Under the Sea in the Age of the Meteorocene: Towards a New Constitution

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The Scottish Enlightenment philosopher Adam Ferguson (1723–1816) asserted that 'The Hollander is laborious and industrious in Europe [but] he becomes more languid and slothful in India'.[1] Ferguson attributed this indolence to the climate of India, a stance influenced by Montesquieu's climate determinism, which portrayed Western Europe's imperial dominance as an inevitable consequence of environmental factors.[2] This assertion coincides with the early experiments in steam technology, culminating in the 1784 patent of the steam engine by James Watt, marking the inception of global carbon emission. This period signifies a crucial geological juncture in the Anthropocene.[3] Timothy Morton provocatively juxtaposes this vast geological timescale with immediate, human-centred events, such as the industrial revolution and nuclear bombings, emphasizing the profound human impact on geological history.[4] Unlike Montesquieu's racially charged climate determinism, contemporary humanity faces an inescapable ecological trauma — global warming. Morton argues, 'climate change as a substitute for global warming is like (…) "change in living conditions" as a substitute for the Holocaust'. He further contends that 'Climate change as a substitute allows cynical reasoning (both right-wing and left-wing) to assert that the "climate has always been changing" (…). What we urgently need is an appropriate level of shock and anxiety regarding a specific ecological trauma — indeed, the ecological trauma of our age, the very thing that defines the Anthropocene as such' (*Hyperobjects* 8–9).

The ecological trauma of *our* age is addressed in Patricia Waugh and Marc Botha's influential collective work on 'future theory'. In their seminal publication, they allocate

an entry to global warming. There is no inconsistency in situating global warming within the domain of 'future theory', as it represents the 'future of theory'. Global warming, along with other critical concepts in this handbook, 'seem[s] most resonant and apposite in gathering and organizing the manifold ways in which our own historical moment appears as one of transition and significant change'.[5] Paradoxically, addressing climate change necessitates a *change* in our conception of humanity itself, in order to mitigate its catastrophic consequences.

Sea level rise is arguably one of the most conspicuous manifestations of the Anthropocene, leading to a profound reconfiguration of the Earth's topography. However, the phenomenon itself is not unprecedented. As Rachel Carson observed in her 1951 book, *The Sea around Us*, the boundary between sea and land has always been dynamic, shaped by the ocean's continuous encroachment upon terrestrial areas. 'Now [that is, 1951]', Carson notes, 'once again the ocean is overfull. It is spilling over the rims of its basins'; however, due to the paucity of global records at the time, she observes, it remained uncertain whether the sea level rise observed in the United States since 1930 was occurring concurrently on other continents.[6] At present, however, it is established that mean sea levels have increased by over 20 centimetres since 1880, with approximately 7.6 centimetres recorded in the past quarter-century. The annual rate of sea level rise is 3.3 millimetres. Recent studies indicate that the rate of sea level rise is accelerating, with projections estimating a 30.5-centimetre increase by 2050. This global phenomenon is primarily attributed to a combination of meltwater from glaciers and ice sheets and the thermal expansion of seawater as it warms. In 2021, the global mean sea level was 9.7 centimetres above 1993 levels, marking the highest annual average in the satellite record.

What role could literature assume in relation to this situation? A plausible response is to serve as a witness. In the forthcoming decades, readers of Joseph Conrad's novella *Freya of the Seven Isles* (2008 [1912]) will engage with a narrative set in seven sandbars in the South Seas that have long since been submerged by water. Similarly, readers of Philip Hoare's *The Sea Inside* (2014 [2013]) will be transported to aquatic environments from the eastern coast of England to the shores of Sri Lanka. In the near future, in a modern-day Atlantis that is New York, Lore Seagal's *Half of the Kingdom* (2013) will recount the narrative of an individual experiencing a cerebrovascular accident on what was once a beach in a location called Brooklyn. Furthermore, Edgar Allan Poe's *The Narrative of Arthur Gordon Pym of Nantucket* (1975 [1838]) will provide readers with an accurate description of a temperate region in the Antarctic.[7] As former marketing manager of Melville House, Dustin Kurtz, posits, many of 'our books will suddenly become fantastic'.[8] One might add that others, which were previously considered fantastic and dystopian, will suddenly be transformed into nineteenth-century realist novels. Whatever the case, a significant number of literary texts will metamorphose into an atlas of vanishing — or already vanished — locations.[9] Bearing witness is undoubtedly a significant function of fiction; however, this function remains somewhat limited given that fiction has its origins within the realm of imagination. Is this the extent of our imaginative capacity? Numerous scholars concur that the rapid changes precipitated by global warming are also exerting an aesthetic influence. Paradoxically, the Anthropocene may not have officially emerged as a geological stratum yet, but when it does, it will inevitably reflect the human-induced alterations of — to borrow the title of Franny Armstrong's 2009 documentary — 'the age of stupid'.[10]

This article proposes an examination of these anthropogenic strata already discernible in literature and visual arts by focusing on texts that *resonate* and *reverberate*

with sea level rise. As Florian Mussgnug argues, 'Sea-level rise is just one of the many existential threats resulting from global heating, but it has garnered particular attention in literature'.[11] Several factors may account for this heightened attention, ranging from the evident fact that it is the most visible manifestation of environmental catastrophes and the culturally significant references to floods for many communities worldwide, to its emergence as a prevalent trope in the media — a form of postapocalyptic sublime. Concomitantly, this study posits that these texts, and others, *resonate* and *reverberate* in the sense described by Gaston Bachelard. On one hand, they resonate in the sense that they elucidate how human existence in the world will be affected on various levels. At the same time, they reverberate insofar as they compel us to articulate them, to internalize them.[12] Both terms, resonance and reverberation, have elicited a rich array of phenomenological discussions, from Roman Ingarden's spots of indeterminacy (*Unbestimmtheitsstellen*) in artworks that demand an active reader to bring them to full realization, and Martin Heidegger's mood (*Stimmung*) with its crucial role in shaping how the world is disclosed, to Maurice Merleau-Ponty's echo (*retentissement*), which emphasizes that meaning and perception extend beyond singular instances to form a continuity of experience, and Jean-Luc Marion's concept of saturated phenomena (*phénomènes saturés*) for experiences that surpass the subject's capacity for conceptualization.[13] These aforementioned theoretical articulations, including Bachelard's, have been instrumental in developing an object-oriented ontology, which is fundamental to our understanding of being in a submerged world.

