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Post-indexical postmemory: virtual reality and inaccessible trauma in Hayoun Kwon's practice

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Article

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Post-Indexical Postmemory in Kwon's VR Practice

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Post-indexical postmemory: virtual reality and inaccessible trauma in Hayoun Kwon's practice

Abstract

This article extends postmemory theory beyond photographic indexicality to theorise how virtual reality mediates inherited historical trauma in Korean diasporic digital art, proposing post-indexical postmemory as the concept this reframing requires: a mode of transmission that abandons photography's evidentiary claim and instead foregrounds its own technological construction, treating acknowledged mediation as an ethical condition of representation rather than a deficiency to conceal. The argument is built centrally around Hayoun Kwon's 489 Years (2016), a head-mounted virtual reality reconstruction of the Korean Demilitarized Zone built from a former soldier's oral testimony, and photography's structural absence from that space. Kwon's earlier work Lack of Evidence (2011), a three-dimensional wireframe animation rendering the asylum narrative of a Nigerian refugee whose claim French authorities rejected for insufficient documentary proof, is treated not as a second, coequal case study but as extended context for Kwon's broader testimonial practice, since it is a non-headset animation rather than an immersive virtual reality work. Keeping this interface distinction explicit, rather than subsuming both works under an undifferentiated notion of virtual reality, clarifies what post-indexical postmemory does and does not claim. Reading Kwon's practice alongside Marianne Hirsch's postmemory, Alison Landsberg's prosthetic memory, and recent scholarship on virtual reality's synthetic vision, postphenomenological mediation, and animation's contested indexicality, the article argues that post-indexical postmemory offers memory studies a useful vocabulary as computational image-making unsettles photographic indexicality. This unsettling

is not treated as unprecedented, nor as affecting all genres of photography and virtual reality equally: the central opposition holds between particular genres, Kwon's reflexive, anti-photorealistic practice against the family-photographic genre that Hirsch presupposes, rather than between photography and virtual reality as such. The discussion contributes to digital humanities and media studies scholarship on memory, testimony, and evidentiary absence, extending postmemory theory beyond its Holocaust-centred, photograph-based origins into contemporary immersive and computational media.

Keywords: postmemory, virtual reality, digital art, testimony, Korean DMZ, media specificity, digital testimony, Hayoun Kwon

Introduction: postmemory in the digital age

Postmemory and its photographic foundation

Marianne Hirsch introduced the term "postmemory" in 1992 to describe the "particular form of belated or inherited memory" she found in Art Spiegelman's *Maus*, transmitted above all through the three photographs embedded in that narrative.[i] She later formalised the concept as "the relationship that the 'generation after' bears to the personal, collective, and cultural trauma of those who came before—to experiences they 'remember' only by means of the stories, images, and behaviors among which they grew up," transmitted with such affective force that it can "seem to constitute memories in their own right" despite the recipient's temporal distance from the originating trauma (Hirsch 2008, 106–107). This transmission is "not actually mediated by recall but by imaginative investment, projection, and creation" (Hirsch 2008, 107)—a formulation that treats imagination not as a dilution of memory's truth-value but as postmemory's very mechanism—and Hirsch is careful to position postmemory not as an identity category but as "a structure of inter- and trans-generational transmission of traumatic knowledge and

experience" operating, unlike post-traumatic stress disorder, "at a generational remove" (Hirsch 2008, 106).

This mechanism, in Hirsch's account, depends on a specific medium. Her theorisation rests on photography's indexicality—the ontological trace of "having-been-there" that Roland Barthes called the photograph's evidential force, anchored in what Barthes, in a figure Hirsch takes up, calls an "umbilical cord" of light linking the photographed body to the viewer's gaze (Hirsch 1997, 5; Hirsch 2008, 111; Barthes 1981).[ii] It is, more precisely, the photograph's capacity for what Barthes terms the punctum—the singular, often unintentional detail that "pierces" the viewer—rather than its more general documentary interest, that makes the family photograph postmemory's privileged object (Barthes 1981, 26–27). This is the specific claim that a VR reconstruction without any indexical photograph cannot straightforwardly make, and it is the gap this article calls post-indexical postmemory: a mode of transmission that must locate its affective and ethical force elsewhere than in the punctum's evidential wound, precisely because no photograph anchors it.

This framework encounters difficulty, however, when confronted with two conditions increasingly central to contemporary memory culture: historically significant spaces and experiences for which no photographic record exists or could exist, and immersive technologies that reorganise the relationship between viewer, image, and historical referent. When traumatic sites—the militarised and civilian-inaccessible Korean Demilitarized Zone (DMZ), for instance—remain outside the reach of ordinary photographic documentation, and when three-dimensional virtual environments replace the static photograph, what happens to the indexical bond Hirsch positions as constitutive of postmemorial identification? Youngmin Choe observes that the DMZ has, since 1953, "remained suspended in a kind of tense stasis, which both testifies

to the past violence and bloodshed that made it necessary, and hopefully anticipates the possibility of future reconciliation" (Choe 2013, 315).[iii] Spaces that are historically saturated yet physically foreclosed—and testimonies that are legally disputed yet photographically undocumentable—require modes of representation that postmemory theory, formulated for the photograph and the family album, has not yet been extended to address.

Hayoun Kwon, a Korean artist based in France, works directly at this impasse.[iv] In *489 Years* (2016) she builds a digital reconstruction of the DMZ from the oral testimony of a former South Korean soldier, a space she has not physically entered. In *Lack of Evidence* (2011) she renders, through 3D wireframe animation, the asylum testimony of Oscar, a Nigerian refugee whose claim French immigration authorities denied for lack of documentary corroboration (Lee 2018). The Ars Electronica jury praised *489 Years* for using VR "to enhance immersion in the subject in deeply moving ways," noting that it "brings humanity and empathy to a very sensitive topic that is frequently misunderstood or lost in political discourse" (Ars Electronica 2018). These two works, read together, press postmemory theory towards a digital reformulation—one attentive to what is gained, and what is altered, when the photograph's indexical guarantee is no longer available.

The digital turn in memory studies and the question of evidence

Kwon's practice belongs to a broader reconfiguration that memory studies has only recently begun to theorise systematically. Silvana Mandolessi argues that digital memory does not constitute a wholly new type of memory so much as it materialises claims memory studies had already made about collective memory as processual, mediated, and performed rather than simply stored (Mandolessi 2023, 1513). Read this way, Kwon's VR reconstructions are not an exotic technological supplement to postmemory but a further instance of memory's underlying

dynamism—one in which, following Mandolessi, the "archive" gives way to distributed, continually reconstituted mnemonic objects rather than fixed traces (Mandolessi 2023, 1518–1519). This reframing matters for the present argument because it locates Kwon's work within an ongoing transformation of what counts as a mnemonic object, rather than treating VR as postmemory's exception. Cynthia Kros's Derridean- and Foucauldian-inspired reading of the counter-archive, developed in relation to post-apartheid contestation over colonial monuments, is helpful here in a different register: Kros treats the counter-archive not as a simple absence to be filled but as an active, ongoing practice of construction against an official record that has foreclosed certain kinds of evidence (Kros 2015, 151–152). Kwon's VR and wireframe reconstructions can be read as a comparable counter-archival practice, built not against a colonial monument but against the evidentiary foreclosures of military prohibition and asylum adjudication, and sharing with Kros's account the premise that a counter-archive is constructed rather than discovered.

