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Special section: Thinking through ruination: theoretical and empirical approaches to the ruins of the Anthropocene

## Visualizing ruins in an extinctive ocean

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### Abstract

This article submerges theory into the ocean in order to shed light on how the dissonance between lived experience and the epistemologically complex data of climate change can be culturally mediated to become a recognizable form of reinterpretation. By attentively and imaginatively situating critique in polluted milieux, this piece intends to close-read how photography, time lapse and slow-motion techniques might help us foreground the emergencies and environmental changes of the present by considering past experiences of extinction due to capitalist accumulation. That is, how these emergencies and multispecies injustices woven through the knots of life of the current epoch are portrayed, the political implications how they are presented and the contradictions that arise from them. This will be done by placing theory in the images presented in Chris Jordan's *Albatross* (2017) and Jeff Orlowski & XL Catlin Seaview Survey's *Chasing Coral* (2017). Finally, this text tries to exemplify how we might be living in the Necrocene, the age of extinction, which leaves nothing but ruins in its wake. In other words, this text aims to situate media, theory and ecology in a joint narrative while veering towards a critical and alternative nomenclature for our epoch.

### **Keywords**

blue humanities; Anthropocene; cultural analysis; media studies; sixth extinction; environmental humanities

## La visualización de las ruinas en el oceano en extinción

#### Resumen

Este artículo sumerge la teoría en el océano para arrojar luz sobre cómo la disonancia entre la experiencia vivida y los datos epistemológicos complejos del cambio climático puede mediarse culturalmente para convertirse en una forma reconocible de reinterpretación. Mediante la ubicación atenta e imaginativa de la crítica en entornos contaminados, esta pieza pretende leer de cerca cómo la fotografía, el time lapse y las técnicas de cámara lenta podrían ayudarnos a destacar las emergencias y los cambios ambientales del presente al considerar experiencias pasadas de extinción debido a la acumulación capitalista. Es decir, cómo se representan estas emergencias e injusticias multiespecies entretejidas a través de los nudos de la vida de la época actual, las implicaciones políticas de cómo se presentan y las contradicciones que surgen de ellas. Esto se hará colocando la teoría en las imágenes presentadas en Albatross de Chris Jordan (2017) y en Chassing Coral (2017) de la encuesta sobre vistas del mar de Jeff Orlowski & XL Catlin. Por último, este texto intenta ejemplificar cómo podríamos estar viviendo en el Necroceno, la era de la extinción, que no deja más que ruinas a su paso. En otras palabras, este texto tiene como objetivo ubicar los medios, la teoría y la ecología en una narrativa conjunta mientras se dirige hacia una nomenclatura crítica y alternativa para nuestra época.

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### **Palabras clave**

humanidades azules; Antropoceno; análisis cultural; estudios de medios; sexta extinción; humanidades medioambientales

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# $D \ I \ G \ I \ T \ H \ U \ M$ a relational perspective on culture and society

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## Introduction

In recent decades, there has been a heightened proliferation of diverse narratives that illustrate, perform or encounter the dangers of the planetary boundaries. Whether conveyed through paintings, photographs, statues or visual media, these depictions, alongside scientific predictions - some unheeded - and occasionally misleading political summits like the COPs, have collectively underscored the impending dangers of an ecocidal future for planet Earth. However, the greatest challenge science and scientists face today is not in showing that the planetary boundaries are in fact there and that the Earth and the world as we know it are at stake, but rather in showing that these boundaries are threatened by the unwillingness of political approaches to bring real, equitable and factual changes to societies. Simultaneously, we grapple with a form of data-driven science that often remains inaccessible or daunting for a significant portion of the population unacquainted with its intricacies. This does not mean that factual science is not of crucial importance for our understanding of the world, but rather underlines the importance of interpretation in order to make it more accessible for people unacquainted with current climate science or who simply do not have the means to access it. The significance of interpretation becomes evident, for instance, in concepts such as climate change, global warming or ocean acidification. These terms have become integral to our everyday vocabulary, a testament to dataist science's ability to provide precise, unambiguous information that unequivocally communicates the occurrence of these issues and allows them to be encapsulated in linguistic nomenclature, facilitating a broader understanding.

