the end-user – to facilitate the appropriation of knowledge – and on their active participation.

In this perspective, we consider the project described to be relevant because it is based on different transversal knowledge for the reference sectors, such as digital humanities, information technology, digital archiving, and – as well – communication design, which focuses on aspects such as the study of the cultural domain of reference, the enhancement of cultural heritage, usability, interface and experience design, methods of presentation and visualization of information and materials. It is hybrid and multi-level research aimed at developing a cataloguing system whose terminologies, specific to the field of visual communication, pay particular attention to design aspects and techniques specific to the field of born-digital projects.

Finally, although a usability review is still to be carried out, the project is considered to be responsive to the set objectives and the needs of the sector, outlining a useful methodology to increase the opportunities for access to knowledge, to consolidate the relationship between society and culture and, more specifically, between people and digital memories.

151

References

Angari, R. (2023). Open Knowledge, Open Archive. An Approach to Open Culture. In N. Martins, & D. Brandão (Eds.), *Advances in Design and Digital Communication III. DIGICOM 2022* (pp. 16–29). Springer. https://doi.org/10.1007/978-3-031-20364-0_2

Aprea, G. (2018). Uno sguardo sugli strumenti digitali applicati agli archivi: il caso dei software di descrizione archivistica. *Bibliothecae.it*, *7*(1), 264–319. https://doi.org/10.6092/issn.2283-9364/8450

Ayers, E. L. (2001). The pasts and futures of digital history. *History News*, *56*(4), 5–9.

Bollini, L. (2004). *Registica multimodale. Il design dei nuovi media*. CLUP.

Bollini, L. (2016). *Large, small, medium. Il design della comunicazione nell'ecosistema digitale*. Maggioli.

Bollini, L. (2020). A user-centered Perspective on Interactive Data Visualization. A digital flâneries into the documentation of the Historical Italian Mind Science Archive. In N. Ceccarelli, & C. Jiménez (Eds.), *2CO Communicating Complexity 2017 International Design Conference* (pp. 106–117). Servicio de Publicaciones de la Universidad de La Laguna. https://doi.org/10.25145/b.2COcomunicating.2020

Bulegato, F. (2013). La grafica italiana negli archivi. *Progetto Grafico,* (24), 92–105.

Burdick, A., Drucker, J., Lunenfeld, P., Presner, T., & Schnapp, J. (2012). *Digital Humanities*. The MIT Press.

Cerf, V. (2014). *On Digital Preservation*. Heidelberg Laureate Forum. https://www.heidelberg-laureate-forum.org/video/lecture-on-digital-preservation.html

Ennis Butler, B. (2013). Visual Exploration of Australian Prints and Printmaking. N. Proctor, & R. Cherry (Eds.), *Museums and the Web 2013* (1–15). MD: Museums and the Web. https://mw2013.museumsandtheweb.com/paper/visual-exploration-of-australian-prints-and-printmaking/

Greengard, S. (2015). *The Internet of Things*. The MIT Press Essential Knowledge Series.

Huvila, I. (2008). Participatory archive: towards decentralised curation, radical user orientation, and broader contextualisation of records management. *Archival Science*, *8*(1), 15–36. https://doi.org/10.1007/s10502-008-9071-0

Karjaluoto, E. (2014). *The design method, a philosophy and processo for funtional visual communication*. New Riders.

La Guardia, R. (2013). Gli archivi di architettura e di design: un patrimonio borderline tra beni archivistici e beni museali. In F. Irace (Ed.), *Design&culturalheritage. Immateriale, virtuale, interattivo* (pp. 159–168). Electa.

Landow, G.P. (1997). *Hypertext 2.0: the Convergence of Contemporary Critical Theory and Technology*. John Hopkins University Press.

Levy, P. (1998). *Becoming Virtual. Reality in the Digital Age*. Plenum Trade.

Macdonald-Ross, M., & Waller, R. (2000). The transformer revisited. *Information Design Journal*, *9*(2-3), 177–193.

Manchia, V. (2014). Immagini che raccontano storie. Pratiche e strategie di rappresentazione in due esempi di data visualization. *Lexia, Rivista di semiotica*, (17-18), 473-490.

