

# What the Body Remembers: VR as Site of Preservation in *Memory Eternal* | Вічна Пам'ять

Jolene Armstrong

ATHABASCA UNIVERSITY  
ORCID: 0009-0009-0352-7506

Monique Tschofen

TORONTO METROPOLITAN UNIVERSITY  
ORCID: 0000-0001-9594-8424

Izabella Pruska-Oldenhof

TORONTO METROPOLITAN UNIVERSITY  
ORCID: 0009-0007-8097-7493

Kari Maaren

TORONTO METROPOLITAN UNIVERSITY  
ORCID: 0009-0001-4238-1847

Angela Joosse

CANADIAN RESEARCH KNOWLEDGE NETWORK (CRKN)  
ORCID: 0000-0003-3198-4324

## ABSTRACT

Our paper discusses a VR piece designed for Quest 2, *Memory Eternal: Book of Mourning*, that was exhibited in the ELO Media Arts Festival in 2023. Our work, named after the Ukrainian Orthodox prayer for the dead, immerses viewers in a space of remembrance. The piece reflects on grief at two scales — personal and collective — touching on topics like war, pandemics, and family. The paper and the work submitted for exhibition are aligned with the ELO 2023 themes of the role of literature in social change asking, in the wake of overlapping global crises, what do we want to remember and how? We make a tour to the project with its dream-like landscape of medieval ruins populated with ten distinct electronic literature pieces that meditate on mourning, grief, and awakening to new futures. We will discuss the collaborative methods we use to create this work that are grounded in care ethics and explain how they become part of the broader meaning of the work. We then draw from memory studies to elaborate on how the form and themes of *Memory Eternal* serve as a response to crisis, a salvo for loss, and a promise to keep memory alive.

## KEYWORDS

memory, war, pandemics, collaboration, care ethics

## RESUMO

O nosso artigo discute uma peça de realidade virtual projetada para a Quest 2, *Memory Eternal: Book of Mourning*, que esteve em exibição no ELO Media Arts Festival. O nosso trabalho, batizado com o nome da oração ortodoxa ucraniana

pelos mortos, mergulha os espectadores num espaço de lembrança. A peça reflete sobre o luto a dois níveis — pessoal e coletivo — abordando temas como guerra, pandemia e família. O artigo e o trabalho submetido estão alinhados com os temas da ELO 2023, tendo em conta o papel da literatura na mudança social e perguntando, na esteira de crises globais sobrepostas, o que queremos lembrar e como? Fazemos uma breve tour pelo projeto com a sua paisagem onírica de ruínas medievais povoadas por dez peças distintas de literatura eletrónica que meditam sobre o luto, a dor e o despertar para novos futuros. Discutiremos os métodos colaborativos que utilizamos para criar este trabalho, o qual é fundamentado na ética do cuidado e explicaremos como eles se tornam parte do sentido mais amplo deste trabalho. Finalmente, baseamo-nos em estudos de memória para averiguar de que forma os temas de *Memory Eternal* servem como uma resposta à crise, uma salvaguarda face à perda e uma promessa de manter a memória viva.

PALAVRAS-CHAVE

memória, guerra, pandemia, colaboração, ética do cuidado

## INTRODUCTION

“How does this work then between us as we mourn alone together?”  
(Abbeele, 2022: 77)

“La mémoire . . . est un cadre plus qu’un contenu, un enjeu toujours disponible, un ensemble de stratégies” (Nora, 1997: 16)

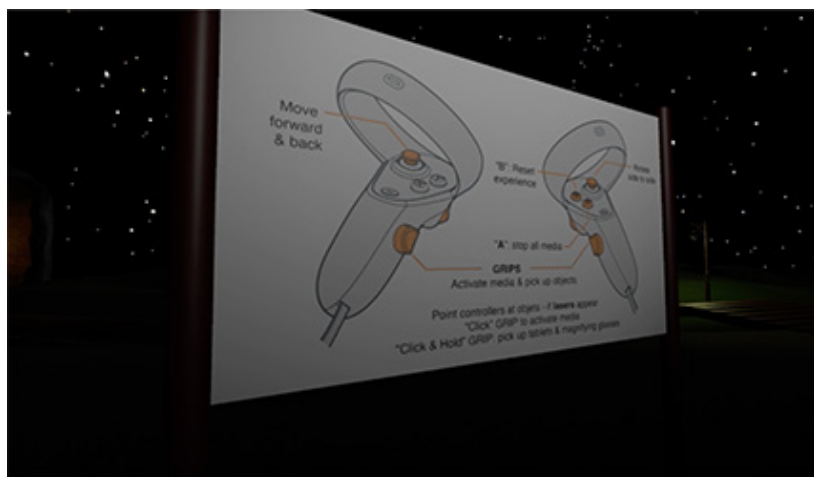
**M***emory Eternal: Вічна Пам’ять* (2023), a Virtual Reality storyworld named after the Ukrainian Orthodox prayer for the dead and designed for Quest 2, presents a dream-like landscape where the affordances of uncanny physics and scale make it possible to dislocate and denaturalize our ontological and phenomenological perceptions of the world and disrupt anthropomorphic perspectives. Featuring seventeen distinct audio, textual, and visual storytelling works that were composed individually and collaboratively by members of the Collective, *Memory Eternal* meditates on mourning, grief, and awakening to new futures, holding open a space-time of care for the many losses in the midst of social adjustment and disorientation imprinted by the pandemic and other global crises including war and climate change. The VR storyworld expresses grieving at different scales—intimate, personal, interpersonal, global, and planetary—and asks: In the wake of crises, what and how should (or do) we remember?

The project grew out of years-long conversations among members of The Decameron Collective (Jolene Armstrong Kelly Egan, Lai-Tze Fan, Caitlin Fisher, Angela Joosse, Kari Maaren, Siobhan O’Flynn, Izabella Pruska-Oldenhof, and Monique Tschofen), nine Canadian feminist artists who began meeting weekly over Zoom in March of 2020 in what has become a sustained and slow practice of inquiry grounded in care ethics (Liu and Kim, 2021).

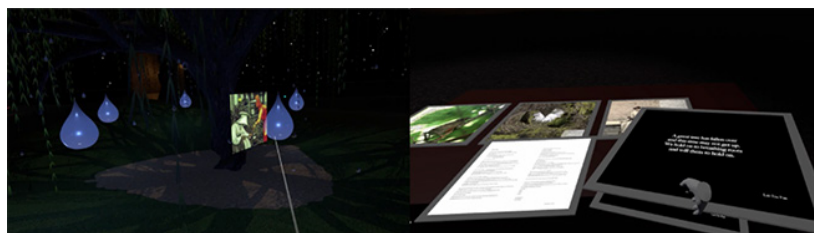
This paper contextualizes the project from a number of overlapping frames and scales, from the intimate to the planetary, introducing and discussing its seventeen works in order to underline commonalities and differences in their themes and forms.

