

4. From archives to narratives: a digital platform for the representation of design heritage

Marco Quaggiotto, Arianna Priori

Department of Design, Politecnico di Milano

4.1 Digital tools for reconstruction and representation

Design Philology is a project that aims to trace the history of design at the Politecnico di Milano. The initiative, conceived on the occasion of the 30th anniversary of the Department of Design, is a collaboration between the Department of Design, the School of Design and the POLI. design Consortium that reflects the need to begin documenting a history of design at the Politecnico di Milano, one of the most representative educational institutions in the field of Design, in order to reconstruct a multifaceted history shaped by individuals, groups, ideas and the relationships between them. The project, in other words, seeks to reconstruct a collective memory by collecting traces and documents, as well as the memories and testimonies of those who participated, either as protagonists or observers (Lowenthal, 2015).

The intention is to create a heterogeneous archive capable of collecting documents both from major historical events and from the smaller, personal stories that together have shaped the design con-

text at the Politecnico (Franks, 2021). Like an atlas works from the juxtaposition of partial views, the project aims to reconstruct a comprehensive picture that is never simultaneously visible (Quaggiotto, 2012). It acknowledges the fragmented nature of history and memory, constantly under construction, to propose a reconstruction in which omissions and gaps become integral parts of the process, bearing witness to the human process of historiography (Halbwachs, 1992).

To this end, the project has set out to construct a documentation platform capable of accommodating the collection of these stories, while at the same time allowing for a narrative that does justice to the multifaceted dimensions of this history. It proposes a narrative model that brings together the people, events and groups that have contributed to the construction of design at the Politecnico di Milano, while simultaneously documenting its evolution through the accessible materials and testimonies of those who have witnessed or participated in it (Ketelaar, 2008).

In order to create such a platform, two levels of intervention have been undertaken. From a collection point of view, an effort has been made to develop a data structure capable of adapting to the project's objectives. This structure, which is described in detail in chapter *Memories and Documents: a Digital Archive for a History Under Construction*, operates on several levels to allow the description of a complex landscape.

- In terms of entities, the database allows the integration of different types of actors, not limiting the historical narrative to institutional types, but allowing the inclusion of external contributors or those who have influenced specific disciplinary areas or fields (Ferreira-Lopes, 2020; Guedes *et al.*, 2022).
- In terms of relationships, the data structure gives an importance to the relationships between entities that is as essential as the description of the entities themselves. The ability to insert free-form relationships between database entities allows the articulation of connections within the system, including both formal relationships (such as founders and presidents) and informal or personal relationships (such as friendships), facilitating the emergence of a structure derived from the content itself (Bearman, 1989).

- In terms of documents, the database, which serves as a hybrid between a knowledge base and an archive, includes a level of documentation and testimony that can give a tangible dimension to the elements described in the database. This layer provides a historical perspective based on documents and accommodates a wide range of materials with varying degrees of institutionalization, from academic senate minutes to personal photographs to posters of informal meetings (Allyn *et al.*, 2010).

The second dimension deals with the presentation of such data and materials in formats capable of conveying the multiple stories that make up the design heritage of the Politecnico di Milano. From this

Design Philology. Platform →



point of view, the aim of the digital platform Design Philology is not to provide a single representation, but a collection of perspectives, with complementary intentions and objectives, capable of allowing for the reconstruction of a complex past.

- The first perspective offered by the platform, perhaps the most typical in this context, places the documents at the centre of the narrative. The aim is to facilitate consultation of the archive at the documentary level, both through a visual overview of the items themselves and through the use of filtering and search tools that facilitate their retrieval along cataloging dimensions.
- The second perspective focuses on the chronology and temporal sequence of the narrative. The aim here is to highlight the moments and periods in the history of design at the Politecnico di Milano from a chronological, if not yet historical, perspective, to foreground events and their temporality, including causal sequences and temporal dynamics such as growth, stability, succession or interruption (Gerber, 2003).
- The third perspective emphasizes the curatorial dimension of the narrative. Through this lens, the intention is to enhance the interpretation of events, actors and documents within a narrative context that allows the freedom to create pathways through the archive. This approach involves selecting elements to highlight, choosing how to present them, and guiding the reader through texts and interpretations (Sabharwal, 2021).
- The fourth perspective introduces a scholarly dimension that acts as an academic journal within the platform. It provides a

space for analysis and critique, with essays that explore specific themes or reflect on the platform itself. Each content exists by itself and in relation to the rest of the platform, fostering a dynamic interaction that enriches the narrative of the platform and the user's understanding of the *Design Philology* context.

4.2 Digital hermeneutics: an atlas of perspectives

Based on these access models, the *Design Philology* platform proposes a structure composed of four sections, *Archive*, *Timeline*, *Narratives* and *Essays*, introduced by a *Homepage*.