That is why, although the current ecological crisis hovers like an eerie spectrum touching everything, it still remains almost ungraspable for many Western (or economically rich) populations, as the dangers posed by the planetary boundaries are:

- a) believed to happen at a geological distance unfathomable from the comfort of their own lives; or
- **b)** occurring in time-space scales so big or so tiny that they are difficult for the human perception of reality to understand.

As a result, grappling with the ecological proxies inherent in the narratives of planetary boundaries, alongside the current inadequacies of environmental sciences in addressing it holistically, may necessitate the creation of accessible materials that can be understood by a wider audience (Jue & Rafico, 2020, p. 178). Therefore, seen through a hermeneutical lens, artwork and visual mediations that address ecological issues might play an important role in provoking responses and affects since, when approached from an analytical and interpretative glance, they might trigger new interpretations, reactions, interventions and narratives.

In light of this, the questions this article poses are the following: "how does the way in which the ecological crises are portrayed in current visual media relate to the current epoch?", "What are their political and cultural implications?", "Is, then, the Anthropocene Visualizing ruins in an extinctive ocean

narrative contradicted by this imagery towards an assumption of a world bound for destruction, extinction and ultimately ruination provoked by human action?". With these issues in mind, this article intends, borrowing from the ideas of Melody Jue (2020), to submerge theory, media and ecology into the ocean in a joint narrative in order to shed light on how the dissonance between lived experience and the epistemologically complex data of climate change can be culturally mediated to become sensible for the public through reinterpretation. Speaking of interpretation, one needs to understand that climate science is already interpreting an event that works on a scale so uncanny almost ungraspable for humans. It is through the (re)interpretation of this science that the arts can bring the general to the specific, the rational to the emotional. Therefore, by attentively and imaginatively situating critique in polluted milieux, and framing the contemporary debate as a Climate Realism (Badia, Cetinic & Diamanti, 2020),1 this paper will address how photography, slow-motion and time-lapse techniques can help us foreground some of the emergencies and ecological challenges that the current ecological epoch poses. Finally, it will portray how we might be living in the Necrocene, the age of extinction that leaves in ruins that which used to be alive on a planetary scale. Therefore, this narrative against the Anthropocene could be an interesting heuristic for coming to terms with the various crises of the contemporary world and the necessity to mediate it by unifying factual science with the arts, humanities and social sciences. The article aims to contribute to current research in highlighting how visual media can help us see and experience certain ecological events by showing how we might be immersed in the Necrocene in an aesthetic practice that is both a risk and a necessity.

# 1. Posthuman surfaces: the great Pacific garbage patch

In the last years, concern about anthropocentric plastic consumption and its consequent pollution has been a core issue in conservation biology, global politics and sustainability. Plastic is a crucial element of most societies worldwide, transcending the economically rich sociocultural barrier to become a ubiquitous material. However, it was only when plastic began to affect the human livelihoods and non-human ecosystems, even creating its own ecosystems like the Plastisphere or the great Pacific garbage patch (GPGP), that humanity began to comprehend the agency of this material and the myriad ways it intertwines with life. As Graham Harman puts it, objects and entities are usually ignored insofar as they function properly, and "it is only their malfunction that allows us to notice them at all" (2012, p. 15).

Daily-use plastic devices take between 450 and 1000+ years to degrade (LeBlanc, 2019, n.p.). Nonetheless, there is no scientific consensus regarding this issue; some claim that plastic will never completely biodegrade (Harris, 2010, n.p.). This is said to be because

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<sup>1.</sup> According to Lynn Badia, Marija Cetinic and Jeff Diamanti (2020, p. 6), climate realism "calls for us to consider that what it means to be a human observer is to already veer toward and with an altered sense of meaning-making, detailing, and also weirding the coherence of the world". That is, it is a concept for framing the different challenges of representing and conceptualizing climate in the era of climate change. This conceptualization can be extended to a more holistic zone in which all planetary boundaries (not just climate change) are foregrounded, as in this essay. In short, it allows us to reconsider the politics, naturecultures and aesthetics of the current epoch, calling into question the acts of seeing and interpreting, thus boldly proposing that new aesthetic endeavours are necessary as it is only in the intermediated space of representation that the arts, humanities, social sciences and factual sciences can collaborate and matter in order to detail the planetary boundaries, their individual and collective history and the futures they present.