## OVERVIEW

*Memory Eternal* is a single user first person Virtual Environment (VE) coded in Unity and designed for Quest 2, first exhibited at the Electronic Literature Organization's Media Arts Festival in Coimbra Portugal in 2023, and now available for download on the Decameron Collective's website (<https://www.decameroncollective.com/>). Immersants use the Quest2 handset joystick buttons to control direction and speed. A laser beam along with the grip function activates the sound and video works or allows the immersant to pick up and discard the tablets and magnifying glasses. The immersant is free to explore the landscape of forests, towers, ruined villages, caves, peninsulas, and vine-hidden domes, choosing which works to activate and in what sequence, as there is no set order. They can use the A button to stop all media if they wish to proceed to the next work before listening to the end, or B to reset the entire experience and return to the start position. Immersants are not told when they have experienced all the works.



**Fig. 1.** A sign describes the Oculus Quest 2 handset controls. *Memory Eternal* | Вічна Пам'ять by The Decameron Collective, Quest 2, 2023.



**Fig. 2.** Immersants in *Memory Eternal* point lasers to activate sound and video works and hands to pick up and drop objects. *Memory Eternal* | Вічна Пам'ять by The Decameron Collective, Quest 2, 2023.

*Memory Eternal* is above all heterogeneous. The individual works present a genealogy of media practices ranging from flat and static to dimensional and interactive, each of which carries personal and collective memory in different ways. Juxtaposed to one another in the same virtual space, text, drawing, photography, cell phone video, sky cam, kaleidoscope, animation, 360 video, and AI generated imagery signal their own mediatedness. Some works use complex interactive forms (for example, de Haan's "Threads"), or transparencies (Joose's "Spell for Holding Time Together") and overlays (Armstrong's "Slava Ukraini") while others are deliberately bare (Fan's poems, O'Flynn's "The Barrow"). Some are expressly and intimately dialogic and co-created (Tschofen's "Seed Generator," Joosse's "Spell for Holding Time"). Some work through hauntings, integrating found material from lost people (Fisher's "Requiem for Damon Loren Baker" and "In the Studio," Egan's "in the weeds"; de Haan's "Threads," Armstrong's "Just Wondering How You're Doing"). Analogue forms (Maaren's "Birds at the End of the World") anchor the timespace that AI generations disrupt (Pruska-Oldenhof's "Weeping Willow" and Tschofen's "Seed Generator").

The complexity of *Memory Eternal* rests in the way it holds in balance the various ways that personal, collective, and planetary grief and mourning are felt and enacted. It is quiet and noisy; angry and compassionate; grounding and disorienting. It is a world that holds multiple, sometimes opposing, experiences. Its valence shifts as the immersant explores its propensity for documentary or invention. Constructed to encourage exploration through aleatory wandering, *Memory Eternal* provides an opportunity to think about grief as a form of travel. Immersants proceed on a cyclical journey that entails entering dark spaces, sitting with grief, and emerging on the other side. The world is circled by water, which alludes to the Greek underworld rivers of forgetting, lamentation, and sorrow. An underground barrow and St. Bridgid's crosses allude to Irish rites of spring. Other cyclical symbols that comprise the major themes of the world include seeds, trees, and leaves.

Siobhan O'Flynn calls *Memory Eternal*'s work "memory-ialization: active memory construction as elegy, more than memorial, with its associations of fixity, monuments and inscriptions; rather as ongoing memory and (re) en/vision-ing" (O'Flynn et al, n.d.). *Memory Eternal* is a kind of "living archive," a term which Amalia Sabiescu uses to describe "sites of collective remembering ... that ...align different temporalities to bring participants as well as memory-mediating texts into a shared, co-located space" (Sabiescu, 2020: 506). Its "purposeful revival of the past" (506) is rendered as an emergent site of collective and personal memorialization that invites public participation and bearing witness.

*Memory Eternal* is thus situated in a tradition of experimental cinema exemplified by the works of Stan Brakhage, who often said that all his films

deal with the subjects of “birth, sex, death, and the search for God” (Brakhage, 1963: 24) and sought new visual metaphors to represent them cinematically. Its philosophical frame is Nietzschean; the process of artmaking enacts the strife between destruction and creation, death and life, and provides a way of being able to move forward. The traumatic experiences are not repressed but, in the act of artmaking, are worked through into new configurations—they are reborn, that is, the memory fragments (members) are organized in a different way; they are re-membered.

## SOMATICS

Inspired by medieval traditions of textual annotation and metacommentary that layer time and log sensory experience, works in *Memory Eternal* ask: what trace do we leave of our own experience with crisis and loss and our relationship with the past? How can one inspire somatic experimentation to further bodily knowledge through VR as a legitimate, entangled epistemological, ontological, and phenomenological exercise? And what is the role of presence, observable only through documentary traces that says “I was here. I felt this”?

Named after the medieval work about the Black Death by Giovanni Boccaccio, *The Decameron* (1348–1353), the Decameron Collective has conceptualized their creative work together as a collection of marginalia, that is, as paratext or palimpsest on past pandemic experiences and frames of storytelling that creates opportunities for participatory reading and engagement, as well as for inter-dialogue between past crises, current experience, and the future.

Marginalia are a means to memory, or, more precisely, to memorialization—the act of memory making as an ongoing, fluid, participatory action—of a particular experience within a continuum of events. The medieval tradition of marginalia serves as a kind of model of textual interaction, as a trace of physical and emotional interaction with text. In the Middle Ages, this somatic engagement with text belies the struggles with disciplining bodies against not only the discomforts of monastery life (cold, damp, dark, still, scratchy, silent), but also with the sorrows and joys of engagement with texts that offered, likely in equal measure, encounters with mind-numbing and exciting ideas.<sup>1</sup> Just as the medieval monks used marginalia as a means

---

<sup>1</sup> It is instructive to contrast marginalia, a memory technology of inscriptive cultures to Ciceronian “*memoria*” as the canon of memory in the oral tradition, as the textual practice branches backwards and outwards, while the oral practices of memory are “a function of the memory of the past [designed] to bring a positive influence to bear on future generations” (Zarecki).

of reinserting the body into a cerebral experience of writing and reading texts to heighten the experience of reading, digital storytellers also ask for a somatic involvement, a way of knowing things through the body that can only just barely be appreciated through linguistic modes of communication. VR provides unique opportunities for somatic experiences and knowledge building. As annotations to traumatic experience and survival, works in *Memory Eternal* use haptic registers, theorized by Rizvana Bradley

as a visceral register of experience and vital zone of experimentation [which] direct us to somatic forms of knowledge attuned not only to contemporary bodies and spaces, but also to the worlds and imaginations that have both conditioned and surpassed the body in and out of performance. (2015)

Somatics is a “mode of bodily thinking” (Ginot, 2010: 13) in which sensing is “immaterial and elusive” (Ginot, 2010:15) rather than homogenous and predictable. Importantly, “somatics focuses on physical sensation and the fundamentally unique experience of each person” (Ginot, 2010: 13) and centres “the immaterial and elusive nature of sensing” through a primarily non-linguistic form (Ginot, 2010: 15). While knowing things through the body in ways presumed to be pre- or extra-linguistic is undertheorized, creators intuitively know that haptic effects impact the immersant’s experience. This distinguishes a VR experience from other art forms. As Lanier asserts: “[i]f you can’t reach out and touch the virtual world and do something to it, you are a second-class citizen within it...a subordinate ghost that cannot even haunt” (Lanier, 2017: 128). *Memory Eternal* strives to design and theorize a way of moving through and interacting with the world that is not reliant on linguistic thinking, but might inspire linguistic theorization as a debrief to the experience.

