

Prague - Heritages

Past and Present - Built and Social

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Past and Present - Built and Social

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INTRODUCTION

Prague – Heritages Past and Present - Built and Social

2023 marks the twentieth anniversary of the UNESCO Convention on Cultural Heritage. It established culture as a concept to be safeguarded. That event came three decades after the World Heritage Convention. Through that, UNESCO had set up its World Heritage List of protected sites and buildings. The intervening years have seen multiple shifts in how we define heritage – as both material objects and social traditions. Today more than ever before, the distinction is blurred. The streets on which we live, and the monuments we protect are all connected to the traditions and social groupings we celebrate and preserve – whether physically, socially or, increasingly, digitally.

What we mean by heritage today then, is an open and diverse question. Our buildings and environments, our cities and neighborhoods, our memorials and our artworks, our cultures and communities are all component parts of what we understand as ‘preservable’ history. The dynamics at play are, however, complex. Conserving architectural heritage can conflict with development models. Community traditions are threatened by globalization. Monuments are often focal points for cultural contestation. Archaeological sites are valued in themselves and simultaneously erased by both the forces of conflict and ‘progress’. Digital models and modes of experience both attract a new audience and can alienate an older one.

However, the past and the present also overlap and mutually support. Placemaking sees built and cultural heritage as key to urban practice. Contextualization is central to planning laws. Museums are sites for communities and display. Digital modelling can be the only way to fully experience an ancient object or archeological site. Galleries present historical art while debating meanings in contemporary terms. Reflecting this scenario, the papers collected in this publication represent diverse perspectives of the complex and shifting concept of heritage.

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DIGITAL MEMORIALS: COMMUNICATION DESIGN AND COMMEMORATION ARTEFACTS FOR HYBRID SPACES

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FORMS OF EXTERNALIZATION OF MEMORY

Placing permanent signs to remember is a universal practice that has existed, across cultures, since the dawn of mankind. The most classical form of externalization of memory is the monument with the function of conveying a memory in the form of a sculptural or architectural object. It is a sign erected to commemorate the most illustrious personalities and venerable events on behalf of a community or a social group; it is a human manifestation placed in space, typically grand in scale, static, and aphasic, crafted from valuable and durable materials. Often taking figurative forms, these vertical structures ascend from their pedestals, invoking attention and reverence.

At the end of World War II, monuments gradually transitioned from symbols of grandeur to structures that seemed imposing, influenced by their large scale, choice of materials, positioning, and often complex symbolism. As societal perspectives evolved, the term ‘memorial’ gained prominence over ‘monument’, referring to more complex and practicable spatialities, highlighting a gradual shift towards more intimate, evocative places of remembrance that allow for a more contemplative and experiential remembrance. The physical place re-acquired mnemonic value, becoming itself the bearer of a message, through its very existence, allowing the visitor to autonomously re-actualize the events.¹

In memorials, then, the purely contemplative act typical of monumental presence gives way to participation. The visitor can pass through these realities and experience mnemonic involvement. They are places with amplified meaning and strong suggestive power that help the community to experience memories and preserve the past. The evolution of the forms of memorialization sees the parallel proliferation of so-called ‘memorial museums’, environmental tools for interpreting memories. Sites where memory becomes a matter of preservation through the emotional visitor involvement in an articulated experience. They form a recent focus of inquiry in museography, and the most comprehensive treatment is found in Paul Williams’ *Memorial Museum*. The author defines them as «a specific kind of museums dedicated to a historic event commemorating mass suffering of a kind»,² where individual objects, photographs, and witnesses are organized within experiential spaces and communicative apparatuses that trace the course of events, assuming a didactic and narrative role. In the context of communication, memorials transcend mere physical structures and convey narratives, emotions, and values that bridge temporal and cultural gaps. Memorials play a significant role, both because of their symbolic and commemorative functions and because of their close relationship with the territory in which they are placed. Among the forms of externalization of memory, they excel in forging an empathetic bond with visitors, evoking genuine emotional experiences of space that solidify individual memories.

DIGITAL MEMORIALS FOR HYBRID SPACES

Over time, with the diffusion of digital media in everyday life, a new dimension of memorialization has emerged, giving rise to digital memorials that harness multimedia tools to create immersive and interactive experiences and commemorate individuals, events, and legacies.