4.2.1 Homepage

As a welcoming page, the *Homepage* serves as an introduction and guide for navigation, providing two main types of content. First, it provides an overview of the project's context and a concise explanation of the motivations behind the *Design Philology* project, both in terms of initiative and digital infrastructure, through

a series of brief paragraphs and an introductory video trailer. Secondly, the page presents and provides annotated access to other sections of the site, enabling quick access to the various sections.

[Design Philology. Homepage →](#)



4.2.2 Archive

The *Archive* section offers a perspective centred on collected materials and documents, arranged in chronological order. This approach, particularly visual, encourages direct access to the documents, allowing consultation of data and metadata about the content, as well as high-resolution copies available for consultation or download. For a better exploration and search experience, the interface includes

a filtering system that supports the users in focusing their research by specifying the type of document they are looking for (publications,

Design Philology. [Archive](#)→

photographs, press reviews, documents, videos), by limiting

the display to a specific time period or by performing a free search on document descriptions and titles.

4.2.3 Timeline

The *Timeline* section focuses on the events that have occurred or overlapped over the years, emphasizing the chronological dimensions

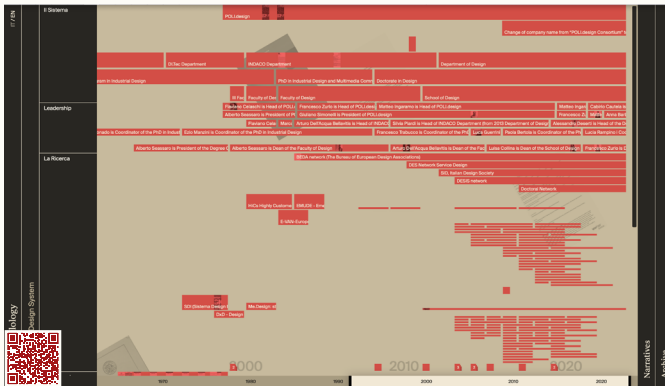
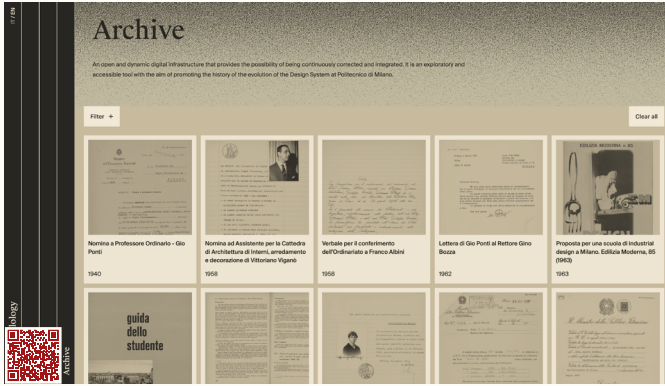
and the temporal dynamics that define them. In line with the project's *micro-historical* approach (Ginzburg *et al.*, 1993), this section does not host a timeline of all events, but rather it offers an opportunity for curators to create multiple timelines dedicated to more or less specific aspects of the history that has informed the discipline of design at the Politecnico di Milano.

Design Philology. [Timeline](#)→

This pluralistic interpretation of history transforms a technical

display of temporal data into a process of interpretation and storytelling. Curators are asked to select significant events and moments, and to define their priority not in absolute terms, but rather in relation to the narrative they wish to present, and to decide on a grouping that facilitates their exploration. This allows not only

to visualize a sequence of moments, but also to articulate their reference context, to articulate a discourse, and to propose a temporal map. Once selected and grouped, the platform allows for an automatic representation. Within this view, time periods are represented by horizontal segments whose length depends on the time span. The horizontal di-



mension corresponds to the temporal duration, with continuous events being placed side by side in the diagram, and temporal intersections corresponding to overlaps in the representation. The vertical dimension is used to group events into categories, organizing them into sections whose names are displayed in the left sidebar. The narrative priority assigned by the curators is translated into a corresponding visual priority by controlling the thickness of the graphic elements, thus ensuring a correct visual hierarchy of the temporal map and facilitating its reading.

Within this temporal substrate, in addition to the abstract representation of events, documents related to these events also find their place within the temporal segments. This integration of event and document serves not only to represent the documentary level from a visual narrative perspective, but it also facilitates access to the documents themselves, allowing them to be viewed directly from within the temporal map.

From an exploration perspective, the interface has been designed to facilitate an immediate interpretation of the information and a number of measures have been taken in order to manage the high density of information, and to enable a comfortable navigation even in particularly crowded contexts. A time bar at the bottom of the interface allows direct navigation of the chronological dimension, enabling users to control the displayed time span and zoom in on details of a specific period. Thematically, the vertical groups, initially visible, can be collapsed to allow more focused reading.