Virtual reality integrates bodily perceptions through hapticality with emotional perception. The tactility of reaching for a virtual object and affecting an action, the haptics of the vibration of the hand controllers, moving through solid appearing objects, and falling through hidden portals are unique to virtual reality environments. Working with Barlassina and Newen’s proposal that “emotions are constituted by the integration of bodily perceptions with representations of external objects, events, or states of affairs” (2014: 637), *Memory Eternal* employs imagery and virtual objects not merely as representations of its individual and collective grieving, but also to heighten, fine tune, and focus immersants’ own latent emotions. The attunement of bodies in spaces to the visceral register<sup>2</sup> of

2 Physical sensations such as nausea, dizziness, the loss of orientation can occur when one loses one’s bearing.

physical experience demonstrates that hapticality is a useful method for effecting the sort of empathy and feminist ethics of care that the Collective's collaborative experience sought to achieve—in Harney and Moten's words, the "capacity to feel through others, for others to feel through you, for you to feel them feeling you" (2013: 98).

Thomas and Glowacky gesture towards somatic knowledge when they argue that immersants in VR do not merely suspend disbelief, but undergo "an intrinsic sensorial rewiring" (2018: 145). They theorize the VR headset's capacity to provide opportunity for altered experiences of perception: "expanded ways of seeing, re-adapting the sensory system toward modes of perceiving one's own body, other bodies, and space, thereby freeing up visually imposed boundaries and generating the capacity to experience felt body-to-body and body-to-environment connections" (2018: 146). Accordingly, the virtual environment, layered as it is upon the physical environment, is already a kind of marginalia to reality that the immersants enter aware of their own positionality and intentional participation with the environment. Just as medieval marginalia disrupts the texts by expanding the margins of the book, changing the dynamics of reading, then, in VR the sensory, somatic experience offers new or alternate ways of knowing through the body's physical experience and reactions, not as discreet, clear divides between the virtual and material, but as a kind of continuum of "relational processes" (Thomas and Glowacky, 2018: 146).

#### MEMENTO MORI

*Memory Eternal* is a response to crisis that grew from and that documents the truncated, abrupt, deformed experiences of loss that characterized the early 2020s. Charged with volatile, emotive memory, and haunted by repetitions and absences, *Memory Eternal* functions as both a creative record born from the pandemic but including other global and personal crises, and a reconciliation with this catastrophic era through the creation of an immersive imaginary land. The poems, films, photographs, and music included in *Memory Eternal* are in some ways a creative diary capturing in-the-moment responses to crisis. In contrast to Wordsworth's "emotion recollected in tranquility" (Wordsworth, 1800), they document emotion experienced in turbulence. Simultaneously, the project as a whole provides a documentary record in which the events being recorded represent the stages of grief as played out over three years of personal and social change.

Operating across zones of incommensurability and shared experience, *Memory Eternal* asserts what Georges Van Den Abbeele describes in an article connecting the Spanish Flu, WWI, Freud's essay on mourning and



melancholy, and contemporary experience of the pandemic, as “the ‘inter-subjective’ basis of mourning” (Abbeele, 2022: 75). Van Den Abbeele writes:

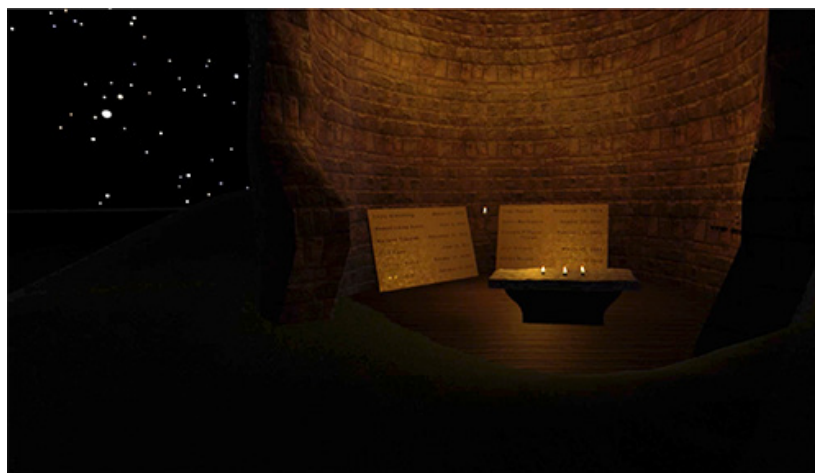
We mourn precisely because we are always already in relation with others, others whose loss necessarily retraces the lines of that relation, a withdrawal that redraws the bounds of being together but alone. There is no mourning without someone else to mourn.... But our mourning together is also a mourning apart. And how or what we remember in our particular work of mourning may or may not be in common. (Abbeele, 2022: 75)

#### INTIMATE SCALES: IN MEMORIAM

The Collective’s initial intention with the construction of a VR storyworld was to document how grieving could be mitigated by a community of women. *Memory Eternal* was intended to join other collective memory projects like *Corona Haikus* (n.d.), and the pandemic inspired works exhibited at the Electronic Literature Organization’s Annual Conference and Media Arts Festival in 2022 and 2023 including *Covid E-Lit: Digital Art During the Pandemic* (Scott Rettberg, Søren Pold, and Anna Nacher, 2021), Tina Escaja’s *Mar y Virus*, Adrienne Jenick’s *The Artists’ Grief Deck* (2022), and the Decameron Collective’s *Decameron 2.0* (2022). However, upon completion, it was clear that much of the work operated at a far more intimate scale, landing hard in the territory of eulogy, in the urgency of its particularity.