After situating the literary and visual proliferation of interest in the oceanic world within the emerging body of scholarship categorized under the rubric of the 'oceanic turn'[14], my analysis will be organized into four discrete sections, each dedicated to specific dimensions of sea level rise and coastal encroachment as portrayed in literary and

visual texts. In addressing these texts, a chronological literary framework will not be followed, as temporal linearity is rendered inconsequential when juxtaposed with the deep time of geology. Instead, the selected texts represent a diverse array of culturally constructed dimensions of what this study terms the 'Meteorocene'. This analysis concludes with reflections on catachronistic reading in the age of the Meteorocene, proposing new interpretative possibilities that engage with the temporal disruptions and ecological complexities of this epoch.

0. The Oceanic Turn

Elizabeth M. DeLoughrey highlights the emergence of 'critical ocean studies', an interdisciplinary field that distinguishes itself from traditional ocean studies through its emphasis on 'theorizing oceanic submersion'.[15] Sidney J. Dobrin advocates for the development of 'blue ecocriticism' or 'blue humanities', disciplines whose 'primary objective (…) is to challenge ecocriticism's engagement with representations of the ocean from predominantly land-based methodologies and epistemologies'.[16] In 2022, Mabel Moraña introduced the concept of 'hydrocriticism' as 'a critical and theoretical approach that focuses on social realities and forms of domination in which bodies of water play a fundamental role, serving as the medium for reaching and controlling people, lands, and/or natural resources'.[17] Together, these frameworks contribute to a more nuanced understanding of the ocean as a dynamic site of cultural, political, and ecological negotiation.

Notwithstanding their divergences, which are predominantly influenced by their respective initial training (postcolonial and indigenous studies in the case of DeLoughrey, ecocriticism in the case of Dobrin, Latin American studies in the case of Moraña), these three approaches share a common genealogy and demonstrate a variable affinity with the

phenomenon DeLoughrey designates as 'oceanic submersion'. The common genealogy can be conceptualized through two primary dimensions. First, there is the spatial turn evident in studies that transcend nationally-bounded frameworks, viewing the ocean as a transnational connecting space for empire, slavery and capital. Drawing from poststructuralist principles on the fluidity of subjectivity and non-hierarchical spaces, this approach finds an exemplary representation in Paul Gilroy's 1993 book, *The Black Atlantic: Modernity and Double Consciousness*.[18] Second, there is the historically-informed political economy, which examines the economic and cultural interchange between societies across bodies of water. Fernand Braudel's classic work on the Mediterranean serves as the foundational reference in this regard.[19] According to Philip E. Steinberg, the former approach 'overtheorizes the ocean' as a 'spatial signifier for a world of shifting, fragmented identities, mobilities, and connections'.[20] In contrast, the latter approach 'undertheorizes the ocean', reducing 'the ocean to a surface, a space of connection that merely unifies the societies in its borders' ('Of Other Seas' 157).

Both approaches, therefore, avoid engaging deeply with the ocean, or, to borrow Steinberg's eloquent expression, they 'never get[] wet' (158). What is the significance of Steinberg's reference to 'getting wet' or DeLoughrey's concept of 'oceanic submersion'? Steinberg posits that the ocean transcends its role as a mere surface for maritime navigation or a space for resource extraction. In collaboration with Kimberley Peters, Steinberg expands upon this notion in their joint article, proposing a 'wet ontology' as a means of reconceptualizing our understanding of the world. This approach emphasizes the fluidity, interconnectedness and constant change inherent in the ocean's nature.[21] While Dobrin does not directly engage with the concept of 'wet ontology', Moraña embraces it as a counterbalance to one-dimensional notions of permanence and territoriality. By acknowledging the singularity of liquid perspectives and theorizing

change and mobility as inherent qualities of both living beings and the natural world, wet ontology facilitates a more nuanced understanding of the ocean's significance.[22]

DeLoughrey, however, has expanded upon Peters and Steinberg's proposition by incorporating it with Elizabeth A. Povinelli's conceptualization of 'geontologies'.[23] As previously mentioned, these studies align with a contemporary focus on ontology, frequently referred to as the 'ontological turn' or 'object-oriented ontology'. This paradigm shift aims to decentre humans from the core of the humanities and social sciences, with the intention of 'flattening' our ontological assumptions and facilitating a more comprehensive understanding of the interconnectedness of human and non-human networks. Drawing from Povinelli, DeLoughrey incorporates the 'mutually constitutive relationship between biography and geology (…) that destabilizes Western binaries between figures of life and nonlife' ('Submarine Futures' 35). Additionally, influenced by Steinberg, DeLoughrey adopts 'an epistemology that views the ocean as continually being reconstituted by (…) the non-human and the human, the biological and the geophysical, the historic and the contemporary' ('Of Other Seas' 157). The result is what DeLoughrey terms 'sea ontologies' — a concept that characterizes 'the connection between ancestry, history, and non-Western knowledge systems in submarine aesthetics' ('Submarine Futures' 36).