These virtual commemorative environments can take various forms, depending on the purpose and intent, ranging from dedicated websites and social media pages to interactive multimedia installations and virtual reality experiences. In contrast to traditional physical forms of memorialization, digital memorials harness the power of technology to create lasting tributes that transcend geographical boundaries and temporal constraints: they offer a dynamic platform for storytelling, allowing for the inclusion of text, images, videos, audio recordings, and interactive elements that lead to the design of a radically new form of memorialization, with both distinct advantages and challenges when compared to their physical counterparts. One of the most significant advantages of digital memorials is their accessibility. Unlike territorial memorials, which may be limited by their location or restricted visiting hours, digital memorials can be accessed anytime and anywhere with an internet connection.

For example, the digital memorial *Katyń Pro Memoria*³ was born as not many people manage to travel to the place where the victims of the Katyn Massacre are buried. The three-stage narrative enables users to feel the atmosphere of the place, immerse themselves in the symbolic Katyn forest and take a walk to rediscover the events and places known from the tragic pages of Polish history.

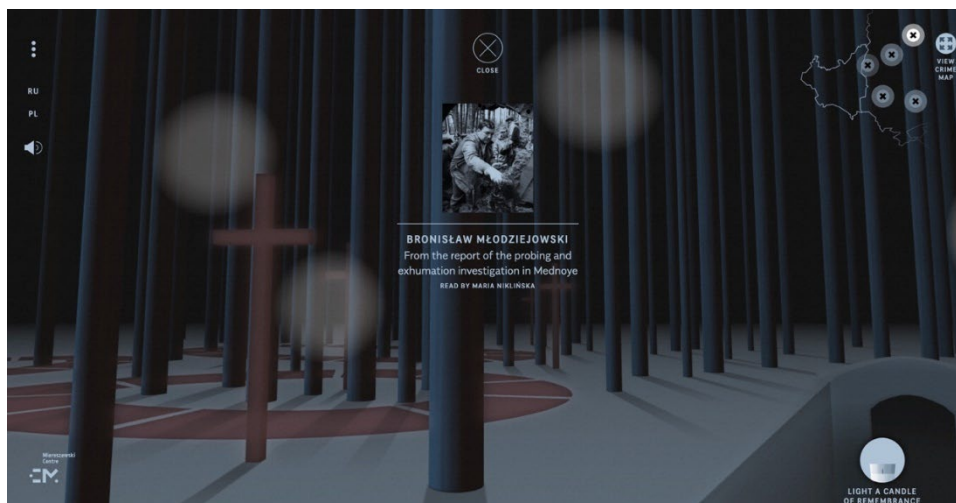


Figure 1. Digital forest, *Katyń Pro Memoria*, Maciej Wyrwa, 2021.

Moreover, digital memorials have the potential to evolve and adapt over time. Updates and additions can be made easily, ensuring that the memorial remains relevant and reflective of the evolving legacy it seeks to preserve.

*Memory Loops*⁴ is largely based on transcriptions of historical and current original sounds by Nazi victims and contemporary witnesses. From this, the artist Michaela Melián developed collages of voices and sounds that are linked to the topography of National Socialism in Munich. The map currently hosts 300 audio tracks in German and 175 in English, but the site is constantly evolving and expanding.

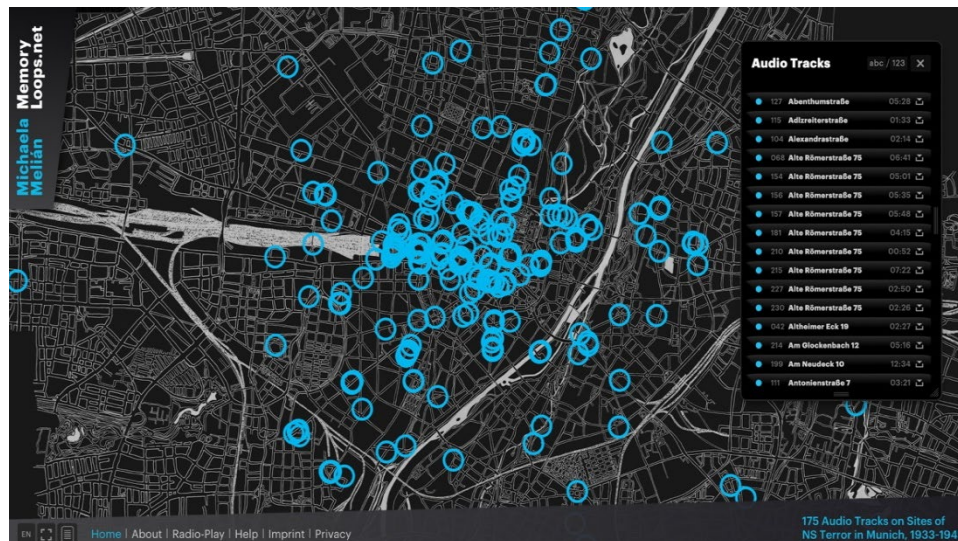


Figure 2. Memory Loops map, Michaela Melián, 2012.

