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PAD

via Festa del Perdono 1 – 20122 Milano – Italy
via Roma 171 – 90133 Palermo – Italy
info@padjournal.net – editors@padjournal.net

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DIGITAL SPACES

**TECHNOLOGIES AS EXPERIENCE AND
NARRATIVE ENHANCERS**

Immersive Narratives and Memories

The Design of Digital-Enhanced Visitor Experience

Marco Borsotti

Politecnico di Milano

Orcid id 0000-0002-0892-9012

Marco Mason

Northumbria University

Orcid id 0000-0001-5226-4217

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Abstract

In 2015 the conference *Between the Discursive and the Immersive: Research in the 21st Century Art Museum* by Louisiana and Stedelijk Museum, identified these two terms, discussed mainly concerning exhibitions, as indicators of a shift in the contemporary method of offering culture. *Discursive* refers to a new curatorial form of interdisciplinary and synesthetic programming, while *immersive* looks at the spectacularization of the exhibition.

This article, in the first part, introduces the term *narrative*, in between them. Through a narrative system, exhibitions relate themselves to the visitor no longer only in terms of appropriate reproduction of knowledge, but rather in terms of generation of knowledge.

Narrative amplifies the meaning of *discursive* and declines it as the communicative capacity of the complex relational system “collection-significance-visitor”, opening up to a critical review of the concept of *immersive*, which often, operatively, it is interpreted in a purely filmic way.

The second part introduces the concept of the Post-digital Museum (Parry, 2013) as a construct that contextualizes the “narrative” instance within the recent discourse of museum digital transformation. Any reading of design practices (Mason & Vavoula, 2021) within contemporary museums cannot ignore a paradigm shift in Digital Cultural Heritage, in which digital has become naturalized in museums’ “way of thinking.” This integration “marks a continued development of the museum’s concept and practice” (Arvanities, 2015). The post-digitally discourse will allow us to set the theoretical context and conclude with some reflections and illustrative examples on the practice of visitor experience design (Mason, 2017) in post-digital museums, which is particularly associated with the “design of narrative environments” (Austin, 2020).

1. Discursive Vs Immersive + Narrative Part 1.

1.1. Discursive Vs Immersive + Narrative

In 2015 the conference “Between the Discursive and the Immersive: Research in the 21st Century Art Museum” by Louisiana Museum, University of Aarhus and Stedelijk Museum,¹ identified these two terms, discussed mainly concerning exhibitions, as indicators of a shift in the contemporary method of offering culture. *Discursive* refers to a new curatorial form of interdisciplinary and synesthetic programming, while *immersive* looks at the spectacularization of the exhibition (Laurberg & Schavemaker, 2016). Mark Wingley (2016) addresses this dualism in terms of space design, where, the logic of reading, which privileges the language of vision, is counterposed to the logic of experience, which uses the language of multisensoriality, affirming that they are intrinsically intertwined.

Laurberg and Schavemaker (2016, p. 1) take their cue from what they call the “academic turn taking place in the world of museums” to emphasize how museums are increasingly involved in speculative and research-based activities, often interdisciplinary, which are now largely integrated into the entire process of their institutional programming. Furthermore, they observe how knowledge production increasingly passes through experiential and synesthetic models of exhibitions and collection displays, where curatorship and design converge on scenographic and emotional languages. Finally, they note the growing presence of new media technologies and so-

1 A selection of the papers introduced at the conference is available in issue 4 of *Stedelijk Studies* (2016). See: <https://stedelijkstudies.com/issue-4-between-discursive-and-immersive/>.

cial media. Hence the statement that “knowledge production in modern and contemporary art museums oscillates between the discursive and the immersive, giving rise to a wide range of curatorial and research models” (Laurberg & Schavemaker, 2016, p. 2). Both terms seem to refer mainly to a condition, where the exhibited collections are the consequence of critical issues and operative options, referable to theoretical choice of field: the exhibition and the museum as a place of research in terms of contents and languages, with a certain inclination to meet the public in a communicative level that is easier and more attractive to them, in terms of understanding and sharing culture.

1.2. The Narrative Factor

In the first part of this article, I would like to illustrate how the *discursive/immersive* binomial finds its most intense interpretative logic when it is accompanied by the *narrative factor*, which represents the capability to decode and transmit meanings by making them comprehensible. A vocation that is intrinsically human and that is structured around memory, as well as the actions principally connected to it: remembering and processing. The exhibition set up becomes a sort of catalyst that encourages one to seek new information and initiate connections between different media contents (Borsotti, 2017, p. 12). The exhibition design is an

act of research as an experience of acquiring knowledge gives the scenographer an insight into the narrative potential of an object as well as its historical and cultural relevance, its function, and its symbolism. Things are witnesses that are able to provide infor-

mation about the past. They are, as Krzysztof Pomian calls them, *semiophores* which mediate between the past and present. (Atelier Brückner, 2011, p. 61)

This mediation also involves digital memory, both in terms of technologies capable of expanding the availability of virtual memory space, while compressing/dematerializing its physical encumbrance, and, above all, in terms of enhancing the conditions of activating mnemonic *stimuli*, as well as the extent of the range of references and solicitations that can be easily and synchronically involved and offered to visitors. The digital ecosystem finds in its application to exhibitions and collection displays a place where it can actively place itself at the service of memory, both short-term and long-term. It is called on not to invent an uncritical, *on-demand*, and immediately obsolescent dialectical world, as is the case with the more widespread mechanism of social media, but rather a set of innovative and easily assimilated experiences, where technology acts as a *facilitator* of information, whose accessibility can be easily dislocated in time and space.

In the essay “Discursive versus Immersive: The Museum is the Massage”, Mark Wigley argues that “We live in an age in which everyday life is suspended within countless overlapping flows of information. Each of these overlapping flows operates as an immersive environment and as a discursive system of detection, analysis, and visualization” (Wigley, 2016, p. 1). Wigley points out, therefore, how the discursive and immersive apparatuses are already overlapping and synergetic, a condition that nullifies the expository distinction between words and wordlessness, between vision as opposed to multisensoriality.