1. Where Sea and Land Meet

A significant resonance in texts addressing sea level rise emanates from the sea's edge, which, in Rachel Carson's words, is 'a strange and beautiful place' — an 'area of unrest where waves have broken heavily against the land', a 'difficult world' where 'life displays its enormous toughness and vitality by occupying almost every conceivable niche'.[24] It is a dual-natured location, alternately belonging to the land and the sea, characterized by a

‘four-dimensional materiality’ — width, height, depth and time.[25] This space exhibits a dynamic interplay between land and sea, with space and time functioning as inseparable, co-constitutive elements in a medium that is continually shaped and reshaped by its dynamic forces.

This perspective can be illustrated through a poem from Blake Morrison’s poetry collection, *Shingle Street*. The coastal settlement of Shingle Street in Suffolk possesses a significant literary legacy, with notable associations to figures such as Edward FitzGerald and W. G. Sebald.[26] Morrison’s collection seamlessly intertwines themes of mortality, military defence and coastal erosion, offering a nuanced exploration of the intricate connections between these elements.

Sea Walk

When we come in March
the cliffs have backed away,
abashed by the ocean’s passion.

The clay can’t withstand
the constant harassment.
The trees look scared to death.[27]

Coastal inundation and erosion are conceptualized as the ‘passion’ from the oceanic perspective and ‘harassment’ from the terrestrial viewpoint. The inquiry arises: which perspective is more accurate, and where should the demarcation be established? In 2005, the artist Lida Lopes Cardozo Kindersley and her childhood friend Els Bottema initiated

the arrangement of a line of shells on the beach at Shingle Street as a coping mechanism for their shared experience of cancer treatment. Significantly, as the line expanded, the friend's cancer entered remission. Functioning as both a symbol of resilience and a testament to their friendship, the Shingle Street Shell Line also represents an imaginary demarcation between life and nonlife, perpetually in motion and fluid.

[Image 1 around here]

Image 1: The Shingle Street Shell Line. A long, winding line of white seashells stretches across a flat, pebbled beach towards a distant row of white cottages under a clear blue sky.

2. The Fracture

Gerry Loose entitled his sixth poetry collection *Fault Line*. The central focus of this collection, or more accurately, single poem, is Gare Loch, an open sea loch in Argyll and Bute. The term 'fault line' in the title does not denote a discontinuity in plate tectonics but rather refers to another form of fracture — specifically, the contentious issue of Faslane. Faslane, a military installation initially established during the Second World War, has been and remains the location of the UK's nuclear arsenal.

another heroic struggle

among trees

beith luis fern

sail nin huath

oak & hazel

Sweeney

& the missiles

giddy ripples[28]

The interface between natural ecosystems — comprising birches, rowans, alders, willows, ash trees, hawthorns, oaks and hazels — and anthropogenic constructs, such as nuclear weapons (missiles), forms the backdrop for a key conflict in the Anthropocene. Poem 41, in this context, illustrates nature's adaptability, as herons and ravens acclimate to the artificial routines of destruction and annihilation at the naval base (*Fault Line* 45). The liminal space, where human and nonhuman entities coexist, challenges and destabilizes established epistemologies as both realms negotiate their distinct ontologies. While humans are conscious of 'mortality', herons and ravens exemplify 'sentience'. In the vicinity of a 'six-petalled wood anemone', a human artifact — 'a split-nosed bullet' — lies discarded, underscoring the interwoven narratives of life, death and residue within this contested terrain (*Fault Line* 45).

In *For Space*, Doreen Massey employs fault lines and plate tectonics to challenge the static conception of space. She asserts that 'geological history tells us' that the ostensibly 'natural' and timeless places we reference have undergone, and continue to undergo, transformation.[29] In contrast, Steinberg posits that the mobility of water is fundamentally distinct due to its fluidity, an experience intrinsic to those who physically encounter it.[30] This emphasis on the materiality of seawater leads to an 'assemblage' approach, presupposing a world characterized by immanence and becoming — a territory devoid of essence and lacking a linear trajectory. Elements contribute to the assemblage (reterritorializing it) or depart from it (deterritorializing it).[31] This approach challenges the conventional allegorization of the ocean as an abstract space transitioning to a local

place through the central figure of the shore. Instead, it reinstates the four-dimensional materiality, countering the unidimensional connotation promoted by the term 'coast*line*'.

3. The Meteorocene

DeLoughrey employs the term 'sea ontologies' to expand upon Povinelli's theorization of geontologies. Povinelli clarifies that geontology is not merely a crisis between life and nonlife or a species-level crisis but rather a mode of late liberal governance she terms 'geontopower'. In a related vein, Peters and Steinberg advocate for 'a more-than-wet ontology', building on the concept of 'wet ontology' as a framework for conceptualizing the sea.[32] They argue that the ocean is not solely liquid but also solid (ice) and gaseous (mist). It generates winds that carry olfactory and gustatory stimuli, permeating senses and imaginations and extending 'marine' and 'maritime' experiences far inland. To account for this broader presence, they propose 'meteorontology' — a mode of thinking about the ocean beyond its aqueous volume.[33] The seashore, where the sea and land converge, emerges as a site of 'particular intensity', demanding a deeper engagement with movement and interrelation while challenging artificial separations.[34]

In her 2016 poem 'Puka-Puka — Taui'anga reva, Climate Change', Takiora Ingram, who was born and raised in Rarotonga, Cook Islands, presents an extended monologue by Johnny Frisbie, an elder from Puka-Puka, a small coral atoll in the northeastern Tuamotu Archipelago. The monologue is prompted by the diminishing population, as inhabitants are becoming climate refugees.

> Recently, Johnny Frisbie
> An elder from Puka-Puka asked me
> What will happen to my people?