Manovich, L. (2012). Museum without Walls, Art History without Names. Visualization Methods for Humanities and Media Studies. In C. Vernallis, A. Herzog, & J. Richardson (Eds.), *Oxford Handbook of Sound and Image in Digital Media* (pp. 1–22). Oxford University Press. http://manovich.net/index.php/projects/museum-without-walls-art-history-without-names-visualization-methods-for-humanities-and-media-studies

Masud, L., Valsecchi, F., Ciuccarelli, F., Ricci, D., & Caviglia G. (2010). From data to knowledge. Visualizations as transformation processes within the data-information-knowledge continuum. In E. Banissi, S. Bertschi, & R. Burkhard (Eds.), *14th International Conference Information Visualization* (pp. 445–449). IEEE. https://doi.org/10.1109/IV.2010.68

Pomerantz, J. (2015). *Metadata*. The MIT Press Essential Knowledge Series.

Rebuffo, C., & Sisto, S. (2019). Introduzione. Humanitas: le scienze umane nel mondo contemporaneo. *Ethics in Progress, 10*(1), 4–11. https://doi.org/10.14746/eip.2019.1.1

Resmini, A., & Rosati, L. (2011). *Pervasive Information Architecture: Designing Cross-channel User Experiences*. Elsevier.

Ries, T., & Palkó, G. (2019). Born-digital Archives. *Internationa Journal of Digital Humanities, 1*(1), 1–11. https://doi.org/10.1007/s42803-019-00011-x

Rosenfeld, L., Morville, P., & Arango, J. (2015). *Information Architecture: For the Web and Beyond*. O'Reilly Media.

Ruecker, S., Radzikowska, M., & Sinclair, S. (2011). *Visual Interface Design for Digital Cultural Heritage: A Guide to Rich-Prospect Browsing*. Routledge. https://doi.org/10.4324/9781315547961

Sbarbati, S. (2021, April 29). *The People's Graphic Design Archive: un archivio nato dal basso per espandere la storia della progettazione grafica*. FrizziFrizzi. https://www.frizzifrizzi.it/2021/04/29/the-peoples-graphic-design-archive-un-archivio-nato-dal-basso-per-espandere-la-storia-della-progettazione-grafica/

Shiffrin, R.M., & Börner, K. (2004). Introduction. Mapping Knowledge Domains. *Proceedings of the National Academy of Sciences, 101*(suppl_1), 5183–5185. https://doi.org/10.1073/pnas.0307852100

The Letterform Archive (2019, December 18). *The Online Archive: Describing Design*. https://letterformarchive.org/news/view/the-online-archive-describing-design

Windhager, R., Federico, P., Schreder, G., Glinka, K., Dörk, M., Miksch, S., & Mayr, E. (2018). Visualization of Cultural Heritage Collection Data: State of the Art and Future Challenges. *IEEE Transactions on Visualization and Computer Graphics, 26*(6), 2311–2330. https://doi.org/10.1109/TVCG.2018.2830759

Whitelaw, M. (2015). Generous Interfaces for Digital Cultural Collections. *Digital Humanities Quarterly, 9*(1). https://www.digitalhumanities.org/dhq/vol/9/1/000205/000205.html

BIOGRAPHIES

Giuseppe Amoruso

Associate Professor of Drawing and Measured Drawing at Politecnico di Milano. He was awarded a PhD in Drawing and Measured Drawing from the Polytechnic University of Marche. He edited over 150 essays and papers on digital media for design & heritage, town documentation, traditional architecture, and cultural and historic urban landscape.
In 2019 he co-edited the book "Cultural Landscape in Practice. Conservation vs. Emergencies" (with Rossella Salerno). He designed the colour code masterplan for the historical centre *façade* of Meldola and Morciano di Romagna and, recently, the proposal for reconstructing the centre of Amatrice after the earthquake. Chair of INTBAU ITALIA, International Network for Traditional Building Architecture & Urbanism, currently he is the director of the International Cooperation Program for the improvement and enhancement of the Folklore Museum, the Museum of Popular Traditions and the Roman Theater of Amman, documenting the 3D reconstruction of the Roman Theatre of Amman and developing the proposal for a "Digital Library of Living Traditions".