The erosion of indexicality that this article addresses through VR has a documented parallel in animated documentary more broadly. Yotam Shibolet, analysing *Waltz with Bashir* (2008), argues that animated documentary substitutes "spectatorial trust in the authenticity of creatively depicted experiences" for "faith in indexical, observational evidence," and that this substitution has only grown more urgent as digital manipulation has made even photographic and video evidence newly suspect (Shibolet 2021, 279–281). Nea Ehrlich's account of animation's "dual indexicality" in mixed-reality contexts similarly suggests that animated forms have long occupied an ambiguous evidentiary position, neither simply fictional nor straightforwardly indexical (Ehrlich 2020). Kwon's practice can thus be situated within a wider genealogy of nonfiction image-making that has, for at least two decades, been developing representational

strategies for testimony that photographic indexicality cannot secure—a genealogy this article extends into the specific conditions of VR and 3D wireframe animation.

Memory studies has also, in the last several years, expanded the geographic and generational scope within which postmemory is theorised. Ahrum Jeon's research on second- and third-generation North Korean war refugees extends postmemory beyond the second generation Hirsch originally theorised, and beyond the Holocaust framework in which the concept originated, while also complicating the assumption that postmemory is definitionally organised around trauma: her informants construct "positive family memories" alongside painful ones (Jeon 2024, 955–957). This expansion is instructive for the present argument in two respects. First, it confirms that postmemory's applicability to non-Holocaust, non-Western contexts—including Korean division and displacement—is now well established in the field, rather than a move this article must independently justify. Second, and more specifically relevant to *489 Years*, it cautions against assuming that inherited memory of a militarised, divided landscape is reducible to trauma alone, a caution this article returns to below in reconsidering the former soldier's testimony.

Taken together, Mandolessi's, Shibolet's, and Jeon's arguments suggest that the difficulty this article addresses—how postmemory operates once photographic indexicality is unavailable—is not a problem unique to Kwon's practice or to VR as a medium, but a more general condition that memory studies has been approaching from several directions at once: from the ontology of the digital archive, from animated documentary's long-standing negotiation of evidentiary trust, and from the geographic and generational expansion of postmemory beyond its original Holocaust-centred frame. Positioning Kwon's practice within this wider field, rather than treating *489 Years* and *Lack of Evidence* as isolated case studies requiring an entirely new theoretical

apparatus, is one of the central methodological commitments of this article. What Kwon's work adds to this field is a sustained, medium-specific meditation on what happens when the absence of indexical evidence is not a byproduct of digital circulation—as in Mandolessi's account of the archived web—but a condition built into the historical event itself: a border no camera may cross, a persecution no photograph exists to prove.

Situating Kwon's practice within multidirectional memory

Reading *489 Years* and *Lack of Evidence* together also requires addressing a methodological question that postmemory theory, developed around a single traumatic history, does not by itself resolve: what warrants treating a militarised Korean border and a Nigerian asylum case within a single analytic frame? Michael Rothberg's concept of multidirectional memory offers a relevant model here, though not one this article adopts wholesale. Rothberg argues against a "zero-sum logic" in which attention to one history of violence necessarily displaces attention to another, proposing instead that memories of distinct traumatic histories "feed off of each other in a productive dynamic," generating cross-referencing and echo rather than competition.[v] On this view, the rise of a globally circulating vocabulary for memory and testimony—of which Hirsch's postmemory is itself a part—has tended to generate more attention to other traumatic histories, not less. Kwon's practice can be read as enacting exactly this kind of multidirectional traffic at the level of artistic method: the wireframe strategy she develops for Oscar's testimony in 2011 becomes, five years later, a resource for representing the DMZ, a space with its own distinct history of division, militarisation, and Cold War geopolitics unrelated to Nigerian asylum law. This article does not claim that the DMZ and Oscar's persecution are comparable as historical events; it claims only that Kwon's formal solution to one evidentiary crisis—visible, acknowledged construction in place of photographic proof—travels productively to a second,

unrelated crisis, and that this travelling suggests—though a corpus of two works cannot establish it—that post-indexical postmemory may apply beyond any single history.

Disciplinary scope

This article is positioned within digital humanities and media studies scholarship on memory, testimony, and evidentiary form, rather than within art history narrowly construed or within technical human-computer-interaction research on virtual reality. Its method is close reading of two artworks informed by memory-studies theory, media-specificity analysis, and comparative reference to adjacent testimonial practices in documentary animation and evidentiary reconstruction; it does not report empirical audience research, nor does it evaluate VR hardware or software design on technical grounds. This positioning matters for how the article's claims should be read: when the discussion argues that a work "produces" or "generates" a particular effect, the claim concerns the work's formal and representational structure—what the work does, materially and technically, and what interpretive possibilities that structure opens or forecloses—rather than a documented finding about how actual audiences respond. Where audience response is invoked, as in the discussion of *489 Years*'s critical reception, this is flagged explicitly as illustrative rather than as systematic evidence. The article's contribution is accordingly theoretical and interpretive: it proposes a concept, post-indexical postmemory, intended for use by other scholars working on VR, animation, and related computational media within memory studies and digital humanities, and it examines that concept against two specific case materials—one principal case and one extended context—rather than against a broader corpus. Formal descriptions of the two works are based on the works and their published documentation (collection records, exhibition texts, and criticism), which is cited wherever a specific detail of interface, duration, or production is given.

Research questions

This study addresses two interrelated questions. First, how does VR—and, in Kwon's case, 3D wireframe animation adjacent to but distinct from VR—function as an apparatus of postmemorial transmission when the indexical trace anchoring Hirsch's theory is absent or technologically superseded, and what happens to postmemory as a structure of transmission when photographic indexicality itself becomes epistemically unreliable in an age of computational image synthesis? These are treated as a single question because the DMZ's inaccessibility to photography and the wireframe's refusal of photorealism are, in Kwon's practice, two responses to a common condition: the unavailability of indexical evidence, whether due to spatial prohibition or evidentiary rejection. Second, and in a supporting rather than independently driving role, how does Kwon's position as a Korean artist working from France inform the ethical and representational choices visible in these two works, without that position being treated as a stable identity category that explains the work in advance? This second question is taken up specifically where it bears on the case analyses, rather than as free-standing biographical background.

Analytical framework

The analysis proceeds through media-specific formalism attentive to VR's and 3D animation's distinct technological affordances, close reading of interface conditions in each work, and comparative positioning of Kwon's practice against Forensic Architecture's evidentiary 3D reconstructions and Rithy Panh's *The Missing Picture* (2013). Because *489 Years* and *Lack of Evidence* differ in interface—the former requires a head-mounted display and stereoscopic navigation, the latter is a fixed-frame video installation using wireframe rendering—detailed discussion of each work's specific affordances is treated as belonging to its respective case study

rather than to this framework section, in order to avoid describing the same works twice. What this section establishes in advance is only the shared analytic question: what kind of testimonial claim does each work make, given its own interface, and how does that claim relate to photographic evidentiary norms.

