

Glitching Objects as Temporal Mediators: Hyperobject Temporality in *NORCO*

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ABSTRACT

This paper examines how glitching objects in narrative games mediate hyperobject temporality, environmental forces such as petrochemical contamination that exceed human comprehension through vast spatial and temporal distribution. By examining four mundane objects in *NORCO* (Geography of Robots, 2022), the study shows how malfunction enables players to experience slow violence (Nixon) that resists direct representation. Drawing on Morton's hyperobjects, Brown's thing theory, Ingold's materials ecology, Shklovsky's defamiliarisation, and Fisher's weird and eerie, the analysis shows that glitching objects produce "troubling pleasures": experiences that are simultaneously destabilising, as uncertainty persists, and engaging, as interpretive labour yields productive meaning-making. In *NORCO*, glitching objects make pervasive environmental violence tangible through persistent malfunction. These troubling pleasures illustrate how games can mediate the temporal experience of environmental forces, supporting prolonged engagement with complex temporalities and enabling players to explore collapsed futures without reducing crises to solvable mechanics.

Keywords

Hyperobject, temporal mediator, objects, eco-game, *NORCO*, slow violence

INTRODUCTION

Video games increasingly offer sites for exploring environmental temporality as playgrounds, yet they often struggle to rigorously represent crises that unfold across vast temporal scales. While foundational work in game temporality (Zagal & Mateas 2007; Juul 2004) conceptualises time in relation to play, narrative, and system operations, this study argues that representing hyperobjects requires frameworks grounded in environmental and material temporality rather than ludic time alone. This study examines how glitching objects in *NORCO* mediate encounters with

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hyperobjects, such as petrochemical contamination and climate change that exceed direct human perception (Morton 2013). Glitching objects are defined here as game objects that malfunction, break down, or behave non-normatively in ways that resist transparent functionality, alternating between everyday utility and material presence, drawing players into prolonged interaction that renders extended temporalities perceptible. Drawing on Thing Theory (Brown 2001), material becoming (Ingold 2012), defamiliarisation (Shklovsky 1965), and affective registers of the weird and the eerie (Fisher 2016), this study develops a framework of temporal mediation. Through a detailed case study of four objects in Act 1 (*Lowland Ghosts*), the study shows how *NORCO* makes environmental slow violence (Nixon 2011) perceptible, fosters 'troubling pleasures' of witnessing environmental harm, and models an ethical engagement with hyperobject-scale crises without reducing them to solvable mechanics. This study aligns with Ruffino's (2024) focus on situated, micro-scale encounters, and extends this perspective by analysing how object malfunction produces a material experience of distributed temporalities.

1. THEORETICAL FRAMEWORK

1.1 Hyperobjects: Temporal Pressure on Objects

Timothy Morton's concept of hyperobjects provides the environmental foundation for understanding how glitching objects in the selected video games mediate temporal experience. Hyperobjects are entities massively distributed in time and space relative to humans (such as climate change, plastic pollution, or mass extinction) that cannot be grasped directly but only encountered through local manifestations (Morton 2013). Their temporal undulation and spatial dispersion make their full scale incomprehensible, yet they exert pressure on the objects and systems within our perceptual reach. In the context of video games, glimpses of hyperobjects emerge when this temporality manifests as malfunction or non-normative behaviour in local objects, allowing players to experience and interpret forces that otherwise exceed human temporal and spatial comprehension.

Morton defines hyperobjects through five qualities. Hyperobjects are viscous, clinging to and permeating everything they encounter, making entanglement inevitable; petrochemicals seep into air, water, soil, bodies, and memory, just as radiation alters materials through accumulated exposure. They are nonlocal, distributed across vast spatial and temporal scales that link the local to global networks. They are temporally undulating, operating on timescales that exceed human comprehension, where past contamination persists in the present and future catastrophe already shapes current conditions, an "already here but not yet felt" temporality. They are phased, only partially perceptible, occupying dimensions beyond direct human sensing. And they are interobjective, knowable only through their effects on other objects: one cannot touch "climate change" itself, but one can encounter the waterlogged carpet after a flood or witness increasingly extreme temperatures rising across the globe.

Video games, like other media, cannot represent hyperobjects directly because their scales exceed representation. However, games can configure objects as temporal mediators, where hyperobject pressure becomes experientially accessible through interaction. In this framework, malfunctioning or glitching objects serve as perceptible sites of hyperobject temporality, translating incomprehensible distributed phenomena into interactions that players can witness, interpret, and respond to within the game world.