giuseppe.amoruso@polimi.it

Roberta Angari

She is an Italian graphic designer. In 2015 she graduated in Design for Innovation at Università della Campania "Luigi Vanvitelli". In 2020 she obtained a PhD in Architecture, City and Design - Design Sciences at Università Iuav di Venezia with the dissertation "Kono. Analysis and design of a digital archive of visual communication". Her line of research focuses on data visualization, digital design and digital archives. At the Department of Architecture and Industrial Design (DADI) of the Università della Campania "Luigi Vanvitelli", she is a Contract Professor of the course in Digital Representation Skills in the first year of the Bachelor's degree in Design and Communication.

roberta.angari@unicampania.it

Letizia Bollini (guest editor)

ARTchitect. Associate professor of Interaction/Communication/Transmedia Design at the Free University of Bozen-Bolzano, she has been working on multimodal interfaces and digital media at the intersection of communication design, social research, and digital technologies since last millennium.
She edited with Francesco E. Guida, also issue 23 of *PAD*, entitled <u>Digital Memories</u>.

letizia.bollini@unibz.it

Marco Borsotti

He holds a Master of Science in Architecture and serves as an Associate Professor of Interior Architecture and Exhibition Design at the Department of Architecture, Built Environment, and Construction Engineering (DABC) of Politecnico di Milano. With a PhD in Interior Architecture and Exhibition Design obtained in 2000, his specialization lies in the Theory and Design for the Conservation and Enhancement of Tangible and Intangible Cultural Heritage. He is an active member of the Faculty Board of the Architectural Urban Interior Design PhD program at Politecnico di Milano. He actively participates in specialized training programs on national and international platforms and contributes to specialization masters. Additionally, he is the author and curator of numerous books and articles on Interior Architecture and Exhibition Design.

marco.borsotti@polimi.it

Eloisa Casadei

Archaeologist and researcher in cultural heritage studies, with a focus on Middle Eastern Tangible and Intangible Heritage. Currently, she is a research fellow at Politecnico di Milano. Her work focuses on Traditional Handicrafts, the definition of the Cultural Landscape in Jordan, and Community Engagement strategies.
In 2018, she discussed a PhD at Università degli Studi di Roma La Sapienza about the economy and handicrafts of Ancient Mesopotamia. Since 2009 she has conducted researches and field campaigns in Jordan and Iraq, aiming at the reconstruction of the cultural landscape of past societies. She collaborated with several international projects conducted by the British Museum, the University of Cambridge, the Penn University Museum (Philadelphia, Pennsylvania), the Ludwig Maximilians Universität in Munich, and the American School of Oriental Research.

eloisa.casadei@polimi.it

Mariana Ciancia

PhD, Researcher at the Department of Design, Politecnico di Milano. She is an Imagis Lab research Lab member and Deputy Director of the Specializing Master in Brand Communication. Her research deals with new media and participatory culture to understand how multichannel phenomena (crossmedia and transmedia) change narrative environments' production, distribution, and consumption.

The fields of communication design, storytelling, and digital technologies have been investigated in research and educational activities to define processes, methods, and tools since 2010.

National and international publications include books, book chapters, journal articles, and conference proceedings on the transmedia phenomenon, communication strategies, the transformative power of stories, narrative formats (interactive narratives), and audiovisual artefacts.

mariana.ciancia@polimi.it

Diana Ciufo

Independent architect and set designer, she studied Architecture in Porto (FAUP) and Rome (La Sapienza), graduating with honours in 2012. As a Leonardo Da Vinci fellow recipient, she moved to the Netherlands in 2013, where she started a long-lasting collaboration with several offices as a freelance architect. During the past Academic Years, she has been first assistant in the Sapienza Design Department (PDTA) and then Adjunct Professor in "Performing Arts and New Media Studio", currently enrolled in a PhD course at the same Department in the field of Urban Studies. Her projects stand mainly in the field of temporary architecture and scenic design (her installations have been set at: Teatro Biondo Palermo, Les Halles Schaerbeek Bruxelles, CSS Udine, TPE Torino, Milano Salone, Pergine and Oriente Occidente Festivals). The relationship between people, inhabitants, spectators and space is the main point of her research.