Interactivity is another hallmark of digital memorials. Visitors can often leave comments, share their own stories, and engage in discussions, fostering a sense of community and collective remembrance. Online platforms also enable individuals to contribute to the memorial by adding their own content, further enriching the memorial with diverse perspectives and memories.

The digital memorial called *Illuminate the Past*⁵ aims to increase awareness of the Holocaust, honoring the victims with a digital candle-lighting ritual. In addition, by registering on the site, users can place their candle on the map, indicating the place of origin, and their name and writing a short thought for commemoration.

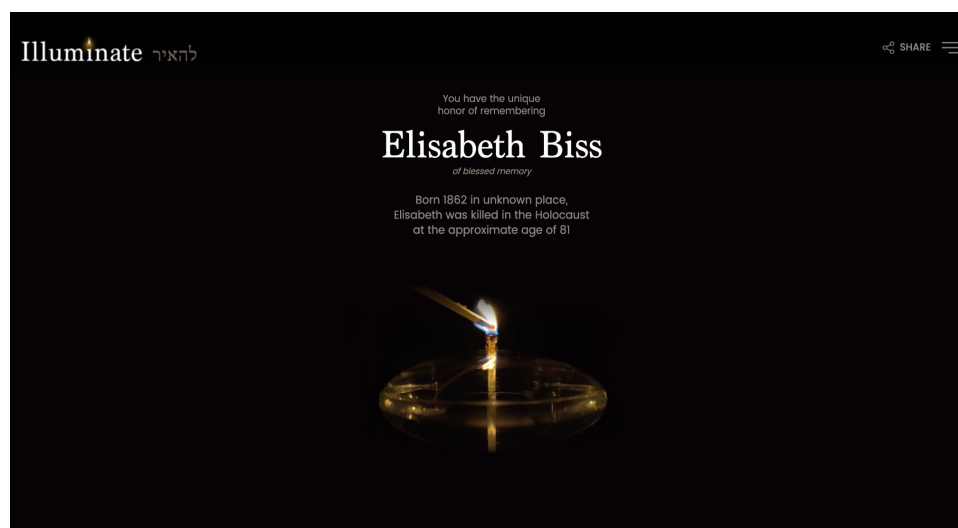


Figure 3. *Illuminate the Past* candle, Stephen Grynberg 2015.

Indeed, digital memorials seem very effective in the case of hybrid spaces, encompassing physical locations and digital elements. Integrated experiences where the boundaries between the physical and digital realms are blurred, resulting in a dynamic and interactive space where users can engage with both tangible and intangible components. Digital hybrid environments allow for the integration of multiple sensations, moving toward a synesthetic approach.

However, this “digital transition” of memorials is not without challenges. Beside the questions about the longevity of the digital medium and the potential for data loss or technological obsolescence, perhaps the most intricate challenge resides in the endeavor to faithfully replicate the multifaceted experience of a physical visit to a memorial within the digital landscape. While digital memorials can harness multimedia tools to convey historical narratives with depth and breadth, they struggle in recreating the intangible qualities that set physical memorials apart: the sheer grandiosity of some spaces, the physical connection to the space and the materials, the atmospheric solemnity that permeates the surroundings, the shared silence among visitors paying their respects. These visceral and emotional elements remain challenging to transfer to digital realms, yet they are fundamental nuances that weave a tapestry of presence and memory. The main challenge, in other words, lies in bridging the experiential gap: striving to evoke in the digital domain the depth of connection and reflection that a tangible, in-person experience inherently fosters.

A CASE STUDY: ASSOCIAZIONE VITTIME DEL DOVERE

In this paper, we will share our experience with a design workshop held at Politecnico di Milano, resulting from the collaboration established between the DCxT⁶ (Communication Design for the Territory) Research group of the Design Department of Politecnico di Milano and the Voluntary Association *Vittime del Dovero*⁷ (Duty Victims), raised by the initiative of widows, orphans, disabled individuals, and parents of members belonging to Law Enforcement Agencies, Armed Forces, and the Judiciary, who fell or became disabled while combating common crime, organized crime, and terrorism. Formed in 2007, the nonprofit organization pursues social solidarity commitments and has about 500 member families. The Association sought academic expertise to create a digital memorial from the data and biographies collected over the years, including the testimonies of the victims’ relatives. A primary objective underlying this initiative pertained to the localization of the narratives of Italian Duty Victims, thereby highlighting their profound connection with the territory. The information was collected in a shared database with pertinent categories including departmental affiliations, date and location of birth and death.