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microplastics<sup>2</sup> containing Bisphenol A (BPA) and PS Oligomer are byproducts of degradation and are highly likely to end up floating in the ocean. Plastics and microplastics have been found in marine environments worldwide, with estimates suggesting that around 5 trillion pieces of debris (that is, over 250,000 tons) are afloat at sea in the case of plastics and unknown quantities of microplastics, most of these resulting from on- and offshore anthropocentric activities linked to capitalist accumulation (Barboza et al., 2018, p. 336). Marine species are exposed to these pollutants and a significant number ingest plastic particles. Upon ingestion, microplastics can enter the circulatory systems and tissues, spreading throughout entire trophic chains and leading to reduced predatory performance, digestive damage, or even death (Barboza et al., 2018, p. 336). Building upon Michelle Bastian's (2017) study of leatherback turtles (Dermochelys coriacea), the ingestion of these plastics, said to occur in more than 35% of individuals, causes digestive incapability and death (Mrosovsky, Ryan & James, 2009, p. 287). Consequently, the temporal and spatial dynamics connecting leatherback turtles with their human and non-human interactors are altered by the intrusion of an alien object into their ecosystem. This intrusion results in unexpected phenomena such as jellyfish blooms, which were previously unfamiliar due to the decline in the turtle population, and intestinal damage caused by the necrotic effects of plastic accumulation. Furthermore, in an manner reminiscent of natural justice, microplastics have been found in human excrement due to the ease with which they move through a trophic chain (Parker, 2018, n.p.).

When plastics, microplastics and other marine debris do not end up onshore as a consequence of tides, they tend to accumulate in offshore oceanic gyres in specific areas. A vivid example is the aforementioned GPGP, between Hawaii and California. This plastic island, which covers an area of 1.6 km<sup>2</sup>, weighs around 79,000 tons and has notorious consequences for the marine ecosystem such as ghost fishing, plastic ingestion and the transportation of non-native invasive species, is in fact not immediately visible to the human eye (NOAA, 2021, n.p.). This invisibility introduces cultural and political intrigue and danger. In a hyperobjectual manner, plastics and microplastics emerge as pervasive elements, influencing every object they encounter and altering the perceptions of time, space, and life's interconnections for entities touched by them, owing to their incomprehensible yet invisible size.

In the same way, Bill McKibben (1989, pp. 47-49) claims that Nature has gone because humankind has modified the atmosphere and thus everything under its canopy; plastic and microplastics are starting to become a ubiquitous entity, especially in the eeriness of oceanic milieux. That is, from a new materialist perspective, plastics are part of bodies in the current age, modifying their existence, lives and ontologies. This means that thinking through and with the objects that play part in the current epoch demands schooling in a more reflexive genealogy of circulation and interconnectedness between human beings and other entities caught up in this era. Thus, the question before us remains the same: in a world in which the reality of our epoch seems to have become ungraspable for human Visualizing ruins in an extinctive ocean

perception without mediation, how can the dissonances between lived experience and epistemologically complex data of the planetary boundaries be recognizable through reinterpretation, making it vivid, compelling and focused on the emergency?

Here, Chris Jordan's (2017) work on the Midway Atoll Island is of paramount significance. Jordan vividly depicts how albatrosses residing near the GPGP are affected by plastic, microplastics, and marine debris from birth. Ingestions of these alien pollutants leads to the death and potential extinction of these birds. As marine creatures, their feeding is instinctually based on flying over the sea's surface and dragging fish into their mouths, so they are unable to distinguish between fish and non-living entities. This also affects their offspring, which are fed by adults through regurgitation.

Figure 1. Image extracted from the *Albatross* (2017) series where we can see the insides of the dead animal



Source: Chris Jordan

Such events, invisible to the naked eye, require mediation in order to be understood. They call for a realization that there is a "real" world of mechanisms and tendencies that science wants to unveil; an "actual" level of sequenced events that take place in the world due to the underlying "real" level and includes observed and non-observed phenomena; and the level of "empirically" observed events, which are a smaller part of what happens on the actual level (Jakobsen, 2012, p. 189). As hermeneutics philosopher Santiago Zabala illustrates in his book Why Only Art Can Save Us, "we cannot simply observe, describe, and understand emergencies without being part of them" (2017, p. 112). That is, the emergency of marine debris calls for immersion in a contaminated oceanic milieu in order to come to terms with the materialities and ontologies it entails. This, in turn, can only be done through the arts, humanities and social sciences when considering the epistemologies of science, as these can generate levels of depth, intensity and sensibility, creating nuanced understandings that data alone cannot achieve and challenging established truths. In other words, the belief that science alone can solve the puzzle in which the whole planet and, in this specific case, the ocean, is framed, no longer holds water.

