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Reading the Dissolve: Submergence as Literary Method

In "Dwelling in the Dissolve," Stacy Alaimo outlines how environmental humanists should approach the ocean. She writes, "[T]o begin to glimpse the seas, one must descend, rather than transcend, be immersed in highly mediated environments that suggest the entanglements of knowledge, science, economics, and power" (164; emphasis added). Melody Jue calls for a similar approach to the ocean through "submerging" media studies concepts to engage in a process of "conceptual displacement" (4–5), approaching the ocean as a phenomenological environment and the site of a speculative epistemology (16-17). Both Alaimo and Jue emphasize submergence as a necessary method to think with or through the conditions of the ocean as an environment and site of experience. A literary method informed by the ocean is no exception; an oceanic reading method requires submergence and for the reader to read with and through the qualities of submergence. As sea levels continue to rise and coastlines disappear, thinking with and through the ocean is becoming a critical epistemic task. Climate crisis and the shifting topology and habitability of our planet will alter the ways in which one comes to know the world, including texts and textual experiences. For this reason, literary studies would benefit from a reading practice that considers oceanic conditions, with particular attention to texts with formal qualities and capacities that contribute to a sense of cognitive or conceptual displacement, situating the reading in alternative environments and condition readers to approach texts, in Jue's words, "through seawater." Where some scholars have developed "underwater reading" as a metaphor

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for the estranging quality of genre fiction (Maisano 83), I intend to explore underwater reading more literally through the estranging qualities of submergence itself (Blum 670). Submergence is not a demand for the reader to read novels in scuba gear. Rather, submergence is a critical strategy, a theoretical framework informed by the epistemic conditions of submerged, oceanic experience, through which to interpret texts and textual experiences.

In particular, I attend to dissolution and the capacity of the ocean to dissolve experience, objects, and matter as one possible framework through which to understand submerged experience and submerged reading. Dissolution is a condition of oceanic experience in which matter, objects, and experience itself are diffracted and transformed, emerging as circulating fragments and shifting categories and modes of understanding, including reading. Electronic literature as a genre is able to incorporate features of submergence and environmental materiality as formal qualities of the text, including dissolution and related environmental conditions, such as movement, circulation, and scale. Consequently, electronic literature's formal compositions discipline the reader into adopting reading strategies commensurate with the qualities of submergence. Electronic literature can engage the critical work and methodological approach of submergence at the level of textuality, and through this formal engagement demonstrates how one might approach a submerged reading practice for texts beyond electronic literature. I explore submergence and dissolution through two particular and significant electronic literature texts, Sea and Spar Between and Loss, Undersea. Both texts are thematically concerned with the ocean and embody a "phenomenology of the dissolving," or material conditions of the ocean that produce a sense of dissolving as textual conditions for the reader's experience. Sea and Spar Between and Loss, Undersea present submerged textualities, each a speculative experiment in how submerged texts are arranged and rearranged, composed and decomposed. However, each text approaches dissolution and submerged experience differently, building on distinct histories that inform the differing formal qualities and reader's experience of each text. Sea and Spar Between explores texts and themes from nineteenth-century literature, including work by Emily Dickinson and Herman Melville. Loss, Undersea has thematic associations with Black history, the Trans-Atlantic Slave trade, and Afrofuturism. This essay explores how each text embodies a phenomenology of dissolution and invites the reader to adopt submergence as a framework through which to read, engage, and interpret each text. To approach the ocean requires submergence, and submergence allows the reader to think with dissolution.

Submergence, Dissolution, and Phenomenology of the Dissolving

Dissolution is one of the ocean's central material, ecological, and environmental qualities. Dissolution is a process and movement, a rapid deterioration and rearrangement, or a slow and gradual fade, of an environment from one material state of composition to another, encompassing decomposition, saturation, and disappearance. Objects can dissolve into environments. Environments can dissolve into one another. The ocean's capacity to dissolve is one of its most significant and idiosyncratic environmental effects. Water as a material is supersolvent, absorbing and dissolving gases, minerals, energy, or other substances with which it comes into contact. This absorption and dissolution occurs at varying speeds and with varying ecological impacts. At the planetary level and as an earthly ecosystem, the ocean functions as the planet's carbon sink. The ocean's capacity to absorb carbon dioxide is changing the oceanic environment and facilitating broader planetary change. Submergence draws attention to these capacities of dissolution—for absorption, enmeshment, and change.

A key component of the ocean's capacity for dissolution is not only the elemental characteristics of water but also the dynamic movement of the ocean. The ocean constantly moves across its various ecologies. At the surface, gravity, wind, and the topography of the oceanic environment form waves in the shifting conditions. Other environmental conditions such as temperature, pressure, and salinity encourage the flow of oceanic currents across the planet. The ocean's capacity to dissolve solar energy and the dissolution of various elements leads to shifting conditions of temperature and salinity, facilitating oceanic movement. The ocean dissolves, but it also circulates what it dissolves, allowing that dissolved material or conditions to emerge elsewhere, reconfigured and rearranged. To be submerged requires attention to that which is constantly shifting, the environmental archive, and the ways that elements and phenomena diffract and circulate materials across the environment.