VITTIMA	CORPO	NATO A	IL	COMUNE DECESSO	LUOGO DECESSO	IL	latitudine	longitudine	name	desc	desc
DE GIORGIO VINCENZO	VIGILI DEL FUOCO			VARESE			18/8/1973	45,81762731	8,82638368	VARESE, Ital	Varese, Lomb. Bin
MELE VINCENZO	POLIZIA DI STATO	BRINDISI	2/8/1923		AI		26/3/1961				
SANTINI REMO	GUARDIA DI FINANZA			SONDRIO			3/4/1961	46,17127998	9,86937248	SONDRIO, Ita	Sondrio, Lomb. Bin
ALESSANDRINI DOTT. EMILIO	MAGISTRATO	PERNÈ	38/8/1942	MILANO	mentre si recava al Palazzo di G.29/1/1979		45,46361928	9,18811618	MILANO, Ital	Milano, Lomb. Bin	
RECUPERO FRANCESCO	POLIZIA DI STATO	CATANIA	3/1/1921	VERONA			26/3/1961	45,43835458	10,99171268	VERONA, Ital	Verona, Ven. Bin
MOI LUIGI	GUARDIA DI FINANZA	SINNAI	5/7/1943	GERZENO (CO)	ponte di Catasco, Gerzeno (CO)		23/2/1963	46,13438888	9,24813758	GERZENO, Ita	Gerzeno, Lomb. Bin
NICOLINI ALDO	POLIZIA DI STATO	MODENA	5/3/2828	Ardenno e Talanona (SO)	Ponte dell'Adda		7/7/1961				
ELEFANTE GIOVANNI	ARMA DEI CARABINIERI			AVELLINO	Chiusano San Domenico (AV)		17/10/1964	40,91474918	14,79222270	AVELLINO, It	Avellino, Cam. Bin
SGURA VINCENZO	POLIZIA DI STATO	BRINDISI	2/6/1937	Calcinato (BS)	autostrada Brescia-Verona al Km		12/1/1962	45,45812988	10,41478048	Calcinato, I	Calcinato, Lo. Bin
FILIBERTO FRANCESCO	POLIZIA DI STATO	SIRACUSA	03/10/39	Bergamo			18/9/1962	45,69489298	9,66959888	Bergamo, Ita	Bergamo, Lomb. Bin
MAZZOTTA COSIRO	GUARDIA DI FINANZA			Besano (VA)			9/6/1963	45,88966758	8,89812728	Besano, Ital	Besano, Lomb. Bin
GUIDETTI DOMENICO	ARMA DEI CARABINIERI						23/5/1969	45,61889328	9,23857128	LISSONE, Ital	Lissone, Lomb. Bin
AROSIO GINO	VIGILI DEL FUOCO			LISSONE (MB)			23/1/1977	45,61889328	9,23857128	LISSONE, Ital	Lissone, Lomb. Bin
ASTI FRANCESCO	AERONAUTICA MILITARE				MAR TIRRENO		18/8/1984				
RAUSO FRANCESCO	POLIZIA DI STATO	CASERTA	8/5/1936	COLOGNO (LO)			28/12/1962	45,16281518	9,78929678	COLOGNO, Ita	Codogno, Lomb. Bin
SULLO VINCENZO	POLIZIA DI STATO	NAPOLI	16/11/1919	TREVIGLIO (BG)			22/6/1963	45,52143488	9,58967888	TREVIGLIO, I	Treviglio, Lo. Bin
CATALANO MARCELLO	POLIZIA DI STATO	LECCE	30/5/1935	TREVIGLIO (BG)			28/6/1963	45,52143488	9,58967888	TREVIGLIO, I	Treviglio, Lo. Bin
BENEDETTI DIEGO	ESERCITO ITALIANO			Malles Venosta (BZ)			27/1/1985	46,68892678	10,54766658	Malles Venost	Malles Venost Bin
RIVIELLO LIBERATO	GUARDIA DI FINANZA			Besano (VA)			9/6/1963	45,88966758	8,89812728	Besano, Ital	Besano, Lomb. Bin
SANTAMBREA PRIMO	POLIZIA DI STATO	ROMA	17/5/1915	CREMONA			21/10/1963	45,13349918	10,82613548	CREMONA, Ita	Cremona, Lomb. Bin
CREMASCHI LUIGI FRANCESCO	VIGILI DEL FUOCO						11/11/1977				

Figure 4. Vittime del Dovero dataset, 2022.