The narrative factor defines and structures cognitive sequences that allow a simultaneous exploration of the contents of what is exhibited, whether they are explicit or implicit. Through the development of a narrative display system, exhibitions relate themselves to the visitor no longer only in terms of reproduction of knowledge, but rather in terms of generation of knowledge. (Atelier Brückner, 2011, 2018; Den Oudsten, 2012; Kossmann et al., 2012; Borsotti, 2013, 2017; Migliore, 2019). Narrative exhibition design, therefore, not only shows but above all evokes, reveals, involves, excites, and stimulates. All this both intellectually and perceptually.

Narrative amplifies the meaning of *discursive* and declines it as the communicative capacity of the relational system *collection-significance-visitor* to propose multiple ways of accessing and deepening. Also, it opens to a critical review of the very concept of *immersive*, often interpreted in a purely filmic way, with no opportunity to boost the exhibition contents through interactions that enhance its meanings.

1.3. The Society of *Iconographic Bulimia*

The technological power to create scenarios that enhance our perception of the world, holds a destabilizing capacity, both in terms of distortion of reality and in terms of addiction to a redundancy of information that, being human, we can only minimally assimilate. Paradoxically, this involves the risk of a *receptive fragility*, the consequence of which could be the very annihilation of the preservation of the mnemonic perception of the past and present. A fragility that is already in action today, when, in a museum, the average time spent in front of a work of art is estimated at only eight seconds! (Tate

gallery, n.d.; Iotti, 2020, p. 61).² Today, due the simplicity by which images can be produced and disseminated generates a widespread perceptive blindness: the image as an instantaneous and volatile icon. Through social media, more than 3.2 billion images and 720,000 hours of video have been shared daily in 2020 (Thomson et al., 2020); actually, according to Photutorial data “1.81 trillion photos are taken worldwide every year, which equals 57,000 per second, or 5.0 billion per day” (Broz, 2023). If, as Guy Debord warned us in 1992, “the spectacle is not a collection of images, but a social relationship between individuals, mediated by images” (Debord, 2006, p. 54), today we are witnessing the very dissolution of the spectacularisation of the image, which persists for the duration of a handful of seconds, giving way to the society of *iconographic bulimia*. It is not surprising, then, if a major cultural institution like the Tate Gallery in London, has launched the initiative *A guide to slow looking*, a best practice manual for museum visitors (bulimics, in fact) in which it is suggested to select, for one’s visit, only a few works to which one should devote at least ten minutes of attention...

2 “A visit to a museum or art gallery can sometimes be an overwhelming experience. With so many works on display, trying to see everything can feel like a race against the clock. Studies have found that visitors to art galleries spend an average of eight seconds looking at each work on display. But what happens when we spend five minutes, fifteen minutes, an hour or an afternoon really looking in detail at an artwork? This is ‘slow looking’. It is an approach based on the idea that, if we really want to get to know a work of art, we need to spend time with it. (...) Of course, slow looking means being selective. If you spent 15 minutes looking at all 78,000 artworks in our collection, it would take you 12 hours a day for over four years to look at everything. The important thing is that you select a work that you are drawn to, that intrigues, attracts or frustrates you”. Tate gallery. (n.d.) *A guide to slow looking. Be amazed by the discoveries you can make when you look for longer at art.* <https://www.tate.org.uk/art/guide-slow-looking>

1.4. From Gestures to Playful and Exploratory Involvement

The development of exhibitions structured in terms of narrative design enables the role and modalities of the technological presence to be reviewed to coordinate it in a defined script. Uwe R. Brückner calls it *partitura* (Atelier Brückner, 2011, 2018) so that the times and modes of discovery, perception, comprehension, and assimilation can be managed simply and rhythmically. The visitor's attention span is so designed in a sequence of interactions between concentration, interactive involvement, and contemplation. The exhibition allows itself to be experienced according to different stages of discursiveness and immersiveness, in which the digital intervention becomes an experience aimed at the consolidation of a memory of the present capable of settling easily, thanks also to *humanized enabling modalities*.

1.5. Studio Azzurro: Drawn on Digital Memory with Everyday Gestures

Studio Azzurro is a Milan-based multidisciplinary design group committed to the creation of sensitive environments and narrative habitats. They use multimedia solutions that transform the digital presence into opportunities for gestural and sensory expression of the visitor, constantly invited to act as a trigger for the technology. Studio Azzurro aims at the use of gestures taken from everyday life, to make accessible information stored in that natural memories repository that is the people themselves. Here, then, in the rooms of the *Fellini Museum* (Rimini, Italy, 2021), visitors are called upon to confront the same language of the famous Italian director whose work is intrinsically linked to the memory and sensoriality of personal

experiences, filtered and revisited in dream worlds by gaining access to spontaneous and shared rituals.

Inside fragments of film sets, visitors give themselves up on listening to narrative voices or open trapdoors to discover in-depth videos. One of the most iconographic presences is the *confessionals*, reminiscent of those in the “8½” movie and establishing an individual relationship between the visitor and the various testimonials who share their memories as collaborators of the director. Here, information is made accessible in a condition of intimate complicity: in this way, the exhibition becomes a memory of that human condition of knowledge transmission defined by a personal relationship (Fig. 1).