In an essay speculating on submarine futures, Elizabeth DeLoughrey describes how oceanic materialities alter an understanding of geography and history. In particular, she highlights the ocean's ability to dissolve experience as one way the ocean might alter how one understands narrative and signification. She writes, "[U]nlike terrestrial space—where one might memorialize a space into place—the perpetual circulation of ocean currents means that the sea dissolves phenomenological experience and diffracts the accumulation of narrative" (33). Submergence, according to DeLoughrey, requires

alternative frameworks when approaching narrative because the ocean dissolves and recirculates histories and texts. Stacy Alaimo also deploys dissolution as a conceptual framework in a slightly different context. Alaimo considers "the dissolve" as a fundamental feature and an aquatic figuration of the Anthropocene, climate crisis, and the current mass extinction event (161). For Alaimo, the dissolve refers to the dissolution of conceptual categories and "fundamental boundaries," unraveled by the intertwined materiality of human and nonhuman, nature and culture, and "unknown futures." The dissolve also signals an opportunity to develop an ethics and environmental practices that center the reality of that dissolve—she calls this "dwelling in the dissolve" (167). Alaimo develops this concept further through a particularly harrowing and psychedelic example, discussing the material consequences of ocean acidification. She describes how acidification dissolves the shells of sea creatures, including sea snails, and thus the boundary between the snail and environment. The Anthropocene is similarly dissolving the boundary between humanity and environment (166). The dissolving snail shell does what DeLoughrey describes; it dissolves but does not disappear, becoming multiple and diffracting across the oceanic environment. DeLoughrey and Alaimo articulate a vision of dissolution and the dissolve rooted in oceanic circulation, the perpetual movement of elements and objects across the oceanic environment, and in the massive geographic and temporal scale of the ocean and oceanic ecologies. If meaning and signification are possible below the surface, DeLoughrey and Alaimo's understanding of dissolution and the dissolve seems to suggest that it primarily exists in the relational connections across diffracted and reconfigured narratives. History is diffracted, diffused, and circulated across time and space and perpetually enmeshed in the environment; it appears as fragments across a shared environmental connection. Categories of understanding become entangled with one another, highlighting relations previously undefined or obfuscated by boundaries of distinction.

Dissolution, or the dissolve, rearranges and reconfigures, composes and decomposes elements, objects, histories, texts, and narratives. To develop oceanic methods, one must embrace the perpetual oscillation of dissolution, circulation, and reconfiguration toward which both DeLoughrey and Alaimo gesture. Dissolution is one way of approaching the submarine potentials for alternative oceanic epistemologies, and thus one possible way to approach the critical strategy of submergence and a submerged reading practice. Submerged reading calls for readers to see themselves not simply as observers, but as participants in the text, experiencing oceanic conditions through the text. These conditions consist of an ongoing negotiation and exchange between

human and nonhuman agencies. As a feature of a submerged reading practice, a "phenomenology of the dissolving" articulates how some texts operate formally and invites readers to sense or engage the text in ways that parallel the continual play of dissolution and reemergence in the ocean. A phenomenology of the dissolving describes a critical engagement with submerged experiences, textual and oceanic, conditioned by the dissolve and dissolution. Rooted in the oceanic environment's specific qualities, a phenomenology of the dissolving is an example of a "milieu-specific analysis," and thus provides a framework for interpretation of texts that is informed by the conditions of submergence (Jue 3).

Although the turn to oceanic epistemologies among certain environmental humanities scholars in a recent one, the practice of thinking with or through the ocean is not new and neither is oceanic reading. Indigenous scholars and communities have long drawn on the ocean as a source of knowledge and as a framework for understanding and developed modes of engagement that could be considered oceanic reading practices.² Karin Ingersoll's Waves of Knowing: A Seascape Epistemology articulates an "oceanic literacy," and defines it as a form of situated knowledge that emphasizes embodied connection to the ocean as a place (81-83).3 Indeed, Pacific Islander and Oceanic communities and scholars have also long articulated an understanding of the world and epistemic framework that is both terrestrial and aquatic.4 The ocean has also long figured into Black Studies scholarship, particularly for Black Caribbean scholars but also for Black studies scholars more broadly in light of the ocean's enmeshment with the Trans-Atlantic Slave Trade and its historical legacies. Though the role of the Atlantic in Black Studies was most famously articulated by Paul Gilroy, Black feminist scholarship has been significant in thinking Blackness with and through the ocean.⁵ Scholars and writers such as Christina Sharpe, Alexis Pauline Gumbs, and M. NourbeSe Philip have attended to oceanic conditions in the articulation of Blackness, political resistance and adaptation, and history. Philip's project Zong! is formally concerned with oceanic dissolution and as an example of a submerged textuality. Black feminist considerations of the ocean will be discussed later in this essay to account for the oceanic context of *Loss*, *Undersea*. These perspectives are essential to any method of submerged reading. To truly engage in a submerged reading, one must also consider the existing submerged materialities, histories, and relationalities circulating in the ocean and how they reconfigure textual engagement and understanding.

Electronic Literature

Some genres and specific works are structured such that their formal conditions elicit submerged, oceanic experience, and, as a result, are ideal sites to demonstrate submerged reading methods. Electronic literature, with its seemingly fluid textual environments, is an example of such a genre. Scholars of electronic literature have long been interested in how digital computers expand or alter how texts relate to space. However, obvious limitations exist for this sense of spatiality, notably that spatiality is screen-deep. Though N. Katherine Hayles never discusses electronic literature with respect to either environmentalism or oceanic submergence, her work has shown how digital technologies and digital media are spatial, not just for their immersive qualities or how the screen produces a sense of space, but also for how they evoke extended, embodied cognition through the networked agencies of human reader and computer, computer and infrastructural materiality (3). Electronic literature requires material exchange of agencies among reader, computer, and networked systems in the text's unfolding (131). Elsewhere, she discusses how electronic literature foregrounds its material conditions as the site of signification and the consequential significance of an attention to the texts' media forms (72). In other words, the production of textual meaning in electronic literature is always tied to the specific material and mediating conditions that structure the text. Electronic literature demands the reader engage in "cyborg reading practices," reading that is intertwined and entangled with the production of the text via the digital device or its material conditions (85–87). Cyborg reading practices resonate with submerged reading practices through the emphasis on material situation and relational entanglements. Broadly speaking, electronic literature shares many resonances with ecological and environmental thinking through its emphasis on space, networked agencies, and material conditions and is a significant genre for considering the environmental qualities of texts. However, the genre is also suited to thinking about oceanic experience specifically. In particular, digital media and digital textualities share aesthetic and affective capacities with the oceanic and oceanic thinking that situate electronic literature as a significant place from which to consider a submerged reading.