(…)

But now sea level rise

And frequent heavy sea surges

Threaten their survival

When the earth is closest to the sun

King tides sweep over, inundating the motu

Eroding scarce land

Seawater seeps into taro patches

Contaminating soil with salt

Taro crops die

Coconut trees die

Food resources compromised

While global fossil fuel consumption

Continues at an unsustainable rate

And fossil emissions have risen forty percent

These small atolls face inundation, loss, destruction

Puka-Puka, powered by solar energy

A model of natural energy efficiency

Stands at the frontier of climate change

Victim of developed countries' over-consumption[35]

Human beings are not the sole organisms affected by sea surges. Vegetation, including crops and trees, perishes due to soil salinization caused by seawater infiltration, rendering the already limited arable land unproductive. While inhabitants of Puka-Puka have

adopted environmentally sustainable energy sources, they are transformed by geontological forces into the initial victims of climate change.

Within the broader discourse of geontological power — which navigates distinctions and regulations between life and nonlife, being and nonbeing — there emerges a framework wherein entities such as the sea are consigned to the category of nonlife and nonbeing, which poet Gerry Loose terms as 'not / ontological'.[36] Consequently, such entities are frequently rendered unworthy of care or justice. Povinelli's decision to retain the term 'geontology', along with its cognates, such as 'geontopower', serves a strategic purpose: it amplifies the contrast between the domains of nonlife (*geos*) and being (ontology). This terminological choice is juxtaposed with alternatives such as meteorontological power, a term she references in passing, which could more directly engage with discourses surrounding climate change.[37] Meteorontology is a compound term that combines meteorology and ontology to posit the inseparability of becoming, or being, and atmospheric phenomena, as American poet Jorie Graham illustrates in her poem 'Sea Change'.

One day: stronger wind than anyone expected. Stronger than
ever before in the recording
of such. Un-
natural says the news. Also the body says it. Which part of the body — I look
down, can
feel it, yes, don't know
where. Also submerging us,
making of the fields, the trees, a cast of characters in an
unnegotiable

drama, ordained, iron-gloom of low light, everything at once undoing itself.[38]

In this light, I propose the term 'Meteorocene' to designate a paradigmatic shift characterized by the complexities of contemporary climate challenges and their profound implications for our understanding of the future. The term draws on the Aristotelian conception of 'meteorology' as articulated in his treatise *Meteora*, wherein it encompasses all phenomena related to air, water and the earth's various elemental properties.[39] It is crucial to clarify that I do not advocate for a regression to the pre-eighteenth-century epistemologies, wherein meteorology and weather were regarded as distinct domains under the influence of Aristotelian thought. Rather, I invoke the Aristotelian notion of *meteora* as an inspirational framework for contemporary environmentalism, aligning with the principles of elemental ecocriticism as advanced by Jeffrey Jerome Cohen and Lowell Duchert.[40] I define 'Meteorocene' as the epoch in which all forms of life, both human and nonhuman, are profoundly impacted by the earth's elemental forces as they are unpredictably transformed by anthropogenic climate change. Within this paradigm, the analysis of both imaginative and theoretical texts unveils a rich repository for reconceptualizing ecology and the complex entanglements of life, matter and climate, even when these texts predate the Meteorocene. Consider, for instance, the case of the cosmologist, physicist and poet Empedocles, who posited that the four elements — earth, air, fire and water — are bound together by forces of attraction (*philia*) and separated by inherent conflict (*neikos*). Similarly, in the context of the perpetual movements of earth and water, Aristotle's observation remains particularly pertinent: 'if in some places the sea recedes while in others it encroaches, then evidently

the same parts of the earth as a whole are not always sea, nor always mainland, but in the process of time, all undergo change' (*Meteorologica* I.1.4).

Expanding this temporal dialogue to contemporary reflections, American poet John Philip Drury, in his poem 'Sea Level Rising', poignantly explores human *philia* for coastal environments threatened by the encroaching sea, whose precarious existence reverberates far inland, highlighting the interconnectedness of place, memory and climate. Through such imaginative and philosophical engagements, the Meteorocene emerges not only as an epoch of environmental disruption but as a conceptual framework for rethinking the entangled narratives of change, continuity and elemental agency.

> Water that threatens every place I love
> is what I love about those lowland places
> with rowboats moored to pilings in a cove
> enclosed by loblolly pines, spartina grasses.
>
> Inland, I sense it when I'm happiest,
> a salt breeze blowing past the empty fields.
> But nothing oceanic surges past
> dark roads, the stubbly acres of dull golds.[41]

In the era of the Meteorocene, sea level rise is no longer conceptualized merely as a 'natural disaster'; rather, it is acknowledged as a human-induced catastrophe, a hyper-acceleration of a process that Rachel Carson envisioned as unfolding beyond human temporality, akin to the eventual absorption of the Earth by the Sun. Carson evocatively speculates, 'If the rise over the continent of North America should amount to a hundred

feet', envisioning the consequent submergence of the Atlantic seaboard with its urban centres and municipalities. Yet, Carson perceptively remarks, 'All this would seem to us extraordinary and catastrophic, but the truth is that North America and most other continents have known even more extensive invasions by the sea than the one we have just imagined'.[42] By situating contemporary sea level rise within this expansive geological temporality, Carson underscores the continuity of the earth's dynamic processes while simultaneously highlighting the unprecedented scale and velocity of anthropogenic impact. This temporal juxtaposition challenges conventional narratives of disaster, urging a reconceptualization of ecological change as an interplay between natural rhythms and human-induced acceleration, central to understanding the complexities of the Meteorocene.

The inundation of urban areas brings the global issue of climate change into sharp local focus. In this context, the traditional environmentalist emphasis on a 'sense of place', historically central to conservation efforts, is evolving into a 'sense of urban refuge'. This shift reflects a reorientation of priorities, where the primary objective becomes the protection of human populations and their settlements from the encroaching sea. Anthony Oliver-Smith encapsulates this dilemma through his conceptualization of the 'location problem', posing the critical question: 'Are disasters located in society or in the environment?'[43] This question is particularly pertinent given that 'simulative politics' (see below) can potentially transform disruptive environmental changes into capitalist assets. A striking example of this dynamic occurred in January 2025, when the Xunta de Galicia promoted Galicia, Spain, at the international tourism fair Fitur under the slogan *Galicia Refuxio Climático* (Galicia: A Climate Refuge). In a narrative reminiscent of 'the age of stupid', the regional government argued that Galicia could serve as a refuge for tourists since temperatures there are rising at a rate of 0.2 degrees per year, compared to

0.25 degrees in the rest of Spain. This marketing strategy effectively commodifies climate resilience, obscuring the broader human responsibility for the compounded impacts of anthropogenic climate change.