Kwon's artistic context

Kwon was born in Seoul in 1981. She studied at the École des Beaux-Arts de Nantes and at Le Fresnoy—Studio national des arts contemporains, in Tourcoing—where she completed *Lack of Evidence* as her diploma project in 2011 (Kadist n.d.; Ars Electronica 2018). She has described her practice as engaging "the construction of historical and individual memory and their ambivalent relationship to reality and fiction" (Ars Electronica 2018), and she is more consistently introduced in international exhibition contexts as a Korean artist working between France and Korea than through any more elaborate identity framework. This article does not treat her biography as evidence of a particular theorised subject-position—diasporic, hybrid, or otherwise—prior to and apart from what the two works themselves do; where her positionality matters to the argument, it is because *489 Years* and *Lack of Evidence* each stage, formally, a relationship of acknowledged distance between artist and subject matter, and it is that formal staging, rather than a biographical category applied from outside, that this article analyses.

Theoretical framework: memory, mediation, and virtual transmission

Postmemory and prosthetic memory: a working distinction

Two frameworks for theorising memory transmission through technological mediation are relevant here, and they are introduced only to the extent that they sharpen the concept developed below. Hirsch's postmemory, as already outlined, depends on familial and photographic transmission and on the photograph's indexical claim (Hirsch 2008). Alison Landsberg's

prosthetic memory, developed partly in contradistinction to postmemory's genealogical constraints, foregrounds mass cultural technologies—cinema, experiential museums—that enable memories of pasts one did not live to be taken up across social rather than familial lines (Landsberg 2004, 2, 48). Where Hirsch's model privileges intimate, often painful inheritance within a bounded community, Landsberg's privileges technologically mediated encounter available in principle to anyone.

Landsberg's optimism about mass cultural technologies' political potential—her claim that cinema and museum installations can generate genuine empathetic identification across lines of race, nation, and generation (Landsberg 2004, 2)—is open to the objection that it underestimates commodification's force and risks conflating a felt phenomenological experience with actual historical or ethical understanding. Postmemory and prosthetic memory each, in their different ways, court a related risk—postmemory by presuming photographic transmission as a near-universal mechanism, prosthetic memory by presuming that mass-cultural technological encounter reliably produces ethically productive empathy—the same tendency towards unwarranted universalisation that Rothberg's multidirectional model, discussed above, was designed to resist. Kwon's practice is instructive precisely because it rests on neither presumption: *489 Years* does not claim that VR immersion automatically produces ethical understanding of the DMZ's history, and *Lack of Evidence*, discussed below as extended context for this argument, explicitly withholds the kind of confident, resolved representation that would make such a claim.

VR sits at the intersection of both models without belonging cleanly to either. *489 Years* offers Hirsch's intimacy—first-person access to one testifying individual's memory—within Landsberg's experiential, technologically mediated encounter with a historical site the viewer has not lived through. But Kwon's work also refuses the seamlessness that both models, in their more

optimistic registers, can imply. By foregrounding its own construction through visible low-fidelity rendering rather than concealing that construction behind photorealistic illusion, *489 Years* declines the frictionless "prosthetic" integration Landsberg's account sometimes suggests, and declines as well the indexical guarantee Hirsch's account presupposes. This double refusal—of seamless prosthesis and of photographic evidence—is the condition from which the concept of post-indexical postmemory, developed fully in the first case study below, emerges. Post-indexical postmemory is not proposed here as a synthesis reconciling Hirsch and Landsberg; rather, VR's specific interface conditions make visible a representational option neither theorist, writing before VR's contemporary artistic use, had reason to theorise: mediation acknowledged as mediation, functioning as an ethical stance rather than a technical limitation.

Case study 1: 489 Years (2016)

Virtual mediation of inaccessible trauma

489 Years exists in two formats: a single-screen digital projection (2015) and a virtual reality version (2016) experienced through a head-mounted display (ArtReview 2017). This article addresses the VR version, which offers head-tracked, first-person viewing of a computer-generated reconstruction of the Korean DMZ, realised with a video-game environment designer and structured by a former South Korean soldier's recorded recollection of a nocturnal patrol (ArtReview 2017). The reconstructed landscape is sparse and low-polygon, and its military traces—a mine-strewn field and the edges of a zone that may not be crossed—are rendered without photographic texture. The title refers to the estimated time required to clear the more than one million landmines planted throughout the DMZ at current demining rates.[vi] Viewers move through the zone not as soldiers or researchers but, in effect, as witnesses to a space that remains legally and physically inaccessible to civilians.

The DMZ runs roughly 250 kilometres in length with an average width of four kilometres, a militarised boundary frozen between North and South Korea for over seven decades (Kim 2016, 162). Restrictions on photography and the absolute denial of civilian access render this space unavailable to the ordinary channels through which postmemory theory assumes trauma is documented and inherited. It is worth being precise about what is and is not absent here: satellite imagery of the DMZ exists, as does military documentation and photography of its southern periphery and eco-tourism corridors, which have themselves become sites of a curated, depoliticised "idyllic" DMZ tourism that brackets Cold War history in favour of nature imagery (Koh 2019, 663).[vii] What is structurally absent is first-person, civilian photographic documentation of the militarised zone's interior at any point since 1953—the vantage from which a soldier's or a returning family member's memory would otherwise be anchored. Kwon's reconstruction responds to this specific absence, not to an undifferentiated absence of all DMZ imagery.

Kwon's approach begins from an acknowledgment of distance rather than a claim to immediacy. She has never personally entered the DMZ; she built the virtual environment, with a video-game environment designer, from recorded interviews with a former South Korean soldier who had carried out research missions within its boundaries (ArtReview 2017). Building a representation from secondhand testimony rather than direct observation becomes central to the work's ethics of mediation—an approach that resonates with, without simply restating, Hirsch's account of postmemory as a relation mediated by "imaginative investment, projection, and creation" rather than by recall (Hirsch 2008, 107). The low-fidelity graphics—angular polygons, simplified textures, evident digital construction—refuse photorealistic representation, emphasising the constructed nature of the reconstruction itself.

Kwon's reconstruction thus stands in implicit contrast to another, more visible mode of DMZ representation: the eco-tourism and art-tourism circuits that have developed around the zone's southern edge since the early 2010s. Dong-Yeon Koh, drawing on Marc Augé's theory of "non-place," argues that DMZ tourists—whether bus travellers or cyclists—form only a "fictional" and "temporary" relationship to the site, encountering it as an ostensibly neutral natural landscape from which "the tragic and tumultuous histories of Cold War politics" have been consciously screened out (Koh 2019, 663). Even artist-led interventions in this space, Koh suggests, risk reproducing this distancing effect when they foreground landscape and design over the DMZ's political history (Koh 2019, 664–665)—a concern Koh raises in part through *489 Years* itself, which she discusses as one of the works commissioned for the 2015 Real DMZ Project alongside pieces by Jisun Shin and Youngjoo Cho, arguing that Kwon's work, unlike some others in that context, actively challenges rather than reproduces the DMZ's "allegedly safe and benign image" (Koh 2019, 664). *489 Years* takes the opposite formal strategy from tourist representation: rather than offering a curated, camera-ready vista, its deliberately unresolved, low-fidelity terrain refuses the visual comfort that tourist photography of the DMZ's periphery routinely supplies. Where DMZ tourism substitutes a photographable, depoliticised nature for the zone's buried history, Kwon substitutes an unphotographable, admittedly fabricated reconstruction that keeps the zone's militarised history in view. The contrast clarifies what is specific to Kwon's intervention: the issue is not simply that photographs of the DMZ are unavailable, but that the photographs that are available—tourist images of its periphery—actively obscure the history her reconstruction seeks to make legible.