1.2 Thing Theory and Materials: Object / Thing Oscillation

Bill Brown's thing theory provides the mechanics through which hyperobject pressure becomes perceptible: the transformation of objects into things through malfunction. Brown distinguishes between objects and things based on their relation to human attention and use. Objects recede: they are transparent tools that disappear into their function, "window-like" enablements of action (Brown 2001). When driving, one does not think about the steering wheel as steering wheel; the object enables action by vanishing into functionality. At the other end of the spectrum, things assert: when objects malfunction, break, or resist use, they suddenly demand attention as material presences. "We begin to confront the thingness of objects when they stop working for us," Brown argues (2001). A hammer breaks mid-swing, and suddenly one thinks about the hammer itself, its weight, handle, what "hammer" even means. The object has then become a thing.

Environmental hyperobjects force this transformation. Contamination makes technologies malfunction, and anomalous forces make familiar objects behave in an uncanny, unpredictable way. Hyperobject pressure pushes objects across the threshold, refusing to let them recede into transparent functionality. But Brown's key insight is that this transformation is not one-time or permanent. Glitching objects oscillate continuously between object and thing. Malfunctioning devices repeatedly fail to achieve stable transparency: quirks assert (thing), users adapt (object), new quirks develop (thing again). This continuous oscillation creates temporal mediation. Users must attend across time, building understanding through repeated interpretive encounters, learning the object's nonnormative logic through accumulation of experience, through tentative and iterative interactions. The oscillation itself (the rhythm of assertion and adaptation) articulates the hyperobject's temporal undulation at human scale.

Tim Ingold extends Brown's insight by clarifying what things actually are ontologically. Where Brown focuses on when objects become things (through malfunction), Ingold explains what things are: "gatherings of materials in movement", particular knottings within continuous matter-flow rather than discrete finished entities (2012, 439). Things are not stable forms bearing the imprint of cultural meaning upon physical substance. They are ongoing processes of material modulation. "Materials [...] carry on," Ingold argues, "undergoing continual modulation as they do so. [...] every material is a becoming" (2012, 435). This insight dissolves the duplicity in "materiality" (the split between brute physicality and human appropriation) by showing materials have histories, not fixed attributes. To understand materials is "to be able to tell their histories—of what they do and what happens to them when treated in particular ways—in the very practice of working with them" (2012, 434).

For this analysis, Ingold provides crucial temporal vocabulary: "Materials [...] are ongoing historicity" (2012, 439). They are the stuff of time itself. When memorial technologies fragment and overflow (*NORCO*), they reveal data as materials (electrical impulses, magnetic patterns) that carry on through malfunction, refusing containment. When objects accumulate damage, they manifest metal's rust, paint's decay, as materials modulating under environmental pressure, each change a knotting of matter-flow making exposure history perceptible. Practitioners follow the flow, 'joining with and following the forces and flows that bring work to fruition' (2012, 435), rather than imposing form on passive matter (hylomorphism). Through repeated

engagement and ongoing interaction, users learn an object's material composition by following its material becoming.

While Brown and Ingold come from different disciplines, their insights converge when applied to glitch temporality. Where Brown sees objects oscillating into things through malfunction, Ingold frames things as gatherings of materials in movement, with histories rather than attributes.

1.3 Defamiliarisation: Prolonging Attention as Temporal Strategy

Viktor Shklovsky's concept of defamiliarisation provides the perceptual mechanism through which glitching objects sustain attention across time. For Shklovsky, art's purpose is restoring sensation dulled by habitual perception. "Habitualization devours works, clothes, furniture, one's wife, and the fear of war," he writes (1965, 12). Automaticity deadens experience; things become so familiar they effectively disappear. Defamiliarisation (*ostranenie*, literally, making the familiar strange) renews attention by prolonging perception, by slowing down and intensifying the perceptual encounter. The aim is sustained strangeness over sudden shock: renewed attention forced through persistent uncanniness, not momentary disruption.

Crucially, for the scope of this analysis, "prolonging attention" is a temporal claim. Defamiliarisation is here understood as a temporal strategy: it stretches attention across duration, preventing perception from collapsing into automatic recognition. Hyperobjects suffer from an over-familiarity paradox. Climate change is everywhere, so it becomes nowhere, it is at the same time capillary pervasive as much as ineffable; constant exposure breeds habituation rather than awareness. Video games use strategies to re-strange the already-strange, to prevent environmental crisis from becoming invisible background. Glitching objects perform this work through persistent oddness that remains strange across hours of play, demanding continued attention. Familiar systems (communication devices, architectural elements, resource gathering) become strange by becoming mandatory proxies whilst simultaneously malfunctioning, forcing sustained attention to processes usually made imperceptible.