1.6. *ReBlink*. Memories Meet Through the Lens

The power of digital technologies and augmented reality to modify the perception of our everyday life was the subject, in 2017, of the *ReBlink project*, realized by artist Alex Mayhew



Figure 1. Studio Azzurro, Fellini Museum, Rimini, Italy, 2021. Rooms *filza di fogli - pontile del porto - confessionali* (photo ©Marco Borsotti).

on behalf of the Art Gallery of Ontario.³ The particularly interesting aspect of the exhibition concept is the intention to provide visitors with a kind of system update on some of the works of art on display. Thus, on the one hand, with their augmented version, the subjects of the paintings amaze by coming to life, in a disorienting and ironic way, within their frames, but above all, they establish new, actualized forms of relationship with visitors, subverting the uncanny ability of digital tools to generate streams of a-temporality, where everything merges into an uncritical temporal *continuum*.



Figure 2. Alex Mayhew, *ReBlink*, Art Gallery of Ontario, Canada, 2017. Source: <https://www.alexmayhew.com/portfolio-item/reblink/>.

The exhibition (Fig. 2) stabilizes past and present by linking the memory of what is represented in the painting to the experiential reality of the visitor, thus generating a reworking that “comments on the changing nature of the human condition. [...] This initial seduction paves the way for a deeper engagement, in which more serious questions are explored, the intellect is stimulated, and a range of emotions are un-

3 The *ReBlink* project is still ongoing, thanks to a lot of experimental spin-off like Location Specific, *ReBlink Fashion* or *ReBlink Cards*. See: <https://www.alexmayhew.com/portfolio-item/reblink-plus/>

leashed” (Impossible Things, n.d.). Visitors use an app for smartphones and tablets and with their device’s camera can discover Mayhew’s interventions in some of the artworks in the AGO’s permanent collection. The act of taking a photo, now so commonplace as to have taken on a ritual dimension that almost cancels out the value of the immortalized subject, here activates the discovery of the work itself and the memory of its content.

1.7. I Left the House to Go to the Cinema and I Found Myself into a Museum

When an exhibition space gives its narrative character only to the digital tool, neglecting any kind of interaction with the visitor and relying on the total preponderance of the visual aspect, an important problem of field definition arises. Are we still within an exhibition space? Or are we faced with a cultural declination based on cinematic spectacularisation? And what concept of immersive nature do these places express? Paraphrasing Roy Ascott (1996), we can say that immersive exhibitions are often a “kind of digital carousel projector”, a condition that implies an exclusively passive vision of images. Thus, the exhibition understood as a space that interacts with the collection and the visitor becomes a pure *environmental retrofit* that does not require any interpretative action. The container assumes a neutral role determined by the total absence of any formal and perceptual relationship with its surroundings. The exhibition environment simply becomes a hypertrophic, three-dimensional extension of the screen, on which images flow, assembled according to digitally manipulated montages.

The lack of intermediation implies the abolition of any mediating instance (Han, 2015). This absence circumscribes the narrative potential to the filmic script alone, whose temporal field of action is the pure present, the immediate. “Yet, sometimes, in what are bad examples of exhibitions labelled as immersive, immersiveness has become a kind of visual image, representing immersion without being immersive or multi-sensory. Immersion is the object framed by the logic of vision” (Wigley, 2016, p. 2). It is, therefore, a different idea of immersion, which does not involve space in its formal nature, nor the collection as a narrating subject, nor the visitor as an active and participating actor. Rather, is proposed a *pixel-based* immersive condition, where the potential of the digital is exploited for its capability to reproduce in high-definition objects physically absent, making them fascinating, through evocative image editing. As Boris Groys (2018) states,

the exhibition should be understood not as a pure act of presentation, but as the presentation of presenting, as the unveiling of one’s framing strategy (...) When we visit an exhibition, we do not only look at the images and objects on display, but we also reflect on the spatial and temporal relationships between them the hierarchies, the curatorial choices the strategies that produced the exhibition and so on. The exhibition shows itself before it shows anything else. It shows its own technology and ideology. In fact, framing is nothing more than a mixture of technology and ideology.
(Groys, 2018, p. 170-171)

experience design practice. The latter is, instead, the focus of the post-digital museum concept.

2. Narrative + Digital Part 2 (Towards the Post-Digital)

2.1. The Post-Digital Museum: an Introduction

In this second part of the article, I would like to introduce the concept of post-digital museum (Parry, 2013) as a construct that contextualizes the “narrative” instance within the recent discourse of museum digital transformation, as well as trace main relationships. The post-digitally discourse set the theoretical context for the main contribution to this second part of the article – i.e. to provide some reflections and illustrative examples (from my previous research projects) on the practice of *visitor experience design* (Mason, 2017; Scott et al., 2017) in post-digital museums.

Any reading of Digital Cultural Heritage design practices (Mason & Vavoula, 2021) – including “design of narrative environments” (Austin, 2020) – within contemporary museums cannot ignore a paradigm shift in the museum sector, in which digital has become naturalized in museums’ “way of thinking.” This integration is much more than a simple “juxtaposition of material and digital [technology] but it marks a continued development of the museum’s concept and practice” (Arvanities, 2015). Parry (2013) defined the term “post-digital museum” as an emerging condition that is explained as a transformation that sees digitality acquiring a normative presence and penetrating into museums’ missions, structures, and practices. Museums are not just adopting new technology, but rather they are embedding digital thinking, practices, and

tools in their vision and strategy, and ways of thinking and designing to engage with their visitors.

2.2. Digital Experience vs Visitor Experience

This shift reflects the tendency of *digital* to become normalized and embedded into many (if not all) aspects of museum practices, including collection, curation, education, interpretation, and marketing (Pierroux, 2019). A shift that is driven by the new post digital paradigm as digital and physical dimensions are intertwining in digital cultural heritage museum design. In the last decade, museums have increasingly shifted toward practices that aim to enhance museum visits through hybrid digital/physical information spaces. Museum post digitally allows us to see the design of immersive spaces within a new paradigm that does not separate the digital experience into something different from the overall museum experience (Kelly, 2016; Mason, 2017).