It is also worth noting, following recent scholarship on postmemory beyond the trauma paradigm, that the soldier's testimony recorded here is not reducible to trauma. His account includes wonder

at the DMZ's accidental rewilding—nature reclaiming a militarised landscape—alongside the danger of landmines and the strangeness of patrolling a border that exists to prevent a war from resuming. Framing the work solely through inherited trauma would flatten this ambivalence; following Jeon's (2024) argument that postmemory among Korean war-displaced descendants includes registers other than trauma, *489 Years* is read here as transmitting a more mixed structure of feeling—apprehension, ecological fascination, and historical grief together—rather than trauma alone.

Positionality as formal choice, not biographical given

Kwon's relationship to the DMZ is worth specifying carefully, since it bears directly on how the work's mediation should be read. She is a South Korean citizen who, like the overwhelming majority of South Koreans, has not—on the available record—entered the DMZ, and her published statements claim no personal or familial connection to the zone beyond national citizenship; she is, in this respect, considerably closer to the position of her intended audience than to that of the former soldier whose testimony she visualises. What her years working in France add to this picture is not a hybrid or liminal identity that the work expresses, but a practical distance from the day-to-day political discourse in which the DMZ functions, in South Korea, as a live and often polarising symbol—a distance that arguably makes visible, to her, the strangeness of a landscape many South Korean viewers have learned not to see as strange at all. This is a modest claim about working conditions and professional context, not a claim about diasporic subjectivity as such, and it is the claim this article is prepared to defend given the available biographical evidence.

A more elaborate framing of Kwon's position—one that reads her time in France as evidence of a general condition of cultural in-betweenness, hybridity, or exile, and treats that condition as itself

explanatory of the work's formal choices—would risk two related problems. First, it would substitute an interpretive category supplied from outside for the artist's own, more modest account of her practice as concerned with testimony, memory, and the ambivalent relation between historical fact and fiction, rather than with identity as such. Second, it would risk grounding her authority to represent the DMZ in a biographical category rather than in the specific methodological choice, examined throughout this case study, to build the reconstruction from testimony she explicitly does not claim as her own experience. That methodological choice—acknowledged distance, secondhand construction, transparent mediation—is available to the analysis without requiring any claim about the artist's identity beyond the plain biographical facts already established.

VR as phenomenological apparatus

VR's phenomenology differs fundamentally from cinema's passive viewership. Where documentary film positions viewers as witnesses to a predetermined temporal sequence, head-tracked VR grants the viewer control over the direction of the gaze. In *489 Years*, participants wearing a head-mounted display occupy a first-person position within the reconstructed DMZ; physical head movements translate directly into shifts in virtual viewpoint. Head tracking of this kind is designed to recruit what may be termed proprioceptive immersion: vestibular and kinaesthetic feedback generating the sensation that one's body inhabits virtual space rather than merely observing its representation.[viii] The soundscape reinforces this bodily address: the soldier's narration accompanies the participant through the environment, so that testimony arrives while the participant occupies the terrain it describes, rather than as commentary on images viewed from outside. This design choice matters for the article's argument, since it extends the work's refusal of external, evidentiary distance from visual construction into its

treatment of sound: the listener is placed inside the account being given, not positioned to assess it from a documentary remove.

Recent postphenomenological work on VR—that is, work examining how technology and user mutually shape one another in use—clarifies what is distinctive here. Joakim Vindenes and Barbara Wasson argue that VR mediation should be understood not as an encounter between a pre-existing human subject and a neutral technology, but as a relation in which "the human subject and the experienced technology" are mutually constituted through the interaction itself (Vindenes and Wasson 2021, 5). On this account, VR does not simply transmit information about the DMZ to a stable viewing subject; it constitutes, for the duration of the experience, a particular user-environment relation—one in which the viewer's subjectivity is provisionally reorganised around the constraints Kwon has built into the environment. This framework also clarifies why *489 Years* and *Lack of Evidence* cannot be assumed to produce equivalent effects despite both being three-dimensional digital reconstructions: only *489 Years* constitutes the head-mounted, embodied user-environment relation Vindenes and Wasson describe, while *Lack of Evidence*, viewed on a screen, constitutes a different relation discussed in the second case study below. Treating both simply as "VR" would obscure precisely the interface distinction on which each work's ethical claims depend.

Jihoon Kim's concept of "synthetic vision" offers a related and more granular vocabulary. Kim argues that VR documentary spectatorship combines a "disembodied vision" that transports viewers into a simulated world with an "embodied vision" secured by kinaesthetic control over gaze and movement, and that the political and ethical consequences of VR works depend on how these two visions are negotiated rather than on VR's technical capacities alone (Kim 2021, 321, 341–342). Kim further distinguishes three genres of VR documentary—humanitarian and

journalistic works, nature and travel works, and works reenacting conscious or remembered experience—arguing that the political consequences of synthetic vision differ across these genres depending on how the viewer's positionality relates to the social actor depicted (Kim 2021, 325). Humanitarian VR journalism, on his account, risks a structural problem: because the viewer's embodied presence in the reconstructed scene cannot coincide with the position of the actual documentarian or witness, the promise of "walking in someone's shoes" can paradoxically reinforce distance from, rather than solidarity with, the people depicted (Kim 2021, 341). *489 Years* is less exposed to this specific risk because it does not stage humanitarian proximity to a living victim in real time; it stages a memorial reconstruction, mediated at one remove through a testifying soldier who is not himself the DMZ's primary victim but one of its many witnesses. This places the work closer to what Kim calls VR's reenactment genre, in which the viewer's embodied presence is sutured to a testifying subject's remembered perspective rather than to a claim of unmediated access to an ongoing crisis (Kim 2021, 342). The distinction matters ethically: *489 Years* does not claim to deliver unmediated access to a distant present-tense suffering; it stages, and repeatedly signals that it is staging, one person's belated, reconstructed memory of a space most viewers—Korean or otherwise—will never enter.

In *489 Years*, the disembodied vision of the reconstructed DMZ is sutured to an embodied vision constrained by invisible boundaries: users cannot touch objects, alter the landscape, or leave the zone. This constrained interactivity is not incidental; it enacts the paradox of postmemorial engagement more broadly, in which a generation (or a viewing public) inheriting trauma without direct experience possesses neither complete access nor total distance. Each viewer's head movements produce a different sequence of views, an individualised yet bounded experience: no two viewers attend to the reconstructed terrain in exactly the same way, yet all do so within

parameters the soldier's account and Kwon's design have already established. This bounded quality of VR's temporality—unlike cinema's fixed frame, each visit to the DMZ is individually framed yet constrained by rules the artist has authored in advance—gives Kwon's low-fidelity design choices the character of what Janet Murray calls "procedural authorship": writing the rules by which a text appears, not only the text itself (Murray 1997, 152–153). Johanna Drucker makes a related argument for digital design more generally, insisting that interface and visualisation choices are "performative" rather than neutral, actively constituting knowledge rather than transparently representing it (Drucker 2009, 4–5); Kwon's terrain, on this account, is not a decorative style applied to pre-existing testimony but part of the argument the work makes about how that testimony can be known at all. The work's non-photorealistic rendering reinforces this governing structure visually: rather than the sunlit, saturated vistas that tourist photography of the DMZ's periphery typically favours, the nocturnal terrain is rendered in simplified, untextured forms that refuse the kind of atmospheric verisimilitude that would make the scene legible as a captured moment rather than an authored construction.