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<sup>2.</sup> These are plastic particles smaller than 5mm. They usually appear from 1) "primary, plastic particles specifically manufactured for their abrasive qualities (e.g., microbeads and industrial scrubbers), 2) secondary MPs originating from parent materials such as discarded plastic items and synthetic textiles and 3) tertiary MPs which includes any preproduction pellets used to mould plastic goods. Rivers, stormwater and sewage effluents are a major pathway of plastic debris to the ocean sea is a result of physical and UV action, increasing the availability of smaller particles to a wider range of organisms, including those at the base of marine food webs" (Carbery, O'Connor & Palanisami 2018, p. 400).

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Despite the capacity of current scientific methods to quantify plastic, microplastic, and marine debris, they may fall short of capturing the diverse narratives, emergencies, and desynchronizations inherent to this specific context. That is why Jordan's photographs, through a clinical lens, show both the albatross crisis and the comfortable existences of humankind. These images portray various albatrosses that have died at different life stages. All are presented with their stomachs open, showing the cause of their deaths: the ingestion of anthropocentric marine debris, plastics and microplastics. The bodies of the albatrosses become for the viewer a subject of their Foucauldian medical gaze, objectifying the body as an object of analysis. In the words of Michel Foucault's, "the corpse became the brightest moment in the figures of truth" (1963, p. 125).

The accumulation of albatross bodies laden with plastic on a floating island made of offshore debris emerges as a semiotically powerful image. It not only illustrates the extinction of certain populations, but also unveils the impossibility of eliminating the ruins of mass accumulation and extraction discarded by Western societies in their maintenance of a pristine image. The skeletons and plastics in the pictures serve as a visual representation of the global reality of degradation and ultimate extinction, leaving behind only ruins.

However, it is also the observer and the established truths and stories that are thrown into question. The sickness that is both visual in the albatross and internal in the viewer spreads in its interpretation, penetrating the body and the viewer's consciousness. In Jordan's work, the "distribution of the sensible" in the albatrosses gains subjective meaning for the viewer as it is contextualized in the myriad emergencies that unfold visually. This allows for an analysis of the albatrosses' deaths and the potential shifts in the stories and narratives that we construct about them.

As "the truth of art no longer rests in representations of reality but rather in an existential project of transformation" (Zabala, 2017, p. 7), hermeneutically coming to terms with Jordan's work enables us to unveil the various emergencies inherent to the multispecies world of the contemporary epoch, marked as it is by ruins, degradation, and extinction. This challenges anthropocentrism, prompting the generation of new ways of storytelling and understanding the truths of our time. In other words, these images call for a reconsideration of the relationality between the foreign and the local, the colonizer and the colonized, the pollutant and the polluted, and a world-system that has extinction at the very centre of its culture and ecology.

Moreover, this article seeks not only to grapple with the powerful and striking images of albatrosses displaying stomachs torn apart by plastic and marine debris, but also to align this narrative with the potent effect of slow motion. This deliberate choice sheds light on the multispecies knots of life and the various narratives entwined in the current ecocidal epoch. At the same time, it highlights the necessity of a mediated reality in order to approach a post-anthropocentric conception of the world. As we are "faced with the task of thinking at temporal and spatial scales that are unfamiliar, even monstrously gigantic" (Morton, 2016, p. 25), there is the need to move beyond factual and rational representation of the different crises of our time, as the naked eye is unable to grasp the multiple, uneven and non-linear time and space relationships that are unfolding. Jordan seems to be aware of this fact, evident in the film when the narrator notes that albatrosses perceive reality differently due to their fast brain speed, potentially seeing humans in slow motion.