Environmental media scholars have devoted significant attention to the connections and shared affinities between digital media and oceanic conditions.⁷ Melody Jue has written extensively about the relationship between the digital and the oceanic, highlighting the mediating qualities of the ocean through an exploration of how the ocean forces a reconsideration of key media theory terms (4–5). She has

detailed how oceanic materiality troubles a terrestrial understanding of an archive or database and the role of scale in thinking about the ocean's capacity for storage and preservation of information. Where macro-scale representations of the ocean position it as a database with a "protean" aesthetic, one that transfigures and encrusts, shifting the form of information, the micro-scale tends toward an aesthetic similar to the digital and digital databases, emphasizing exchange, as elemental units that cannot be easily transfigured (257). Electronic literature as a genre is able to capture both of these mediating qualities of the ocean by allowing for experiments with form that transfigure textual representation within the text itself and operating through a digital logic of discrete units of information at the levels of code, programming, and the text itself. Nicole Starosielski has similarly detailed the shared qualities of digital media and water, including digital media's capacity to simulate and represent the "distinct material capacities" of water and "different rubrics of scale and movement" (407, 401). She also highlights how digital media employs multimedia forms that reflect the material conditions of watery environments and gesture toward the sense experience of those environments, including the various "material agencies" of water (403). Electronic literature frequently emphasizes the qualities that Starosielski identifies, suggesting digital textualities as a useful place to speculate on a submerged reading experience. Furthermore, the emphasis on transformation, scale, movement, and the agency of water across these explorations suggests digital textualities are particularly adept at representing and formally experimenting with dissolution. Through these qualities and characteristics electronic literature and digital textualities discipline the reader into adopting alternative reading strategies; strategies commensurate with submerged reading. In doing so, the genre provides the reader the opportunity to consider how a submerged reading practice might function across other textual experiences. Not all electronic literature is appropriate for considering submergence as not all electronic literature explores dissolution, movement, scale, or related oceanic conditions. Submerged reading is also not limited to electronic texts.⁸ Submergence as a conceptual framework extends beyond a specific genre or textual form.

This essay considers how the texts *Sea and Spar* Between, by Nick Montfort and Stephanie Strickland, and *Loss, Undersea*, by D. Fox Harrell, demonstrate the submerged quality of dissolution and foreground a phenomenology of dissolution as both a textual and submerged condition. These texts frame an approach to a submerged reading. *Sea and Spar Between* was originally published in 2010 and then updated and re-published in 2012 and again in 2020. *Loss,*

Undersea was published in 2006. These specific texts demonstrate a submerged reading practice through their formal arrangements and a phenomenology of the dissolving. As such, they also show the value of electronic literature for considering submergence. Both texts make this explicit through representing the ocean environment. The texts differ in their approach to dissolution and those differences emphasize each text's particular historical and cultural associations.

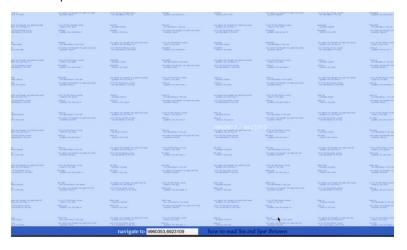
Sea and Spar Between

Sea and Spar Between is an electronic poetry text that programmatically generates short stanzas from the words of Emily Dickinson's poems and from Herman Melville's Moby Dick. The program selects and arranges the words based on their frequency, on characteristic categories of words, and on the analog analysis of the text's authors to recognize Dickinson's and Melville's lexical and rhetorical gestures (Montfort and Strickland). According to the author's addendum to the text, "how to read Sea and Spar Between," the program generates a number of stanzas comparable to the number of fish in the sea, around 225 trillion. Each stanza is indicated by two coordinates, longitude and latitude, constructing an "immense lattice of stanzas." The coordinates range from 0:0 to 14992383:14992383. In the source code, Montfort and Strickland leave a note of description that described the reader as "deposited at sea//located in a poem which surrounds or environs him or her, affording the//view of a sailor, yet not in Pound's sense of a sailor's view of the//shore—here, now, in this poem the shore has disappeared." Significantly, if the reader is assuming the view of a sailor, the text itself is submerged below the surface of the oceanic field and seemingly below the surface of the screen. As the authors articulate in the "how to read" addendum, the relationship between the stanzas and fish underscores the location of the text's language.

To read the text, the reader must navigate the oceanic field, comparable to a sailor without the steadying force of a ship. The reader can zoom in or out to see a particular stanza or a field of stanzas. When the reader touches the mouse of their computer, the stanzas begin to slip away to reveal additional stanzas at a different depth or lateral position. The reader can click at the edges of the screen to see additional stanzas that remain out of sight, even from the most zoomed out view. If one were to zoom in on several individual stanzas, significant portions of the text remain illegible due to its sheer scale. A number of stanzas include directives, "spool on," "reel on," "plunge on," among countless others, which seem to speak directly to the reader's experience of attempting to read while the text itself continues to move away

from the reader and to the endless need to "plunge" deeper into *Sea* and *Spar Between* in response to the scale of the text. The text mirrors the dynamic movement of the ocean suggesting that it is a structuring condition of the text and terrestrial conditions remain out of view. As the authors' write in the source code, the "shore has disappeared." The reader is unable to grasp the text in the oceanic environment and laments the disappearance of the shore. Or, rather, the text remains out of grasp so long as the reader attempts a normative reading practice and it thus conditions them to read differently to engage the text.