[Image 2 around here]

Image 2: *Galicia Refuxio Climático*. A group of officials from the Xunta de Galicia standing in front of a large screen displaying 'Galicia Refuxio Climático' during a promotional event at Fitur, January 2025; Ángela Vázquez Mejuto, Conselleira for Environment and Climate Change, stands at the centre.

Another illustration of this entanglement emerges in the conceptualization of the sea as an adversary, wherein the proposed solutions predominantly focus on safeguarding infrastructure. This perspective frames the disaster primarily in terms of physical impacts, thereby neglecting the profound disruptions to human cognition and culture. Alternatively, when these impacts are acknowledged, they are often addressed in ways more congruent with geontological power — perceived as temporary, myopic investments. In this framework, the coastal region is reimagined not as a vulnerable ecological space but as a lucrative defence site for late technocapitalism.[44] The enduring notion that nature must be subjugated, which is fundamental to the environmental crisis, is not only replicated but also perpetuated. Furthermore, this perspective circumvents the critical task of recognizing and addressing human agency. The concept of a 'natural disaster', originating from what Michel Serres termed the 'Modern Constitution' — the separation of the 'human' sciences from the 'natural' sciences — makes a phantasmatic reemergence.[45] Consequently, the human being is once again positioned as a heroic figure

above nature, echoing projects such as Elon Musk's vision of humans as an 'interplanetary species'.[46]

4. Sea Level Rise as Event

Previously, I referred to sea level rise as an 'event'. Kellan Anfinson, in his 2021 book, *The Ethos of the Climate Event*, notes that when he initiated his project in 2017, references to climate change as an 'event' were scarce. However, five years later, such terminology had become prevalent. The concept of the event holds a significant place in continental philosophy, and it presents considerable challenges to invoke.[47]

My analysis aligns with Slavoj Žižek, who characterizes the 2004 Indian Ocean earthquake and tsunami as an 'event'. Žižek defines an event as 'something shocking, out of joint, that appears to happen all of a sudden and interrupts the usual flow of things; something that emerges seemingly out of nowhere, without discernible causes, an appearance without solid being as its foundation'.[48] Several terms — change, anxiety, acceleration, urgency, emergence and risk — correspond with Žižek's definition. Of particular interest is Anfinson's argument that insufficient attention is given to the event as 'something that can be ignored, co-opted, repressed, devalued, sublimated, or covered up'.[49] This is evident in the technocapitalist promotion of climate engineering and militarization of the sea, as well as in what Timothy Clark terms 'simulative politics' — legislative gestures that obscure the underlying reality that 'late-modern societies have neither the will nor the ability to *get serious*' about the fundamental environmental issues embedded in their core practices.[50]

Continuing with Anfinson's argument, his perspective on 'what kind of ethos is needed to recognize, engage, and respond to' climate change as an event is of paramount importance. He contends, 'Because no "we" that can act responsibly currently exists, it is

necessary to compose one'.[51] To this, I add the Aristotelian concept of *kairos*, presented in the *Nicomachean Ethics* as a moment of decision, a test, and a renewal of the limits of subjective freedom.[52] *Kairos* provides a crucial link between Žižek's notion of the event and Anfinson's call for a collective subject — a 'we' — in the process of being constituted.[53]

Theodor Storm's 1888 novella, *Der Schimmelreiter* (*The Rider on the White Horse*) provides a fertile testing ground for triangulating the concepts of event, *kairos* and the emergence of a collective 'we'. The narrative centres on Hauke Haien, a farmer's son who acquires extensive knowledge of the coastal dikes in Northern Frisia. Hauke ascends to the position of the *Dijkgraaf* (dike master) and introduces innovation through the design of a novel dike structure, characterized by a flatter seaside profile to mitigate windage during flood events. Storm's work adheres to the established paradigms of knowledge production institutionalized by the 'Modern Constitution'. Hauke effectively synthesizes scientific knowledge — he undertakes the study of Dutch to access 'a Euclid written in Dutch' — with empirical research methodologies.[54]

> But he kept the Euclid in his pocket all the time, and while the workers were eating their breakfast or afternoon lunch, he sat on an upturned wheelbarrow with the book in his hand. And when the floods rose higher in the autumn and the work often had to be stopped, he did not return home with the others, but stayed there, his hands folded across his knees. He sat on the seaward side of the dike for hours at a time, gazing at the North Sea waves as they beat always higher against the grassy seams of the dike. (*The Rider* 189)

In Hauke's perception, the sea is analogized to an animal — 'the water doesn't talk. It just growls and waves' (*The Rider* 263) — that can be subjugated. He conceptualizes the new dike persisting for a hundred, or even multiple centuries, as it will remain intact. Hauke's assurance in its longevity is derived from the design feature that the gradual incline on the seaward side presents no vulnerable point for wave action: 'the new dike will stand for a hundred years, and then another hundred. It'll have such a gentle slope toward the water that there won't be any single point on it that the waves can attack' (*The Rider* 244).