Interface design here can be read as an ethical statement. Kwon's low-fidelity graphics refuse the photorealistic mimesis that might otherwise claim transparent access to the real; a sparse visual vocabulary keeps the constructed nature of the reconstruction continuously legible. Read this way, distance becomes productive rather than limiting: acknowledged mediation functions as an ethical choice rather than as a technical constraint the work would eliminate if it could.

Post-indexical postmemory: beyond the photographic paradigm

Hirsch's postmemory presumes a specific media ontology: the photograph as material evidence that someone or something occupied a given coordinate at a given moment. *489 Years* excludes the indexical photograph from its representational economy. The DMZ's interior remains

inaccessible to civilian cameras; Kwon's environment derives instead from oral testimony, translated into a computer-generated landscape by the artist and a collaborating environment designer (ArtReview 2017). The work announces itself as constructed artefact rather than indexical record.

This rejection of photographic indexicality might seem to compromise the work's capacity to transmit postmemory. Yet at least some critical and curatorial accounts of the work describe an affective intensity that does not obviously depend on indexical evidence: the Ars Electronica jury described the work as bringing "humanity and empathy" to its subject and as "deeply moving" (Ars Electronica 2018). Kwon's practice more broadly has also received institutional recognition, including a 2017 solo exhibition at the Palais de Tokyo following her receipt of the 2015 Prix Découverte des Amis du Palais de Tokyo (Palais de Tokyo 2017); this indicates recognition of her practice rather than documented audience response to *489 Years* specifically. These are judgements by jurors, critics, and curators, not evidence of how general audiences respond, and no controlled study of viewer response to *489 Years* is known to exist. The claim this article makes about the work's reception is accordingly interpretive rather than empirical, grounded in the formal analysis developed here rather than in systematic audience data. The interpretive claim is limited: acknowledged fabrication, in Kwon's work, need not diminish affective engagement, and this possibility warrants theoretical reconsideration of how memory transmits across generational and experiential divides in contemporary media ecologies.

The concept of post-indexical postmemory is proposed here to designate modes of memory transmission that operate independently of indexical trace—through acknowledged fabrication that is nevertheless designed to invite embodied engagement with historical material. Maurice Merleau-Ponty's phenomenology of embodied perception, in which vision itself operates tactilely,

provides one philosophical anchor for understanding VR as more than visual representation (Merleau-Ponty, as discussed in Lauwrens 2019): the virtual environment becomes something inhabited rather than a distant image merely observed. Where photography, in Barthes's account, operates through the punctum—the wounding, singular detail—VR can be understood to intensify what Laura Marks, writing of film and video, calls "haptic visuality," a mode of looking oriented towards tactile and proprioceptive encounter rather than optical verification (Marks 2000, 162). Put schematically—and subject to the genre qualifications set out in the conclusion—the difference is not merely technological but epistemological: photography asks viewers to believe that something happened; VR asks viewers to feel as if they are there. This is a shift from evidentiary authentication to embodied simulation, and it is the shift this article terms post-indexical postmemory.

The term is deliberately built on, rather than against, the vocabulary of indexicality that Shibolet and Ehrlich identify as already contested within animated documentary before VR's emergence as an artistic medium. If, as Shibolet argues, animated documentary had already substituted "spectatorial trust in the authenticity of creatively depicted experiences" for indexical proof well before *489 Years* was made (Shibolet 2021, 279), then post-indexical postmemory names not a rupture unique to VR but the point at which this substitution becomes constitutive of a memory-transmission structure rather than a stylistic choice within a single film. What VR adds to animation's prior negotiation of indexicality is the proprioceptive dimension: *489 Years* does not simply ask viewers to trust an animated account, as *Waltz with Bashir*'s spectators are asked to do from a fixed cinematic vantage; it locates the viewer's own body within the reconstructed space, so that the evidential "that-has-been" Barthes reserves for the photograph gives way to an "as-if-I-were-there" grounded in the viewer's kinaesthetic experience of occupying Kwon's

terrain. Post-indexical postmemory is, in this sense, post-indexical in a precise way: it does not deny that indexicality once organised postmemory's classic photographic form, nor does it claim indexicality has become irrelevant; it names the specific representational labour VR performs once indexicality is unavailable and mediation must be foregrounded rather than concealed in order to remain ethically legible.

Extending the argument: Lack of Evidence and Kwon's broader testimonial practice

Wireframe testimony and the politics of interface

Lack of Evidence (2011) is a video installation, not a head-mounted VR work, that translates the asylum testimony of Oscar, a Nigerian refugee, into three-dimensional wireframe animation viewed on a screen. This distinction matters for how the present section is positioned: because the work lacks the embodied, head-tracked interface that constitutes *489 Years*'s user-environment relation, it cannot be analysed through Kim's or Vindenes and Wasson's frameworks for immersive VR spectatorship, and it is not treated here as a second, coequal VR case study. It is discussed instead, more briefly, as context that extends the argument developed above: evidence that Kwon's acknowledged-construction strategy is not incidental to *489 Years*'s specific VR interface but a recurring feature of her broader approach to testimony and evidentiary absence, realised here through a different, non-immersive interface five years earlier in her career.

Oscar's testimony, as the work and its documentation present it, concerned his flight from Nigeria after a ritual attempt on his life and his brother's, grounded in beliefs that associate twins with spiritual danger, in which his brother was killed (Kadist n.d.; Unifrance n.d.); French authorities found the account unverifiable and rejected his asylum application for lack of

material proof.[ix] This is the specific evidentiary crisis the work responds to. Briefly: French asylum adjudication, per Fassin's ethnographic account, tends in practice towards a "hermeneutics of suspicion" that presumes testimony fictitious absent material corroboration (Fassin 2013, 44), while adjudicators more broadly have been shown to treat the ordinary discrepancies of trauma-affected memory—which one study found to be common across repeated interviews, particularly for peripheral details and among participants with high levels of post-traumatic stress—as evidence of fabrication rather than as a predictable effect of trauma on recall (Herlihy et al. 2002, 324–327; Herlihy et al. 2010, 351). Kwon's wireframe does not attempt to resolve this evidentiary bind; it visualises testimony precisely at the point where documentary proof is structurally unavailable.

