12. Design cultures and digital humanities. The case of *Design Philology*

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12.1 Archival practices within digital environments

This essay aims to investigate processes of valorization of university digital archives, conceived as tools for preserving the historic traces of research and education, but above all as areas of innovation in the dissemination of knowledge. The reference framework is that of the broader contemporary reflection on digital humanities (Schnapp, 2014, 2016), namely on how the digital environment impacts on models of production, dissemination and transmission of culture, including that fuelled by archival systems.

The archive is first and foremost a cultural space and as such plays a leading role in the construction of knowledge and new individual and collective imaginaries, with evident cultural, social, and even political repercussions (Ghaddar and Caswell, 2019). Rapid technological advancement has deeply entrenched, across all fields of knowledge and social spheres, the necessity to feed and manage archives of the current babel of digital data. Today, moving on from archives' original

vocation – nestled in the history of western mnemonics – of collection, preservation, and testimony, reflections mainly revolve around how best to valorize, utilize and disseminate the documents and data they gather, and even the collaborative engagement of increasingly vast audiences. Such processes are gradually becoming more design-driven, aiming to define innovative dynamics of interaction, experiment with cross-media narrative forms, and construct virtuous networks of actors and audiences.

Building upon these premises, this essay introduces the *Design Philology* project, an initiative promoted by the Department of Design, in collaboration with the School of Design and the POLI.design Consortium, aimed at initiating both archival collection and narrative experimentation of the thirty-year history of the *Design System* at Politecnico di Milano. *Design Philology* thus seeks to experiment with models of interpreting a multimedia archive, through digital curatorial and exhibition systems, as well as hybrid, open, and collaborative editorial proposals. Ultimately, the project aims to ground research and education in the field of design within its historical identity, reinterpreting it within the perspective of contemporary and future design culture.

12.2 Exhibition and narrative design between digital and collaborative ways

The archive plays a crucial role in transforming narrative modes and creating new relationships between institutions, contexts and the public through a variety of actions: from storytelling and exhibition to the blending of materials and digital environments (Zanella and Trocchianesi, 2021). Within a digital archive, the digitization, classification, description and organization of materials are fundamental activities that facilitate the creation and enjoyment of cultural content online (Cameron and Kenderdine, 2007). These processes enable the development of accessible and interactive digital archives, allowing users to explore cultural heritage through innovative perspectives and approaches. A significant case study in this regard is the *Museum of the World*, developed by the British Museum in collaboration with the Cultural Institute. It features a multi-level interactive timeline ena-

bling visitors to explore a curated selection of the museum's collection from temporal and geographical perspectives. Similarly, the *Codex Atlanticus* project, promoted by the Veneranda Biblioteca Ambrosiana in collaboration with The Visual Agency, enhances accessibility to the contents of Leonardo da Vinci's *Atlantic Codex*, enabling users to explore Leonardo's work according to theme and the year of composition, thereby enhancing reading and comprehension methods.

Curation, analysis, modification and modelling are all fundamental activities in the field of digital humanities, involving archives, collections and repositories of cultural materials (Burdick *et al*., 2016).

Curation involves the selection and organization of materials within an interpretive and/or exhibition context, leveraging the potential of digital media to create advanced forms of presentation and storytelling.

The interactive and collaborative nature of digital information, fostering an interdependent system of sharing and curating digital information, also encourages experimentation through *collaborative ways*; within this context, the concept of *crowdsourcing* emerges, first introduced by Howe (2008). In the context of cultural heritage, crowdsourcing –understood as involvement by many external contributors in the production, preservation, realization of collections, research, and the like – results in significant benefits for both the community and the institutions themselves, particularly those dedicated to preserving memory (Ridge, 2014); in this case, cultural institutions benefit from the ability to evoke a sense of *the common good*, thus producing a *participatory heritage*.

Some initiatives carried out by cultural institutions stand out in the creation of true *collaborative museums*, allowing members of a specific community to actively contribute to the collection of contents that comprise their heritage. An example of this is the National Museum of African American History and Culture, inaugurated in 2015, and conceived since the *Act of Congress* in 2003 through a contributory virtual platform, allowing African-American citizens to preserve their history in a network of collective social memories.

