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**DIGITAL**

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**MEMORIES**

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# EDITORIAL #23

# Digital Memories

What future for the past? What past for the future?

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For this first PAD journal issue dedicated to the theme of *Digital Memories*, we have chosen, as the opening image, a *quipu* (or *khipu*). The image represents the artistic interpretation made by Cecilia Vicuña on the occasion of her exhibition, still in progress now, at the Tate Modern's Turbine Hall. Vicuña has been exploring and transforming the *quipu* in her work for over five decades, getting inspiration from this ancient recording and communication system used by the Quechua people of the Andes from 2500 BCE through to the 16th century at the time of the Spanish conquest. Literally, *quipu* means 'knot' in the Quechua language and consisted of a long textile cord from which hung multiple strands knotted into different formations and in different colors that were able to encode as much complex information as the alphabet. It is thought that they were used to record statistics, poems, and stories, thereby creating a tactile relationship between memory and the imaginary. This reference seemed perfect to introduce the present issue's central theme: an ancient, alternative, and complex system of recording memories.

It is a fact that the externalization of memory – i.e., the invention of writings and other forms of notation – is at the very basis of the concept of history, at least in Western cultures. The act of dividing/separating the owner of information from the information itself creates the condition to make that knowledge communicable and shareable in different space-time-related scenarios (Ong, 1982).

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Opening photo: *Brain Forest Quipu* by Cecilia Vicuña, installation view at Tate Modern's Turbine Hall, 2022. Courtesy of Hyundai Commission.

The possibility of extending and extrojecting the personal and collective experiences and translating them intentionally or not in document traces to be then intercepted, collected, and accessed by others is the humus of knowledge sharing and cultural transmission and preservation.

In the last 30-60 years – depending on the references we consider, especially in the evolution of Information Communication Technologies – the processes of production, dissemination, and preservation of human tangible and intangible activities have been profoundly transformed and reconfigured by the introduction and impact of digital technologies.

The so-called *fourth revolution* – at least in the history of communication (McLuhan, 1962; Floridi, 2014) – introduced by electronic tools and operators has now been turned into an overlapping layer in every daily activity that modifies our perception of reality. Besides, it transforms the production, transmission, and conservation of data, information, and knowledge at a structural level.

While the collection and preservation of ‘analog’ traces of the past have benefited from digital supports and infrastructure – for instance, the possibility of connecting fragments, creating possible multimodal narratives and enhanced formats (Whitelaw, 2015) – the change of paradigm, especially in the case of hybrid or native digital documents, artifacts, and sources opens unprecedented questions and scenarios.

The digital is, at the same time, support and storage for other tangible heritages, as well as ‘materiality’ to the intangible format of the *post-information* society (Webster, 2014).



Design – as a practice and as a disciplinary culture – has always played an explicit role and is therefore directly responsible for these mutations and changes at several levels: the design of interfaces, interaction and experience, devices, (smart) products, processes, and services. The digital world – understood as an ecosystem encompassing media, channels, devices, and touch-points with their languages, knowledge, use, and functions – tends to flatten the relationship we have both with *short*- and *long*-term memory, not only in cognitive terms.

The possibilities opened by the migration *in-cloud* of many of our activities – a place simultaneously *virtual* and *physical*, *present* and *distant* as well – create the utopia of an infinite storage capacity, both in terms of abundance – the preservation of everything! – and duration – forever. Apparently. However, memory space is not unlimited unless we think about it in abstract terms. And, above all, it is material. Its impact is tangible and concrete. It has its physicality and a consequential effect on the real world, but it is barely sustainable at the ecosystem and infrastructure level (Paniagua, 2021).

Moreover, the way we search for information and retrieve knowledge through digital tools tends to blur the perception of time and sequence: events – chunks of information – follow one another as in an a-temporal flow – an infinite scroll exasperated in TikTok, overtaking Google as the search engine for post-millennial generations – in which the *synchronous* and the *deferred* overlap each other. The relationship between *before* and *after* becomes impalpable and pointless.

Technological transformations, innovations in hardware and software fields, frameworks, and codes underpinning the connected infrastructures at the basis of our contemporaneity have emerged in a relatively short time if compared with other ones and with the progression that has characterized the evolution of humankind, especially during the latest centuries, already accelerated and *short* (Hobsbawm, 1994). These transformations tend to obliterate memory or even erase it and make it fragile by jeopardizing the preservation of the memory of progress itself.