Formally, the wireframe interface differs from *489 Years* in ways that carry their own ethical weight, and it repays close description on its own terms. The work presents sparse geometric figures—transparent skeletal structures built from visible vertices and connecting edges, with no rendered surfaces, no photorealistic shading or texture, and no illusion of solid mass—moving through minimal, similarly unrendered architectural space over a fixed running time of just over nine minutes (Kadist n.d.). Where *489 Years* immerses a single, embodied viewer inside a navigable space with a first-person, head-tracked viewpoint the viewer controls, *Lack of Evidence* is exhibited as a fixed single-channel video: the viewpoint is Kwon's own directorial choice, not the viewer's, and the viewer watches from a stable external position rather than inhabiting the reconstructed scene. This is not a diminished or incomplete version of VR immersion; it is a different interface choice suited to a different representational problem. Because Oscar's testimony was rejected specifically for lacking documentary corroboration, a work that immersed viewers as embodied participants inside a simulation of his experience

might risk implying that the visualisation itself supplies the missing proof—precisely the evidentiary logic the work seeks to refuse. By keeping viewers at an external, screen-based remove, under a camera position she herself controls rather than cedes to the viewer, while still rendering Oscar's account in three dimensions, Kwon holds two claims in tension: that the testimony deserves visualisation and serious engagement, and that no visualisation, however elaborate, can or should substitute for the corroboration the French state demanded and that could not be produced. The fixed, non-immersive, externally viewed frame is thus itself a formal argument about the limits of what visualisation can ethically claim to do—an argument *489 Years*'s embodied, first-person interface, by contrast, does not and need not make, since the DMZ's absence of evidence is a matter of spatial prohibition rather than legal-evidentiary adjudication.

The wireframe's visible gaps—the spaces between vertices where no surface is rendered—can be read, following Gail McFadyen's account of asylum testimony, as a formal analogue to the interpretively meaningful silences that trauma-affected and culturally specific narratives regularly contain and that Western adjudicators routinely misread as deficiency rather than as structural feature (McFadyen 2018, 178–179). Kwon's wireframe does not fill these gaps with invented detail; it leaves them visible, which is to say legible as gaps, rather than smoothing them into a falsely complete account. This aesthetic of incompleteness carries theoretical weight for representation where documentary evidence is structurally absent: rather than compensating for the archival gap with a veneer of visual certainty, Kwon's wireframes make that gap palpable, insisting that representation remain provisional and ethically self-aware.

Photorealistic reconstruction, by contrast, operates within what might be called a rhetoric of objectivity, assuming that visual verisimilitude correlates with factual accuracy; by presenting

surfaces mimicking photographic capture, it implicitly claims indexicality while erasing the computational mediation that produced the image. This risks reinforcing the very evidentiary hierarchy that excludes refugees like Oscar, whose persecution leaves no material trace. Kwon's wireframes operate by an opposing logic: the visible vertices, transparent planes, and exposed computational process perform what can be called ethical transparency, visualising testimony's actual epistemological condition—partial, embodied, irreducible to documentary verification.

Two paradigms of three-dimensional testimony

Eyal Weizman's Forensic Architecture collective produces photorealistic 3D reconstructions—of, among other cases, the bombardment of Rafah on 1 August 2014—using rendered surfaces that mimic photographic texture and spatial measurements derived from satellite imagery, often prepared for legal and quasi-legal forums and performing a declarative epistemology: "this is what happened" (Weizman 2017, 9). Weizman terms this practice *forensis*: bringing evidence before a forum (Weizman 2017, 9). Kwon's *Lack of Evidence* presents wireframe figures designed not for courtroom admissibility but for gallery exhibition and critical intervention, performing an interrogative epistemology instead: we cannot know everything that happened, but the testimony demands ethical engagement regardless. Kwon's practice addresses a different epistemic condition from Forensic Architecture's typical case—not the absence of one piece of evidence within an otherwise-documented event, but the structural absence of any corroborating evidence whatsoever. The two strategies are better understood as complementary than as competing, each fitted to a different forum and a different evidentiary condition. Helene Strauss's analysis of Rehad Desai's documentary film *Miners Shot Down* (2014), on the South African state's killing of striking mineworkers at Marikana in 2012, offers a related account of documentary strategy confronting a different kind of evidentiary and affective problem: not an

absent archive but a contested one, in which state and corporate actors actively worked to manage public feeling about an event that was, unlike the DMZ or Oscar's testimony, extensively filmed (Strauss 2016, 58–60). Strauss's distinction between psychic and social registers of mourning available to viewers positioned outside the massacre itself is a useful reminder that documentary strategies responding to state violence must be calibrated to the specific evidentiary condition at hand—full but contested documentation, in the Marikana case, rather than structural absence, in Kwon's—and that acknowledged construction is accordingly not a single strategy but a family of related strategies, each fitted to a different relationship between evidence, power, and the archive.

The difference in intended audience follows from this difference in epistemic condition. Forensic Architecture's reconstructions are built to withstand adversarial scrutiny: opposing counsel, sceptical judges, and, increasingly, state actors disputing the reconstruction's accuracy on technical grounds. Their photorealism therefore serves an argumentative function, approximating the visual register that legal fact-finders are trained to trust. Kwon's gallery audience occupies a different position: not adjudicators weighing competing evidentiary claims, but viewers invited to sit with a testimony that a state adjudicator has already rejected. The wireframe's visible incompleteness would be a liability in Forensic Architecture's forum, where it might read as an admission of uncertainty a hostile cross-examination could exploit; in Kwon's forum, that same incompleteness becomes the work's central ethical resource, the formal means by which it declines to overstate what visualisation alone can establish.

Rithy Panh's *The Missing Picture* (2013) offers a related precedent, using hand-carved clay figurines to materially embody both the making and unmaking of individuals under genocidal violence, since existing photographic and filmic records of the Khmer Rouge period are almost

entirely perpetrator-produced propaganda (Sánchez-Biosca 2018, 142). Kwon's digital wireframes pursue a comparable refusal of seamless representation. The comparison across clay animation, digital wireframe, and photorealistic 3D reconstruction suggests that acknowledged fabrication, as a representational strategy for evidentiary absence, is not specific to any one medium; each develops its own formal vocabulary—clay, wireframe, or forensic photorealism—for making that absence visible rather than papering over it.

The politics of incompleteness, and what "digital testimony" means

The wireframe figures in *Lack of Evidence* never achieve solidity; their geometric skeletons remain perpetually visible. This formal incompleteness performs a digital analogue of Bertolt Brecht's *Verfremdungseffekt*: where conventional realism encourages passive identification, Brecht's estrangement techniques foreground the constructedness of representation (Brecht 1964, 91). This is not a failure of representational fidelity but a mode of ethical instruction, training viewers to inhabit the epistemic limits of digital testimony.

It is worth naming precisely what is at stake in calling this "digital testimony," a term this article has used loosely so far. Testimony, in its ordinary legal and ethical sense, denotes a first-person account offered by the person who experienced an event; "digital testimony" might therefore misleadingly suggest that the technology itself testifies, or that testimony is somehow enabled or generated by digital means. What Kwon's work actually does is mediate an existing testimony—Oscar's spoken account, given to immigration authorities and, separately, to the artist—through digital visualisation. The digital form does not constitute the testimony; it renders visible a testimony that already exists in spoken and documentary (if legally insufficient) form, while making the act of rendering conspicuous rather than hidden. In what follows, "digital testimony" refers specifically to this mediated visualisation of prior testimony, not to testimony as such

originating in digital form.