12.3 Educational institutions and the project of memory

Design Philology is based on the assumption that the memory of a complex social and cultural actor such as a university constitutes a cultural asset to be preserved and enhanced. This premise is the same as that underlying the design of institutional university archives which, according to the guidelines developed by the *Conferenza dei Rettori delle Università italiane* (CRUI, 2009), contribute to the primary goal of maximizing the visibility of research produced and its impacts on various stakeholders (Swan and Carr, 2008, p. 31), through the management and dissemination of knowledge materials produced by the institution and its members in digital format. At the same time, they represent the most important testimony of the evolution of scientific communication models, which now go beyond their original aim of initiating *conversation among peers* and also seek to engage non-specialist audiences. In 2013, Politecnico di Milano established an articulated system of Historical Archives, a collection of document assets that tells of the university's historical role in society and the advancement of technical-scientific knowledge (Cappelletti, Morosini and Vitale, 2023).

The narrative of the history of a cultural institution is therefore a tale of people, places, and events, of results and impacts derived from research and dissemination efforts, of relationships woven with local and global actors. No exception is made for the institutional system consisting of the School and the Department of Design and the POLI.design Consortium, which originated within Politecnico di Milano as far back as 1993, accompanying the launch of the Industrial Design Degree Programme, the first of its kind in Italy. The story of this pro-gramme, which despite its brevity is deeply rooted in the Polytechnic's history, is that of an institution dedicated to knowledge about design. The culture of design, i.e. the source of the objects being archived, drives the evolution of the archives themselves through the enhance-ment of multiple memories and identities, responding to those forms of knowledge – digital-based, fragmented, shared, and co-construct-ed – towards which we are steered by contemporary society. Some well-known archives, such as the Centro Studi e Archivio della

Comunicazione (CSAC) in Parma and the Archivio del Moderno in Mendrisio constitute important references for design-driven innovation in enhancing collections of cultural heritage. In both cases, they not only collect a wide range of analogue and digital documents, but above all, they function as research centres and producers of research, exhibitions, and collaboration initiatives with the local community. Another exemplary case is repressented by initiatives promoted by Parsons New School in New York on the occasion of its centennial anniversary. The digital archives feature four sections (Collections, Objects, People, Organization), but from these, digital narratives are presented, illustrating historical and multimedia knowledge paths, as well as a programme of public exhibitions.

12.4 *Design Philology*

Design Philology, as anticipated in the introduction, arises from the desire to create an archive of the historical memory of the Design System at Politecnico di Milano and, at the same time, to develop a collective and shared action of reflection on the identity – both past and future – of the increasingly broad community. The considered period of time begins symbolically from the first *trace* of the construction of a *polytechnic design culture*, identified in the *Progettazione artistica per l'industria* (*Artistic Design for Industry*) course led by Alberto Rosselli in the academic year 1963-64 (was run until 1984 when the discipline merged into the *Industrial Design* course.

Initially entrusted to the teaching of Alberto Rosselli, the course was later also taught by Achille Castiglioni and Marco Zanuso). However, the project mainly focusses on the more recent history, namely the 30 years since Italy's first Degree Course in Industrial Design was established in 1993 thanks to the vision of masters such as Tomás Maldonado, who had been the coordinator of the first cycle (Cycle V) of the PhD in Industrial Design since 1990. The project to introduce the Industrial Design Degree Program into the Italian University System (DM 24/2/93), and the proposal for its implementation at Politecnico di Milano, stems from a cultural and political initiative spearheaded by Tomás Maldonado, with support from the then Dean

of the Faculty of Architecture, Cesare Stevan, and the Department of Planning, Design, and Building Production of Politecnico di Milano. Since then, years of great experimentation have passed, which have strongly contributed – through the structuring of a wide range of educational offerings and the maturation of national and international research experiences – to the evolution of design itself, in its scientific-cultural, as well as educational and professional expressions. The testimony of a history as brief as it is intense and complex could only be based on collaborative work, which gave space to diverse and complementary voices and visions, sometimes even opposing ones. Through the experimentation of hybrid tools and innovative methods of collection, representation, and narration of content, the project aimed to offer the scientific community, as well as a broader audience, especially in the field of education, an awareness of the evolution of polytechnic design thinking.
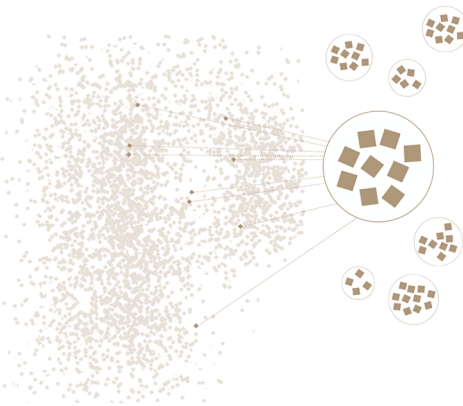