Interactivity compounds defamiliarisation's temporal dimension. Players expect to use objects (drive vehicles, use windows, gather resources). When objects resist, fail, or transform, the defamiliarisation occurs repeatedly. Each interaction renews the uncanniness; each glitch requires fresh interpretation. This repetition across time enables temporal mediation: players build understanding of hyperobject temporality through accumulated defamiliarised encounters, each one prolonging perception further. Moreover, the procedural rhetoric (Bogost 2007) of the game enforces this sustained attention. By making the glitch a mandatory step in the game's procedure (requiring repair, adaptation, or creative bypass to continue play), the system compels the user into this iterative correspondence. The ruleset thus transforms the aesthetic strategy of defamiliarisation (Shklovsky) into procedural rhetoric, ensuring that the oscillating materiality (Brown/Ingold) of the hyperobject remains present throughout the duration of the analysis.

1.4 Weird and Eerie: Affective Textures of Temporal Mediation

Mark Fisher's concepts of the weird and the eerie capture the affective textures players experience when encountering glitching objects as temporal mediators. The

weird involves "the presence of that which does not belong" (Fisher 2016), entities or events that violate supposed rules of reality. The weird generates troubling fascination, players want to understand what cannot be understood, drawn to impossible presence. The eerie involves "a failure of presence or absence" (Fisher 2016): something missing where there should be presence, or presence where there should be nothing. The eerie produces discomfort with non-human agency, recognising systems operating beyond human control or comprehension. For this framework, both registers carry a temporal dimension: the weird's impossible presence and the eerie's failed absence are disturbances in what *should* be, a 'should' that is always temporally charged, shaped by what persisted when it shouldn't, or vanished before its time. Together, the weird and the eerie describe the affective dimension of temporal mediation: the unsettling recognition that glitching objects can be read as local manifestations of non-human temporalities that exceed human frameworks.

1.5 Temporal Mediation Framework

Taken together, the five theorists establish the conceptual ground for understanding glitching objects as temporal mediators. This definition can now be elaborated theoretically. Unlike simple breakage (an object becoming unusable) or scripted failure (a predetermined outcome), glitching objects alternate between everyday utility and material presence, drawing players into prolonged interaction that renders the extended temporalities of environmental phenomena perceptible. The "glitch" designates what Brown terms the object-to-thing transformation: moments when malfunction forces objects to assert material presence rather than recede into use.

The framework converges as follows: Morton provides environmental pressure, hyperobjects' temporal undulation creates conditions that manifest through malfunction, producing disturbances that register temporalities exceeding human scales. Brown and Ingold provide the material mechanics: oscillation between object and thing (Brown) exposes materials as gatherings with histories (Ingold), dynamic knottings within ongoing matter-flows. Shklovsky contributes the perceptual strategy: defamiliarisation prolongs perception, preventing habituation and compelling sustained attention to embedded temporalities. Fisher offers an affective vocabulary: the weird and the eerie articulate how encounters with impossible presence or absence feel, marking the intrusion of non-human agencies and temporal logics into experience.

Thus, glitching objects become temporal mediators when they make hyperobject pressure perceptible through breakdown whilst meeting four criteria. First, active interpretive engagement: non-normative behaviour requires interpretive labour rather than reliance on pre-learned scripts. Second, temporal consequence: comprehension accumulates across repeated encounters, not isolated moments. Third, exceeding functional expectations: malfunction prevents transparent tools use, forcing attention to resistant materiality. Fourth, collaborative meaning-making: significance emerges through correspondence between designed glitch and interpretive attention across duration, determined neither by game design alone nor by player interpretation alone.

2. METHODOLOGY

This analysis employs a case-study methodology, focusing on the close reading of *NORCO* as a representative narrative-heavy game for examining glitching objects. By selecting a set of objects from Act 1, the study investigates how narrative, material, and aesthetic strategies converge to mediate temporal and environmental pressures. This focused approach allows for direct attention to the specific object behaviours through which hyperobject temporality surfaces.

3. CASE-STUDY: *NORCO* (2022)

NORCO is a point-and-click adventure set in a refinery town on the Mississippi River. The game features pixelated petroleum-gothic landscapes and provides a rich site for analysing glitching objects. Its version of Norco is reimagined from the real version of Norco, Louisiana (a real industrial community whose name signals entanglement with the petrochemical industry), and draws on local histories, including the communities of Mossville and Diamond (*SHIELD NIGHT*, Geography of Robots, 2024). The narrative backdrop is punctuated with spatially and temporally accurate details, such as the 1988 Shell refinery explosion, and the industrial corridor of Cancer Alley; a mural marked “11” references the 1811 slave revolt, linking in-game petrochemical temporality to a geographically relevant past of racialised labour and resistance. Beyond its Southern Gothic vibes and the desolate suburb aesthetic, *NORCO* stages a world in which petromodernity is simultaneously omnipresent yet invisible, saturating everyday life whilst receding from shared perception. Players control Kay, returning to Norco after five years following her mother Catherine's death from cancer, one of thousands in Cancer Alley attributed to petrochemical exposure. The following selection of four objects from Act 1 demonstrates how *NORCO* encodes environmental and temporal complexity within everyday artefacts, foregrounding their material and affective significance.