I would like to point out that, for this reason, in this article, I do not distinguish “digital experience” as something separate from the visitor experience. Digital interactive *technology* has been the subject of extensive research on the form and configuration of technology within human-centered computing (e.g. Bannon et al., 2005), human-computer interaction (e.g. Bolter et al., 2013), engineering (e.g. Kalay, 2008), and digital heritage (e.g. Mason, 2009). However, in the last decade, the interest has increasingly shifted toward studies investigating engaging and meaningful ways to enhance the museum visit – i.e. visitor experience; Hornecker and Ciolfi (2019) offer different examples of projects that consider central the de-

sign of visitor experiences. Other works in human-centered computing have proposed an embodied view of interaction – through hybrid digital/physical experiences – in which the visitor experience is situated in a rich physical environment (e.g. Zancanaro, 2015). According to Ciolfi (2015), “combining a more holistic and rich view of people and practices with the consideration of body and place is key for developing innovative technologies and interactions in heritage contexts”.

The knowledge generated has enhanced how digital media mediates the visitor’s interactions and experience, “evolving from point-and-click modalities to include a consideration for the body and the senses, the physical environment, and the social world” (Ciolfi, 2015, p. 424), echoing Alexenberg (2011) who describes post-digital as a new age in which digital technologies are becoming “humanized” thanks to (also) an intertwining of the digital world and physical space, and embodied media and mixed reality.

Therefore, the integration of digital (technologies, practices, and thinking) is impacting the nature of collections, learning, the audience behavior, and expectations, and what is more significant for this article: the *visitor experience*.

2.3. The Contribution of Visitor Experience Design (VX) to the “Design of Narrative Environments”

Visitor Experience Design (VX) is particularly associated with the “design of narrative environments” (Austin, 2020), given its concern with networked relationships among people (visitors), digital and physical space(s)/place(s), digital content and object(s) on display, and story(ies), as shown in Austin’s tripartite framework (Fig. 3).

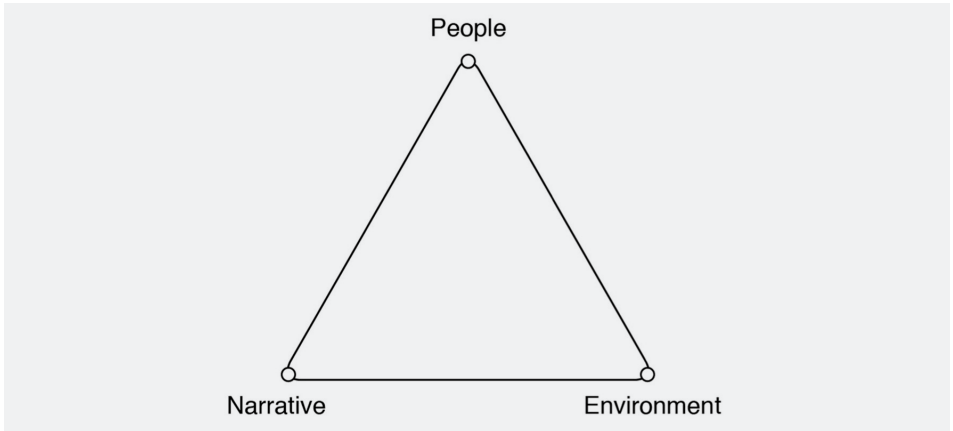


Figure 3. Tripartite network model of narrative environments. Austin, 2020.

Austin describes a narrative environment as a “site of action and interaction among people, narratives, and places” (Austin, 2020, p. 4). This concept is in line with what Marco Borsotti discussed in the first part of the article, who defined “narrative environments” as immersive, multisensorial, and interactive, which are all attributes that are shaped by the logic of (visitor) experience. By referring to Ellen Lupton’s (2017) book *Design is Storytelling*, Austin (2020, p. 6) pointed out how storytelling techniques are particularly effective for designing narrative environments. In particular, the author underlined that the practice of designing for narrative environments is “particularly associated with the principles of User Experience Design” (Austin, 2020, p. 7), which in our case becomes Visitor Experience Design (VX). User Journey map, Experience Map, Scenarios; storyboards, Experience Flowcharts, and other methods are part of the toolbox made available to visitor experience designers (Hanington & Martin, 2019).

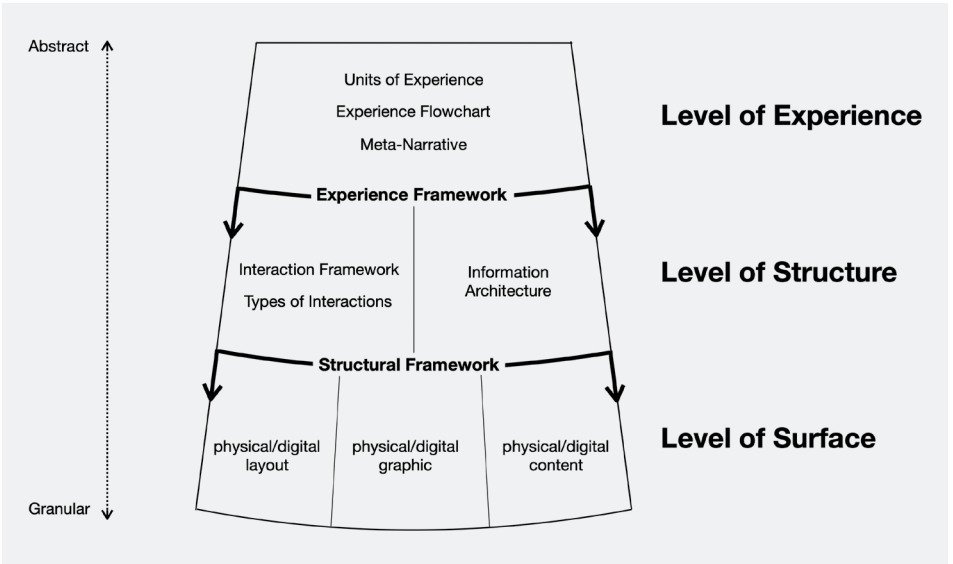


Figure 4. The *Three Levels Conceptual Framework*. Source: Marco Mason.