Sea and Spar Between:



The textual logic of Sea and Spar Between is one of navigation. The text operates through movement and coordinates but rather than situating the reader, the emphasis on navigation has the effect of destabilizing the reader and contributing to an overall sense of disorientation and overwhelmingness. This sense of the text is mirrored in Montfort and Strickland's description of the it as "dizzying," "terrifying," and as possessing a "difficulty of orientation." The motion and scale of the text produce this affect, and yet these same conditions encourage the reader to explore and to swim through the text and to bear witness to its possibilities. The navigational logic in conjunction with the required readerly participation via the computer mouse and affective dimension of the text suggests a reading process that emphasizes embodiment, feeling, and sensation. These qualities resonate with Hayles' description of electronic literature and Ingersoll's notion of "oceanic literacy," as a situated and embodied form of knowing (131; 81–83). Navigation flattens the oceanic materiality and agency, positioning the ocean as a surface

for transportation. But this logic sits in productive tension with the oceanic environment's agency and the slippery conditions of the text itself. The affective nature of Sea and Spar Between can recreate or simulate the feeling of overwhelmingness associated with being lost at sea-that the ocean exists seemingly infinitely, in all directions and there's no land in sight—placing the reader in a state of suspension (Alaimo 477– 478). The reader is lost at sea, submerged without the order and logic of terrestrial textuality. The text is disorienting and terrifying precisely because it exposes the limitations of terrestrial epistemologies and reading practices and because the submerged, dissolving textual field resists navigation and legibility. Notably, this description of the oceanic text as terrifying and as the site of the undoing of certain established categories of being mirrors Alaimo's description of what it means to "dwell in the dissolve," a prospect that is as disorienting and terrifying as it is potentially transformative (167). Navigation, an orienting strategy and an action, is dissolved by the text and the experience of submergence. The failure of navigation, and the affects produced by this failure, demonstrate a phenomenology of the dissolving or a critical engagement with the submerged experience of dissolution.

Where a traditional close reading and something like interpretation is possible, it is in the interconnected nature of these circulating fragments and the connections or tensions that they produce when considered together. Such a reading requires attention to the individual fragments, forcing the reader to zoom in and freeze the text, shifting the scale of textual observation. The tension between the massive scale of the zoomed out view of the text and the constant change against the relative stability of individual stanzas when the reader is zoomed in mirrors what Jue described as the relation between scale and oceanic archive aesthetics (248). The large-scale view emphasizes shifting conditions and transformation, both of the text and of the reader's cognitive orientation away from terrestrial logics. In contrast, the smaller scale reveals relatively stable individual, discrete units—the stanzas which can be read in relation to one another, a kind of poetic network of exchange. The networked nature of the ocean and submerged experience establishes a connection between the passages that allows them to be read together through an accumulation of meaning or against one another as free-floating fragments that will continue to circulate and emerge again, in a slightly different context with different companion passages. In dissolving the textual condition of the original works and diffracting their meaning through constant circulation, dissolution, and emergence, it is the watery environment itself that structures the experience and meaning of the text.

At the randomly chosen coordinates of 13007032: 6223589, the following stanzas are arranged in the center of the screen:

whirl on
then footless is the earth

one play one play one world one fair
fleshless walk and speak—

cut to fit the dirthoop course
nailed to the sash

you—too—
retriever! reduce!

you—too—
then floorless is the sun

one play one play one world one faith
fleshless walk and sing—(Montfort and Strickland)

From this small sample stanza, one could argue that the text is bordering on meaninglessness, a surrealist jumble. However, one could also read into this sample the qualities of a submerged narrator lost at sea. The Earth and Sun, two elemental figures associated with groundedness and orientation, are "footless" and "floorless." Each is ungrounded, unmoored, presumably falling or floating. Without these orienting figures, the narrator, too, is disoriented, speaking and describing the world around them in fragments. These descriptions are suggestive of movement, circulation, brought on by dissolution. The haunting mention of a "fleshless walk" echoes this dissolution. This image shares affective resonances with the overall description of the text as terrifying. While some of the descriptions might be understood as capturing oceanic flotsam and jetsam-"something cut to a dirthoop course and nailed to the sash"—the two lists of "ones" suggest either a vision of a universal cosmology, or, mirroring the work of the computer program itself, a counting or litany. In either case, when read together the two lines speak to an oceanic condition. If the reader is to understand these lines as cosmological, then they speak to the scale and magnitude of the ocean. As a list of objects, each "one" could be understood, like the text as a whole, as identifying elements dissolving and reemerging in the oceanic context. From this, one could understand the two as speaking to the interplay between universal and particular, or as indicative of the phenomenology of the

dissolving and the narrator's attempt to engage critically with dissolution, oceanic scale, and the circulation of fragments.

Though the individual stanzas are stable when considered at a smaller scale, the meanings a reader might draw from them still depends on the mediating and material conditions of the oceanic text at large. Though significant on their own, these stanzas represent a small fraction of the interconnected, free-floating fragments of *Sea and Spar Between*. In order to extract meaning from the text, the reader must attend to multiple scales; the stable individual stanzas and the massive, incomprehensible scale of the larger text. One must heed the advice of these stanzas' narrator to more completely address the text—whirl on!

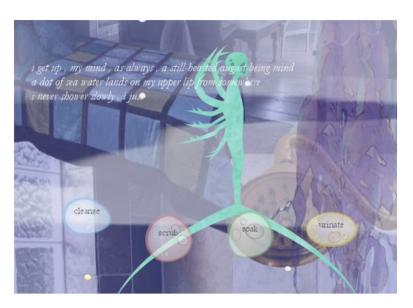
Loss, Undersea

Loss, Undersea is a multimedia, hypertext literature work in which reader interactions and choices generate alongside a poem, images, graphics, and music. The narrative details the story of a character who "encounters a world submerging into the depths." Submergence here is intended to be a "fantastic Atlantean metaphor" for the dehumanizing, alienating experience of life under late capitalism (Boluk et al. 2016). The narrative opens with a green silhouette of a human, sinking slowly down the screen while Sun Ra's "India" plays in the background. Behind the silhouette, images of the everyday of contemporary society are collaged together and overlayed atop of those images is a blue filter, suggesting that the world is slowly submerging underwater.