3.1 The Fourth Flood

‘Three times this house has flooded.’ Kay is in the front yard of the family home, and, following the usual syntax of a point-and-click adventure, the player has just clicked on one of the windows. The house window becomes a portal, a temporal mediator allowing the player a glimpse of what that structure has witnessed so far. The enumeration of the three floods follows an anaphoric pattern, a tone with something almost biblical in the solemnity of its cadence. Shards from Kay's past twenty-or-so years are introduced to the tempo of climate disaster, a metronome that spares no home, no one, no object. The descriptions that follow are filled with material detail and offer snapshots of a long-gone past that becomes progressively less blurred as the narration approaches the present day.

The first flood arrives dense with fragments of sensation: “placing your feet on drenched carpet. Your mum and grandfather ripping out sheetrock. Sitting in a small RV in the backyard setting dolls on a cluttered table.” The memory is tactile, intimate, grounded in the material residues of disaster. The second flood, years later, is marked by early adolescence and infrastructural collapse: “you were fourteen. The pumping station failed during a heavy rain. You were in class watching the clouds move upriver. You got a text message from your mum: Stay in Destrehan, I'll come get you.” The aftermath stretches across days, your mother “gutting the house”, and you “sometimes help[ing]” in the evenings, repairs becoming a rhythm of family life. The

third flood feels different: not surprising but cumulative, almost inevitable. Another pump failure. Contractors arrive, paid with insurance money, their temporary presence signalling that disaster has become procedural. This proceduralisation exemplifies what op de Beke terms petroduration: the temporal mode wherein crisis becomes routine, disaster loses its rupturing force, and the present extends itself through repetition rather than transformation (op de Beke 2024). The floods no longer shock, they schedule themselves. Infrastructure fails predictably. Insurance money arrives to restore conditions that will inevitably fail again. This is petroduration's 'stretched-out flowing present': moving stasis, where apparent motion (repairs, contractors, payments) masks structural paralysis stuck in ahistorical *presentism* (op de Beke, 301). The house stays, the refinery operates, the floods return. Resentment surfaces: "you blamed her for not selling the house sooner." Across these snapshots, what emerges is not simply a sequence of catastrophes but a sedimented temporality of return: each inundation layering new forms of labour, memory, and emotional strain onto the last.

Then comes the fourth, not yet lived but already narrated as certainty. Here the verb shifts decisively into the future tense, a dark prophecy or linguistic manifestation of slow violence returning on schedule. "The fourth flood will follow a slow hurricane and it will be a calamity. It will leave the entire region submerged as critical levees breach. There will be a massive blackout that lasts weeks. Much of the sewage infrastructure will be damaged beyond repair." The destruction extends across vital infrastructures and is presented as irreversible. The political frame that follows is equally bleak: "The embattled federal government will do nothing to assist. It will bankrupt the region." The vision then expands outward: "small militant enclaves will form along the high ground of the Mississippi River, turning to piracy, prompting retaliation from private mercenary forces. Slowly, industry will flee this hotzone. The old River Control Structure will collapse from neglect and sabotage. The Mississippi River will again change its course." And Norco, "an old abandoned refinery town on a ghost river", will be erased entirely: "Your house will be squatted and then razed." The fourth flood marks petroduration's limit: the point where stretched-out present finally collapses, where moving stasis gives way to actual cessation. No more contractors, no insurance, no procedural restoration. The river 'changes course', flow itself redirects, abandoning the infrastructure petroduration built. What petroduration extended (extraction's temporality) finally terminates, but only through complete erasure. There will be no window, no house, no front yard; nothing left to witness the incremental pressure the climate crisis has exerted on Norco.

The window operates as Brown suggests, refusing to recede into functional transparency as a mere interface element, it asserts itself as a thing demanding sustained interpretive attention. What appears initially as standard adventure-game interaction (clicking environmental details for flavour text) becomes defamiliarised through temporal collapse. The window compresses Morton's temporal undulation into a single interactive moment: three past floods described in the in-game present (making the past viscous, still coating and shaping perception), and one future flood narrated as certainty (making the future "already here but not yet felt"). This syntactic structure, past rendered present, future rendered inevitable, allows the player to perceive the window as a temporal mediator. Through these layers, the hyperobject's temporal undulation becomes legible: the drenched carpet, ripped sheetrock, and breached levees carry the material history of prior floods while pointing toward the inevitable fourth. Each flood is simultaneously a distinct event and a manifestation of

a single hyperobject operating across decades, the window making temporal undulation tangible through compressed interaction.

Fisher's eerie pervades the narration. The fourth flood's certainty creates presence (a detailed future) without proper temporality (it has not yet occurred), whilst institutional absence (the federal government "doing nothing") marks a failure where response should exist. Moreover, the player is initially presented with only three floods; the unexpected appearance of a fourth, positioned in the future, frames the moment as either magical realism or intentional temporal glitch, what Fisher calls the eerie's ontological instability, where causality itself becomes uncertain.