The centerpiece of *Memory Eternal* is a structurally minimalist work whose soundtrack, “Вічна Пам’ять Vichnaya Pamyat” (Ukrainian, memory eternal) — an ancient Orthodox prayer and hymn — is its namesake and inspiration. The work, called “In Memoriam” (Latin, in memory of) is a stone tower holding tablets inscribed with the names and death dates of the individuals that members of the Decameron Collective were grieving.<sup>3</sup> The conjunction of specific individuals with these dates—2020, 2021, 2022, 2023—provides a crucial anchor for the VR storyworld, for although an immersant in the world might not know *these* lost ones, they know what it means to lose *someone* during these times, during which heightened needs for commemoration were met with challenges; for example, family members around the world were not allowed at hospital bedsides, and funeral rites were denied or postponed during lockdowns.

3 For Georges Van Den Abbeele, writing about mourning and commemoration, “[t]he name [...] is as such the deixis of commemoration itself: the roll of names in all the countless forms it has taken [...] lie at the very foundation of our having been together, of our having been in community, in communication” (2022: 78).



**Fig. 3.** Hendrick de Haan and the Decameron Collective, “In Memoriam,” *Memory Eternal* | Вічна Пам’ять by The Decameron Collective, Quest 2, 2023

A large number of the works of memory and mourning relate directly to the dead listed in “In Memoriam,” integrating archival footage that was either made by the people who live no longer, or about them. Immersants in *Memory Eternal* are able to see, hear, and move around and through these textualized remains, and come to know something about the particularities of the departed—their brilliance, creativity, kindness, experiencing the uncanniness of their absence as presence. For example, in Caitlin Fisher’s “In the Studio,” the artist Wallace Edwards appears surrounded by his artworks in a recording of live VR painting made during a lockdown using VR Tilt Brush—an app that uses large gestures and movements to paint on a digital canvas. Witnessing him in the creative act amidst his imaginary bestiaries, immersants experience joy and awe. Before long, however, the uncannily prescient symbolism of the creations begins to weigh. Amidst an owl and an elephant are omens: a skeleton, a raven on a skull, a man taking a bow in front of an easel on which is inscribed “The End.” These images float like satellites around an obituary for Wallace Edwards himself. Fisher’s work activates the contrast between this man’s dimensional aliveness in recorded gestures of his creating, and the flat printed announcement of his death, leaving the tensions between movement and stillness, depth and flatness, playfulness and omen unresolved.



**Fig. 4.** Caitlin Fisher, “Wallace Edwards,” *Memory Eternal* | Вічна Пам’ять by The Decameron Collective, Quest 2, 2023.

The soundtrack of Kelly Egan’s “in the leaves” similarly integrates archival materials, reproducing a series of cheerful answering machine messages left behind by a person whose death dates are listed in “In Memoriam.” These expressions of care lovingly detail everyday life during pandemic lockdown. The image track, created in the Victorian tradition of flower pressing, presents weeds from the filmmaker’s garden manually punched with words that all feature the word “in.” Taken together, the words delineate the affective terrain of loss. Words like “lovingly” and “fine” join words like “coffin”; “ruin”; “thing,” “blink,” and “since.” Grief, “in the leaves” emphasizes, is a condition of both/and; “coping” joins “ruin,” “pain” joins “gain.” Egan’s “in the leaves” ends in silence, with what the immersant wonders was the last ever recorded call. The emerging understanding that this archive of phone calls only exists *because* they were missed underlines the magnitude of loss.

Abbeele writes that “[w]e learn things about the dead even as we mourn them, suggesting that the ‘work’ of mourning is at least as investigative and revelatory as it is summative, uncovering what we didn’t know even about those we thought we knew better than anyone” (2022: 74). Hendrick de Haan’s “Threads” and Caitlin Fisher’s “Requiem for Damon Loren Baker” integrate live footage of musical performances from the people they eulogize, while Jolene Amrstrong’s “Just Wondering How You’re Doing” integrates home movies and photographs. Using archival material in this way, *Memory Eternal* became a seance, a conjuring of the dead, VR working in, what Siobhan O’Flynn theorizes as a “synechdocal mode” (O’Flynn et al, n.d.)—making the absent present, standing in with parts for a whole. The VR storyworld can be thought of as a kind of poetic digital Victorian mourning

jewelry: the Oculus passed around, still warm from our bodies, as if we were holding a silver locket with a loved one's hair.



**Fig. 5.** Kelly Egan, “in the weeds,” *Memory Eternal* | Вічна Пам’ять by The Decameron Collective, Quest 2, 2023.

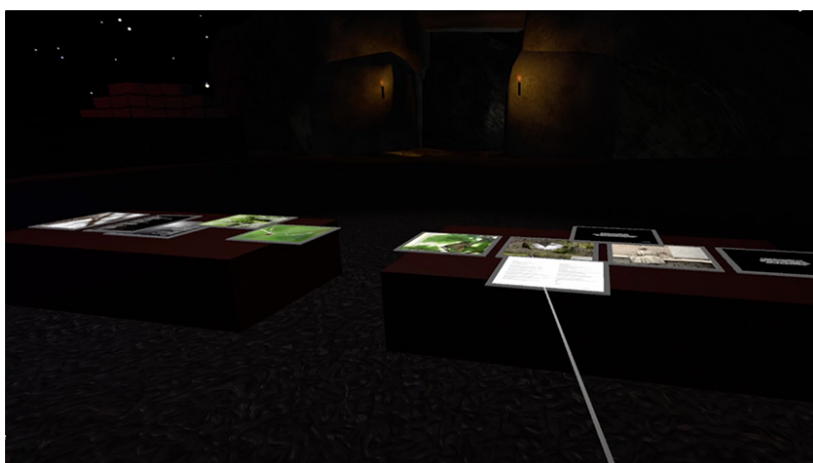
#### PERSONAL SCALES: IMMERSIVE CONTEMPLATION

Siobhan O’Flynn’s “The Barrow”—an allusion to the large neolithic burial mounds of earth and stones found across Europe—is an immersive space inside of an immersive space that confounds interiors and exteriors, light and darkness, noise and stillness. The immersant must pass from the dim and starlit spaces of the virtual environment into a cave illuminated by firelight. Interaction with a St. Brigid’s cross transforms the bare earthen walls into a mossy forest glade, filmed in 360-degree video. The soundtrack of rain and bird calls anchors the environment in the real; becoming still and contemplative, immersants experience the forest as *primaeval* and sacred. O’Flynn cites the installations of Olafur Eliasson, where the experience of modulations of light and colour over time creates an orphic presence, of humbling, and of meditative self-lessness, as inspiration for the immersive design. After a duration of experiencing the minute changes in a landscape, the immersant hears a recitation of a poem that begins with an apostrophe to those mourning: “For those of us who did not have the time to grieve....” The soundtrack of the poem is layered over itself out of sync, which creates reverberations that alternately echo and amplify, and obstruct meaning. O’Flynn’s “The Barrow” issues a promise to the grieving: “there will come a time when we can pause, and sit, and learn the shape of this new presence.” On offer is a way to perceive grief as a temporal experience and to acknowledge the gift of time and space for reflection.