Visitor Experience Design is a human-centered design approach to design for a visitor experience that works across Experience, Interactions, and Visual levels of design as articulated in Mason’s (2020) framework (Fig. 4). For this article, I want to focus on the first level of Experience as it incorporates design practices and methods suitable to design the experiential structure underlying narrative environments. It is out of the scope of this paper to delve into more specific interaction design methods and techniques that work at the Level of Structure and Level of Surface.

2.4. Designing the Underlying Experience Framework: The Emerging Issues Commons as an Illustrative Example

I use the Emerging Issues Commons gallery at the Institute for Emerging Issues as an illustrative example to show how



Figure 5. The *Emerging Issues Commons* exhibition at the Institute for Emerging Issues. Courtesy: Second Story.

some experience design methods can be applied to the design of narrative, immersive environments.

The North Carolina State University’s Hunt Library secured funding to support a major redevelopment program. The project resulted in an iconic building (designed by Snøhetta architects) to foster innovation across disciplinary boundaries, as well as experimentation, creation, and research. In addition to a range of collections and services, the new library would house the Institute for Emerging Issues (IEI) to engage citizens willing to contribute to civic issues. Aiming to break down barriers to participation and grassroots collaboration, the IEI matched the Hunt Library’s mission and aimed to become North Carolina’s premier public policy hub. The result was Emerging Issues Commons (EIC), an immersive, interactive exhibition space within the library with a fully integrated website that focuses on public policy in North Carolina. The gallery is a highly interactive environment comprising digital interactives and physical graphical components through which visitors can explore statistical data-driven interactives, the personal stories of prominent North Carolina figures, and relevant social media (Fig. 5).

The exhibition was the result of more than two years of collaborative effort between the Institute, a digital design studio

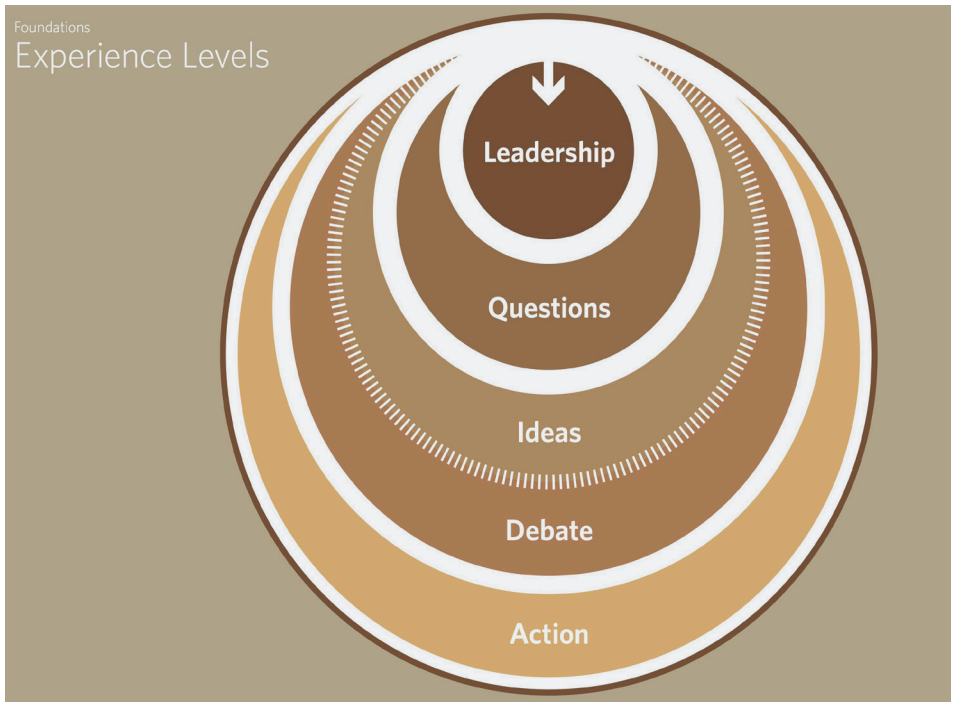


Figure 6. The *Units of Experience and Figure*. The *Emerging Issues Commons* Exhibition at the Institute for Emerging Issues. Source: Courtesy Second Story.

(Second Story digital studio), and a museum planning and design firm (Gallagher Associated). In particular, for this article, I want to focus on the three methods – *Unit of Experience Diagram* (Fig. 6), *Experience Flowchart* (Fig. 7), and *Meta-Narrative* (Fig. 8) – that were combined to define the Experience Framework (Fig. 4) underlying the whole experience structure of this narrative environment.

The *Units of Experience* were a diagram representing “the five levels of experience”: Leadership, Questions, Ideas, Debate, and Action (Fig. 6). Each unit of experience established a boundary around a specific type of experience that forms the different sections of the interactive gallery.