As a consequence, slow-motion mediation can be used to understand some of the movements of albatrosses. Although they might seem hectic and chaotic at first glance, when edited in slow motion, the movements recover meaning, both pragmatically and aesthetically speaking, as they are placed on a time-space scale that is comprehensible to the human eye. Through this manipulation of time and space through technology and its aesthetic utility, Jordan is able to portray the rare mating rituals that take place in Midway Atoll, translating them into a language that is, in comparison with the non-edited shoot, approachable, pleasant and even sensuous. Slow motion aids in understanding feeding rituals, their impact on different generations, and the aftermath of ocean pollution on the Midway Atoll plastic island. For viewers unfamiliar with current scientific discoveries, this approach helps them conceptualize the dangers of marine debris, situating this knowledge in a polluted milieu of death and, eventually, extinction. This process leaves behind ruins in the form of the dead bodies of a species facing extinction.

# 2. Underwater graveyards: sensing extinction in coral reefs

In the acidic, polluted environments that oceans have become, another notorious event takes place, illustrating the way in which the knots of life between human and non-human entities, and our perception of them, are desynchronized: coral mass-bleaching. As a direct consequence of the accumulation and extractivist-induced planetary boundaries, and summarized as "a stress response that results in the loss of intracellular symbiotic dinoflagellates (Symbiodinium) and/or their photosynthetic pigments; on a broad spatial scale, bleaching results from extended warm periods" (Ainsworth et al., 2016, p. 338), mass-bleaching events have wrought havoc on various reef locations worldwide. The Great Barrier Reef in Tropical Queensland, Australia, stands out as the most prominent example of these events,<sup>3</sup> having experienced three mass-bleaching events from 2016 to 2020 which affected the reef as a whole. Furthermore, this decline, mortality and reduction in terms of growth of reef-building corals as a consequence of their high sensitivity due to rising seawater temperatures, ocean acidification, water pollution from terrestrial runoff and dredging, destructive fishing, overfishing, and coastal development are inherently linked with the internal logic of capitalism (De'ath et al., 2012, p. 17996): that is, endless accumulation, extractivism and, ultimately, death and extinction.

This decline also leads to a multispecies desynchronization of life's interconnections that have evolved through imperfection and evolution, now jeopardized by breaches in some planetary boundaries and the subsequent reduction of biodiversity and crown-of-thorns starfish blooms, among other consequences (Barrat, 2014, n.p.; Gordon *et al.*, 2018, p. 5194). These bleaching events leave behind an

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<sup>3.</sup> Bleaching is not to be confused with ocean acidification, which is a continuous "deterioration of the chemical conditions needed for physiological and biogeochemical performance of the reef ecosystem" (McLeod *et al.*, 2012, p. 21). Coral bleaching can be triggered by ocean acidification, though it is usually caused by short-term increases of the SST (McLeod *et al.*, 2012).

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underwater graveyard littered with coral skeletons and void of life and biodiversity. Organisms can often sustain life even in weakened ecosystems, but this is not true of bleaching events. Biodiversity is extinguished here, leaving behind a destroyed ecosystem in ruins.

Although spectacular, coral bleaching, occurring as it does in a near-alien environment with unfamiliar entities, necessitates some level of mediation for full understanding by humans. This is where the documentary Chasing Coral (dir. Orlowski, 2017), together with the <u>XL Catlin Seaview Survey</u> underwater expeditions, plays a pivotal role, utilizing computational monitoring to bridge the gap between lived experience and the epistemological complexity of this event. The central theme of the documentary is the time-lapse images that portray the death of whole coral reefs as a consequence of bleaching events, turning them from healthy reefs into underwater graveyards in a timespan of two months. In a cultural world subjected to the 24/7 immediacy of neoliberal capitalism, time-lapse has become a key element for condensing time, space and historicity into a narrative that enables human beings to understand it on its own terms while immersing themselves in oceanic disorientation. As Badia, Cetinic and Diamanti note, "the aesthetic of acceleration, key to the histor-ical experiences associated with the Great Acceleration, is central, also, for seeing the long view of warming, of atmospheric composition, and of aggregate data that verify the concept of climate in the first place" (Badia, Cetinic & Diamanti, 2020, p. 8). In essence, our cultural worldview demands comprehensive technological mediation of reality in order to be understood. However, this comes at a cost; the more we try to understand the world in anthropocentric terms, the more inaccessible it becomes phenomenologically speaking, calling for radical situated knowledge as the only solution.