The novella by Storm is particularly noteworthy for its complex narratological structure. *Der Schimmelreiter* comprises three distinct narrative levels. The initial level presents an anonymous narrator recounting a story encountered fifty years prior while examining a newspaper — either the *Leipziger Lesefrückten* or the *Hamburger Lesefrückten*. The second level unfolds with the narrator of this journalistic account, a traveller in northern Friesland, seeking shelter during inclement weather in a public inn. Among the assembled individuals at the inn, an elderly schoolmaster emerges and relates a narrative concerning a dike master who, 'in the middle of the last century, or a little earlier or later' (*The Rider* 188), possessed superior knowledge of dikes compared to the typical understanding of farmers and landowners. This elderly schoolmaster functions as the third narrator, recounting the narrative of the dike master, who is identified as Hauke Haien.

The utilization of these three narrative levels in Storm's novella has traditionally been associated with narrative reliability and the ambivalence the novella exhibits toward the efficacy of rational thinking in effecting change.[55] While this interpretation is valid, my analysis posits that the narrative levels, each possessing its own temporality, serve an additional function related to the concept of the event. Undoubtedly, 'event' is a crucial

narratological concept, representing the fundamental element of any narrative structure — a transmutation between two different stages, exemplified in Storm's novella by the deluge: 'it was the Deluge come back to devour the earth and its creatures' (*The Rider* 281). This deluge functions as an event not only in the narratological sense but also in its defiance of the social episteme, including scientific orders of knowledge and practices. It prompts readers to grapple with the Žižekean question: 'Is an event a change in the way reality appears to us, or is it a shattering transformation of reality itself?'[56]

Žižek conceptualizes the disparity between the perception of contingency in prospect and the recognition of necessity in retrospect as a transition from the 'not yet' to the 'always already'.[57] Upon the emergence of the event, one's perspective becomes immersed — submerged within it. Subsequently, as time progresses, one develops a retrospective understanding of the event. These two temporal moments are inherently irreconcilable. During the event's emergence, one can only anticipate a future moment of hypothetical retrospection. This structure aligns with Jacques Derrida's concept of the 'future anterior' — a mode of thought that remains faithful and attentive to the inescapable world of the future manifesting itself in the present, beyond the limitations of knowledge.[58] What Žižek terms 'the great motif of the future anterior' is addressed by Alain Badiou as 'an intervention'.[59] The temporal gap between the event and the intervention that recognizes and ontologizes it indicates that the event constitutes a distribution of knowledge through time.

In Storm's novella, the theme of intervention is intricately interwoven across its three narrative levels. The event remains undetectable within its immediate context and becomes recognizable only in hindsight from a later perspective. While Hauke himself cannot perceive the event, it is clearly discernible to the three narrators who recount and give it form. This dynamic illustrates the essence of fiction — it constructs a 'possible-

impossibility', enabling us to exist simultaneously at the moment of the event's inception and the act of intervention. Fiction compels us to reflect on the very existence of the event. In the Meteorocene, an era marked by widespread human detachment, fiction challenges us to consider whether we wish to acknowledge and respond to the unfolding narrative.[60]

Concluding Remarks: Catachronistic Reading

Another manifestation of the future anterior is the catachronistic reading. While anachronism reimagines the past in terms of the present, Srinivas Aravamudan defines catachronism as a process that 're-characterizes the past and the present in terms of a future proclaimed as determinate but not yet fully realized.' He further argues that catachronism characterizes the backlash of the Anthropocene as post-human nomenclature.[61]

Sea-level rise confronts us with an 'unwelcome abundance of water'[62] — yet another paradox of the Meteorocene. This escalating issue is expected to displace a substantial global population, giving rise to climate refugees. As Laura Winkiel suggests, artistic expressions can help us envision alternatives to humanity's historical dominance over nature.[63] In the context of the Meteorocene, public humanities must extend its interdisciplinary approach beyond the humanities and social sciences. It should engage in scholarly dialogue with both the natural sciences and indigenous epistemologies, fostering reciprocal exchanges that enrich and expand ecological knowledge. Moreover, the co-creation of a new 'Constitution' for the Meteorocene is imperative. This Constitution would articulate ethical responsibilities and communal imaginaries responsive to the environmental crises of this epoch. Within this framework, literary scholars play a pivotal role by elucidating how environmental narratives — whether through literal or catachronistic analysis — shape readers' emotions, attitudes and

behaviours. Through the mechanisms of identification and transportation, which are central to literary studies, literature and the arts cultivate multifaceted ethical engagements. These engagements are crucial for constructing a 'we-to-come' — a collective subjectivity capable of acting responsibly in the face of environmental crisis. This form of responsible action requires a simultaneous openness to the event (the unfolding environmental catastrophe) and the intervention (the active, ethical response). By harnessing the imaginative and affective power of narrative, public humanities can contribute to a more inclusive and ecologically attuned planetary ethics, fostering pathways for resilience and solidarity in the age of the Meteorocene.

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Notes

[1] Adam Ferguson, *An Essay on History of Civil Society* (Edinburgh: Edinburgh University Press, 1966), 118.

[2] 'Put a man into a close, warm place, and (…) he will feel a great faintness. If under this circumstance you propose a bold enterprise to him, I believe you will find him very little disposed towards it (…). The inhabitants of warm countries are, like old men, timorous.' Charles de Secondat, Baron de Montesquieu, *The Spirit of Laws*, translated by Thomas Nugent (Kitchener: Batoche Books, 2001), 246.

[3] 'we (… are) now living in the Anthropocene, because of the scale of the human-driven chemical, physical, and biological changes to the Earth's atmosphere, land Surface, and oceans'. Jan Zalasiewicz, Mark Williams and Colin N. Waters, 'Anthropocene' in *Keywords for Environmental Studies*, edited by Joni Adamson, William A. Gleason and David N. Pellow (New York/London: New York University Press, 2016), 14–16 (14).

[4] Timothy Morton, *Hyperobjects: Philosophy and Ecology after the End of the World* (Minneapolis: University of Minnesota Press, 2013), 5. Subsequent references, abbreviated as *Hyperobjects*, will follow quotation directly in the text.