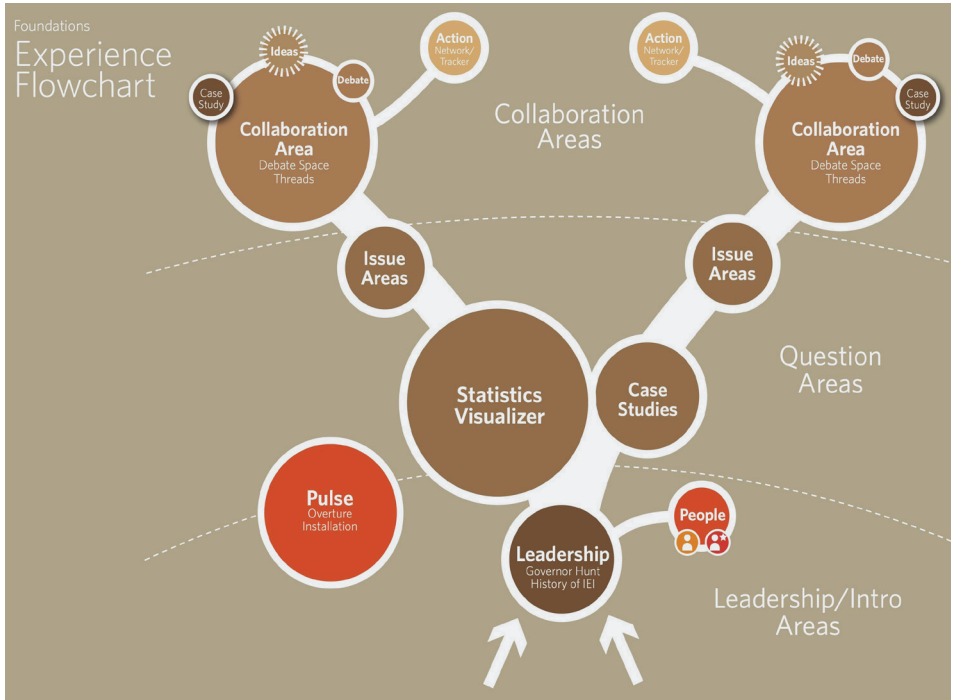


Figure 7. The *Experience Flowchart*. The *Emerging Issues Commons* Exhibition at the Institute for Emerging Issues. Source: Courtesy Second Story.

These experiences possess unitary boundaries as, borrowing the words from Dewey (1934), each “experience has a unity that gives it its name [e.g. *that* “Leadership” experience”, *that* “Questions” experience]. The existence of this unity is constituted by a single quality that pervades the entire experience despite the variation of its constituent [internal] parts” (Dewey, 1934, p. 38). These *Units* form the “what” of the Experience Flowchart by defining the different types of experiences that were combined within a logic, coherent structure, i.e. the Experience Flowchart. The *Experience Flowchart* (Fig. 7) can be seen as a sort of outline of the narrative or, in other words, as the structure of the units of experience.

It suggested three areas of activities (Introduction, Questions, Collaborations) as a further abstraction that grouped together the different “units.” The Experience Flowchart defined “how” different units of experience were logically related. Relationships amongst these areas were traced to determine the “flow” of the visitor experience. The Experience Flowchart can be seen as the definition of a “visitor experience walk-through” in the gallery space that suggests a general experience narrative. The “Introduction Area” experience explores the issues facing North Carolina and the personal stories of real North Carolinians. Then, in the “Question Area” experience, visitors move deeper into the gallery space, engaging with intermediate “questions” that address the history, values, demographics, and people that affect policy in the state. Finally, in the “Collaboration Areas” experience visitors are invited to debate and participate in the discussion around current issues faced by North Carolina.

But is the *Meta-Narrative* (Fig. 8) that actually gives foundation to the whole narrative. It is the third design method that consists of a metaphor that grounds the narrative into the culture and history of North Carolina. Drawing on North Carolina’s textile industry heritage, this metaphor provided something familiar and, therefore, recognizable and understandable (Carroll & Mack, 1985) for North Carolinians to hook their emerging understanding of the IEI. This metaphor triggered a connection with the socio-economic culture (and historical identity of North Carolina) as textiles help drive innovation in the state, just as the Gallery is helping drive a new era of innovation.

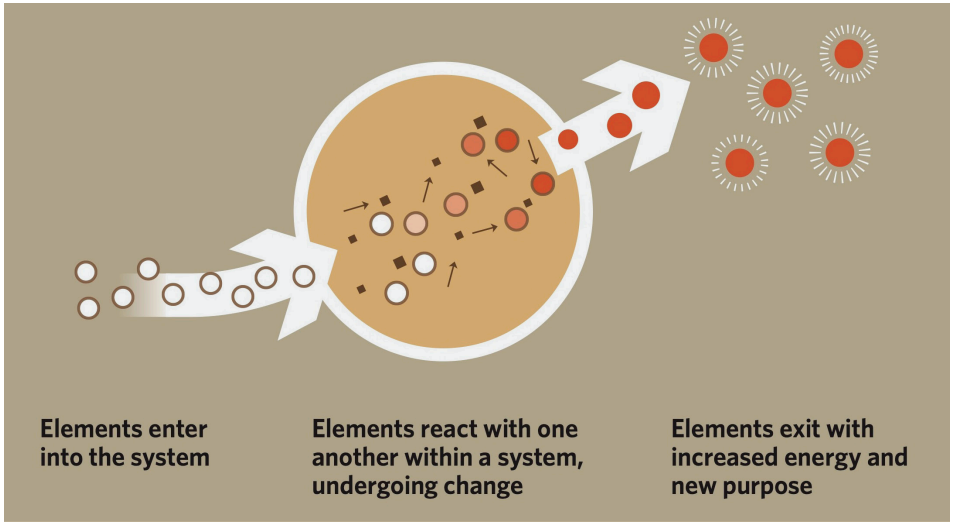


Figure 8. The *Meta-narrative Diagram*. The *Emerging Issues Commons* Exhibition at the Institute for Emerging Issues. Source: Courtesy Second Story.

For example, the “Leadership/Intro Area” that was defined in the Experience Flowchart corresponds to the metaphor “Elements enter into the system” and clearly refers to the current issues facing North Carolina and the stories of North Carolinians. The “Meta-Narrative” is the “why” of the narrative, it is the essential, fundamental story.

The three (experience design) methods were intertwined and combined – each focused on a particular aspect of the design – they were instrumental to the design of the whole narrative and offered the basis for the design of the digital interactions (Fig. 9), as well as (digital) graphic elements (for more details on the interactive and visual design for IEI, Vavoula & Mason, 2017; Mason, 2020).

What I have shared is just one of several possible examples of the application of design methods for designing for experience, which draws on storytelling.