## Figure 2. Time-lapse frames where the degradation through mass-bleaching in the Great Barrier Reef is seen



Source: © The Ocean Agency / Underwater Earth / XL Catlin Seaview Survey / Richard Vevers

Time lapse is an effort to come to terms with the weirdness of the current age, as it helps us to generate a narrative which puts together a present death and a very likely future extinction, together with aesthetics and data. Thus, it becomes a vivid illustration of the connection between the arts and sciences, underlining that both visual media and our era belong to the same systemic framework. Specifically, they are products of the Great Acceleration, driven by a desire for mastery over life, death, time, and space, and the extension of the notion of "human" as a technological appendage of being itself (Fay, 2018, p. 3). In short, time lapse renders the

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familiar world strange by mediating reality through an uncanny time-space mastery. Simultaneously, it makes the strange familiar by rendering it approachable to the naked eye, condensing data and aesthetics into a single narrative: a foundational element of realism amidst the ongoing ecological crisis (Badia, Cetinic & Diamanti, 2020, p. 9).

*Chasing Coral* immerses the viewer into an alien environment, representing coral bleaching in a political and aesthetic manner. The politics of speed and time lapse can be perceived both as tools for mediating the current ecological crisis and as a consequence of acceleration and capitalism. However, when critically and hermeneutically examined, these images help reveal, somewhat subconsciously, that acceleration, accumulation, and extractivism have ushered in an age marked by extinction and ruination.

Although it is clear that they portray a deadly event, the documentary states some of the reasons why mass-bleaching events are occurring so frequently. Yet, as a mainstream documentary, it never fully delves into the fact that the reason why people are partying on boats while researchers survey the reefs is that there has been a colonization of nature, on many levels, insofar as economic value can be extracted from it. That microplastics or acidic particles now coexist with marine creatures is because there has been an intense process of extracting, accumulating and believing that nature was an endless sphere, alienated from humanity: the history of accumulation and thus of human and non-human extinction.

Once again, hermeneutics plays an important role. In this context, contemporary artistic expressions, particularly through visual media, transcend the confines of traditional art appreciation. They wield the profound capacity to embody meaning and unveil the potential for truth, compelling viewers to engage actively in the interpretative process. Therefore, these artistic representations metamorphose into structures of embodied meaning, serving as conduits that stimulate heightened awareness among viewers. This awareness extends beyond the mere aesthetic experience, delving into the realms of material, cultural, political, and ecological conditions inherent in art. The power of these representations lies not only in their intrinsic artistic value but also in their ability to catalyse a consciousness that transcends the boundaries of the canvas or screen, beckoning viewers to contend with the multifaceted implications of the subjects depicted. As viewers engage in this interpretative dance, they become active participants in shaping the discourse surrounding the urgent realities of climate change and ecological fragility, contributing to a collective understanding that is at once emotional, human, and intellectually informed.

The hybridity between the natural and the human-made in bleaching events screens the different identities that shape our cultural understandings of the material, the human and the non-human. The materiality of coral bleaching is shaped by human actions under the logic of accumulation, accessed through our senses. Nevertheless, this materiality requires mediation for complete understanding within a time-space scale intelligible in current anthropocentric thinking. The images presented by the XL Catlin Seaview Survey illustrate how coral is affected by economic, cultural, political and technological relationships of power and meaning, simultaneously affecting these relationships with the ecological and political emergency they transmit through their aesthetic power.

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## 3. At a crossroad with the Anthropocene: Necrocene as the age of extinction

Notwithstanding the fact that visual media has been central to human cultural conceptualization of the Anthropocene, this imagery has been largely overlooked in scientific portrayals and it is rare that their implications are placed "front and centre" (Demos, 2017, p. 17). This namely concerns the realization that these images, media and representations help us frame the various crises that the Earth is now suffering. Moreover, they entail an inherent political and cultural dimension if read closely with a critical eye, complicating the narratives surrounding the Anthropocene (Demos, 2017, p. 17). In a world where "nature in the sense of a domain apart from human interaction no longer exists" (Heise, 2016, p. 8), the Anthropocene narrative does not underscore that planetary modifications and their radical consequences are rooted in capitalist practices. This narrative clings to the almighty figure of "man" as a key element in the narrative: an agent with power and will above all other living beings (Crist, 2016, p. 23). This is why Jason W. Moore proposed the idea of "Capitalocene", based on a world ecology and historical materialist narrative and entangling political economy and political ecology that seems more accurate when it comes to denoting the various crises unfolding in the Anthropocene: extractivism, colonialism, climate refugees, racism, sexism and speciesism (Moore, 2016, pp. 1-11).