Information is displayed differently depending on the visual configuration of the timeline: details such as titles or documents are displayed as space permits, or revealed on hover; short-term events that overlap in the same time frame (and in the same section) are clustered, graphically indicating the number of events in the cluster and making them accessible upon further hover. When exploring the timeline, the most relevant documents of the period under review are automatically displayed, albeit in the background of the visualization, to provide a visual contextualization of the events without unduly distracting from the content.

4.2.4 Narratives

The *Narratives* section offers a way to create curatorial narratives by creating journeys through the collected content and materials. Through this form of curatorial narrative, project participants can create thematic, historical, or personal itineraries by placing heterogeneous content from the Knowledge Base and from the archive of the *Design Philology* project within the same narrative sequence.

These events, documents, protagonists, places and testimonies become elements of a narrative sequence, no longer necessarily historical, which highlights the curatorial dimension of the intervention. The pieces of content, bound together by the interpretive commentary of the authors, through paratexts such as titles and captions, and thanks to a simple but expressive layout system, are transformed into catalogues, virtual exhibitions or thematic journeys, according to the intentions of those who produce them.

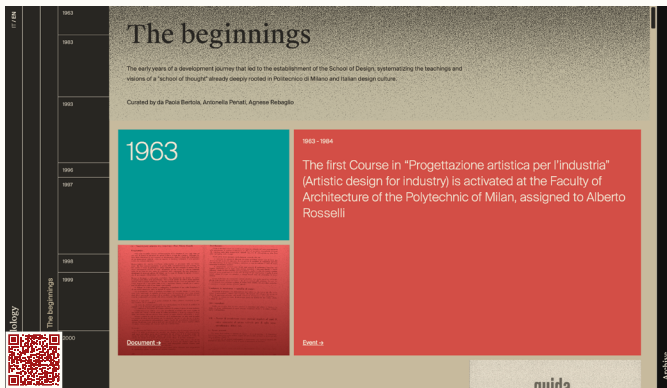
From an editorial point of view, the platform allows for the insertion of different types of content through dedicated modules: elements from the Knowledge Base (e.g. events, people, groups), elements from the *Archive* (e.g. documents, testimonies), commentaries (e.g. links, quotes, profiles), or peritexts (e.g. titles, sections) share the same narrative space in the articulation of a journey through content.

For each of these modules, many aspects of the presentation can be

Design Philology. Narratives →

controlled depending on content type, narrative relevance, or

presentation logic. Modular elements can vary in height, length, and color depending on their function. The same content can be represented by a single, small-sized element containing only a title, or take up the entire width of the layout, providing space for more detailed descriptions and previews of related



materials. Depending on the desired contrast or visual categorization of information, modules can be accented with color or left in neutral tones. Depending on the relevance of visual materials, modules can re-

serve more or less space for the image of attached documents, allowing for full-size live images or other more limited size variations.

The entire system, with the features just described, is designed to allow for the creation of heterogeneous narrative models based on the needs of current and future curators of narratives. Among the layouts designed by the first set of curators, different narrative models emerge, recognizable by layouts designed with different structures in mind. We find galleries, which emphasize the visual value of documents through a reasoned choice of colors and dimensions; chronologies, which trace timelines highlighting specific dates; thematic routes, which follow the development of several topics considered logical for the narration of a particular theme; documentary collections, which gather documents, images, and testimonies belonging to specific reference categories.

Visually, the *Narratives* section is presented in a three-column layout that allows for a wide variety of layouts and editorial solutions. This three-column structure allows for the insertion of different sized modules and for the ability to vary their arrangement in order to guarantee the compositional flexibility necessary for the creation of narrative models that are as close as possible to the curators' needs. Images, when present in the layout, have been chromatically treated to standardize their appearance and ensure visual continuity across heterogeneous content.

From a navigational point of view, the narrative section is organized according to a vertical scrolling model, with the possibility of directly accessing different sections through the sidebar. In mobile mode, the column structure is simplified, with each module placed in sequence, while maintaining a certain flexibility in composition and variety of layouts. Modules associated with elements of the *Archive* or the Knowledge Base allow access via links to related content, allowing for a direct exploration of resources through a modal window that overlays the layout and is common to both the *Timeline* and *Archive* sections.

4.2.5 Event and document details

Since the three narrative modes (*Archive*, *Timeline*, and *Narratives*) refer to the same database, the platform design project provides a common element for accessing details about entities and documents. This structure allows for a flexible description of entities and their rela-

tionships, according to the needs of the different elements of the platform. Specifically, the entity map is organized into three levels:

- the first level is dedicated to the description of entities such as events and individuals. It displays a set of basic information such as title, date, description, and metadata related to the people who contributed to the entry of this information. This level ensures that users have a concise yet comprehensive overview of the item, providing immediate access to essential contextual data;
- the second level is designed for consultation of documents associated with the entity. It provides information such as document type, publication date, associated tags, and metadata related to the referenced materials. This level acts as a bridge between the general information provided by the first level and more detailed, document-specific data, facilitating deeper exploration of the documentary context of the entity;
- the third level is associated with any attachments associated with each document, which are directly viewable and downloadable from the platform. This level allows users to engage directly with the records and provides tools to view and, if necessary, request digital copies of the documents.