diana.ciufo@uniroma1.it

Giovanni Maria Conti

PhD, Associate Professor, he is currently the Coordinator of Knitwear Design Lab – Knitlab of the Fashion Design Degree at the Politecnico di Milano. Founder and Scientific Coordinator of the website/blog www.knitlab.org, he was executive secretary of the Fashion Design Degree at the School of Design of Politecnico di Milano. He is Instituto Italo-Latino Americano (IILA) expert collaborator in the Pymes Forum for cooperation projects on textile and fashion. He is the director of the Master in Fashion Direction: Product Sustainability Management at MFI (Milano Fashion Institute consortium) and a member of LeNS - International Learning Network on Sustainability.

giovanni.conti@polimi.it

Giulia Cordin

She is a designer, researcher and educator. She currently teaches at Studio Image in the Major in Art at the Free University of Bozen-Bolzano, and at the Universität für künstlerische und industrielle Gestaltung Linz (Austria) as an adjunct lecturer in Visual Communication. She is a PhD candidate in the Interface Cultures Program at the UFG Linz and has been an artist in residence at the Jan van Eyck Academie in Maastricht (2015-16). She is on the editorial board of "Progetto Grafico" and collaborates with Museion, the Museum of Contemporary Art in Bolzano as a member of the Art Club.

gcordin@unibz.it

Vincenzo Cristallo

He is an Associate Professor of Industrial Design at the Politecnico di Bari. His published books and essays reflect a research activity focused on studying contemporary design and its impact on regional development. In recent years, his scholarly interests have shifted towards the design of infographic languages and their role in facilitating knowledge access.

vincenzo.cristallo@poliba.it

Raissa D'Uffizi

She holds a Bachelor's degree in Industrial Design and a Master's in Design, Visual and Multimedia Communication. She is currently enrolled in the PhD in Planning, Design and Architecture Technology" at the Università degli Studi di Roma La Sapienza. Her research investigates the mediation between objects of Italian design and consumers by reflecting on

the evolution of their communication within design magazines (1949-1977). She worked as a graphic designer at Studio Davide Perez Medina (Madrid) and NOAO Studio (Rome). She curated editorial and graphic design projects for international institutions, such as the recent *UNESCO art collection: selected works* (2021). She also has engaged in research projects on the themes of the history of design and visual communication, like *From Dreams to Abandonment: Lina Bo and the Culture of Living in Italy (1939-1946)*, published by *AIS/Design Journal* (2021) or the participation in the editorial project *La Milano che disegna* (2020), on the knowledge of design archives in Milan.

raissa.duffizi@uniroma1.it

Michele De Chirico

He is a PhD student in Design Sciences at the Università Iuav di Venezia. He was previously a research fellow at the same institute. His research relates to the design of materials, focusing on the meaning of materials as sources of cultural meanings. He is also a lecturing collaborator, focusing on design for the sustainable management of production by-products and materials resources as contextual actors.

mdechirico@iuav.it

Daniela Dispoto

Specialized in theatrical architecture and interested in exploring the expressive possibilities of new digital cultures, she has worked in exhibit design with museum and multimedia set-up projects and site-specific interventions. Some projects carried out as a co-designer: *Racconti (IN)visibili* (2021); *110 anni della SAM* (2018); *MUUD - Nuovo Museo Nazionale della Daunia* (2016); *Det Elektriske Akvariet* (2016); *Progetto per Nuovo Teatro Comunale di Empoli* (2022); *Cantieri Teatrali Koreja; Nuovo Teatro Comunale Ruvo di Puglia* (2017); *Nuovo Teatro Abeliano* (2012).

She is also a Contract Professor of the Performing Arts and New Media studio of the MA in Design, Multimedia and visual communication at the Faculty of Architecture of the Università degli Studi di Roma La Sapienza.

daniela.dispoto@uniroma1.it

Francesco E. Guida (guest editor)

Associate professor at the Department of Design and Communication Design lecturer at the School of Design, Politecnico di Milano (http://www.labsintesi-c1.info/). PhD in Design and Technologies for the Enhancement of Cultural Heritage. Scientific coordinator of the Documentation Center on Graphic Design of AIAP, he is a member of the editorial committee of *PAD. Pages on Arts and Design* and past associate editor of *AIS/Design Journal. Storia e Ricerche.* He edited with Letizia Bollini, also issue 23 of *PAD*, entitled Digital Memories.

francesco.guida@polimi.it

Alessandro Ianniello

Product designer for innovation, he is a PhD candidate and a research fellow at the Design Department of Politecnico di Milano. He also works as a tutor for some Bachelor's and Master's degree courses in Product Design. He is part of the Environmental Design Multisensory Experience (EDME) Interdepartmental Laboratory.