[5] Patricia Waugh and Marc Motha, 'Introduction' in *Future Theory: A Handbook to Critical Concepts*, edited by Patricia Waugh and Marc Botha (London: Bloomsbury, 2021), 1–38 (2).

[6] Rachel Carson, *The Sea* (London: MacGibbon & Kee, 1963), 96 & 97 (*The Sea around US*). Carson published *Under the Sea Wind* in 1941, *The Sea Around Us* in 1951, and *The Edge of the Sea* in 1955. The edition I am using brings these three works together under the title *The Sea*. I indicate in brackets the specific work from which each quotation is drawn.

[7] Joseph Conrad, *Freya of the Seven Isles* (Hoboken: Melville House, 2007); Philip Hoare, *The Sea Inside* (Brooklyn/London: Melville House, 2014); Lore Seagal, *Half of the Kingdom* (Brooklyn/London: Melville House, 2013); Edgar Allan Poe, *The Narrative of Arthur Gordon Pym of Nantucket*, edited by Harold Beaver (Harmondsworth: Penguin, 1975).

[8] Alison Flood, 'Which Books Will Survive Rising Sea Levels?', *The Guardian*, 13 March 2014, https://www.theguardian.com/books/booksblog/2014/may/13/books-rising-sea-levels-antarctic-ice-melt, accessed 18 February 2025.

[9] Christina Conklin and Marina Psaros, *The Atlas of Disappearing Places: Our Coasts and Oceans in the Climate Crisis* (New York/London: The New Press, 2021); Christina Gerhardt, *Sea Change: An Atlas of Islands in a Rising Ocean* (Oakland, CA: University of California Press, 2023).

[10] Philip Steinberg and Kimberley Peters, 'Wet Ontologies, Fluid Spaces: Giving Depth to Volume through Oceanic Thinking', *Environment and Planning D: Society and Space*

33 (2015), 247–64 (254 and 255); Franny Amstrong, dir., *The Age of Stupid* (Great Britain, Spanner Films, 2009).

[11] Florian Mussgnug, 'Passage and Flow: Oceanic Dystopian in the Self-conscious Anthropocene' in *Passages: Moving beyond Liminality in the Study of Literature and Culture*, edited by Elizabeth Kovack, Jens Kugele and Ansgar Nünning (London: UCL Press, 2022), 186–99 (187).

[12] Gaston Bachelard, 'Introduction' in *The Poetics of Space*, translated by Maria Jolas (Boston: Beacon Press, 1994), xv-xxxix (xxii–xxiv).

[13] Roman Ingarden, *The Literary Work of Art: An Investigation on the Borderlines of Ontology, Logic, and Theory of Literature*, translated by George G. Grabowicz (Evanston, IL: Northwestern University Press, 1973), § 38; Martin Heidegger, *Being and Time*, translated by John Macquarrie and Edward Robinson (Oxford: Blackwell, 2001), § 29–31; Maurice Merleau-Ponty, *Phenomenology of Perception*, translated by Colin Smith (London/New York: Routledge, 2005), part 2, chp. 1; and Jean-Luc Marion, *Being Given: Toward a Phenomenology of Givenness*, translated by Jeffrey L. Kosky (Stanford: Stanford University Press, 2002), § 21–22.

[14] Laura Winkiel, 'Introduction', *English Language Notes*, Special Issue, 'Hydro-criticism', edited by Laura Winkiel, 57:1 (April 2019), 1–10 (1).

[15] Elizabeth DeLoughrey, 'Submarine Futures of the Anthropocene', *Comparative Literature* 69:1 (March 2017): 32–44 (32). Subsequent references, abbreviated as 'Submarine Futures', will follow quotation directly in the text.

[16] Sidney J. Dobrin, *Blue Ecocriticism and the Oceanic Imperative* (London/New York: Routledge, 2021), 4.

[17] Mabel Moraña, 'Introduction: Texts, Textures, and Water Marks' in *Hydrocriticism and Colonialism in Latin America: Water Marks*, edited by Mabel Moraña (Cham: Palgrave Macmillan, 2022), 1–28 (1).

[18] Paul Gilroy, *The Black Atlantic: Modernity and Double Consciousness* (London/New York: Verso, 1993).

[19] Fernand Braudel, *The Mediterranean and the Mediterranean World in the Age of Philip II*, translated by Siân Reynolds, 2 vols. (London: Collins, 1972).

[20] Philip E. Steinberg, 'Of Other Seas: Metaphors and Materialities in Maritime Regions', *Atlantic Studies* 10:2 (2013): 156–69 (158). Subsequent references, abbreviated as 'Of Other Seas', will follow quotation directly in the text.

[21] Kimberley Peters and Philip Steinberg, 'The Ocean in Excess: Towards a More-than-Wet Ontology', *Dialogues in Human Geography* 9:3 (2019): 293–307.

[22] Moraña, 'Introduction' (2022), 8 and 7.

[23] Elizabeth A. Povinelli, *Geontologies: A Requiem to Late Liberalism* (Durham, NC/London: Duke University Press, 2016).

[24] Carson, *The Sea* (1963), 399 (*The Edge of the Sea*).

[25] Steinberg, 'Of Other Seas' (2013), 156.

[26] 'I became overwhelmed by the feeling that the Suffolk expanses I had walked the previous summer had now shrunk to a single, blind insensate spot.' W. G. Sebald, *The Rings of Saturn: An English Pilgrimage*, translated by Michael Hulse (New York: New Directions, 1998) 4. During his ambulatory exploration of Suffolk, Sebald visited the FitzGerald family mausoleum, wherein the poet and translator Edward FitzGerald, a native of Suffolk, had expressed a desire not to be interred but rather to have 'his ashes scattered on the glittering waters of the sea' (196–97).

[27] Blake Morrison, *Shingle Street* (London: Chatto & Windus, 2015), 14.