After careful analysis, the diversity within the data set became evident. Only a small number of victims had comprehensive data, while for most of the victims had some kind of information missing.

Despite the shortcomings, however, the heterogeneity immediately seemed to be a fertile ground for the design of a digital memorial that does not operate at the limits of spatiality, but rather has a more flexible and dynamic environment that can manage significant amounts of even very diverse data.

The workshop (“Digital Memorials”) was held in June 2022 for five consecutive days as part of the Bachelor of Science in Communication Design at Politecnico di Milano. Students were asked to design a memorial on a digital platform that uses geolocation and digital mapping features for the transmission of memories of the *Vittime del Dovere*. In order to support the design activity, on the first day the students were provided with a project assignment: “Designing a memorial on a digital platform using geolocation and digital mapping features for the transmission of the memory of the *Vittime del Dovere*”, which summarizes the main topics of the workshop:

- Digital memorial: designing a form of externalization of the memory with a symbolic and narrative role that creates a space for remembrance and reflection, without underestimating the involvement of the visitor and the emotional impact.
- Digital platform: creating of a digital environment for remembrance, a web-responsive interface that can transcend geographical boundaries to provide an accessible virtual place of remembrance.
- Digital cartography: using geolocation and digital mapping tools to highlight the close relationship between memory and places and to visualize victims' stories on real and recognizable territories.
- Ethics and Sensitivity: valorizing the data provided by the Association *Vittime del Dovere*, including each story in the memorial without inconsistent treatment of biographical stories, and respecting the sensitive theme of the memorial.

In addition, brief lectures were held in preparation for the project, particularly an analysis of the evolution of the main forms of externalization of memory (e.g., monuments, memorials, stelae) and related traditional communication models; an overview of digital cartography methods and languages; and a brief presentation of the main contemporary tools that allow for their implementation.

Outcomes

The 50 students were divided into 9 working groups, each one freely chose the design approach and developed a specific concept to be narrated through the digital memorial. Upon an analysis of the outcomes, three main research perspectives emerge:

- Figurative memorials: focused on the use of symbols to evoke memories, they translate traditional forms of memorialization into digital formats;
- Documentative memorials: focused mainly on data and documents, they allow for browsing, research, and consultative functions;
- Emotional memorials: focused on the emotional involvement of the user, they aim at the creation of an intimate connection.

Each approach offers a distinct way to engage visitors, evoke emotions, and ensure that the memory and significance of what is being commemorated endure in the digital realm. The choice of approach depends on the nature of the commemoration and the intended impact on the audience.

Below is a selection of the outcomes to enhance the different points of view related to the design of digital memorials.

Un minuto (One minute)⁸

The genesis of this project has its roots in a mosaic of different traditions that honor the deceased and are inseparable from the idea of time. All over the world, there is a solemn minute of silence, a collective pause to remember those who have tragically died.

Upon entering the digital space, visitors are greeted with an introduction and asked to dedicate one minute to remember a fallen victim. This act, a digital embodiment of a timeless tradition, is not only a sign of remembrance but also serves to understand the stories behind each name. Subsequently, users can view the total of all minutes ‘donated’ and then have free access to the stories of the victims, geolocated on a map that can be explored at different scales. To return to the theme of time stylistically, a central element of the project is the grain: it evokes the representation of time in hourglasses, but it can also become a marker on the map.