**Fig. 6.** Siobhan O’Flynn “The Barrow,” *Memory Eternal* | Вічна Пам’ять by The Decameron Collective, Quest 2, 2023.

Time is the touchstone for a small collection of text-based works in *Memory Eternal* instigated by one member’s request that her contribution be a “humble” one involving text and nothing else. The “Humble Book” is an installation on a series of tablets that hearkens back to the origins of the Collective in a series of weekly meetings and writing exercises based around prompts that often yielded poems that offered slivers of everyday life in a crisis. The eleven poems on tablets that the immersant can pick up and drop with their virtual hands using the grip buttons echo *Memory Eternal*’s defining themes of memory, mourning, nature, and escape. The inclusion of text, usually avoided in VR design, was intended to offer another quiet place for contemplation where the immersant could simply stand and read, as a contrast to the more haptically complex experiences in the VR storyworld.

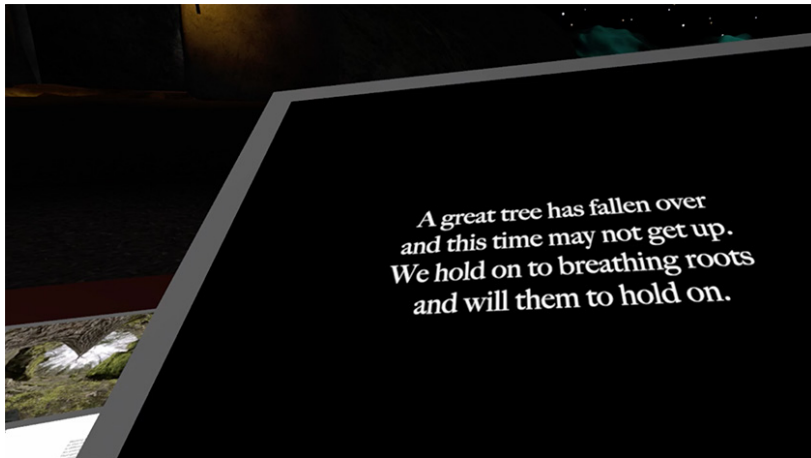


**Fig. 7.** “The Humble Book,” *Memory Eternal* | Вічна Пам’ять by The Decameron Collective, Quest 2, 2023.

The poetry of the “Humble Book” falls roughly into two categories. Some poems, conforming to *Memory Eternal*’s underlying theme, deal with mourning. Caitlin Fisher’s poem “Mourning” is anticipatory:

Waiting for people to die now  
 In this moment  
 Is different again  
 An anticipatory grief  
 That gets into my breakfast cereal, my hair  
 Our senses so stretched we don’t feel them when they go ...  
 dead for days in a sunless room  
 grey-yellow thick with time

Lai-Tze Fan’s two untitled poems deal with the moments after death; a “great tree” has fallen “and this time may not get up. / We hold on to breathing roots / and will them to hold on.” Siobhan O’Flynn’s “St. Brigid’s Day,” which ends with the line “The only gift I have is gone,” is about loss, and Kari Maaren’s “Wake” are both about the release after mourning. Together, these five poems form an accidental sequence that takes the immersant through the mourning process, moving from anticipation of death, to the letting go inherent in the wake, in which, as Maaren writes, “loss is the beginning of everything.”



**Fig. 8.** Lai-Tze Fan “untitled,” *Memory Eternal* | Вічна Пам’ять by The Decameron Collective, Quest 2, 2023.

Other poems in the “Humble Book” collection focus on nature, frequently documenting actual places the poets visited in their grief. Kari Maaren’s “Weave” is a slight poem, accompanied by a slight image, a portion

of a spider web under construction. The photo's blurred green background provides "the spaces / in between" that rival the beauty of the web itself; the poem does not mention the spider, which consequently inhabits a liminal space in the poem, neither part of the web nor part of the background.

Maaren's "Submerged" lifts the immersant above the fog that turns the sun "moon-pale" and ends on an image of the sun, "unimpeded," lighting the wings of soaring hawks. The nature poems embody the distinctive pandemic impulse to look out instead of in, to escape into nature or the dream of the outside.

#### INTERPERSONAL SCALES: REVERBERENCES

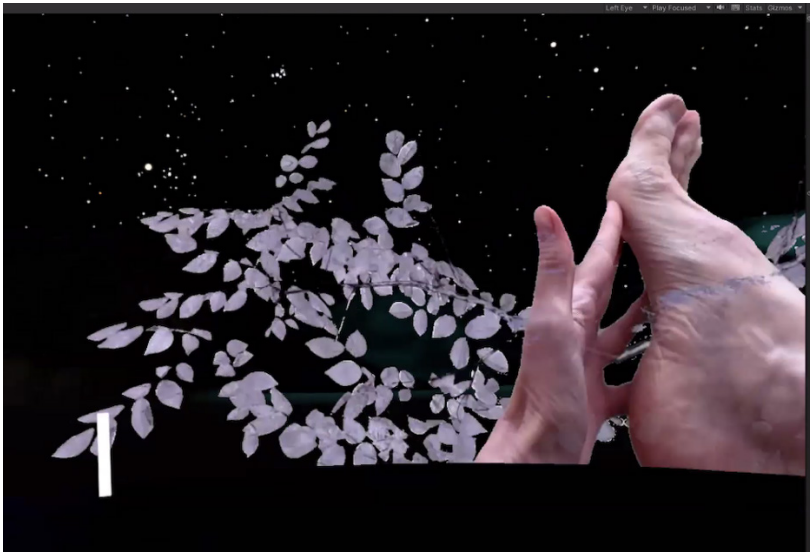
Auditory experience is a powerful form of and venue for somatic knowledge. In an environment in which vision-based experiences dominate, visuals confirm for the immersant that the experience they think they are feeling is real. Auditory effects in VR are effective for disorienting the immersant, but also reorienting them within a sensual space that encourages a different kind of bodily involvement. Musicians working with sound know the value of auditory experiences that feel "live," meaning the presence of vibrations (see Young, Dwyer et al, 2023: 156)—reminding us that while auditory sensations are not only processed through the ear, but also felt by the body.

Accordingly, *Memory Eternal* uses sound to tap into the potential of auditory experience for somatic engagement and emotional experience and participation, thus expanding possibilities for the kind of "sensorial rewiring" that VR appears poised to offer. *Memory Eternal* experiments with spatialized auditory experience in several works, including Maaren's "Birds at The End of the World," O'Flynn's "The Barrow," Joosse's "Spell for Holding Time Together," de Haan's "Threads," and Armstrong's "Slava Ukraini."