Conclusion: post-indexical postmemory and the future of digital testimony

This study began with a representational problem: what becomes of postmemory when the spaces and experiences it seeks to engage remain outside photography's reach? Hirsch's foundational theorisation positioned the photograph's indexical trace as postmemory's epistemological guarantee. This presumes that cameras had access to sites of violence, that traumatic events generated photographic archives, and that indexical evidence survived to enable transmission. For the Korean DMZ and for testimonies like Oscar's, these presumptions do not hold—not because no photography of these subjects exists anywhere, but because the specific first-hand documentation postmemory theory assumes (a photograph taken by someone present at the moment of trauma, later inherited by descendants) is, in these cases, structurally unavailable: prohibited by military restriction in one case, rejected as insufficient by legal process in the other.

Kwon's practice suggests that postmemorial transmission need not depend on photography's indexical authority. Her VR reconstruction and wireframe testimony are structured to invite embodied or visual engagement with inaccessible spaces and undocumented experience while remaining transparent about their own constructedness. This dialectic between immersive or visual engagement and acknowledged mediation is what this article terms post-indexical postmemory: a mode of transmission operating through embodied simulation rather than indexical evidence, locating credibility in the transparency of representational method rather than in claims to unmediated access.

This intervention bears on broader transformations in how memory circulates through contemporary media. The shift from photography's "that-has-been" to VR's "as-if-I-were-there" is not merely a change in representational technology; it may revise what counts as adequate evidence for inherited experience. It is worth resisting, however, a schematic version of this contrast, since photography has run its own post-indexical experiments well before VR existed as an artistic medium. Photography itself has, in recent decades, developed extensive practices—conceptual, forensic, and archival—that trouble any simple equation of the medium with indexical certainty; the "that-has-been" this article contrasts with VR's mode describes a particular, historically dominant genre of documentary and family photography, not photography as such. Forensic Architecture's own practice, discussed above, is itself photographically grounded yet explicitly foregrounds the constructed, inferential nature of its reconstructions rather than claiming naive indexical transparency; a substantial tradition of post-conceptual and archival photographic practice has, since at least the 1970s, treated the photograph as always already a construction rather than a neutral trace. Similarly, not all VR or 3D-animated work adopts Kwon's reflexive, anti-photorealistic strategy; much commercial and journalistic VR aims precisely at the seamless illusion Kwon's wireframes refuse, and Kim's account of humanitarian VR journalism suggests that such work can reproduce rather than interrupt problematic evidentiary assumptions (Kim 2021, 341). The opposition developed in this article, in other words, holds for the specific works examined here—Kwon's particular, reflexively anti-photorealistic use of VR and wireframe animation, read against the particular genre of family and documentary photography that grounds Hirsch's original theorisation. It should not be generalised into a claim that photography as a medium is intrinsically indexical and VR as a medium is intrinsically post-indexical; both media contain internal genres that cut against such a

generalisation, and the argument of this article depends on specifying genre and instance rather than medium alone.

The proliferation of generative AI image synthesis since the early 2020s has made photorealistic fabrication far more widely available than it was when Kwon made *Lack of Evidence* in 2011, more than a decade before such tools became widespread. Read retrospectively, her choice of visible wireframe over photorealistic rendering can be read as anticipating a problem contemporary media theorists now address more urgently: how to locate credibility once photorealistic images can no longer be presumed to bear any necessary relationship to what they depict. Post-indexical postmemory, in this sense, addresses both a historical inheritance—how trauma transmits across generations when photography cannot serve as memory's privileged medium, whether due to spatial inaccessibility or evidentiary rejection—and a contemporary condition, in which any generation, not only a "postgeneration," must establish credible memory under conditions where images alone no longer guarantee their own truth.

Read together, *489 Years* and *Lack of Evidence* also suggest a more general methodological lesson for memory studies as it continues to extend postmemory beyond Hirsch's original object and medium. The two works do not require, and this article has not offered, a single unified theory of "digital memory" that would apply identically across militarised borders and asylum tribunals, VR headsets and screen-based animation, Korean division and Nigerian persecution. What they share instead is a formal commitment—visible construction over concealed mediation—that travels across these differences without erasing them. Post-indexical postmemory names that travelling formal commitment, not a claim that all technologically mediated memory now works identically once photography's authority has receded. Future work extending this framework to other VR and animated testimonial projects would do well to

specify, as this article has tried to do for Kwon's two works, exactly which interface, which evidentiary crisis, and which absent archive is at stake in each case, rather than treating "VR" or "digital testimony" as a single undifferentiated object of study.

This article has several limitations that bear on how its conclusions should be read. First, the discussion of *489 Years*'s reception draws only on published expert commentary—chiefly jury, critical, and curatorial statements—rather than on a systematic audience study; the claims made about the work's affective operation are accordingly interpretive, grounded in formal analysis of the work itself, and should not be read as empirical claims about how any defined audience population responds. A future study incorporating structured audience research—interviews or surveys with viewers who have completed the VR experience—could test whether these interpretive claims hold across a broader and more diverse viewing public. Second, the article works with two works by a single artist, one of which (*Lack of Evidence*) serves as extended context rather than as a coequal case; whether post-indexical postmemory describes a broader tendency in contemporary VR and animated testimonial art, or a strategy comparatively distinctive to Kwon's practice, remains an open question that only a wider comparative study, addressing works by other artists engaging comparable conditions of evidentiary absence, could settle. Third, formal descriptions of the works rely in part on the artist's published statements, collection and exhibition records, and critical accounts; because VR works are exhibited in specific hardware configurations, and *489 Years* circulates in both single-screen and VR formats, details of interface and running time may vary between versions and installations, and the analysis should be understood as addressing the VR version as documented in these sources. Fourth, the testimonies on which both works are based—those of the former soldier and of Oscar—are accessible to this study only as the works mediate them; the article makes no

independent claim about the factual accuracy of either testimony, and its argument concerns how the works represent testimony rather than what the testimony establishes. These limitations point towards the same next step: testing the concept developed here against a larger and more varied body of material, including audience data, than a single-artist study can supply.

Data availability statement

Data sharing is not applicable to this article, as no new data were created or analysed in this study. The article is a work of critical and theoretical interpretation drawing on publicly available artworks, exhibition records, and previously published scholarship, all of which are cited in the reference list.

Competing interests

The author declares no competing interests.

Ethical approval

This article does not contain any studies with human participants or animals performed by the author. Ethical approval was therefore not required. The study is a work of critical and theoretical interpretation based solely on publicly exhibited artworks, published exhibition and collection records, and previously published scholarship.

Informed consent

This article does not contain any studies with human participants performed by the author; informed consent was therefore not required. The testimonies discussed—those of a former South Korean soldier and of an asylum seeker identified in the artwork as Oscar—are analysed

solely as they appear in publicly exhibited artworks and their published documentation. The author did not interview, record, or collect personal data from these individuals or from any other person.

Author contributions

Changhee Han is the sole author and was responsible for the conception, research, analysis, and writing of this article.