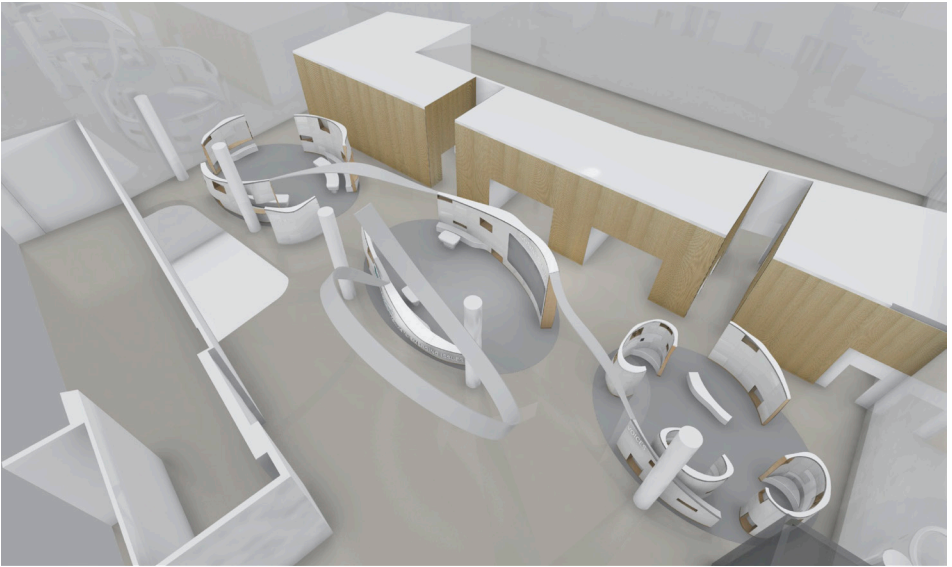


Figure 9. Second Story and Gallagher Associated, North Carolina State University, 2010. The 3D view of the interactive gallery.

Far from being a universal formula for designing all immersive species, the combination of these VX methods wants to show how the design of narrative environments does not start at all, from technology and its functional capabilities, but from framing the human (visitor) experience.

3. Conclusion Remark

The narrative element of an exhibition project introduces interesting potentiality for investigation, especially in seeking the relationship between theoretical implications and design practices – which considers the interplay of the “discursive” and “immersive” components toward the design of digital-enhanced visitor experiences. Working within this intersection allows (i) a better understanding of the mechanisms of the visitor’s experience when the visitors engage with the cultural

contents and, also, (ii) enhances visitors' proactive involvement within hybrid physical/digital landscapes. Digital experiences can achieve a more complete structural value thanks to the narrative contribution, opening up innovative scenarios within which developing the concept of the post-digital museum – which is a novel paradigm that normalized “digital” into the overall visitor experience.

Indeed, museum post digitality sets the theoretical paradigm in which the narrative elements can be operationalized into the “design of narrative [digital-enhanced] environments” (Austin, 2020). Visitor Experience Design (Mason, 2017; 2020) offers a valuable methodology to intertwine story(ies), visitors, digital and physical spaces, digital content, and objects on display. What emerges from our reflections and illustrative examples of immersive digital projects is that designing for these digital “spaces” is more than an exercise that simply combines physical and digital components but, rather, it offers the tools to conceive the immersive narrative environment (i.e. the immersive exhibition) as “a cohesive, integrated set of experiences” (Norman, 2010, p. 54) that holistically consider the interplay of different elements – story(ies), visitors' needs and expectations, digital and physical spaces, digital content, and objects on display.

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References

Alexenberg, M. L. (2011). *The Future of art in a postdigital age: from hellenistic to hebraic consciousness*. Intellect Books.

Arvanities, K. (2015, June 29). *From Museum Technology to the Museology of Technology. Museums and Museology in modern society. New challenges, new relationships (Part 11)*. Archaeology & Arts. <https://www.archaeology.wiki/blog/2015/06/29/museums-museology-modern-society-new-challenges-new-relationships-part-11/>

Austin, T. (2020). *Narrative environments and experience design: Space as a medium of communication*. Routledge.

Ascott, R. (1996). The Museum of the Third Kind. *InterCommunication*, (15). http://www.ntticc.or.jp/pub/ic_mag/ic015/ascott/ascott_e.html

Atelier Brückner (2011). *Scenography. Making spaces talk. Atelier Bruckner 2002-2010*. Avedition.

Atelier Brückner (2018). *Scénography 2. Staging the Space*. Birkäuser.

Bolter, J. D., Engberg, M., & MacIntyre, B. (2013). Media studies, mobile augmented reality, and interaction design. *Interactions*, 20(1), 36–45. <https://doi.org/10.1145/2405716.2405726>

Bannon, L., Benford, S., Bowers, J., & Heath, C. (2005). Hybrid design creates innovative museum experiences. *Communications of the ACM*, 48(3), 62–65. <https://doi.org/10.1145/1047671.1047706>

Borsotti, M. (2013). Form of collecting/Form of hearing. In L. Basso Peresut, F. Lanz, & G. Postiglione (Eds.), *European museum in the 21st century: setting the framework. Vol. 3* (pp. 765–769). Politecnico di Milano.

Borsotti, M. (2017). *Tutto si può narrare. Riflessioni critiche sul Progetto di allestimento*. Mimesis.

Broz, M. (2023, June 27). *Number of Photos (2023): Statistics and Trends*. Photutorial. <https://photutorial.com/photos-statistics>

Carroll, J. M., & Mack, R. L. (1985). Metaphor, computing systems, and active learning. *International Journal of Man-Machine Studies*, 22(1), 39–57. <https://doi.org/10.1006/ijhc.1984.0316>

Ciolfi, L. (2015). Embodiment and Place Experience in Heritage Technology Design. In S. MacDonald, H. Rees Leahy, & M. Henning (Eds.), *The International Handbook of Museum Studies* (pp. 419–446). Wiley-Blackwell. <https://doi.org/10.1002/9781118829059.wbihms319>

Debord, G. (2006). *La società dello spettacolo*. Baldini Castoldi Dalai.