3.2 Ephemera

If the window mediates temporality through vertical accumulation (flood layered upon flood), the objects scattered within the house mediate through horizontal dispersal, each item a node in the domestic archive of catalogued contamination. Inside the house, the rooms are filled with mundane objects and small ephemera that together form a constellation of temporal and emotional coordinates. Their distribution makes navigating the space rewarding in terms of lore, yet profoundly unsettling in relation to the fate of the house, the family who lived (and still half-live) within it, and the surrounding town. The player is encouraged both to dig deeper and, simultaneously, to witness as an impotent bystander the slow devastation that events in Norco inflict upon objects, relationships, and memories. Unlike the window, which concentrates temporal mediation into a single dramatic interaction, the ephemera distribute this work across many small objects, none individually sufficient, requiring the player to perform a more gradual, accumulative form of interpretive labour to assemble the full picture of contamination's reach.

In Kay's old bedroom, traces of her life before she left (after her relationship with her mother, Catherine, deteriorated) remain dusty but intact. These objects speak of a younger Kay, yet they are narrated through the tone of present-day Kay, a voice cracked by the knowledge acquired in the intervening five years. A description such as "a flyer from a show your friend put on a few weeks before you left town" is immediately followed by the reminder that "a fight broke out while one of the opening bands played; you still have a scar above your left eye." The objects reassert past events materially in the present, refusing to recede into neutral background. They operate, in Brown's sense, as *things* rather than transparent narrative props: they demand interpretive attention through the histories they carry. Each item functions as a small temporal knot, mediating the layered historicity of the house and its inhabitants. This dynamic becomes particularly explicit when the player encounters, among the books on the shelf, a slim volume titled '*Crisis Larping*'. The accompanying text explains that "the proto-disaster tourism began almost as soon as the floodwaters left", that "the aesthetics of disaster were central to that emerging milieu", and that "it began to percolate into popular culture. Collapse became the zeitgeist. Wise investors recuperated the experience of disaster. New Orleans became a plastic dystopia, a marketplace for crisis." The book exemplifies Ingold's materials 'carrying on': not inert documentation but a gathering of social, economic, and ecological forces sedimented into its physical presence. At the same time, the uncanny normalisation of catastrophe that the text describes aligns with Fisher's eerie presence where there should be absence (a thriving market built atop disaster), and absence where there should be presence (institutions failing to protect communities). The result is a defamiliarising encounter, where an apparently innocuous object

becomes a portal into wider structures of environmental collapse, capitalisation of suffering, and cultural desensitisation. In this way, the shelf materialises hyperobject temporality within the domestic interior, making the slow violence permeating Norco perceptible through the everyday persistence of things.

The ephemera scattered through Kay's room and the living room (flyers, photographs, letters, minor debris of past lives) operate precisely within what Sarah Wasserman identifies as the "ongoing state of ceasing to be" that characterises ephemeral objects (2020, 1). These are neither fully present nor fully absent, neither lost nor intact; they survive only because someone, or something, has held on to them long enough for the player to encounter them. Their fragility and partial decay make visible what Wasserman calls "the dynamics between the temporary and the permanent, between extinction and longevity" (2020, 3), a tension that runs through *NORCO*'s entire petrochemical landscape. Like Brown's notion of things that refuse transparent functionality, these ephemera demand interpretive attention: they announce their own disappearance even as they persist, "mak[ing] visible time's competing vectors" (2020, 14). A flyer from a gig, the scar it recalls, the dusty remnants of a life paused: these objects are material witnesses whose continued existence is both precarious and revealing. In Wasserman's sense, *NORCO* ephemerali[s]es its objects (2020, 4), staging them as temporal mediators through which the player apprehends the slow violence of familial fracture and environmental collapse. Their presence within the house thus becomes an index of persistence against erasure, a testament to lives and histories that persist despite forces constantly working to obliterate them.

Moving from Kay's bedroom to the living room, one object becomes particularly significant: a letter from Shield Oil. The letter lies on a coffee table in front of the sofa. It is a cold, bureaucratic message from the refinery that looms over Norco, reassuring residents that "there will be elevated flaring at the site [...]. This will pose no health risk to residents. If you have any questions or concerns, please contact the Shield Norco Office of Community Engagement." Given the player already knows that Catherine has died of cancer, contracted, like many others in Norco, through routine chemical exposure, this reads as yet another of the refinery's many procedural lies, a rehearsed corporate script designed to neutralise alarm while normalising harm. Shield Oil's reassurances enact petroduration's discursive lubricity (op de Beke 2024): smoothing over extraction's lethal friction through bureaucratic language that permits operations to continue unchanged. Clicking the sofa reveals the emotional weight of its history: "Memories of sleepless nights, your mum sitting here staring through the window [...]." Even before any theoretical scaffolding is introduced, the domestic space registers the atmospheric pressure of extraction, illness, and grief. The letter's insistence that elevated flaring "will pose no health risk" thus stands in stark, almost perverse contrast to the intimate knowledge embedded in the house itself: objects that bear witness to the toll of environmental violence even as the refinery's discourse attempts to hide or neutralise it.