For example, haptic, auditory experience is integral to Angela Joosse's "Spell for Holding Time Together." When the immersant enters the circular platform, a voice begins to speak the words of a "spell" — an incantation about grounding and relational contexts — from a distinct location indicated by the roman numeral "I" at the edge of the circle. Three other recorded voice channels soon join in from other "sides" of the circle, indicated by "II," "III," and "IV." The immersant can orient to or focus on any one of these audio tracks by moving closer to their respective sources or can experience more integrated blendings of these tracks by positioning themselves within the centre of the circle. The layers of cut-out video imagery that play at the periphery of the circle can be perceived at a distance or at intimate proximity. The imagery is composed of leaves fluttering, water lapping, grasses quivering, and close-ups of hands and feet touching. At close



proximity, this imagery appears as morphing digital noise. More distanced, they are semi-transparent composites of moving vegetation, water, and human flesh: a lacy, moving lattice against the night sky engaged in an intimate and generous act of holding and feeling of the world. Though “Spell for Holding Time Together” unfolds through audio-visual experience, the overlapping spoken word rhythms and layered moving images full of caressing gestures, can provocatively “gear into”—to borrow a phrase from Merleau-Ponty (2014)—haptic, somatic engagement.



**Fig. 9.** Angela Joesse “Spell for Holding Time Together,” *Memory Eternal* | Вічна Пам’ять by The Decameron Collective, Quest 2, 2023.

As aesthetically subversive recipes for transformation, spells offer the possibility for change. The spells written during the COVID-19 pandemic are somatic, embodied practices. If the “magic” is working, it brings the practitioner into the present while shifting how and what that present situation means. Joesse’s approach resonates with adrienne maree brown’s use of spells in service of “emergent practice, self-shifting” (2017: 192). Brown writes, “There are also some spells—these are little poems that shift my state of being and power. I offer them to use, and also to encourage you to create spells for your own self-shifting work” (192). The practice of this spell supports the emergent, shifting “alchemy” of creative experience and reflects the beginnings of the Decameron Collective as an intimate online gathering that held space for emergence as it staved off the limitations of lockdowns and held space for new things to grow. These new things—poems, stories, drawings, photographs, music—did not have to be anything



in particular or adhere to expectations. They emerged, and eventually grew into collaborative artworks.

The development of the VR installation of “Spell for Holding Time Together” can also be described as an emergent, somatic, and relational process. After writing her collection of spells, Joosse sent them to movement artist P. Megan Andrews who began bringing the spells to her dance studio sessions. The influence of iconic choreographer Deborah Hay’s work with movement scores is noteworthy in shaping the spirit in which the spells were sent and received. That is, they were sent and received as scores for embodied practice that work through metaphor, paradox, and ambiguous instructions rather than explicit directions. Working in the studio, Andrews recorded the hand and foot performances that were later edited into Joosse’s video. During her studio sessions, Andrews also developed the rhythmic, repetitious, interweaving, and highly somatic style of speaking the spell that was eventually recorded. Joosse cut it into four pieces installed in a circular formation in a remembrance of Janet Cardiff’s *The Forty Part Motet* (2001) —in which the recorded voices performing an adaptation of Thomas Tallis’ *Spem in Alium* (1573) each sounding out from their own speaker — and Steve Reich’s *It’s Gonna Rain* (1965) — in which multiple tracks of a recorded phrase of the Pentecostal preacher, Brother Walter, go incrementally out of phase with each other. The four audio tracks of “Spell for Holding Time Together” are of different lengths, so if the immersant remains with the work for an extended duration, they can experience continually varying permutations of immersive audio experience.

#### GLOBAL SCALES: DESTRUCTION, WAR

The affordances of audio in VR are effective for providing a field in which the immersant can feel through sound. Jolene Armstrong’s “Slava Ukraini” works in a similar manner as Angela Joosse’s “Spell for Holding Time Together” by leaning on the somatic experience possibilities of a complex soundscape. However, while “Spell for Holding Time Together” conjures reorientations to the present situation as a remediation for loss, “Slava Ukraini” moves grieving into other territories that foreground trauma. In this work, the immersant enters an abandoned, transparent building, and activates the audio of found recording of live combat. The video representative of traditional Ukrainian embroidery, itself a storytelling practice, is pinned to the immersants’ visor; they cannot look away. The scale here is collective, not private, and the tone is confrontational, not contemplative.

“Slava Ukraini” was born from a somatic reaction to an extraordinary recording of battle, and Armstrong’s realization that audio could be used

in VR to haptic effect, causing momentary dis- and re-orientation by organizing sound in the virtual space. At first, the rhythmic sounds seem like drumming, until it becomes apparent through explosions and soldiers' voices that the soundtrack documents an exchange of live gunfire. The volleys surround the immersant, with spatialized audio of the gunfire coming from different directions. Audio of the rapid breath of an exhausted soldier is placed close to the immersant's ears, making the immersant feel situated within a battle they cannot see. The result disrupts conventional expectations for control over one's virtual environment, and utilizes VR's potential for foregrounding sound in storytelling, while also subverting conventional expectations of visual encounters in VR.



**Fig. 10.** Jolene Armstrong “Slava Ukraini,” *Memory Eternal* | Вічна Пам’ять by The Decameron Collective, Quest 2, 2023.

Armstrong’s “Slava Ukraini” reorients the typical experiences of immersion characterized by VR headsets as screen-based experiences. By disrupting VR’s 360-degree field of vision, “Slava Ukraini” appears connected to the viewer’s perspective, ensuring that, regardless of where

one looks, the translucent video appears squarely in the immersant's line of sight. Visually, the remnants of buildings and the vestiges of cultural and ethnographical elements, such as traditional embroidery, displayed on the fixed and suspended video screen, stand in stark contrast to the creator's personal conception, rooted in an historical framework that is bounded by the fracture with the mother country in the early 20th century, steeped in folklore and enduring traditions transmitted across generations. Fine arts that have endured through the generations sharply clash with the highly militarized context portrayed in the video.

This design is meant to convey a different kind of haunting than the ghostly presence of absence raised through the integration of archival materials from the loved ones that other works in *Memory Eternal* are mourning. "Slava Ukraini" is a study of how the war has been mediated through social media: daily updates from soldiers on the front, YouTube videos of drone strikes, enemy captures and a nearly minute by minute reportage of activity from the front. Against the problematically held view that VR is a kind of empathy machine, "Slava Ukraini" offers an estrangement experience. This effect also estranges the notion of seamless immersion in the VR environment. Instead, the immersant bears witness through the disturbing experience of being surrounded by the sounds of battle, and an inability to look away from the screen.

Control assumes a paradoxical and multifaceted character. Relinquishing control (even as the immersant retains the ability to leave the experience at any time with the press of a button) within this virtual realm serves as a means of addressing the very loss of control experienced by individuals living under constant threat of attack. The effect does not merely create empathy for soldiers under attack; rather it creates a kind of memory of the attack, something that is far more powerful in effect and duration than fleeting empathy. As Szilak theorizes, "the memory of reality, preserved in the form of visual codes borrowed from shared cinematic experiences, and the memory of bodily movements, encoded as specific gestures, are likely to continue dominating the lexicon of VR" (Szilak, 2022). "Slava Ukraini" offers immersants an experience of the virtual as a dimension intrinsically intertwined with reality, another way of comprehending and remembering, activating grieving for those who are experiencing war.