Den Oudsten, F. (2012). *Space. Time. Narrative. The exhibition as post-spectacular stage*. Routledge.

Dewey, J. (1934). *Art as Experience*. Penguin.

Groys, B. (2018). *In the flow*. Postmedia.

Han, B.-C. (2015). *Nello sciame. Visioni del digitale*. Nottetempo.

Impossible Things (n.d.). *Project*. <https://www.impossiblethings.co/project/reblink>

Hanington, B., & Martin, B. (2019). *Universal methods of design expanded and revised: 125 Ways to research complex problems, develop innovative ideas, and design effective solutions*. Rockport publishers.

Hornecker, E., & Ciolfi, L. (2019). Human-computer interactions in museums. Springer. <https://doi.org/10.2200/S00901ED1V01Y201902HCI042>

Iotti, L. (2020). *8 secondi. Viaggio nell'era della distrazione*. Il Saggiatore.

Kalay, Y.E. (2008). Preserving Cultural Heritage through Digital Media. In Y.E. Kalay, T. Kvan, & J. Affleck, *New Heritage: New Media and Cultural Heritage* (pp. 1–10). New Routledge.

Kelly, L. (2016, February 16). The (post) digital visitor: What has (almost) twenty years of museum audience research revealed? *MW2016: Museums and the Web 2016*. <https://mw2016.museumsandtheweb.com/paper/the-post-digital-visitor-what-has-almost-20-years-of-museum-audience-research-revealed/>

Kossmann, H., Mulder, S., & Den Oudsten, F. (2012). *Narrative spaces. On the Art of Exhibiting*. 010Publisher.

Laurberg, M., & Schavemaker, M. (2016). Between the Discursive and the Immersive – Editorial. *Stedelijk Studies Journal*, 4, 1–7. <https://doi.org/10.54533/stedstud.vol004.art01>

Lupton, E. (2017). *Design is Storytelling*. Cooper Hewitt, Smithsonian Design Museum.

- Mason, M. (2009). Digital Technology and Information Design in The Museum: Research Guidelines and Consideration. *International Journal of the Inclusive Museum*, 2(1), 135-142. <https://doi.org/10.18848/1835-2014/CGP/v02i01/44555>
- Mason, M. (2017). Visitor Experience Design. In A. Hossaini, *The Manual of Digital Museum Planning* (pp. 245-268). Rowman & Littlefield.
- Mason, M. (2020). The elements of visitor experience in post-digital museum design. *Participatory Design: Principles and Practices*, 14(1), 1-14. <https://doi.org/10.18848/1833-1874/CGP/v14i01/1-14>
- Mason, M., & Vavoula, G. (2021). Digital Cultural Heritage Design Practice: A Conceptual Framework. *The Design Journal*, 24(3), 405-424. <https://doi.org/10.1080/14606925.2021.1889738>
- Migliore, I. (2019). *Time to exhibit. Directing spatial design and new narrative pathways*. FrancoAngeli.
- Norman, D. A. (2010). *Living with complexity*. MIT Press.
- Parry, R. (2013). The end of the beginning: Normativity in the postdigital museum. *Museum Worlds*, 1(1), 24-39. <https://doi.org/10.3167/armw.2013.010103>
- Pierroux, P. (2019). Learning and engagement in museum mediascapes. In K. Drotner, V. Dziekan, R. Parry, & K. Schröder (Eds.), *The Routledge Handbook of Museums, Media and Communication* (pp. 128-142). Routledge.
- Scott, N., Gao, J., & Ma, J. (Eds.). (2017). *Visitor experience design* (Vol. 5). CABI.
- Tate Gallery. (n.d.), *A guide to slow looking. Be amazed by the discoveries you can make when you look for longer at art*. <https://www.tate.org.uk/art/guide-slow-looking>
- Thomson, T.J., Angus, D., & Dootson, P. (2020). *3.2 billion images and 720,000 hours of video are shared online daily. Can you sort real from fake?* The Conversation. <https://theconversation.com/3-2-billion-images-and-720-000-hours-of-video-are-shared-online-daily-can-you-sort-real-from-fake-148630>
- Vavoula, G., & Mason, M. (2017). Digital exhibition design: boundary crossing, Intermediary Design Deliverables and processes of consent. *Museum Management and Curatorship*, 32(3), 251-271. <https://doi.org/10.1080/09647775.2017.1282323>

Wigley, M. (2016). Discursive versus Immersive: The Museum is the Massage. *Stedelijk Studies Journal*, 4, 1-11. <https://stedelijkstudies.com/journal/discursive-versus-immersive-museum-massage/>

Zancanaro, M., Not, E., Petrelli, D., Marshall, M., van Dijk, T., Risseeuw, M., ... & Kubitza, T. (2015). *Recipes for tangible and embodied visit experiences*. MW2015: Museums and the Web 2015. <https://mw2015.museumsandtheweb.com/paper/recipes-for-tangible-and-embodied-visit-experiences/>

IV

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 luav 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 *Digital Memories*.

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 Ciuffo

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.ciuffo@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 Istituto 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 di 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 luav 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 art design.

elisa6.rossi@mail.polimi.it

Paolo Tamborini

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.tamborini@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



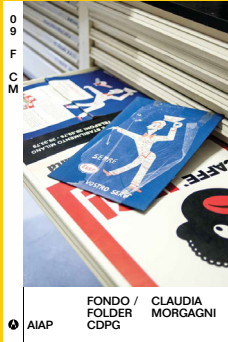
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Aiap
via A. Ponchielli, 3, Milano
aiap.it — aiap.it/cdpg
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