3.3 Broadcasting memories

In the same living room, just to the right of the sofa, stands "an old defective flatscreen that your mum never bothered to bring to the curb." The TV can be switched on, and when the player engages with it one of the game's most interesting glitches occurs: "You turn on the television. A chaotic distortion of your mother's memories flash before you." The screen suddenly shows real footage: aerial views of an explosion, a congested motorway at night, a lone figure emerging from the fog in what looks like

a swamp, grey refinery smoke billowing into the sky. These clips of real-world imagery defamiliarise the player through their departure from the game's pixelated aesthetic and through the framing device of the television. The screen initially invites habitual perception: the expectation of a news broadcast, a documentary, a familiar media form for witnessing disaster. Yet the accompanying narration immediately subverts this expectation, reframing what the player is seeing as memory overflow: "a chaotic distortion of your mother's memories."

Before her death, Catherine pays a neural versioning company to digitise her dying mind, hoping to "leave something for the kids." The process fails. Memories emerge corrupted and fragmented, spilling into the present as glitched residues rather than coherent archives. The television thus functions as a temporal mediator, translating the distributed persistence of petrochemical violence, illness, and grief into perceptible interaction. The player becomes witness to material that resists narrative stability, to memories that persist in spite of, and because of, their malfunction. The defamiliarised footage, framed as Catherine's distorted memories, renders visible the pressure of hyperobject temporality: contamination, illness, grief, and industrial violence continuing to manifest, exceeding the technological and narrative structures designed to contain them. Through this malfunction, the player witnesses memory-data as material-in-becoming, electrical impulses, magnetic patterns, and broadcast signals that 'carry on' despite technological containment; each corrupted file and spontaneous broadcast reveals data as substance rather than stable information. Because this scene occurs in the first act of the game, before the player can contextualise later revelations, the glitch feels almost voyeuristic, as if an inexplicable technological malfunction allows unwarranted glimpses into Catherine's private memories, still playing on the TV long after her consciousness is gone.

The corrupted neural data, the failing screen, the leaked footage: each manifestation points toward violence exceeding representation whilst never fully capturing it. The real-world footage (refinery smoke, swamp figure, motorway congestion) functions less as documentary evidence than as symptomatic eruption, the hyperobject's pressure forcing itself through whatever material channels remain available. It is the technological autonomy of Catherine's memories, more than their content, that generates Fisher's eerie in this case: these are memories no one is actively remembering, consciousness operating without subject, presence persisting after the death of proper agency. Rather than preserving Catherine, the TV broadcasts her fragmentation, making visible how petrochemical violence extends beyond biological death into the infrastructures meant to memorialise it. Even grief becomes glitched, contaminated by the same systems that caused the loss it mourns.

3.4 Techno-theology

Returning to the front yard, the player can interact with a Virgin Mary statue. The player may kneel and pray or simply observe the details of the statue: "you observe the weathered concrete and flaking paint of the statue. [...] The face [of the statue] is especially deteriorated, framed by a system of cracks." The player can then "run [their] hands along the deteriorating contours of the statue," at which point it 'snaps off as if by design.' "Behind the statue's face hides an odd assemblage of electronics carelessly soldered together. At the centre of the electronic configuration is what appears to be a card reader." The blue-veiled Madonna, a faithful reproduction of a universally recognisable icon from Christian imagery, ceases to function solely as a sacred symbol of faith and becomes something entirely other. The eeriness arises

from the range of actions available to the player: kneeling and praying confirms the statue as an object of devotion, while touching its deteriorating surface borders on the blasphemous, both because it involves touching the face of the Virgin Mary and because that face, traditionally impassible, otherworldly, sacred, and supposedly eternal, is visibly decaying.

Fisher's concept of the weird operates through categorical impossibility. The Madonna should not contain circuitry, as devotional statues and security systems belong to incompatible ontological registers. Yet here, both exist simultaneously, neither cancelling the other out. The statue remains Madonna (blue veil intact, weathered face, object of potential prayer) whilst simultaneously becoming card reader (functional electronics, responsive infrastructure). What looks like desecration is instead the residue of systemic failure: when petrochemical capitalism destroys bodies while providing no resources for survival, the sacred gets repurposed into infrastructure.