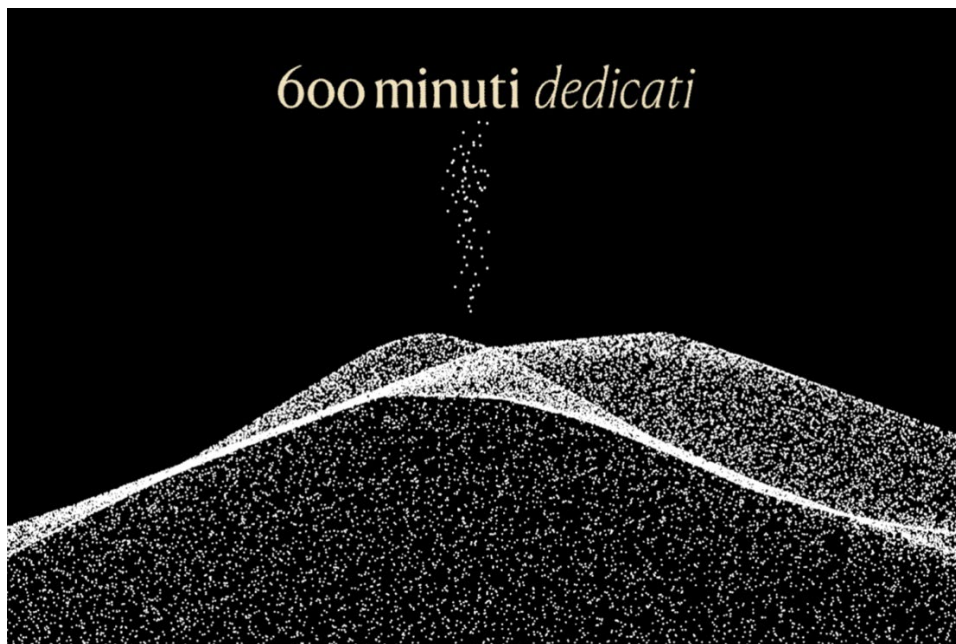


Figure 5. One minute, total of the dedicated minutes, 2022.

Re-cordis⁹

Inspired by one of the main functions of the memorial, that of remembrance, the digital environment is titled *Re-cordis*, literally meaning “to remember”, “to go back through the heart”. The aim is to focus attention on the lack of information about the circumstances in which the *Vittime del Dovere* lost their lives, ensuring the memory of all fallen individuals remains alive, without distinction or hierarchies, as no story is more important than another. Each victim is symbolized by an abstract point of equal size, floating into the virtual white space. However, the sharpness of the points varies, mirroring the extent of the information available about the victims’ lives. The points can be filtered and arranged in different modes, offering multiple perspectives for exploration.

Users can choose to view them randomly, by affiliation, geographical location, chronological order, or even alphabetically. Each approach opens a new pathway, unveiling diverse and interconnected stories. Clicking on the selected point, the users gain insight into their life, service, and the circumstances that surrounded their ultimate days. The narratives may vary in completeness, but the essence of each story fosters a sense of connection with the past and the present.

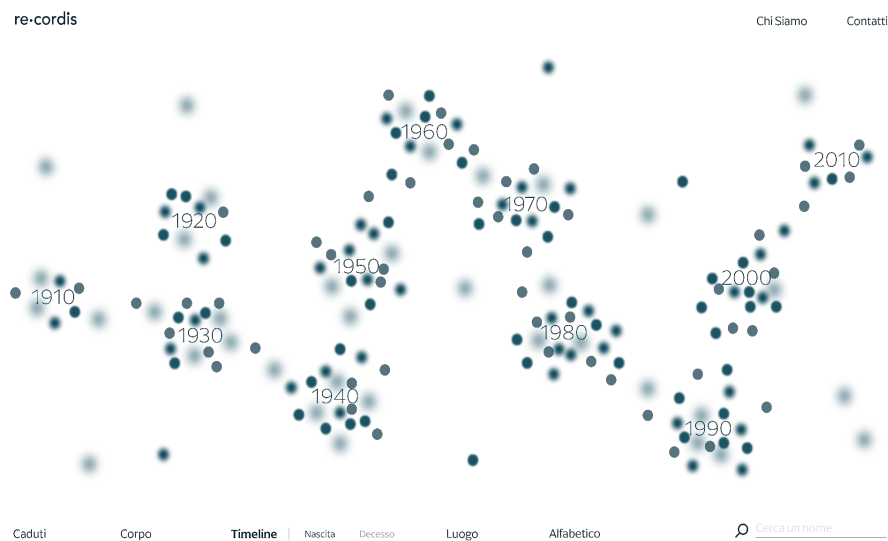


Figure 6. Re-cordis project, points filtered by date, 2022.

Unearth¹⁰

Unearth is an interactive website echoing a star chart. It serves as a digital memorial, honoring the memories of the *Vittime del Dovere* and shedding light on the territories they served. The platform's concept revolves around the interaction with the users: each interaction illuminates the map more and more, gradually revealing the landscapes of remembrance. Every victim is associated with a unique symbol representing their respective service or affiliation. This graphic representation not only adds a touch of visual storytelling but also enables users to filter and navigate through the digital memorial.

The fragility of memory is evoked on the date of November 12th each year, the Italian day of the Day of Military and Civilian Fallen in Missions Abroad, as a gust of wind symbolically extinguishes the lights, momentarily blanketing the digital memorial in darkness. This act serves as a powerful reminder of the fleeting nature of remembrance and the importance of preserving the memory of the victims. At the same time, *Unearth* maintains a dedicated section called 'Preserved Memories', ensuring that the historical versions of the illuminated map from previous years are archived and always accessible.