Figure 1.
The genesis of *Design Philology*'s narratives: fragments (documents, stories, testimonies, ...) recomposed into meaningful frameworks.

12.5 Activating the archive: documents, links and co-creation

Design Philology revolves around a platform based on a digital archive that collects, catalogues, and makes accessible a wide – and continuously expandable – selection of heterogeneous materials, including official documents, photographs, publications, diagrams and video testimonials. The project approach is based on a *philological* principle, aiming to reconstruct the history of *polytechnic design* through con-

crete traces gathered in collaboration with the community of the De-sign System of Politecnico di Milano. This includes contributions and materials sourced from researchers, professors and teaching staff, administrative personnel, alumni and others: more than a hundred people, along with the Historical Archives of Politecnico, participated in establishing the archive.

A distinctive feature of *Design Philology* is its open infrastructure, which does not confine the collected contents to a predefined con-tainer but instead allows for continuous and simultaneous updating, enrichment, and expansion.
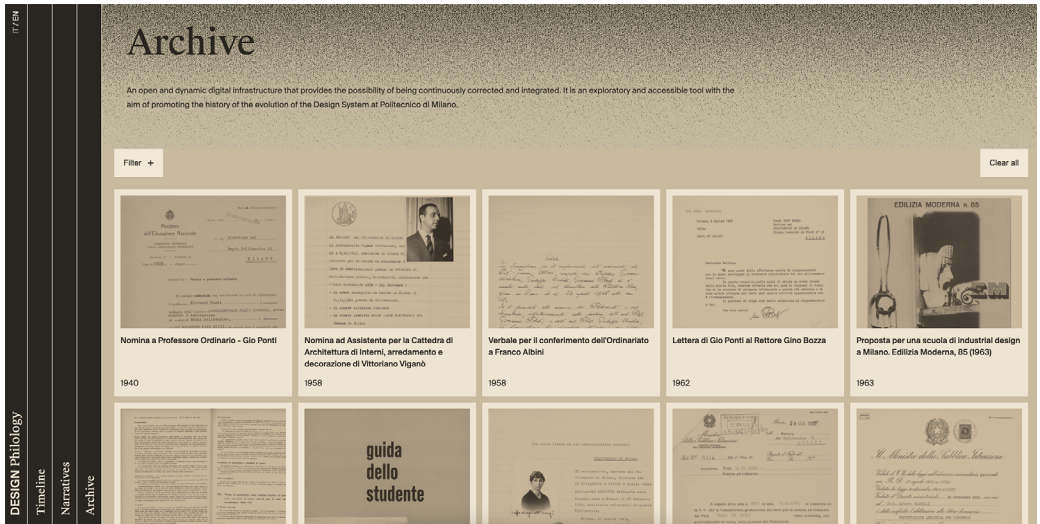

Figure 2.
Design Philology's
digital archive.

The digital archive ensures a comprehensive exploration of its contents, navigating through fragments with the aid of an infrastruc-ture that allows for the application of temporal, typological and the-matic filters. However, the purpose of *Design Philology* goes beyond this, focussing primarily on experimenting with narrative modes ca-pable of presenting an overarching framework, while simultaneously offering multiple viewpoints and insights into the recent history that characterizes the Design System.

Alongside the collection of documents and the implementation of the digital database, the project has focused on developing innova-tive and effective modes of presentation and narration. Two different types of engagement and storytelling have been devised: Timelines

and Narratives. These have been made possible through a sophisticated infrastructure and the use of advanced data-mining models, which highlight relationships between documents, events, locations and protagonists, thus offering a dynamic and hypertextual view. The Timelines are based on the arrangement of collected traces within the database (events, documents, people) along multi-dimensional and multi-level timelines. This provides a comprehensive view of the Design System's evolution, segmented into its two dimensions of Education and Research. The second mode of navigation and storytelling within the archive focuses on a more exhibition-oriented dimension, aptly named Narratives. Stemming from the concept of generating temporary digital exhibitions, through the perspectives of various curators, this system can narrate *portions* of history via pathways characterized by brief texts and a predominance of visual elements, made possible by the abundance of materials available in the archive.