When players interact with it, the statue's face 'snaps off as if by design', a phrase that troubles agency: the deterioration (cracked concrete, flaking paint) and the hidden technology (soldered electronics, embedded reader) occupy the same material substrate, suggesting modification was less addition than revelation through erosion. What appears as technological violation of a sacred object might equally be a sacred object that was hybrid from the start, its true function only becoming visible through weathering. This anticipates *NORCO*'s larger argument: purity never existed. Everything in Cancer Alley is hybrid, functioning through provisional combinations. The Madonna renders explicit what's true of all infrastructure in Norco, adaptation under duress, sacredness through contamination.

4. TEMPORAL MEDIATION AND TROUBLING PLEASURES

NORCO demonstrates how glitching objects *can* mediate hyperobject temporality without reducing environmental crisis to playable mechanics. The television's corrupted footage, the window's prophetic narration, the Madonna's revealed inner circuits, these objects make what Nixon calls "slow violence" experienceable through material breakdown rather than systemic optimisation (Nixon 2011). Where Chang argues that game environments can invite 'affective and ethical engagement' with ecological concerns (2019, 68), *NORCO* extends this approach by configuring objects as temporal mediators between incompatible scales: petrochemical contamination's generational persistence and gameplay's immediate interaction. The game's achievement lies in making hyperobject complexity graspable through technological and ontological breakdown, precisely *through* malfunction, rather than despite it.

Each glitching object performs what might be termed ethical mediation: respecting hyperobject scale by refusing false resolution whilst enabling encounter through material engagement. The window compresses decades of recurring disaster into a single interactive moment, making Morton's temporal undulation momentarily graspable: climate change's distributed unfolding, infrastructure's colonisation of the future, the "viscous" quality leaks across generations. The television broadcasts corrupted footage that refuses clean transmission between past (Catherine's memories), present (Kay's inheritance), and future (what remains after consciousness ends). These objects present the player with complexities to witness.

This design strategy aligns with what Nixon terms the challenge of representing "attritional violence," environmental destruction that unfolds "gradually and out of sight" across temporalities that resist spectacular representation (Nixon 2011, 2-3). Chang notes how games typically struggle with slow violence because "the less sensational but just as destructive" forms of environmental harm resist conversion into engaging mechanics (Chang 2019, 194). *NORCO* addresses this challenge by keeping slow violence in glitching objects rather than gamifying it into manageable systems. Shield Oil's letter reassuring residents of 'no health risk' sits in a house where petrochemical cancer killed Catherine, in a region globally known for industrial disease clusters; the game keeps this juxtaposition in narrative witness, resisting conversion into health management mechanics. The refinery's ongoing environmentally unsustainable practices structure Norco's economy, ecology, and sociology, but the player cannot optimise this relationship, cannot find "balance" between industry and environment. The contradiction persists, demanding witness without offering ludic resolution.

4.1 Troubling Pleasures: Dwelling without Resolution

The experience *NORCO* fosters through these glitching mediators exemplifies what Seymour terms "bad environmentalism": environmental thought employing "dissident, often-denigrated affects and sensibilities to reflect critically on both our current moment and mainstream environmental art, activism, and discourse" (2018, 6). *NORCO* refuses the "dominant affects and sensibilities found in mainstream environmentalism" (2018, 7). What is offered to the player in this game is neither Nature's sublime beauty demanding preservation nor apocalyptic guilt demanding action. Instead, the game promotes what might be called *troubling pleasure*: affect simultaneously destabilising and engaging, disturbing and compelling. The "trouble" manifests in forced proximity to petrochemical violence's ongoing operations. Players encounter Shield Oil's bureaucratic gaslighting whilst knowing Catherine died of petrochemical exposure; they witness the inevitable trajectory of the fourth whilst recognising federal abandonment. This dwelling operates through what Seymour identifies as bad environmentalism's capacity for "bearing witness to crisis" and "enacting catharsis" whilst refusing both naive optimism and paralysing despair (2018, 7).

Yet, sustained attention to these objects produces interpretive satisfactions that constitute the "pleasure" dimension for players. Tracing Catherine's memories across multiple malfunctioning devices builds understanding of how petrochemical violence exceeds technological containment. Revealing the Madonna's electronics satisfies through discovery whilst deepening comprehension of the in-game world and its secrets. The pleasure emerges from accumulating historical understanding, from learning to read contamination's signs, from developing what might be termed literacy in slow violence.

The game trains the player's capacity to remain present with temporal complexity, to dwell carefully within conditions one cannot resolve, by design. This intentionality is troubling pleasure's political work: cultivating sustained attention to environmental destruction precisely when habituation threatens to render it invisible. Where games that over-rely on flow states (Csíkszentmihályi 1990) to immerse players might allow comfortable absorption that mitigates or even prevents political awareness, *NORCO*'s glitching objects perpetually reassert material and historical weight, channelling the kind of reflection Soderman argues is necessary to maintain critical distance from the

subject, and readjusting playfulness in relation to contemporary capitalist dynamics (Soderman 2021).