In a moment that seems to be flattened on the present, the possible perspectives face, on the one hand, the past and, on the other, the future, two seemingly antithetical yet inextricably intertwined horizons. Two are then the questions that come spontaneously to mind: what *future* for the past? What *past* for the future?

Many of the activities developed in the field of digital design have been aimed at the translation or migration of previous analogical information, artifacts, or systems to be then stored, displayed, and presented thanks to digital or online means of communication.

First and foremost, it is a process of migration – still ongoing, in many cases – in terms of *statute* and *object*. *Digitization* – according to the Oxford dictionary definition: the transfer of the analog world into bits – is, in fact, the first step necessary but not sufficient. Secondly, we have *digitalization*, a transposition not only of fragments but of relationships between the objects themselves and others rematerialized and reconfigured in the digital realm (Resmini & Rosati, 2011). Relationships that are becoming fluid shape not-yet-explored meanings and

interweave different paths, giving rise to original associations, new memories, and further layering. Digital memory, in this case, is what can guarantee the permanence, parallel, or substitute of traces, sources, and objects that, in the form embodied by technology, replicate and multiply presence, findability, access, knowledge, and understanding. There are several possible considerations, debates, and discussions about these issues in different fields. It could be a matter of which technologies to use, which protocols or devices, formats, and standards, or what is the “fragment” to digitalize.

Nevertheless, on the opposite extreme of this possible spectrum, we find digital-native *objects*. Creating new worlds, scenarios, and perspectives, they populate the present time and have an uncertain future. What will happen to this mass production that grows at exponential rates, made up of images, tweets, emails, instant messages, reels – already ephemeral by nature of the platforms on which they are produced and shared – or, simply, dispersed in the constant flow of endless scrolls (Bollini, 2020). As stated by Google engineer Vincent Cerf at the American Association for the Advancement of Science’s annual meeting in San Jose, California, in 2015, we would miss an entire century or more in the next future:

We are nonchalantly throwing all our data into what could become an information black hole without realizing it. We digitize things because we think we will preserve them, but what we do not understand is that unless we take other steps, those digital versions may not be any better, and may even be worse, than the artifacts that we digitized. If there are photos you really care about, print them out. (Sample, 2015)

A *low-resolution* world (Mantellini, 2018) that, once past, is in danger of not surviving into the future, not even as a documentary trace, due to the obsolescence of technologies, problems of access, manipulation, and falsification, or, more easily, due to unfindability. Present as digital sources and as data, but no longer processable or readable. Thus, how can one build now, in the present, the only viable time, the future of this new digital materiality once it becomes the past to transmit and preserve it?

The political, social, and climatic crises we are experiencing, the need to digitalize, archive, and communicate what exists, the change of generations, experiential and interpretative paradigms, the questioning of responsibility and the role that design can play in this context are among the themes addressed in this monographic issue dedicated to *digital memories*.

The first part, entitled *Memories in Time of Crisis*, allows us to reflect on the value of memory and testimonies in a future perspective of historical interpretation of the present. The five contributions offer different points of view on situations and events that we could define as of crisis or, in any case, critical: wars, protests, the recent pandemic, and a theme such as the different gender representation that emerges from Italian cities' toponymy. However, beyond the various cases analyzed, the role of design emerges in identifying strategies and ways of using digital channels effectively, all characterized by approaches of political activism, civic engagement and participation, and social design.

The essay by Andrea Facchetti, *Mnemonic wars, ephemeral narratives and contested terrains. Collective memory as a conflictual space of confrontation*, opens this chapter. It analyses and discusses some case studies in infographic design and counter-forensic fields, introducing us to a conflictual or adversarial understanding of collective memory as a contested terrain. The author specifically focuses on the idea of memory shared through digital media and how these affected the way collective memory can be constructed, represented, narrated, and disseminated. The aim is “to question collective modes of remembering molded on the idea of consensus, and to orient design practices towards a conflictual understanding of memory”, proposing a contribution to the discussion of the political dimension of design.