Figure 7. *Unearth* project, illuminated symbols on the map 2022.

Voices of memory¹¹

The *Voices of Memory* digital memorial invites users to explore the importance of sharing stories and remembrance through a sound experiential journey. Guided by evocative voices, this digital path leads users to discover the narratives of the *Vittime del Dovere* and ensure that their stories remain indelible. Upon entering the portal, visitors are involved in a storytelling audio experience that seamlessly transitions into an interactive map with dynamic markers indicating the locations of the victims' narratives. Names ring out in the background like a chorus, and by clicking on the names, visitors can hear each victim's story told by a narrator's voice. Users are then prompted to record a short audio message stating the name, which is transformed into a visual symbol.

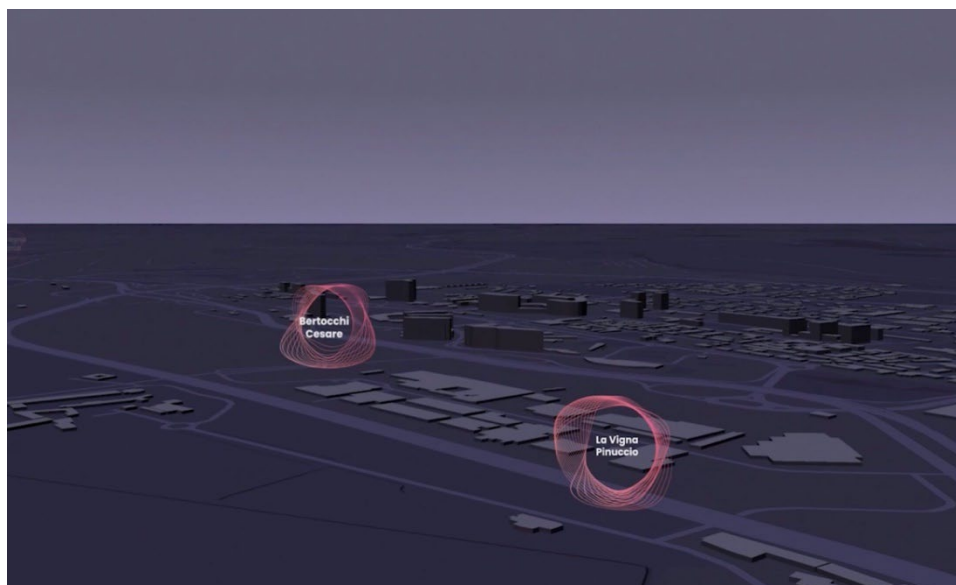


Figure 8. *Voice of memory* project, marker on the map indicating audio stories, 2022.

Polaris¹²

The name is inspired by the guiding concept of the polar star, which has long been utilized by explorers as a navigational reference in the night sky. Similarly, this project uses light to guide the users into the digital memorial and to commemorate the *Vittime del Dovere*.

The core concept revolves around the creation of an immersive experience, utilizing a dark, celestial-like map as the canvas for this digital memorial. The map geolocalizes key locations, including the birthplace, place of death, or other meaningful places to the fallen. Each place is characterized by shining beacons, each representing a fallen victim, and echoing the *stelae*, a classical figurative form of externalization of memory. These beacons will differ in appearance and color (white or yellow), depending on whether it's the anniversary of their birth or their death. Additionally, the digital memorial will include in-depth storytelling, delving into the personal history of each victim. These stories will provide insight into their upbringing, achievements, and legacy, humanizing them and allowing visitors to connect with their experiences.