12.6 Narrating through documents: narrative paths as exhibition devices

The heterogeneous nature – in terms of typology, support, and origin – of the documents collected in the *Design Philology* database allows for the reconstruction of insights into the history of the institution through various scopes and perspectives, anchoring the narrative to a fundamental temporal framework. The density of the *fragments* comprising the digital archive reconstructs a varied and comprehensive memory and identity: as previously illustrated, to enhance and diversify the use of the platform, there was a decision to design an editorial schedule of small digital exhibitions, called *Narratives*, to offer curators the opportunity to construct their own displays of materials and thus present their vision on themes, people, and contexts in a pluralistic view of history.

The reference model for the construction of these *hypertextual digital exhibitions* lies in the use of a vertical scrolling format, the *long form*, which ensures a continuity of reading while allowing for the in-depth exploration of individual contents. An example of this is the *Google Arts & Culture* project (artsandculture.google.com/explore),

which, starting from the vast database of artworks and cultural materials of various kinds, presents thematic deep-dives built with interactive modules; similarly, the Smithsonian Anacostia Community Museum offers a digitized version of some exhibitions, such as *A Right to the City* (2018-2020), following the same model and making the experience interactive through clickable and expandable content.

The *Narratives* section of the *Design Philology* platform adopts the long form structure, constructing the narrative on an open and dynamic grid of modules of different sizes and colours that offer a wide narrative autonomy, adapting to the needs and preferences of the curator. Events, documents, people, texts, quotes and videos can be freely juxtaposed, fully utilizing the potential of the digital realm to build hypertextual and multimedia pathways, which can be very different from each other, not only in terms of content but also in terms of length, reading time, and depth of analysis.

Furthermore, the modules comprising the *Narratives* are clickable and can display in-depth pop-up information sheets for each event, document, or person, corresponding to the contents stored in the digital database that forms the archive.

The initial narrative paths presented on the *Design Philology* platform in October 2023, coinciding with the project's launch, reflect the varied possibilities of using the modular layout: they range from more

historiographic approaches (*The Beginnings*, *30 Years in a Glance*) to thematic ones (*Design Convivio, Designing Design Education, Research Trajectories*), which combine texts, events and documents. These are juxtaposed with pathways where the narrative is predominantly entrusted to the visual component through photographs, images, posters and videos (*Beyond the Borders*, *Echoes from Alumni*).

For instance, the *30 Years in a Glance* narrative path, commemorating the 30th anniversary of the founding of the Industrial Design Degree Course, reconstructs the fundamental stages that led to the creation of the complex Design System. By juxtaposing regulations, official acts, teaching apparatus and iconographic documents – such as the *Industrial Design Degree Course Instituting Document*, or the photograph of the first Executive Committee of the Industrial Design Degree Course on the back cover of the *Student Guide* for 1999-2000 – the narrative highlights the milestones of a thirty-year history, identifying its significant phases such as *the startup years*, *the foundations of Design Research*, *Experimentation and Consolidation of the Teaching project* and *opening up to internationalization*.

In addition to and in support of the Narratives, *Design Philology* includes *Essays*, hypertextual essays designed for dual online and offline consumption. Online access is facilitated through clickable links, while offline access is provided via QR codes that directly link to the digital platform's contents. The project plans to enrich the *Narratives and Essays* sections through an annual call for curatorial contributions, structured around three main sections: *Themes*, in-depth explorations dedicated to the various thematic areas; *Protagonists*, detailed analyses dedicated to key figures at Politecnico di Milano; and *Networks and Contexts*, detailed analyses aimed at tracing the relationships between the internal history of Politecnico di Milano and various national and international university contexts.