#### PLANETARY SCALES: LIVING ARCHIVE AND EPISTEMOLOGIES OF HOPE

A third set of works in *Memory Eternal* takes up the matter of memory and loss at the planetary scale by investigating the intersection of technological archives and the living archive of the natural world. *Memory Eternal* extends its empathetic connection beyond human beings to the more-than-human.

Focusing on media, particularly photography and Artificial Intelligence, these works document the living, as well as mourn the extinctions of plant, animal and fungal species resulting from climate change and human activities. Their central query is how can technological reproduction and re/mediation reveal and frame this planet as a living archive of life, death, and physical marks of time?

Kari Maaren's "Birds at the End of the World" is designed to bring the immersant into an experience that privileges the process and meaning of photography as a medium that freezes time and preserves ephemeral moments in a showcase of Maaren's daily ornithological photographic practice. The immersant moves along a dark peninsula towards a fire as large photographs of birds begin to appear, with birdsong and the sound of distant traffic recorded on location. The closer one moves toward the fire, the more photographs emerge from the darkness, until there are birds on every side. The photographs are permeable and transparent; they can be seen and moved through or around.



**Fig. 11.** Kari Maaren "Birds at the End of the World," *Memory Eternal* | Вічна Пам'ять by The Decameron Collective, Quest 2, 2023.

While the relation of photographic representation through its temporal and material connection to the past is often theorized as moribund, the photographs of birds have the opposite effect; the large scale of these images encourages movement, and brings action through space, and the sound recordings of birds transport viewers to the Don Valley in Toronto where these birds live. Moreover, the enormous scale of these photographs not only allows viewers to focus on minute details of these flying beings, but also undoes our relation of dominion over them, as they loom, god-like over the immersant.

Izabella Pruska-Oldenhof's "Weeping Willow" builds on Heidegger's critiques of abstractions that sever our relations from the living. The willow tree stands in the middle of the world with teardrops hanging from its branches, which, when activated, open short films whose emphasis is on symbiosis and transformation. Executed through generative AI video software, the films deploy a continuous zoom, such that images emerge out of abstraction and disappear into the edges of the video frame, as if moving past the viewer, into the past. Pruska-Oldenhof's goal is, like Armstrong's goal in "Slava Ukraini," to on the one hand, haptically conjure the violent life-death strife and on the other, allow moments of reflection.

One of the AI zooms in Pruska-Oldenhof's "Weeping Willow" is seeded by Hugo Simberg's symbolist painting, *The Garden of Death* (1896), which depicts three human skeletons wearing an undertaker's robes in a garden tending to the perennial cycle of dying and living. Two more videos within the willow tree operate as marginalia of the contributions of women to the history of pharmacy and science, and channel medieval manuscript aesthetics featuring women tending gardens and studying medicinal herbs and plants during plagues. Women learning and creating together, caring for each other and others are not only conveyed through the contents and formal choices of these and other projects in *Memory Eternal* but, more significantly, they underpin the very ethos of the Decameron Collective. No representations of these women and their curative work exist, and so, the artist turned to AI models to "re-member" them. Because generative AI operates at the level of collective memory of humanity, it is an archive of collective memory of the past, in the making and of the future. Language prompts call forth the bits of related information from its depths, which is retrieved in a re-organized or re-membered form, connected to fragments of the present day.



**Fig. 12.** Izabella Pruska-Oldenhof "Weeping Willow," *Memory Eternal* | Вічна Пам'ять by The Decameron Collective, Quest 2, 2023.

Monique Tschofen's philosophical thought experiment "Seed Generator" makes the theme of our planet as a living archive even more direct through its inquiry into a question that responds to the grieving in the other memory works in the *Memory Eternal* storyworld: how does one grow hope? Like Pruska-Oldenhof's "Weeping Willow," Tschofen's "Seed Generator" understands memory in relation to its technological mediation, and makes efforts to draw relationships between the personal and the planetary as it investigates possible futures.

The title is a pun. AI image generation begins with seeds—numeric blueprints that are randomized with each subsequent generation. A kind of "cinema without cameras" (Salvaggio, 2023) that is *prompted* and compelled through language, the AI image is at once a memory machine, combining and recombining vast bodies of inputs from the cultural past, and a generator of possible futures. "Seed Generator" opens with a montage of Midjourney-prompted images of beings that can never be—sterile, machine-dreamed X-rays of grasses and plants.



**Fig. 13.** Monique Tschofen "Seed Generator," *Memory Eternal* | Вічна Пам'ять by The Decameron Collective, Quest 2, 2023.

However, the work does not stall in an apocalyptic vision. Dialogic in the way Joosse's "Spell for Holding Time Together" is, "Seed Generator" integrates footage from other members of the Collective including studies of flowers and insects. It also engages with the work of an emerging scholar, Al Cunningham Rogers, whose vision of grieving a burning planet involves recognizing ourselves, in their words, "as part and relation of a network of living beings, utterly and absolutely dependent on them" (2022). Cunningham Rogers offers an invitation to look at the planet differently, scouring alleys and pavement cracks with new eyes, to see the painful history of colonization



and environmental loss, but also generative possibilities. The two-screened installation ends in a montage of cell phone videos taken in cities that include insects, gardens, grasses, and birds—living beings that grow futures. While works like O’Flynn’s “The Barrow” make space for the spacetime of grieving within the VR world, Tschofen’s “Seed Generator” provides a prompt for the immersant to move back into the world, transformed.

#### FINAL REMARKS

Grief is a path to understanding entangled shared living and dying;  
human beings must grieve with, because we are in and of this fabric of undoing.

Without sustained remembrance, we cannot learn to live with ghosts and so  
cannot think. Like the crows and with the crows, living and dead ‘we are at stake  
in each other’s company. (Haraway, 2016: 39)

This Collective’s salvo for grief asks what memories we should hold onto, and how should we remember. *Memory Eternal*, through its underworld inspired landscape and haptic experiences, offers a site for contemplation of loss and space for mourning. Using a range of multilinear and documentary forms, with both individually and collaboratively composed distinct audio, textual, and digital storytelling elements, the VR world invites immersants into a multilayered preservation and enactment of the journey of grief spanning the personal, collective, and planetary scales. As a virtual environment, *Memory Eternal* offers a creative archive of the impact of the pandemic, the experience from which it initially arose, as well as through other upheavals of various global crises, such as war and climate change. It invites a somatic process of reconciling with realities altered in the wake of global events, healing and understanding. Providing a spatiotemporal sanctuary for creatively archiving personal losses, *Memory Eternal* communicates that, in the face of relentless adversity, somatic and immersive experiences can help one find a path to healing and reawaking.