This structured approach ensures a comprehensive overview of entities and documents, and provides access to more specific details in a flexible manner that adapts to the needs of the various elements of the platform, providing the user with a seamless navigation between the different informational levels within the platform.

4.2.6 Essays

The fourth perspective, the *Essays*, connects the platform to a more traditional academic style, where the narrative is transformed into a critical discourse that emphasizes a more thorough analysis. Periodically, this area will publish contributions that offer reflections on the project and the platform itself, or accompany and expand on the themes explored in the *Narratives* section, exploring specific themes related to the history of design at the Politecnico di Milano. While these essays can be consulted independently of the platform, through the use of hyperlinks in the digital files and QR codes in the printed ver-

sions, the publication format offers a highly cross-media experience that links critical reflections with the contents of the archive and with the other sections of the site.

4.3 Experiments for a shared history

Design Philology is a project aimed at narrating the history of design at Politecnico di Milano through a digital platform that enables access to heterogeneous content and the construction of complex, articulated narratives. Originating to commemorate the 30th anniversary of the platform for flexible access to content and the construction of complex and articulated narratives that emphasize the documentary, temporal, curatorial, and critical dimensions of the narrative. The data structure, flexible and adaptable, facilitates the description of entities and their interrelations in a manner that can be tailored to meet the diverse needs of the platform's components, ensuring an overarching view of the entities and documents and access to more specific details in a similarly flexible and adaptable manner.

In this context, the platform represents an initial experimentation in multi-voiced digital storytelling, and proposes itself as an extensible model in terms of content, views, and narratives. From the perspective of the archival base and data structure, the introduction of new entities related to places and themes that have marked the history of design is a desirable step. From the point of view of perspectives, it is also worth considering the possibility of enriching the existing documentary, temporal, curatorial and critical perspectives with new ones that could, for example, highlight the geographical and territorial dimension, through which the places of design can be mapped; the semantic dimension, through which the evolution of themes and fields of design can be represented; the relational dimension, capable of highlighting the networks of relationships between actors, themes, places and documents.

Furthermore, concerning individual views, it is conceivable to imagine extensions of expressive possibilities, based on the needs that may emerge in the narrative, envisioning the introduction of new modules for the storytelling of places and themes, modules for browsable

documents, for the citation of documents, for the inclusion of extracts from testimonies, and other narrative modes. Although the possibilities for expansion are numerous, their variety is evidence of *Design Philology's* ability to adapt to new challenges and to evolve over time, maintaining its suitability for conveying a complex disciplinary history in a flexible and articulated way.

References

- Allyn, N. E., Aubitz, S., & Stern, G. F. (2010). Using Archival Materials Effectively in Museum Exhibitions. *American Archivist*, 50(3), 402-404.
- Bearman, D. (1989). Archives and museum data model and dictionary. *Archives and Museum Informatics*, 3.
- Ferreira-Lopes, P. (2020). A Data-driven Approach for Architectural History Knowledge. Capturing Buildings' Construction Events for Historical Research Collaboration. *Journal on Computing and Cultural Heritage (JOCCH)*, 13, 1-22.
- Franks, P. C. (edited by). (2021). *The Handbook of Archival Practice*. Rowman & Littlefield Publishers.
- Gerber, N. (2003). The Sequential Dynamics of Narrative: Energies at the Margins of Fiction. *Style*, 37.
- Ginzburg, C., Tedeschi, J., & Tedeschi, A. C. (1993). Microhistory: Two or Three Things That I Know about It. *Critical Inquiry*, 20(1), 10-35.
- Guedes, C., Giesteira, B., & Nunes, S. (2022). Designing User Interaction with Linked Data in Historical Archives. *Journal on Computing and Cultural Heritage (JOCCH)*, 15, 1-22.
- Halbwachs, M. (1992). *On Collective Memory*. University of Chicago Press.
- Ketelaar, E. (2008). Archives as Spaces of Memory 1. *Journal of the Society of Archivists*, 29(1), 9-27.
- Lowenthal, D. (2015). *The Past Is a Foreign Country*. Cambridge University Press.
- Quaggiotto, M. (2012). *Cartografie del sapere. Interfacce per l'accesso agli spazi della conoscenza*. FrancoAngeli.
- Sabharwal, A. (2021). Functional Frameworks for Socialized Digital Curation: Curatorial Interventions and Curation Spaces in Archives and Libraries. *Library Trends*, 69, 672-695.