The *Essays* of *Design Philology*, together with the *Narratives*, integrate innovative editorial models into the digital platform, generating a closely connected multi-level project. By supporting the participatory dimension of an extended academic community in the field of design, it is able to construct a living digital archive of the Design System.
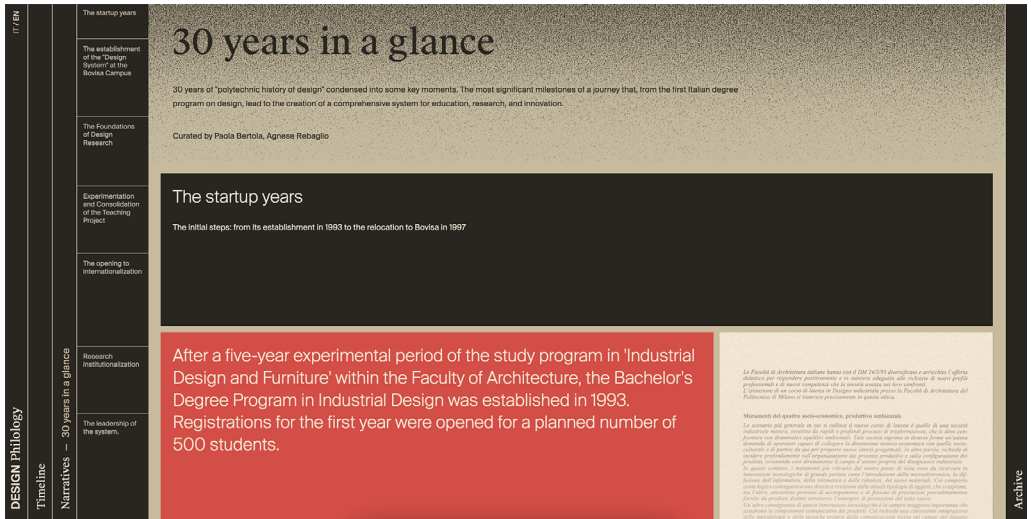
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DESIGN Philology

Timeline

Narratives – 30 years in a glance

Archive

The startup years

The establishment of the "Design System" at the Bovisa Campus

The Foundations of Design Research

Experimentation and Consolidation of the Teaching Project

The opening to internationalization

Research Institutionalization

The leadership of the system.

30 years in a glance

30 years of "polytechnic history of design" condensed into some key moments. The most significant milestones of a journey that, from the first Italian degree program on design, lead to the creation of a comprehensive system for education, research, and innovation.

Curated by Paola Bertola, Agnese Rebaglio

The startup years

The initial steps: from its establishment in 1993 to the relocation to Bovisa in 1997

After a five-year experimental period of the study program in 'Industrial Design and Furniture' within the Faculty of Architecture, the Bachelor's Degree Program in Industrial Design was established in 1993. Registrations for the first year were opened for a planned number of 500 students.

Figure 4.
Design Philology's narratives.

12.7 Conclusions

Memory, by its nature, is an evolutionary process, nourished by the sedimentation of events, stories, places and people. The digitization of archives has exponentially increased the mass of materials accumulated over time by cultural institutions. The recent and rapid history of a degree course in Industrial Design amplifies the complexity of a narrative that is still *alive* and present. The challenges regarding the valorization of this history and memory are diverse.

First and foremost, it is necessary to embrace the complexity and multiplicity of narratives that can be evoked, while respecting subjective sensitivities and viewpoints. Despite being anchored in the objectivity of documentary materials, it is acknowledged that knowledge occurs through *fragments* that rearrange themselves along sometimes highly personal trajectories. Thus, in the *Design Philology* platform, even the *timelines* multiply and overlap in reading, and the relationships between the archived fragments are more significant than the whole.

Furthermore, it is essential that the archive and the stories that emerge from it are the result of collective effort, in which the community of reference feels engaged. This implies a responsible *taking charge* by the promoters, but above all, the design of an open,

cross-pollinated, networked process among the many actors of a complex and living community, in order not to lose the memory that is constructed over time.

Lastly, the design of the archive should be envisioned as a continuous effort towards its *activation*: «Storage is easy; activation is difficult» (Schnapp, 2016). If we consider that the university is first and foremost a place of knowledge, education, and relationships, perhaps we could also envision the repository of its cultural memory as a living, active *narrative space* that is designed daily, firmly rooted in cultural heritage but decidedly forward-looking.

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