[28] Gerry Loose, *Fault Line* (Glasgow: Vagabond Voices, 2014), 14 (Poem 10). Subsequent references will follow quotation directly in the text.

[29] Doreen Massey, *For Space* (London/Thousand Oaks/New Delhi: Sage Publications, 2008), 133.

[30] Steinberg, 'Of Other Seas' (2013), 160.

[31] Peters and Steinberg, 'The Ocean in Excess' (2019), 294.

[32] DeLoughrey, 'Submarine Futures' (2017), 35; Povinelli, *Geontologies* (2016), 16; Peters and Steinberg, 'The Ocean in Excess' (2019).

[33] Peters and Steinberg, 'The Ocean in Excess' (2019), 294 and 295.

[34] Anna Ryan, *Where Land Meets Sea: Coastal Explorations of Landscape, Representation and Spatial Experience* (London/New York: Routledge, 2016), 9.

[35] Takiora Ingram, 'Puka-Puka — Taui'anga reva, Climate Change' in *Indigenous Pacific Islander Eco-Literatures*, edited by Kathy Jetñil-Kijiner, Leora Kava and Craig Santos Perez (Honolulu: University of Hawai'i Press, 2022), 281–82.

[36] Loose, *Fault Line* (2014), 45 (Poem 41).

[37] Povinelli, *Geontologies* (2016), 5.

[38] Jorie Graham, 'Sea Change' in *[To] the Last [Be] Human* (Manchester: Carcanet, 2022), 3–5.

[39] Aristotle, *Meteorologica*, edited and translated by H. D. P. Lee (Cambridge, MA: Harvard University Press/London: William Heinemann, 1952), I.1.4.

[40] Jeffrey Jerome Cohen and Lowell Duchert, 'Introduction: Eleven Principles of the Elements' in *Elemental Ecocriticism: Thinking with Earth, Air, Water and Fire*, edited by Jeffrey Jerome Cohen and Lowell Duchert (Minneapolis/London: University of Minnesota Press, 2015), 1–26 (4).

[41] John Philip Drury, 'Sea Level Rising' in *Sea Level Rising* (San Jose, CA: Able Muse Press, 2015), 8.

[42] Carson, *The Sea* (1963), 97 (*The Edge of the Sea*).

[43] Anthony Oliver-Smith, '"What Is a Disaster?" Anthropological Perspectives on a Persistent Question' in *The Angry Earth: Disaster in Anthropological Perspective*, edited by Anthony Oliver-Smith and Susanna M. Hoffman, 2nd ed. (London/New York: Routledge, 2020), 29–44 (33).

[44] Ryan, *Where Land Meets Sea* (2016), 39–40.

[45] Kate Rigby, *Dancing with Disaster: Environmental Histories, Narratives, and Ethics for Perilous Times* (Charlottesville, VA/London: University of Virginia Press, 2015), 5.

[46] Elon Musk, 'Making Humans a Multi-Planetary Species', *New Space* 5:2 (2017), 46–61. See Octavio Alfonso Chon-Torres and César Andrée Murga-Moreno, 'Conceptual Discussion around the Notion of the Human Being as an Inter and Multiplanetary Species', *International Journal of Astrobiology* 20:5 (2021), 327–31.

[47] Mantra Mukim, 'From, Event' in *Literature and Event: Twenty-First Century Reformulations*, edited by Mantra Mukim and Derek Attridge (New York/London: Routledge, 2022), 1–24 (1).

[48] Slavoj Žižek, *Event: Philosophy in Transit* (London: Penguin Books, 2014), 2.

[49] Kellan Anfinson, *The Ethos of the Climate Event: Ethical Transformations and Political Subjectivities* (London/New York: Routledge, 2021), 1.

[50] Timothy Clark, 'Climate: Ecocriticism, Global Warming and the Zombification of the Human' in *Future Theory* (2021), 345–59 (352).

[51] Afinson, *The Ethos of the Climate Event* (2021), 2 and 3.

[52] Aristotle, *Nicomachean Ethics*, translated by Robert C. Bartlett and Susan D. Collins (Chicago/London: The University of Chicago Press, 2011), I.6, II.2 and III.1. See Mukim, 'From, Event' (2022), 4–5.

[53] Anfinson, *The Ethos of the Climate Event* (2021), 3.

[54] Theodor Storm, *The Rider on the White Horse* in *The Rider on the White Horse and Selected Stories*, translated by James Wright (New York: New York Review Books, [2009]), 184–284 (188). Subsequent references, abbreviated as *The Rider*, will follow quotation directly in the text.

[55] Katie Ritson, 'Engineering the Anthropocene: Technology, Ambition, and Enlightenment in Theodor Storms's *Der Schimmelreiter*' in *Readings in the Anthropocene: The Environmental Humanities, German Studies, and Beyond*, edited by Sabine Wilke and Japhet Johnstone (London/New York: Bloomsbury, 2017), 222–42 (229–30).

[56] Žižek, *Event* (2014), 5; see Ilai Rowner, *The Event: Literature and Theory* (Lincoln, NE: University of Nebraska Press, 2015), 1–2.

[57] Žižek, *Event* (2014), 146.

[58] Jacques Derrida, *Of Grammatology*, translated by Gayatri Chakravorty Spivak (Baltimore, MD/London: The Johns Hopkins University Press, 1997), 4.

[59] Alain Badiou, *Being and Event*, translated by Oliver Feltham (London/New York: Continuum, 2005), 201–11.

[60] Clark, 'Climate' (2021), 353.

[61] Srinivas Aravamudan, 'The Catachronism of Climate Change', *Diacritics* 41:3 (2013): 6–30 (8).

[62] Matthew S. Henry, *Hydronarratives: Water, Environmental Justice, and a Just Transition* (Lincoln, NE: The University of Nebraska Press, 2022), 4.

[63] Winkiel, ‘Introduction’ (2019), 4.