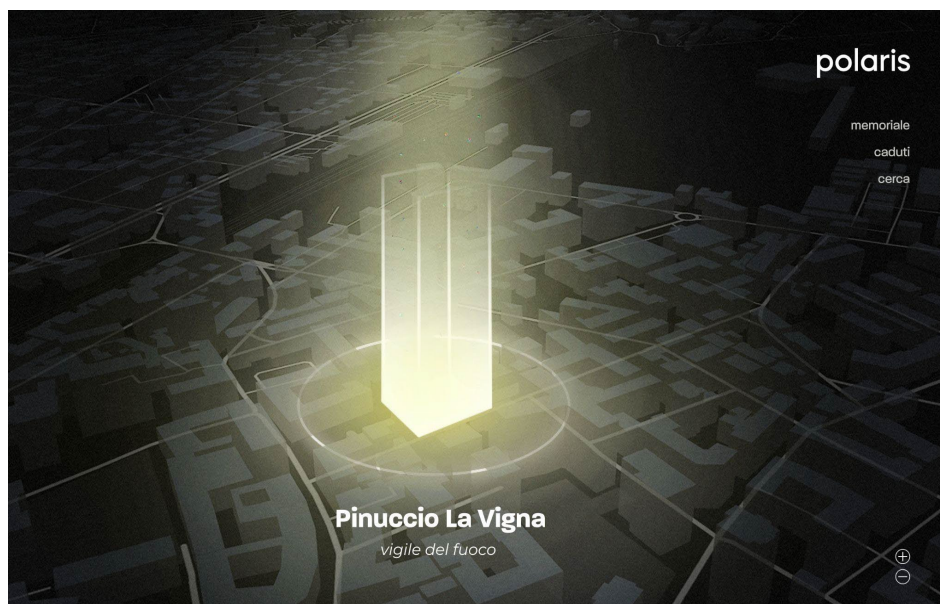


Figure 9. Polaris, shining beacon on the digital map, 2022.

CONCLUSIONS

Since the evolution of technology has ushered in a new era of commemoration, virtual spaces are starting to experiment with ways in which to offer a dynamic canvas where stories, emotions, and data are woven together, ensuring that the past is not lost to the currents of time.

The workshop and the different approaches adopted highlight the significant potentials, still unexplored, that design affords us in paying homage to individuals and events.

Communication Design appears as a privileged mediator of the territorial past, able to convey it through innovative digital solutions for the traditional field of commemoration. Digital memorials transcend geographical boundaries, allowing people from diverse backgrounds to come together in a shared and accessible space of remembrance. The interactive nature of these platforms bridges the gap between generations and fosters emotional involvement. Whether through immersive storytelling, virtual archives, interactive maps, or emotional experiences, the potential to engage, educate, and foster a sense of connection appears in constant evolution. On the other side, the digital realm also brings forth ethical considerations. The delicate balance between commemoration, sensitivity, and

technological advancement must be carefully navigated. Ensuring accessibility, respecting diverse perspectives, and preserving the authenticity of the stories being told remains paramount.

These platforms are not mere repositories of the past: they are living testimonies to enduring individual stories. Moreover, the workshop outcomes also reveal how difficult it is for designers to distance themselves from traditional communicative and symbolic manifestations of physical memorials (e.g., light/darkness, candles, stars/sky), and how complex it is to design a digital memorial by thinking of an innovative solution without stereotypical references. As for the Association, the feedback was very positive. They appreciated the valued link with the territory, to creative variety of proposed solutions, and the sensitivity shown by students in dealing with information and stories regarding the *Vittime del Dovero*.

The project that kicked off with the workshop is still ongoing, continuously evolving and adapting to the evolution of the dataset. The journey to design a dynamic and inclusive digital memorial, one that transcends spatial limitations and embraces the heterogeneity of data, is a path that continues to unfold with promising horizons ahead.

NOTES

- ¹ Michela Bassanelli, *Oltre il memoriale. Le tracce, lo spazio il ricordo*. (Milano: Mimesis, 2015), 58.
- ² Paul Williams, *Memorial Museums: The Global Rush to Commemorate Atrocities*. (Oxford, UK: Berg, 2007), 6.
- ³ “Katyń Pro Memoria”, accessed July 31, 2023, <https://katynpromemoria.pl/?lang=en>
- ⁴ “Memory Loops”, accessed June 25, 2023, <https://www.memoryloops.net/#/>
- ⁵ “Illuminate the Past”, accessed June 25, 2023, <https://www.illuminatethepast.org/>
- ⁶ “DCxT”, Communication Design for the Territory research group, Politecnico di Milano, Design Department, accessed August 2, 2023, <http://www.comunicazione del territorio.it>
- ⁷ “Associazione Vittime del Dovere”, accessed August 2, 2023, <https://www.vittimedeldovere.it/associazione.php>
- ⁸ “Un minuto” students: Michela Chignoli, Brian Cobanaj, Irene La Ferla, Francesca Mattiacci, Vanessa Medda.
- ⁹ “Re-cordis” students: Noemi Barzagli, Lorenzo Giavoni, Sofia Mariani, Mirko Rizzo, Gloria Salazar Chiesa.
- ¹⁰ “Unearth” students: Maira Allievi, Lisa Bagolin, Giovanna Bisconti, Sofia Corbetta, Clarissa Villa.
- ¹¹ “Voices of memory” students: Cecilia Balzani, Viola Gatti, Elisabetta Gentili, Luca Lombardi, Tommaso Ripani.
- ¹² “Polaris” project students: Carmen Bagnato, Rui Chen, Kevinn Genovese, Tian Junyao.

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