As the image slowly drifts down the screen, a section of a stanza of poetry appears that reads, "[S]imple foolish days, one after the next/ but glimpses of shuffle swim made it seem that I walked through water, not air/rousing from slumber to..." (Harrell). After the poetry appears on-screen, five bubbles float up the screen that contain different words, each a possible path forward for the poetic narrative, each representing a different emotional register, including languor, aggression, and tranquility. The reader selects a bubble, shaping the outline of the poem through their choices and interactions with the program. D. Fox Harrell created Loss, Undersea using GRIOT, a computer program he designed, which is informed by mathematics, linguistics, and semiotics and is intended to produce multimedia art that develops new forms of imaginative, conceptual thinking, or "phantasms" (Harrell 4, 6). Loss, Undersea, like other texts created by GRIOT, uses emotional registers as existing concepts from which to develop new phantasms, or new conceptual metaphors for aesthetic and philosophical worldmaking (Goguen). The reader of Loss, Undersea chooses these registers through the selection of the hypertext bubbles that float up

the screen. Harrell describes the new conceptual metaphor produced by Loss, Undersea as one that explores an emotional descent, loss, and the shifting nature of identity in response to different emotional conditions, experiences, and choices (Harrell 7; Boluk et al. 2016). With each choice, the silhouette becomes increasingly and wildly transfigured, morphing into something more like a science fiction sea creature, reflecting what Harrell calls a "loss of humanity" (ICE Lab). This transfiguration also potentially represents the production of transformative worldmaking, the stated goal of GRIOT and the figure of phantasms. This transformation of the silhouette based on reader actions positions it as an avatar, representing the reader and their movement through the text. Finally, the narrative ends and the screen goes black and a full poem, one of many possible poems, appears reflecting the reader's participation in the narrative. The poem eventually disappears as well, and then a black screen appears with no option to replay or rewind without restarting the program entirely. Sun Ra's "India" continues to play in the background, on a continual loop.

Loss, Undersea:



Loss, Undersea is fundamentally about dissolution, reemergence, and dynamic change, and thus oriented around a phenomenology of the dissolving at every level of the text. In terms of content, Loss, Undersea is literally a narrative of submergence, a civilization and subject sinking below the surface, and the possibility of inhabiting the underwater

position. Throughout the poem, the narrator refers to moving through "water, not air," and to encountering "a dot of sea water on [their] upper lip from somewhere," and to the sea creatures into which the narrator transfigures or which they encounter in their descent. The poem uses verbs such as "sinking," "float," and "drift." The narrator describes an attempt to inhabit the underwater, "ah, fighting doormat life/kelp scent bangs in the air/mind heavenly sleep now/beginning life beneath the waves/the ocean weight on my head/head on my pillow, facing time and sky far above" (Harrell). Through this submergence, the narrator and their world are slowly, persistently sinking and dissolving. The narrator's identity and lifeworld appear to be dissolving, as well, as the narrator undergoes an escalating transformation. The narrator is presumably the shifting avatar on the screen and as such stands in for the reader. The reader-as-character is further underscored by the reader's participation in the text that advances the poetic narrative and leads to the transformation of the avatar. The use of the avatar and Harrell's self-professed interest in developing new conceptual metaphors suggests that the text is inviting the reader to develop new modes of being, thinking, and identification by implicating them in the text and the experience of dissolution.

Loss, Undersea not only dissolves the world and identity of the narrator but also explores the dissolubility of language demonstrated by the language drifting on and off screen. The poem is presented in unfinished fragments—the completed poem withheld from the reader. It is only revealed once the reader has, presumably, reached the ocean floor and the screen goes black, suggesting textual meaning lies in the descent itself. Furthermore, the poem is never stable on screen—it scrolls up and out of the screen before the reader can adequately encounter the poem. There is no pause or rewind function, the program simply continues to run and the poem cannot be recalled. To comment on the poem, it was necessary to take screen captures of sections of the poem while it continued to move. Otherwise, the poem is mostly illegible and inaccessible to the reader. The moment the program becomes situated and stable is at its conclusion, after the text is completely withdrawn or when the text is entirely dissolved. Presumably, the poem would continue to circulate elsewhere in the oceanic milieu, dissolving and reemerging, even as the reader's view settles on the seafloor. The text's continual drift "up" the screen, even as the representation of the narrator and the narrator's world sinks "down," supports such a reading. After the final disappearance of the poem, with the screen entirely black, the reader is left to reflect on the limitations of our terrestrial sensorium and visuality, particularly at the bottom of the ocean. Where vision fails, one is forced to attend to other senses, including hearing, embodied knowledge, and

feeling (Ingersoll 81–83). One is left to attend to the affective qualities of the experience—the slow, methodical descent and dissolution, and persistent change.

Like Sea and Spar Between, Loss, Undersea disrupts the linearity of traditional narrative, though in a different way and to a lesser extent. As a hypertext narrative, Loss, Undersea contains several possible emergent paths or narrative constructions that stem from the choices of the reader. However, this narrative structure also suggests that some paths are lost, dissolved, only to be recirculated and discovered in future engagements with the text. The reader's embodied, active participation in the narrative and the collaboration between reader and computer program in the production of the poem distinguishes it as a reading experience from terrestrial reading practices. The disruption of linear narrative is suggestive of the conditions of submergence. A notable difference between Sea and Spar Between and Loss, Undersea is the relative speed at which the dissolution takes place. Where Sea and Spar Between zooms away from the reader, Loss, Undersea drifts and sinks with a persistent slowness. This slow submergence, the shifting character, and the sinking world is affectively disorienting for the reader. While Sea and Spar Between is disorienting for the text's capacity to overwhelm the reader, Loss, Undersea is disorienting in how the slow temporality renders the reader and the subject of the poem helpless to the descent and various changes it facilitates, though similarly in something like a state of suspension (Alaimo 477–478). The reader is filled with a sense of inevitability about the slow descent of the narrative and the slow process of the program itself. This mirrors the tone of the poem itself, such as "a life full of oyster worker-bee pursuits/the room has a liquid echo/ lunchtime, to/wait/at last, a nothing restful/it is damp," and later "my lonely destroying work-window starer life awaits me again on the job" (Harrell). This temporal shift captures a broader temporal condition of submerged experience; the experience of the deep. Similar in effect to the scale of Sea and Spar Between, the affective temporality of Loss, Undersea gestures toward the planetary or cosmic time scale of submerged experience. The use of Sun Ra's music evokes this temporality through his intimate association with Afrofuturist aesthetics and temporality and his concern with the planetary and the cosmic in his music and understanding of race (Deiuliis and Lohr 181). The infinite loop of "India," which continues to play even once the text has disappeared and the screen has gone black, underscores this sense of deep time. The cosmic scale of the text as demonstrated by the slow descent, Sun Ra's music, and eventual black screen informs the perpetual metamorphosis of the main character. As Jue argues, when considering the ocean through a large scale, the aesthetic of the oceanic archive is protean, an