His research primarily focuses on the imaginative processes necessary to implement transformations toward more sustainable futures and to understand immersive technologies' potential role in fostering these processes.

alessandro.ianniello@polimi.it

Miriam Mariani

She is a PhD student in Design at the Department of Planning, Design, and Architecture Technology, Università degli Studi di Roma La Sapienza. Her research centres on the interplay between design theories, design process modelling, and information design, focusing particularly on infographics and data visualization. She has also been involved in research in sustainable architecture and visual communication design.

miriam.mariani@uniroma1.it

Vincenzo Maselli
Motion Designer and PhD Vincenzo Maselli is a Research Fellow in communication design at the Università degli Studi di Roma La Sapienza and a lecturer in motion graphics at the Università G. D'Annunzio of Chieti-Pescara. His research focuses on motion design and animation with a specific interest in puppetry and stop-motion, studied as fields of technological experimentation and media tools. On these topics, he authored several publications, among which the book *Anatomy of a Puppet. Design driven categories for animated puppets' skin* (2020) and the article *Performance of Puppets' Skin Material: The Metadiegetic Narrative Level of Animated Puppets' Material Surface* (2019), which received the Norman Mclaren-Evelyn Lambart Award for "Best Scholarly Article on Animation" in 2020. In 2021 he won the BE-FOR-ERC starting grant for the interdisciplinary research CCODE - Design, material experiences and stop-motion animation as didactic tools for developing creative thinking and cooperative learning.
vincenzo.maselli@uniroma1.it

Marco Mason
He is a senior lecturer and design researcher affiliated with the School of Design at Northumbria University, United Kingdom. Holding a PhD in Design Sciences since 2012, his specialization lies in Digital Cultural Heritage Design. His research and teaching experience spans prestigious research centres, including the Iuav Faculty of Arts and Design in Italy, the Massachusetts Institute of Technology in the USA, the School of Museum Studies in Leicester, UK, the University of Cambridge, and presently, Northumbria School of Design in the UK. His research explores the convergence of Digital Cultural Heritage, Design, and Organizational studies, specifically focusing on human-centred design methodologies like Design Thinking and Service Design. This extends to their applications within cultural heritage institutions, encompassing the realm of visitor experience design involving technologies such as Apps, AR, VR, Wearable Tech, and AI. He is also engaged in researching Museums' Digital Transformation through a design-centric approach.
marco.mason@northumbria.ac.uk

Martina Motta
PhD cum laude in Design, she is a Research Fellow at the Design Department of Politecnico di Milano. As a faculty member, she teaches at the School of Design of Politecnico di Milano, in the FIT in Milan program of the Fashion Institute of Technology (NY), and at Milano Fashion Institute.
Her teaching and research activity focuses on knitwear and textile design, mainly on the convergence of traditional techniques with advanced technologies, the evolution of the digital representation of textile products and the enhancement of sustainable design, processes and products.
She has been a visiting researcher and teacher at Birmingham City University, at the Swedish School of Textile and the Faculty of Architecture in Lisbon, and taught in several other international workshops.
Since 2020 she has been the Vice-Director of the Master in Product Sustainability Management at Milano Fashion Institute and a LeNS - International Learning Network on Sustainability member.
martina.motta@polimi.it

Chiara L. Remondino
She is a researcher in the Department of Architecture and Design at Politecnico di Torino. She earned her PhD in Management, Production, and Design. Her research is focused on innovative and sustainable packaging design and communication and visualization design of complex data systems within business companies and multidisciplinary learning paths. In 2015, she co-founded the Innovation Design Lab. Since 2022, she has been a member of the magazine *Graphicus. Designing communication* scientific committee.
chiara.remondino@polito.it