Still, both the Anthropocene and the Capitalocene narratives fall short of acknowledging the deadly and extinctive nature of current accumulation practices, and their direct and indirect consequences. That is why this text aligns with Justin McBrien's Necrocene: the age of death and extinction as a result of capitalist accumulation (McBrien, 2016, p. 116). While McBrien embraces most of the terms provided by Moore's Capitalocene, he recasts the current epoch as one in which "capitalism leaves in its wake the disappearance of species, languages, cultures, and peoples. It seeks the planned obsolescence of all life. Extinction lies at the heart of capitalist accumulation" (McBrien, 2016, pp. 116-117), reframing the history of accumulation and expansion through the process of extinction since, for him, capitalism equals extinction.<sup>4</sup> As McBrien points out,

"The accumulation of capital is the accumulation of potential extinction-a potential increasingly activated in recent decades. This becoming extinction is not simply the biological process of species extinction. It is also the extinguishing of cultures and languages, either through force or assimilation; it is the extermination of peoples, either through labor or deliberate murder; it is the extinction of the earth in the depletion fossil fuels, rare earth minerals, even the chemical element helium; it is ocean acidification and eutrophication, deforestation and desertification, melting ice sheets and rising sea levels; the great Pacific garbage patch and nuclear waste entombment; McDonalds and Monsanto" (2016: 116).

Although it is not the aim of this article to fully develop the Necrocene nomenclature as a narrative, in this situated capitalist ecology there is, a priori, a dominant species that has generated a system that is triggering the planetary boundaries and thus extinction at various levels, at the expense of everything else. In this way, the Necrocene forces us to rethink our relationships, materialities and ontologies with regard to our human, non-human and more-than-human surroundings, while placing death and extinction at the centre of the debate. As Michelle Bastian and Thom van Dooren illustrate,

"In these and other fundamental ways, this is a period in which relationships between life and death, creation and decay, have become uncanny; no longer entailing what was once taken for granted. Toxic legacies, mass extinction, climate change: all simultaneously remake both temporal relations and possibilities for life and death". (2017, p. 2)

In other words, the Necrocene calls for a detailed sense of the various living and non-living agents that are at stake and that might be facing death and extinction due to the internal politics of the Necrocene age. Thus, considering extinction eliminates the outdated perception of nature as a pristine and untouched realm, aligning with the tension that nature is to be understood as "those material structures and processes that are independent of human activity (in the sense that they are not a humanly created product), and whose forces and causal powers are the necessary conditions of every human practice, and determine the possible forms it can take" (Soper, 1995, pp. 132-133). That is, "encountering" nature, capitalism and extinction under the same narrative. In addition, this would help us unify historical materialism and the new materialist perspective the environmental humanities should adopt in a morethan-human world.

Lastly, acknowledging the current epoch as the Necrocene provides us with a lens that places ruination at the centre of the debate. Necrosis is a process that leaves traces of what once used to be alive. Ruins and ruination processes do so, too. It is only through an attentive lens to what this degradation and ultimate hypothetical annihilation represent that planetary ruination and extinction are placed together in a narrative that is, at the same time, happening on different time and space scales, so far beyond human comprehension that it is only through certain mediations that we are finally able to come to terms with the urgency of these processes. Albatross and Chasing Coral are, thus, compelling examples of what is at stake and how the usage and manipulation of media into different time-spaces can help humans see crises happening in different temporalities and spaces that are too complicated to be perceived otherwise.

## Conclusion: mediating the Necrocene Ocean

In the Necrocene, the seas and oceans of the world are no longer the aqua nullius<sup>5</sup> alien realm they once were for humans. Howev-

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Whilst the concept of death – understood as part of life and, as a consequence, part of the evolutionary process – can be useful, it fails to grasp what is at stake in extinction processes. On the contrary: extinction events stop evolutionary processes, as they constitute the disappearance of communities and ecosystems. Extinction can be perceived as a negative phenomenon since "although it is framed as an event, it is in fact a withdrawal from being; an inversion of existence" (Audra Mitchell in Gelonesi, 2014): it is the negation of both life and death. Paraphrasing *Terra Nullius* as nobody's land, a concept appropriated during colonization, *Aqua Nullius* was the last stage of the oceans and seas before being absorbed by the omnipresence of humankind after the end of nature (DeLoughrey 2017, p. 34). 4

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er, thinking through this alienness allows us to grasp the sea "in terms of its agency, its anthropogenic pollution and acidity, and its interspecies ontologies – all of which suggest that climate change is shaping new oceanic imaginaries" (DeLoughrey, 2017, p. 34), constituting the uncanny relationships between the body and the environment.