aesthetic defined by transfiguration (Jue 246, 257). Here the very identity of the narrator transfigures. The narrator's identity is not lost, but transformed, diffracted through the conditions of oceanic dissolution.

Across his writing about Loss, Undersea, Harrel refers to the work as an "Atlantean" metaphor, and explicitly mentions the myth of the submerged, dissolved and lost city of Atlantis. This reference clearly evokes modern climate anxieties around rising seas, disappearing coastlines, and submerged cities. Understood literally rather than metaphorically, Loss, Undersea is recast as a work of climate fiction or Anthropocene fiction, in which the narrator and civilization descend into the ocean, presumably from rising sea levels. 10 However, in describing the text as an "Atlantean metaphor" alongside other aesthetic choices, the text can be understood as speaking to the legacy and afterlives of the Trans-Atlantic Slave-Trade. Through the evocation of Afrofuturist aesthetics, including Sun-Ra's music and the shifting identity of the avatar, the poetic narrative also seems to engage Blackness, Black life, or Black history. Significantly, GRIOT is named for a West African folk storytelling figure, charged with detailing genealogical history (Harrell 4). Further, Harrell has written about GRIOT and computational narrative as sharing roots with the Black storytelling tradition (10). In this context, the title Loss, Undersea speaks to the loss of life suffered as a consequence of the slave trade.

This reading of Loss, Undersea brings to mind other similar works, such as the mythos of Drexicya and M. NourbeSe Philip's Zong!. The Detroit electronic group Drexicya developed a mythos about an underwater society named "Drexicya" populated by the unborn children of pregnant African women who were thrown off slave ships. These children adapted to breathe underwater in their mothers' wombs and developed a thriving society and site of Black belonging (Maloney 2012). Drexicya was inspired by Gilroy's The Black Atlantic (Eshun 300), in which he details the relationship between the figure of the Atlantic in shaping Black subjectivity across various Black diasporic communities. Zong! is a poetic work by Philip based on the Zong massacre in which 130 African people were thrown off the slave ship "Zong" and left to drown. After running out of water, the crew began murdering Africans with the intent to recoup the financial losses through insurance (Philip 189-90). Philip's Zong! attempts to share this history through poetic form based on the legal documents related to the case. Zong! foregrounds dissolution, loss, and the material impacts of water on history and the archive (Saunders 69; Sharpe 470–71). The work functions as a memorial to the enslaved Africans killed in the massacre, but also as a practice of "critical fabulation" (Hartman 11). This understanding of the text situates it within the long history of the Black

literary tradition, in particular Black literature and poetry that attended to the Middle Passage and its role in conceptualizations of oceanic submergence and of the ocean in the construction of Black identity and Black subjectivity.

Understood in these contexts, the emotional journey, transformation, and transfiguration of the narrator, avatar, and by extension, the reader, are not detailing the narrator's loss of humanity. Rather, either as climate fiction or as engaging Black identity and history, Loss, Undersea's emphasis on dissolution can be understood as situating these social and cultural phenomena within an oceanic context. As climate fiction, the work speaks to the dissolution of a specific society, impacted by the rising sea levels and increased storms brought about by the climate crisis. The transformation and transfiguration of the avatar can be understood to be an adaptation to shifting environmental conditions and as the embrace of nonhuman and aquatic modes of knowing and being. The narrator's emotional journey can be read as their coming to terms with the dissolution of their terrestrial experience and their adaptation to a more aquatic experience. As an engagement with Black being and Black history, the thematic and formal emphasis on dissolution, transformation and transfiguration, positions the work as an act of critical remembering, attempting to address the elements of Black history lost to the ocean, and as a narrative of resistance and critical adaptation, of alternative histories and futures. Similar to Zong!, Loss, Undersea can be understood as attempting to reclaim and remember the dissolved histories of the Trans-Atlantic Slave Trade and as exploring the "immaterial archives" of the Black Atlantic and Black diaspora (Sharpe 3–4). Further, dissolution can be understood through the ways such violence and catastrophe resist representation. Like the mythos of Drexciya, the transformation and transfiguration of the narrator speak to the speculative, emergent possibility of an underwater Black subjectivity, and to the deep ocean as a site of Black possibility and resistance (Eshun 300-01). This transformation can also be understood as an aesthetic expression of Gumbs' notion of "undrowning," referring to critical strategies for adaptation and relationality informed by aquatic, nonhuman forms of life and being (Gumbs 7). The transformation of the avatar is placed in productive tension with the poetic narrative in which the narrator's frustration and resignation toward life are emphasized, suggesting that the transformation could be a kind of adaptation or resistance to the narrator's circumstance. Loss, Undersea can be understood as an aesthetic example of Sharpe's notion of "wake work," or as the possibility of living in the wake of the history of slavery, while also disrupting and rupturing the conditions produced by that history. The narrator's transformation speaks to that history but

also suggests a path forward from the history of the Trans-Atlantic Slave trade as a kind of "un/imaginable" life of aquatic adaption (Sharpe 18). Sharpe's work also emphasizes the historical legacies and speculative possibilities implicit in an oceanic, watery context through her evocation of the wake, the ship, and the weather as a way to discuss anti-Blackness and the legacies of slavery.