Elisa Rossi
Graduated cum laude in the master course "Design for the Fashion System" at Politecnico di Milano, she is currently working as a knitwear designer assistant in the Italian brand Loro Piana.
Her university career focused on knitwear, attending the knitwear design studio during the last year of her Bachelor's. The same year, she participated in the international competition "Feel The Yarn", realizing two knitwear outfits, then

exposed in Pitti Filati in June 2019. During the last year of the Master, she attended one semester in Rovaniemi, Finland, where she focused on weaving textiles and learned more about artic design.
elisa6.rossi@mail.polimi.it

Paolo Tamborrini
He is a Full Professor in Design and serves as the scientific director of the Innovation Design Lab at Politecnico di Torino. He has overseen numerous research projects in the field of design and communication for sustainability. He is also the director of "Graphicus. Designing communication", a magazine that brings together authors from various disciplines connected to the world of communication. Additionally, he coordinates the Master's program in Eco Packaging Design and has authored numerous scientific publications and design criticism.
paolo.tamborrini@polito.it

Raffaella Trocchianesi
She is an Architect and holds the position of Associate Professor at the Department of Design, School of Design, Politecnico di Milano. Her primary focus lies in Design for Cultural Heritage, encompassing areas such as museography and exhibition design, communication and enhancement of local areas, new models and narratives of cultural experiences, and the relationship among design, humanities and arts. She serves as the director of the specialization Master IDEA_ Exhibition Design. She was a member of the PhD faculties and the coordination teams of the programs in Design and Technologies for the Valorisation of Cultural Heritage. She is in the PhD faculty and the coordination team of the program in Design. Her instructional roles in these programs encompass courses like "Processes and Methods in the Cultural Heritage System", "Research in Design: Academic Case Histories", and "Design Research Context and Resources".
raffaella.trocchianesi@polimi.it

Mansu Wang
She is a PhD student in Design at Politecnico di Milano. Her research centres on Territorial Museums and Exhibition Narratives, with her doctoral investigations primarily delving into narrative design and the integration of local culture within territorial museums. She holds a Bachelor's degree in Art & Design from the Beijing Institute of Fashion Technology (2016) and a Master's degree in Visual Arts from the Accademia di Belle Arti di Brera (2019).
mansu.wang@polimi.it

Yi Zhang
She is a PhD student at Politecnico di Milano. Her research domain encompasses sound design and narrative in museums and temporary exhibitions, specifically focusing on sound elements and sensory experiences in museum production. She graduated from Tsinghua University, China, and Politecnico di Milano, Italy, earning her Master's degree in Display Design & Interior and Spatial Design in 2021.
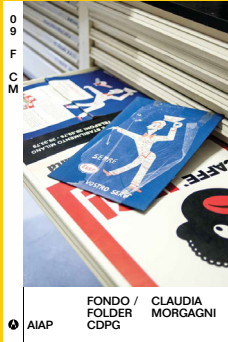yi.zhang@polimi.it

Progetto Grafico
From 2003, the only Italian magazine totally dedicated to graphic design

AWDA
The International AIAP Women in Design Award

CDPG Folders
Booklets dedicated to the AIAP's Archives Funds and personalities of Design History.

CAMPO GRAFICO 1933/1939
The Birth of Graphic Design

AIAP PUBLISHES BOOKS, MANUALS, POSTERS, A MAGAZINE AND A JOURNAL.
GRAPHIC DESIGN, COMMUNICATION DESIGN, DESIGN.

aiap.it/libreria/

AIAP EDIZIONI

MUSEO DELLA GRAFICA AIAP CDPG

FATE SPAZIO! STIAMO PER USCIRE.

Aiap CDPG, the *Graphic Design Documentation Centre*.
Working to collect, catalogue, archive, enhance and promote any documents related to graphic design and visual communication. These documents (originals as well layouts of projects, books,

posters, prints, catalogues, correspondence, photographs) help reconstruct the history of graphic design in Italy and support research and educational activities, as it is the CDGP's intention to make these documents widely available.

aiap
CDPG

Aiap
via A. Ponchielli, 3, Milano
aiap.it — aiap.it/cdpg
@Aiap_ita