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References

Ars Electronica (2018) 489 years—Hayoun Kwon. STARTS Prize. https://ars.electronica.art/starts-prize/en/489-years/. Accessed 4 Jul 2026

ArtReview (2017) Future greats: Hayoun Kwon. ArtReview, January–February 2017. https://artreview.com/jan-feb-2017-future-greats-hayoun-kwon/. Accessed 23 Sep 2026

Barthes R (1981) Camera lucida: reflections on photography (Howard R, trans). Hill and Wang, New York

Brecht B (1964) Brecht on theatre: the development of an aesthetic (Willett J, ed and trans). Hill and Wang, New York

Choe Y (2013) Postmemory DMZ in South Korean cinema, 1999–2003. J Korean Stud 18(2):315–336

Drucker J (2009) SpecLab: digital aesthetics and projects in speculative computing. University of Chicago Press, Chicago

Ehrlich N (2020) The animated document: animation's dual indexicality in mixed realities. Animation 15(3):260–275. https://doi.org/10.1177/1746847720974971

Fassin D (2013) The precarious truth of asylum. Public Cult 25(1):39–63. https://doi.org/10.1215/08992363-1890459

Herlihy J, Gleeson K, Turner S (2010) What assumptions about human behaviour underlie asylum judgments? Int J Refug Law 22(3):351–366. https://doi.org/10.1093/ijrl/eeq027

Herlihy J, Scragg P, Turner S (2002) Discrepancies in autobiographical memories: implications for the assessment of asylum seekers. BMJ 324(7333):324–327. https://doi.org/10.1136/bmj.324.7333.324

Hirsch M (1992) Family pictures: Maus, mourning, and post-memory. Discourse 15(2):3–29. https://digitalcommons.wayne.edu/discourse/vol15/iss2/1

Hirsch M (1997) Family frames: photography, narrative, and postmemory. Harvard University Press, Cambridge, MA

Hirsch M (2008) The generation of postmemory. Poetics Today 29(1):103–128. https://doi.org/10.1215/03335372-2007-019

Jeon A (2024) Beyond trauma: positive postmemories among second- and third-generation North Korean war refugees. Mem Stud 17(4):955–969. https://doi.org/10.1177/17506980241232566

Kadist (n.d.) Lack of evidence. Kadist Collection. https://kadist.org/work/lack-of-evidence/. Accessed 4 Jul 2026

Kim EJ (2016) Toward an anthropology of landmines: rogue infrastructure and military waste in the Korean DMZ. Cult Anthropol 31(2):162–187. https://doi.org/10.14506/ca31.2.02

Kim J (2021) Synthetic vision in virtual reality documentaries. Film-Philosophy 25(3):321–345. https://doi.org/10.3366/film.2021.0178

Koh D-Y (2019) The place-ness of the DMZ: the rise of DMZ tourism and the Real DMZ Project. Positions Asia Crit 27(4):653–685. https://doi.org/10.1215/10679847-7726929

Kros C (2015) Rhodes must fall: archives and counter-archives. Crit Arts 29(suppl 1):150–165. https://doi.org/10.1080/02560046.2015.1102270

Landsberg A (2004) Prosthetic memory: the transformation of American remembrance in the age of mass culture. Columbia University Press, New York

Lauwrens J (2019) Seeing touch and touching sight: a reflection on the tactility of vision. Senses Soc 14(3):297–312. https://doi.org/10.1080/17458927.2019.1663660

Lee J (2018) Hayoun Kwon: crossing the forbidden lands. Conversations at the Edge, School of the Art Institute of Chicago, 5 Apr 2018

Mandolessi S (2023) The digital turn in memory studies. Mem Stud 16(6):1513–1528. https://doi.org/10.1177/17506980231204201

Marks LU (2000) The skin of the film: intercultural cinema, embodiment, and the senses. Duke University Press, Durham, NC

McFadyen G (2018) Memory, language and silence: barriers to refuge within the British asylum system. J Immigr Refug Stud 17(2):168–184.

https://doi.org/10.1080/15562948.2018.1429697

Murray JH (1997) Hamlet on the holodeck: the future of narrative in cyberspace. Free Press, New York

Palais de Tokyo (2017) Hayoun Kwon [exhibition], 14 June–10 September 2017. Palais de Tokyo, Paris. https://palaisdetokyo.com/en/exposition/hayoun-kwon/. Accessed 4 Jul 2026

Rothberg M (2009) Multidirectional memory: remembering the Holocaust in the age of decolonization. Stanford University Press, Stanford, CA

Sánchez-Biosca V (2018) Challenging old and new images representing the Cambodian genocide: The Missing Picture (Rithy Panh, 2013). Genocide Stud Prev 12(2):140–164. https://doi.org/10.5038/1911-9933.12.2.1508

Shibolet Y (2021) Waltz with Bashir's animated traces: troubled indexicality in contemporary documentary rhetorics. In: LaRocca D (ed) Metacinema. Oxford University Press, Oxford, pp 273–290. https://doi.org/10.1093/oso/9780190095345.003.0014

Strauss H (2016) Managing public feeling: temporality, mourning and the Marikana massacre in Rehad Desai's Miners Shot Down. Crit Arts 30(4):58–73. https://doi.org/10.1080/02560046.2016.1237320

Unifrance (n.d.) Lack of evidence. https://en.unifrance.org/movie/33283/lack-of-evidence. Accessed 23 Sep 2026

Vindenes J, Wasson B (2021) A postphenomenological framework for studying user experience of immersive virtual reality. Front Virtual Real 2:656423. https://doi.org/10.3389/frvir.2021.656423

Weizman E (2017) Forensic architecture: violence at the threshold of detectability. Zone Books, New York

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[i]Hirsch's essay appeared in Discourse 15.2 (1992): 3–29, inaugurating within memory studies what would become one of the field's most influential theoretical paradigms.

[ii]Barthes's Camera Lucida (1980; English translation 1981), written in the wake of his mother's death, remains the foundational phenomenological account of photography's relationship to

mortality, memory, and evidential truth.

[iii]Choe's "Postmemory DMZ in South Korean Cinema, 1999–2003" provides theoretical scaffolding for analysing how South Korean filmmakers negotiate inherited trauma from national division without direct experiential access to the Korean War itself.

[iv]Kwon is consistently introduced in exhibition and archival contexts as a South Korean–born artist who studied at the École des Beaux-Arts de Nantes and at Le Fresnoy, graduating from the latter in 2011, and who lives and works in France (Ars Electronica 2018; Kadist n.d.). Some collection records date her move to France to 2011; since she completed her Le Fresnoy diploma in that year, this article does not rely on that date.

[v]Rothberg (2009) develops multidirectional memory partly to resist a zero-sum competition between Holocaust memory and the memory of other histories, such as slavery and colonialism; Jeon (2024) extends a comparable multidirectional sensibility to Korean War displacement.

[vi]The 489-year figure is the estimate given in the work's documentation for clearing the DMZ of its more than one million anti-personnel mines at the demining pace prevailing when the work was made (ArtReview 2017).

[vii]On landmine density and demining pace, see Kim (2016, 162); on the curated, depoliticised framing of DMZ eco-tourism, see Koh (2019, 663–665).

[viii]Proprioceptive immersion refers to the integration of vestibular feedback, kinaesthetic data, and body-schema updating that head-tracked VR displays recruit to generate a sense of embodied presence distinct from visual immersion alone.

[ix]Beliefs associating twin births with spiritual danger, and historical practices of twin infanticide, are recorded for parts of southeastern Nigeria in colonial-era and missionary sources. This article does not assess the contemporary prevalence of such beliefs or practices, and relies only on the account of Oscar's testimony given in the work and its published documentation.