For Loss, Undersea a phenomenology of the dissolving speaks to the specific material and social conditions of both Black history via the Trans-Atlantic Slave Trade and the climate crisis. Further, submergence for Loss, Undersea fundamentally alters identity, modes of being, and categories of understanding through dissolution of terrestrial conditions (Alaimo 166). As a reading experience, the user is forced to confront these material possibilities and histories and to participate directly in their emergence and dissolution. The reader is similarly required to transform with the avatar, to see the poetic work and textual experience as evolving, transforming, dissolving, and circulating. A submerged reading practice is about not only the materiality of water, but also the material histories, legacies, and speculative futures that saturate, diffract, and circulate in oceanic waters. The deep time and planetary scale of Loss, Undersea as described earlier suggests that these various histories are concurrent, dissolved, diffracted, circulating in perpetuity.

Conclusion

Sea and Spar Between and Loss, Undersea considered together offer two discrete examples of the phenomenology of the dissolving; they are texts that adopt submergence as a framework and critically engage with the dissolving nature of submerged experience. Each text demonstrates how electronic literature as a genre emphasizes spatiality, movement, experiments with scale, and is therefore critically oriented toward a submerged perspective, particularly via dissolution. Together, they demonstrate to the reader what it means to read from a submerged perspective and make this explicit through their oceanic themes and their methodologies. Considered separately, each text speaks to different vectors of dissolution. Sea and Spar Between builds on not only the legacy of 19th century literary history through its source materials of Dickinson and Melville but also the long tradition of at-sea narratives and ship logs and diaries that proliferated during that same period (Rozwadowski 26–27). Loss, Undersea builds on a different literary and cultural history. The text explores themes, concerns, and aesthetics that signify a connection to the history of the Trans-Atlantic Slave Trade, its afterlives, and the Black literature across

genres that has arisen to explore that history. In each case, the approach to submergence and dissolution in each text could inform how readers attend to other sorts of texts. Sea and Spar Between's approach to dissolution opens up the possibility of reading Dickinson and Melville together through their different approaches to oceanic, submerged scale, allowing for a comparison of how Melville's epic scale contrasts with Dickinson's micro-scaled poetry, and what these diverging scales might dissolve, diffract, fragment, or circulate. Loss, Undersea's approach to dissolution provides a mode through which to attend to submergence's transformative power for the subject and the fragmentation and circulation of histories. One might consider how submergence and dissolution appear in Black literature including Drexciva's mythos, Zong!, or other works with oceanic focuses as modes of resistance and possibility, or how histories that fail to be captured or have not yet been represented are a form of dissolution. A submerged reading practice would also be useful for texts that force readers to experience dissolution more broadly as part of any textual engagement. As Alaimo argues, reading in or from or through the dissolve opens up the possibilities of reconfiguring or displacing commonly accepted categories of knowledge and being. Submerged reading and a phenomenology of the dissolving open up the possibilities of reconsidering the material conditions of form, language, and history and provide a watery lens through which one might rethink interpretation and textual analysis. In other words—dive in.

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NOTES

- 1. This sense of the dissolve builds on Stacy Alaimo's previous work on transcorporeality, see: *Bodily Natures: Science, Environment, and the Material Self.*
- 2. For more on Indigenous approaches to oceanic geographies, see: Craig Santos Perez, *Navigating Chamoru Poetry*, Vicente Diaz "Voyaging for Anti-Colonial Recovery."

- Karen Ingersoll articulates an understanding of the ocean informed by Indigenous Hawaiian culture that envisions the ocean as worthy of place status and as challenging terrestrial biases in geography.
- 4. For more on Pacific Islander approaches to oceanic geographies, see: Epeli Hau'ofa, "Our Sea of Islands," Teresia Teiawa, "What Remains to Be Seen."
- 5. For more Black and Caribbean approaches to oceanic geographies, see the work of: Dionne Brand, Édouard Glissant, Aimé Césaire, Katherine McKittrick, Paul Gilroy, Joshua Bennett, among many others.
- 6. See Espen Aarseth's notion of ergodic literature in *Cybertext*, Janet Murray's discussion of immersion in *Hamlet on the Holodeck*, Alenda Chang's discussion of the mesocosm, play, scale, and nonhuman agency in *Playing Nature*, and N. Katherine Hayles in *Electronic Literature* and "Print is Flat, Code is Deep."
- 7. Not discussed here but of value are John Durham Peters' *Marvelous Clouds*, Melody Jue and Rafico Ruiz's *Saturation*. Also, of note for considering environments and digital media is Alenda Chang's *Playing Nature*, Allison Carruth's "Ecological Media Studies and the Matter of Digital Technologies."
- 8. N. Katherine Hayles argued in *Electronic Literature* and "Print is Flat, Code is Deep" that the qualities of hypertext are not limited to electronic or digital literature but emerge in print texts, as well. See *Electronic Literature* Ch. 5, and "Print is Flat, Code is Deep," 67–73. The same can be said of submergence and dissolution. *Zong!*'s formal experimentations are an exemplary example of a print experiment with both submergence and dissolution.
- 9. Although these texts are slightly older within the field of electronic genre, they are chosen for a few key reasons. Their inclusion in the third volume of the ELO collection reflects the ELO's interest at the time to expand the perspectives and themes of electronic literature in order to make space for different approaches to the genre and to ensure diversity among authors (Stephanie Boluk, Leonardo Flores, Jacob Garbe, Anastasia Salter 2016). Additionally, through their inclusion, these works represent two of the most significant examples of electronic literature and foreground language and text in relation to the ocean; Notably, *Loss, Undersea* is now, ironically, and unfortunately, mostly inaccessible due to contemporary software incompatibilities.
- 10. For more on cli-fi and Anthropocene fictions, see: Rebecca Tuhus-Dubrow "Cli-fi: Birth of a Genre," Adam Trexler, *Anthropocene Fictions*.