Sabrina Melis e Daniele Murgia, in the contribution entitled *Digital Design Interstices. A Space for Collective Counter-Memories*, explore the concept of *design interstices* in digital media and the possibilities these offer for creating and preserving collective memories. *Design interstices* are spaces *occupied* for unprecedented use in case of emergency or dramatic events. Specifically, in their paper, the authors analyze some significant case studies developed on different levels, from initiatives by individual citizens to organizations such as the international collective of online open-source investigation named Bellingcat. Their intention, presenting these alternative uses of media, is to discuss Foucault’s concept of *counter-memory*. A parallel discourse to the official one that arises as a form of resistance from people marginalized by power.

Carola Ureta Marín and Marcos Chilet Bustamante's paper, *The City as Text. A Kilometric Scroll Through the Memory of the Uprising in Chile, 2019*, present a virtual memory archive from the social uprising in Chile 2019, responding to the urgency of preserving the memory engraved on the walls faced with the threat of being whitewashed. This project explores different topics related to the ephemeral nature of public space and the importance of design in allowing people to experience, understand and study political processes. It documents heritage in new formats and aims to contribute to building a more conscious, connected, inclusive, and respectful future.

Matteo Moretti, in *Mapping Diversity. The Memory Street Names Celebrate*, opens the discussion to the relevance of open data and their use, as well as to the role of design in the social and digital spheres. He also discusses the topics of the value of memory and the gender gap by dedicating a street to a specific person, presenting the web platform *Mapping Diversity*. Also, in this paper emerges how it is possible to use design to “support greater civic awareness and a better-informed discussion on complex and multifaceted issues toward a more inclusive and diverse society”.

Finally, in *Design Experiences in Pandemic Times. Constructing and Enhancing the Memory of the Present in Museums*, Alessandra Bosco, Silvia Gasparotto, and Margo Lengua analyze and discuss how some museums fronted the COVID-19 pandemic, expanding their offer, providing, designing, and implementing services to involve the public remotely. The authors present a model and visualize the complexity and peculiarity of the

actions undertaken by museums, articulated in activities that refer to calls to action, curatorial projects, and the production of records, opening new scenarios for design.

*Design Heritage and Visual Memories*, the second chapter of this PAD's issue, collects three contributions that have a common topic in visual communication design and graphic design history. The first two essays introduce two different points of view related to the use of digital technologies to renovate the material heritage of graphic design. The third essay presents a micro-history of Italian web interface design: a general topic that we intended to discuss more through the call we launched one year ago and that we still think can offer a lot in terms of historical research.

In their essay entitled *The Importance of Printed Ephemera in New Type Making. Between Historical Research and Reuse of Tangible Heritage*, Elettra Scotucci and Andrea Vendetti “highlight the relationship between typographic *ephemera* and new movable type making. *Ephemera* are a fundamental component in the constitution of a more conscious history of graphic design”. They support their discussion by analyzing the history of typography primary sources as type specimens and catalogs and introducing us to the phenomenon of the letterpress resurgence as an opportunity to use a combination of traditional and new technologies in *remaking* new movable type sets.

The essay *Poster World. Bespoke AI Meets Curator Expertise for Public Engagement* discusses the use of digital technologies and artificial intelligence to support the enhancement

and renovation of sources and archives in the graphic design and visual communication field. The team of authors (Andre Andrade, Lara Défayes, Emily Groves, Nicolas Henchoz, Delphine Ribes, Mathieu Salzmann, and Andrea Schneider) presents an interesting project made with the Zürich's *Museum für Gestaltung* on its unique poster collection. The combination of artificial intelligence with curator expertise, supported by user experience psychology protocols, allowed them to develop an interactive installation to support the Museum in maintaining and developing digital resources and finding a new way to show its rich heritage.

Ilaria Ruggeri and Gianni Sinni introduce in this discussion, with their paper entitled *The Italian Government Interface. From the Spoils System to the Guidelines*, the issues related to digital interfaces and design history. The authors, presenting the Design Guidelines for Public Administration introduced in 2015, analyze the evolution of the Italian Government website in relation to the development of web technologies and the growing digitization from 1998 to nowadays. The analysis, highlighting the evolution of the Government website from a political communication tool to an institutional communication site, is supported by documentary material and direct testimonies. A critical issue emerges about the sources to use in making and writing the history of digital and web interfaces.

In the third and final chapter, *Digitized and Digital-Native Memories*, we collected four papers that open the discussion on digital memories to other and various areas. The two extremes expressed in the title, *digitized memories* and *digi-*



*tal-native memories*, are addressed with different approaches and related to various fields of design.