"The ocean", Jue says, "is already full of alien creatures whose bodily forms exceed our wildest human imaginations" (Jue, 2020, n.p.). In such an environment, embracing the Necrocene as a theory and method of interpreting conditions in a hostile environment bound for extinction due to accumulation emphasizes the terrestrial biases of anthropocentric thinking (Jue, 2020, n.p.). These issues loop back to questions regarding multispecies justice and multi-agent environments. Namely, they shed light upon the fact that proper multispecies justice and theory must reject the concept that humans are separated or separable from other entities, that consciousness or minds do not afford humans exceptionalism over other agents, and that humans are more important than other living species (Celermajer et al., 2021, p. 121). By rejecting hierarchal anthropocentrism, multispecies justice and attentively considering more open and relational ontologies can generate a recognition of the different types of living beings and their ties to other human and more-than-human agents. As Celermajer et al. highlight, "rethinking the subject of justice moves attention from the fiction of individuals to the actual ecological array of relationships that sustain life" (2021, p. 122).

In light of this, extinction processes, as portrayed in selected media, demand a response that prioritizes attentiveness to what matters to another entity, considering different ways of existence and co-existence rather than merely establishing anthropocentric truths. So, considering extinction allows us to see nature and, specifically for this article, seawater, as an entity deprived of its pristine and "alien" condition, and the dangers accumulation poses for it. Therefore, coming to terms with the interconnectedness between human and more-than-human entities calls for new ways of telling time, space and relationality in the age of extinction and ruination.

In a world marked by the reductionist inadequacy of established approaches in science, policy and economics, science itself as a freestanding sphere remains ineffective if disconnected from the political, social and cultural spheres and thus is no longer useful in a world that must be perceived as more-than-human through the lens of political and cultural multispecies justice. The belief that current scientific approaches alone can solve the current global puzzle is no longer valid since, as portrayed through, for instance, the planetary boundaries theory, humanity is a geological, atmospheric, political and cultural agent grounded in a mostly capitalist world. It is precisely through this agency that the Earth is found at such uneven and multifocal crossroads. This calls for a reconnection between the sciences, humanities, social sciences and arts in the midst of a climate realism that needs to be tackled on multiple fronts.

Overall, there is an underlying need to recast the conjuncture of the different materials and materialities that shape our era in order to come to terms with them and change the way we think and interact with them. To do so, both mental and corporeal inter-

twinings with various living, non-living and beyond-life-and-death objects are crucial to moving beyond the rationality and cognition with the world of emotions. It is precisely the latter that has been obliterated from the debate. Notwithstanding that visual media has been pivotal in the framing of the Anthropocene, this imagery has been relegated by scientific portrayals. In addition, the overexploitation of certain topics in climate change media has led laypeople to a sensation of routine, tiredness and detachment. Images such as those in Albatross or Chasing Coral force the viewer to decipher the materialities and dangers that the Necrocene poses from a non-anthropocentric perspective, putting Western rationality at stake. This means that cognition and emotion, ontology, epistemology and existence are questioned in a multispecies and multi-object world beyond anthropocentrism. This is done through the force of aesthetic representations as a point of contact between the various realms mentioned, becoming a crucial tool to be considered more seriously by current climate and ecological sciences.

In this ecocidal situation, the Necrocene narrative presents itself as a tool for generating a critique of the current ecological, political and cultural condition in the contemporary world, while providing us with a heuristic by which to scrutinize the unsettling narratives of our time. Furthermore, the Necrocene narrative is a proposal for reconnecting historical materialism with new materialisms and multispecies theory as two theories that seem mutually exclusive in Environmental Humanities.<sup>6</sup> It aligns with the proposals on multispecies justice, a radical critique of capitalism and its extractive, unequal nature, and the posthuman dimensions of the current global age, while being attentive to the different stories unfolding in the Necrocene and the way in which they are told and mediated.

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<sup>6.</sup> See Andreas Malm The Progress of this Storm (2017) for a detailed critique of posthumanism and new materialism

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