WORKS CITED

Aarseth, Espen J. Cybertext: Perspectives on Ergodic Literature. Johns Hopkins UP, 1997.

Alaimo, Stacy. Bodily Natures: Science, Environment, and the Material Self. Indiana UP, 2010.

- —. Exposed: Environmental Politics and Pleasure in Posthuman Times. U of Minnesota P, 2017.
- —. "States of Suspension: Trans-Corporeality at Sea." *Interdisciplinary Studies in Literature and the Environment* 19.3 (2012): 476–93.
- Blum, Hester. "The Prospect of Oceanic Studies." PMLA 125.3 (2010): 670–77.
- Boluk, Stephanie, Leonardo Flores, Jacob Garbe, and Anastasia Salter. "The Electronic Literature Collection: Volume Three." *Electronic Literature Organization*, 2016, https://collection.eliterature.org/3/about.html.
- Boluk, Stephanie, Leonardo Flores, Jacob Garbe, Anastasia Salter. "Loss, Undersea." *Electronic Literature Organization*, https://collection.eliterature.org/3/work.html?work=loss-undersea, 2016, accessed June 2023.
- Chang, Alenda Y. Playing Nature: Ecology in Video Games. U of Minnesota P, 2019.
- DeIuliis, David, and Jeff Lohr. "Rewriting the Narrative: Communicology and the Speculative Discourse of Afrofuturism." *Afrofuturism 2.0: The Rise of Astro-Blackness*, edited by Reynaldo Anderson and Charles E. Jones, Lexington Press, 2016. 167–84.
- DeLoughrey, Elizabeth. "Submarine Futures of the Anthropocene." Comparative Literature 69.1 (2017): 32–44.
- Eshun, Kodwo. "Further Considerations of Afrofuturism." CR: The New Centennial Review 3.2 (2003): 287–302.
- Gilroy, Paul. The Black Atlantic: Modernity and Double Consciousness. Harvard UP, 1993.
- Goguen, Joseph. "GRIOT System Homepage." Computer Science and Engineering, University of California at San Diego. https://cseweb.ucsd.edu/~goguen/projs/griot.html.
- Gumbs, Alexis Pauline. *Undrowned: Black Feminist Lessons from Marine Animals*. AK Press, 2020.
- Harrell, D. Fox. Loss, Undersea. 2006.
- ——. "Cultural Roots for Computing: The Case of African Diasporic Orature and Computational Narrative in the GRIOT System." *Proceedings of the September 2007 Digital Arts and Culture Conference in Perth, Australia*, edited by Andrew Hutchinson and Ingrid Richardson, *Fibreculture Journal* 1.11 (November 2008).
- —. Phantasmal Media: An Approach to Imagination, Computation, and Expression. MIT Press, 2013.
- —. "Walking Blues Changes Undersea: Imaginative Narrative in Interactive Poetry Generation with the GRIOT System." AAAI 2006 Workshop in Computational Aesthetics: Artificial Intelligence Approaches to Happiness and Beauty in Boston, Massachusetts, Department of Computer Science and Engineering at UC-San Diego, 2006.
- Hartman, Saidiya. "Venus in Two Acts." Small Axe 12.2 (2008): 1-14.
- Hayles, N. Katherine. *Electronic Literature: New Horizons for the Literary.* Notre Dame UP, 2008.
- . How We Think: Digital Media and Contemporary Technogenesis. U of Chicago P, 2012.

- ——. "Print is Flat, Code is Deep: The Importance of Media-Specific Analysis." *Poetics Today* 25.1 (2004): 67–90.
- Ingersoll, Karin Amimoto. Waves of Knowing: A Seascape Epistemology. Duke UP, 2016.
- Jue, Melody. "Proteus and the Digital: Scalar Transformations of Seawater's Materiality in Ocean Animations." *Animation*. 9.2 (2014): 245–260.
- ——. Wild Blue Media: Thinking Through Seawater. Duke UP, 2020.
- ICE Lab. "Loss, Undersea." *Imagination, Computation, and Expression Laboratory,* MIT Computer Science and Artificial Intelligence Laboratory, https://groups.csail.mit.edu/icelab/content/loss-undersea.
- Maisano, Scott. "Reading Underwater; or, Fantasies of Fluency from Shakespeare to Mieville and Emshwiller." *Extrapolation* 45.1 (2004): 76–88.
- Maloney, Patricia. "Interview with Kodwo Eshun of the Otolith Group." *Art Practical*, 2012, http://www.artpractical.com/column/interview_with_kodwo_eshun/.
- Montfort, Nick and Stephanie Strickland. *Sea and Spar Between*. Version 1.0.2, 2020, https://nickm.com/montfort_strickland/sea_and_spar_between/.
- ----. "sea_spar.js." Sea and Spar Between, Version 1.0.2, 2020.
- ——."How to Read Sea and Spar Between." Version 1.0.2, 2020. https://nickm.com/montfort_strickland/sea_and_spar_between/reading.html
- Murray, Janet H. Hamlet on the Holodeck: The Future of Narrative in Cyberspace. 2nd ed., MIT Press, 2017.
- Philip, M. NourbeSe. Zong!: As Told to the Author by Setaey Adamu Boateng. Wesleyan UP, 2008.
- Rozwadowski, Helen. Fathoming the Ocean: The Discovery and Exploration of the Deep Sea. Harvard UP, 2005.
- Saunders, Patricia. "Defending the Dead, Confronting the Archive: A Conversation with M. NourbeSe Philip." *Small Axe* 12.2 (2008): 63–79.
- Sharpe, Christina. *In the Wake: On Blackness and Being*. Duke UP, 2016.
- Sharpe, Jenny. "The Archive and Affective Memory in M. Nourbese Philip's Zong!" Interventions 16.4 (2014): 465–82.
- Starosielski, Nicole. "Resource Operations of the Ecological Digital Humanities." *PMLA* 131.2 (2016): 401–09.