More precisely, the science fiction elements (neural versioning, technological augmentations) create enough speculative distance that paradoxically enables more sustained engagement with Cancer Alley's reality than documentary realism alone might permit. This mix of real and fictional details makes it impossible for the player to simply relegate the crux of the issue to spatial and temporal coordinates (possibly geographically distant from the player). *NORCO* embeds petrochemical violence in worldbuilding rather than didacticism, in glitching mediators rather than explanatory systems, in forced witnessing rather than false agency within the safe space of the magic circle (Huizinga). This constitutes ethical intentionality: the game honours Louisiana's petrochemical corridor's complexity without reducing that complexity to mechanics, scores and fail states. The player cannot shut down the refinery, cannot prevent or cure Catherine's cancer, cannot stop the fourth flood. This constrained agency respects hyperobject scale, climate change remains too distributed temporally and spatially to "solve" through individual gameplay choices.

4.2 Contribution to Ecological Game Studies

NORCO's glitching objects demonstrate a viable model for representing hyperobjects in games: it respects the scale, resists solutionism, positions players as witnesses to complexity they cannot resolve through the canonical syntax of gameplay. This approach extends Chang's arguments about ambient environmental rhetoric whilst offering a specific design strategy: it configures objects that mediate temporal complexity through malfunction rather than function. Where Chang analyses how games like *Walden* (2017) create ecological awareness through contemplative mechanics (Chang 2019), *NORCO* shows how breakdown and glitch can serve similar ends.

This offers a useful contribution to ecological game studies' ongoing negotiation between didacticism and engagement. Some eco-games systematise climate futures into strategic choices, carbon budgets to balance, technologies to research, policies to implement. Such mechanics risk what might be called *solutionist flattening*: implying sufficient player optimisation could resolve systemic catastrophe. *NORCO* suggests an alternative: make crisis experienceable through a complex narrative system which also makes use of objects that respect its scale by refusing to gamify a possible resolution. The fourth flood arrives regardless of player action, yet its narration through the window makes temporal violence perceptible in ways pure systems modelling cannot achieve. This positions troubling pleasure as necessary affect for the climate crisis era, neither false hope, techno-optimist solutionism, nor eco-nihilism, but sustained dwelling with complexity that resists resolution.

Glitching objects become ethical interfaces between players and hyperobjects, they honour both the scale of slow violence and the limits of ludic agency. They demonstrate that games can engage environmental injustice and petrochemical catastrophe with sincerity by refusing to make that engagement playable in conventional terms. This is one of *NORCO*'s achievements: making hyperobject temporality graspable without pretending it can be managed, offering complexity without gamifying it, creating space for engagement with petrochemical violence that operates through what Nixon terms "attritional" destruction typically excluded from

representation precisely because it unfolds too gradually, too distributed, too pervasively to generate spectacle (Nixon 2011).

CONCLUSION

This study has shown that glitching objects can act as temporal mediators, making hyperobject temporality perceptible through material breakdown rather than functional transparency. Analysing objects within *NORCO*'s domestic spaces (the window, various bedroom ephemera, corrupted television, and hybrid Madonna) demonstrates how games can render vast temporal scales into interactive experiences. The framework combining Morton, Brown, Ingold, Shklovsky, and Fisher clarifies how malfunction can serve as a design strategy for ethical engagement with environmental crises.

NORCO resists "solutionist flattening," avoiding reducing hyperobject complexity to solvable problems, and resisting the urge to gamify disasters. Glitching objects foster troubling pleasures, training sustained attention to slow violence while acknowledging the limits of individual agency. Players experience systemic failure, positioning games as interfaces for critical witnessing and for engaging with fractured worlds.

While this case study focuses on *NORCO*'s narrative adventure format and domestic scale, privileging textual and spatial engagement, the framework's applicability to other genres (such as open-world survival, multiplayer, or procedurally generated games) remains to be tested. Act 1's contained domestic space may not fully represent glitching objects' function across larger worlds or systems-oriented gameplay.

Future research could explore comparative studies across genres, intersectional approaches addressing race, class, and gender, analyses of other hyperobjects such as plastic pollution or mass extinction, and possibly practice-based research on intentionally designing and implementing glitches for temporal mediation in games.

As climate crises intensify and games increasingly engage environmental themes, understanding how interactive media can respect hyperobject scale whilst maintaining player engagement becomes paramount. Glitching objects offer one such model: creating space to dwell with complexity, to develop literacy in slow violence, and to practise remaining present within collapsed futures. *NORCO* exemplifies how games can engage with environmental catastrophe's magnitude through breakdown rather than mastery, witnessing rather than winning, and objects that refuse to work precisely so players might learn to act differently within worlds already broken.

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