#### ACKNOWLEDGEMENTS

Jolene Armstrong and Monique Tschofen co-authored this paper, with contributions by Kari Maaren, Angela Joosse, and Izabella Pruska-Oldenhof. Our thinking was further informed by years-long conversations and co-writing with our collaborators in the Collective: Siobhan O’Flynn, Caitlin Fisher, Lai-Tze Fan and Kelly Egan. We are grateful for reviewers’ helpful suggestions.

## REFERENCES

- ABBEELE, Georges Van Den (2022). "Mourning Alone Together." *Oxford Literary Review* 44, no. 1: 70–82. <https://doi.org/10.3366/olr.2022.0377>.
- BARLASSINA, Luca, and Albert Newen (2014). "The Role of Bodily Perception in Emotion: In Defense of an Impure Somatic Theory." *Philosophy and Phenomenological Research* 89, no. 3: 637–78. <https://doi.org/10.1111/phpr.12041>.
- BRADLEY, Rizvana (2015). "Other Sensualities. Introduction to The Haptic: Textures of Performance, a Special Issue of *Women & Performance*." *Women & Performance*, 28 Jan. 2015 <https://www.womenandperformance.org/ampersand/rizvana-bradley-1> Accessed 27 Oct. 2023.
- BRAKHAGE, Stan (1963). *Metaphors on Vision*. New York: Film Culture Inc. [n.p.]
- BROWN, adrienne maree (2017). *Emergent Strategy: Shaping Change, Changing Worlds*. Chico: AK Press.
- CARDIFF, Janet (2001). *Forty Part Motet (A Reworking of "Spem in Alium" by Thomas Tallis 1573)*. Audio Installation. 40 loud speakers mounted on stands, placed in an oval, amplifiers, playback computer, 14 minute loop. Collection of the National Gallery of Canada, Ottawa.
- CHRISTOFOROU, Maria, Danielle Thibault, and Tereza Stehlikova (2023). *Corona Haikus*. Web. <https://coronahaikus.com/>.
- CUNNINGHAM ROGERS, Al (2022). Presentation.
- DECAMERON COLLECTIVE (2022). *The Decameron 2.0*. Web.
- DECAMERON COLLECTIVE (2023). *Memory Eternal: Вічна Пам'ять*. VR Quest 2.
- ESCAJA, Tina. n.d. "Mar y virus VR." <https://proyecto.w3.uvm.edu/maryvirus/>. Accessed 30 Sept. 2023.
- GINOT, Isabelle (2010). "From Shusterman's Somaesthetics to a Radical Epistemology of Somatics." *Dance Research Journal* 42, no.1: 12–29. <https://muse.jhu.edu/pub/34/article/380620>.
- HARNEY, Stefano, and Fred Moten (2013). *The Undercommons: Fugitive Planning & Black Study*. Wivenhoe New York Port Watson: Minor Compositions.
- HARAWAY, Donna Jeanne (2016). *Staying with the Trouble: Making Kin in the Chthulucene*. Durham: Duke University Press.
- HEIDEGGER, Martin (1977). "Letter on Humanism." In *Basic Writings*, edited by David Farrell Krell, 189–242. New York: Harper & Row.
- JENIK, Adrienne (2022). *The Artist's Grief Deck*. New York: Princeton Architectural Press.
- LANIER, Jaron (2017). *Dawn of the New Everything: Encounters with Reality and Virtual Reality*. New York: Henry Holt and Company.
- LIU, Lulu, and Jin Sol Kim (2021). "In Conversation with the Decameron 2.0." *ebr Electronic Book Review*. 09, Dec., 2021. <https://electronicbookreview.com/essay/decameron-2-0/>. Accessed 27 Oct. 2023.
- MERLEAU-PONTY, Maurice (2014). *Phenomenology of Perception*. Abingdon, Oxon: Routledge.
- NORA, Pierre (1997). *Les lieux de mémoire 1*. Paris: Gallimard.



- O'FLYNN, Siobhan, Jolene Armsrong, Monique Tschofen, Lai-Tze Fan, Kari Maaren, Caitlin Fisher, Angela Joosse, Izabella Pruska-Oldenhof, and Kelly Egan. (2023) "Memory Eternal: Speculative Memory-Alizations, and Possible Futures." Submitted manuscript.
- REICH, Steve (1968). *It's Gonna Rain*. Track 2 on *Live/Electric Music*. Musical work/tape composition, 17 minutes. Columbia Masterworks. Vinyl.
- RETTBERG, Scott, Søren Pold, Ashleigh Steele, and Anna Nacher, dirs. (2021). *COVID E-Lit: Digital Art During the Pandemic*. <https://vimeo.com/544980228>.
- SALVAGGIO, Eryk (2023). "Cinema Without Cameras." Substack newsletter. *Cybernetic Forests* (blog). April 9, 2023. <https://cyberneticforests.substack.com/p/cinema-without-cameras>. Accessed 30 Oct. 2023.
- SABIESCU, Amalia G. (2020). "Living Archives and the Social Transmission of Memory." *Curator: The Museum Journal* 63, no.4: 497–510. <https://doi.org/10.1111/cura.12384>.
- SZILAK, Illya (2022). "Revisiting My Essay Storytelling at the End of the World: Cinema and Narrativity in VR or Why Matters of Embodiment Matter in Digital Media." *Illya Szilak* (blog). 16 June 2022. <https://illyaszilak.com/2022/06/16/revisiting-my-essay-storytelling-at-the-end-of-the-world-cinema-and-narrativity-in-vr-or-why-matters-of-embodiment-matter-in-digital-media/>. Accessed 27 Oct. 2023.
- THOMAS, Lisa May, and David R. Glowacki (2018). "Seeing and Feeling in VR: Bodily Perception in the Gaps between Layered Realities." *International Journal of Performance Arts and Digital Media* 14, no.2: 145–168.
- WORDSWORTH, William (1800). "Preface." *Lyrical Ballads, With Other Poems*. Volume 1. Project Gutenberg. <https://www.gutenberg.org/cache/epub/8905/pg8905.html>
- YOUNG, Gareth W., Néill O'Dwyer, Mauricio Flores Vargas, Rachel Mc Donnell, and Aljosa Smolic (2023). "Feel the Music!—Audience Experiences of Audio-Tactile Feedback in a Novel Virtual Reality Volumetric Music Video." *Arts* 12, no.4: 156. <https://doi.org/10.3390/arts12040156>.
- ZARECKI, Jonathan P. (2008). "Review of *Cicero's Philosophy of History* by Matthew Fox." *Bryn Mawr Classical Review*. <https://bmcr.brynmawr.edu/2008/2008.06.32/>.