Alessandro Pollini and Michele Zannoni, in their essay *Are Memories an Interaction Design Problem?*, argue on the construction of personal memory through the use of the content on digital media. The lack of permanence of objects and the increasing process of emptying one's digital personal space affects our relationship with our memories. Their research, considering the lack of design in interfaces and how memory processes adapt themselves to digital tools, aims to understand how interaction design and cognition are connected in memory-related interaction projects.

Daria Casciani and Angelica Vandi with their dense essay entitled *Hypersensing Creative Acts. The Role of Design in Transmitting Intangible Cultural Heritage through Digital Tools*, discussing how digital technologies could preserve and valorize Intangible Cultural Heritage, introduce us to the concept of *creative acts* in craftsmanship and fashion design. Through literature review, their contribution, identifying applicative crafts sectors and highlighting limits and opportunities of digital tools and procedures for crafts ICH representation and presentation, define guidelines for designing new interactive experiences and narratives.

In *The Invented Mnemotopes Archive. Design Digital Practices for the Memory of Places*, Clorinda Galasso discusses the importance of the quality of translation strategies in the analog-to-digital conversion processes, introducing us to the

*mnemotope* and the *invented digital archive* concepts. The paper presents two case studies in which communication design leads to a digital representation aiming to “stabilize a dense network of spatialized memories and cultural objects of territorial interpretation”, personal memory, and its territorial context.

The last selected paper is *Exploring Futures of Infinite Data Storage through Speculative Design* by Agnieszka Dutkowska-Zuk, who discusses the issues of forgetting and remembering projected into the digital space, presenting a speculative design artifact named *Horcrux Ear*. The project, based on mental model of memory, intends to induce a reflection on the relation between the advent of infinite data storage and personal memory, posing the paradigm shift of “how forgetting a memory can help remembering in longer terms”.

All the presented papers open different scenarios of discussion on the issues of memory in the digital age. How digital tools, technologies, and channels affect and impact human memory is not yet fully understandable. However, we are firmly convinced that this topic is a possible and unavoidable argument to be more, and for sure, debated.

This discussion is just at the beginning.

## References

- Bollini, L. (2020). Ephemeral Memories. The Paradox of Images' Abundance in the Age of Digital Mortality. In E. Cicalò (ed.), *Proceedings of the 2nd International and Interdisciplinary Conference on Image and Imagination. IMG 2019. Advances in Intelligent Systems and Computing* (pp. 419-431). Springer. [https://doi.org/10.1007/978-3-030-41018-6\\_35](https://doi.org/10.1007/978-3-030-41018-6_35)
- Floridi, L. (2014). *The Fourth Revolution. How the infosphere is reshaping human reality*. Oxford University Press.
- Hobsbawm, E. (1994). *The Age of Extremes: The Short Twentieth Century, 1914-1991*. Abacus.
- Mantellini, M. (2018). *Bassa risoluzione*. Einaudi.
- McLuhan, M. (1962). *The Gutenberg Galaxy: The Making of Typographic Man*. Toronto University Press.
- Ong, W. J. (1982). *Orality and Literacy: The Technologizing of the Word*. Methuen.
- Paniagua, E. (2021). *Error 404: ¿Preparados para un mundo sin internet?*. DEBATE.
- Resmini, A., & Rosati, L. (2011). *Pervasive Information Architecture. Designing Cross-Channel User Experiences*. Morgan Kaufmann.
- Sample, I. (2015, February 13). *Google boss warns of 'forgotten century' with email and photos at risk*. The Guardian. <https://bit.ly/3w4s6Qa>
- Webster, F. (2014). *Theories of the Information Society*. Routledge Publishing.
- Whitelaw, M. (2015, July). Generous Interfaces for Digital Cultural Collections. *Digital Humanities Quarterly*, 9(1). <http://www.digitalhumanities.org/dhq/vol/9/1/000205/000205.html>



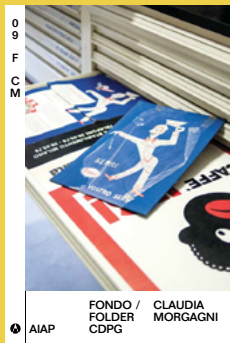
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