



cogitatio

OCEAN AND SOCIETY

Ocean Pop: Marine Imaginaries in the Age of Global Polycrisis

Edited by Anja Menzel and Charlotte Gehrke

Volume 3

2026

Open Access Journal

ISSN: 2976-0925



Ocean and Society, 2026, Volume 3
Ocean Pop: Marine Imaginaries in the Age of Global Polycrisis

Published by Cogitatio Press
Rua Fialho de Almeida 14, 2º Esq.,
1070-129 Lisbon
Portugal

Design by Typografia®
<http://www.typografia.pt/en/>

Cover image: © Anja Menzel and Charlotte Gehrke

Academic Editors

Anja Menzel (University of Bamberg / University of Johannesburg)
Charlotte Gehrke (German Institute of Development and Sustainability-IDOS)

Available online at: www.cogitatiopress.com/oceanandsociety

This issue is licensed under a Creative Commons Attribution 4.0 International License (CC BY). Articles may be reproduced provided that credit is given to the original and *Ocean and Society* is acknowledged as the original venue of publication.

Table of Contents

Ocean Pop: Marine Imaginaries in the Age of Global Polycrisis

Charlotte Gehrke and Anja Menzel

Law and Legality in *Pirates of the Caribbean* and Contemporary Counter-Piracy: More Guidelines than Rules?

Anja Menzel

Sonoshaping the Frozen Seas: Exploring Sonic Imaginaries in the Polar Sounds Project

Geraint Rhys Whittaker

Animal Celebrities—Then and Now: Exploring Oceanic Imaginaries Through Celebrity Marine Mammals

Charlotte Gehrke

Fishy Imaginaries: The Cultural Politics of De/Objectifying Fish

Antje Scharenberg

Digital Frontiers: The Polar Regions and Popular Geopolitics in Video Games

Erdem Lamazhapov

Representation and Power in Ocean Conservation Documentaries: A Decolonial Analysis

Steven Mana'oakamai Johnson and Angelo O. Villagomez

Ocean Pop: Marine Imaginaries in the Age of Global Polycrisis

Charlotte Gehrke ¹  and Anja Menzel ^{2,3} 

¹ German Institute of Development and Sustainability (IDOS), Germany

² University of Bamberg, Germany

³ University of Johannesburg, South Africa

Correspondence: Anja Menzel (anja.menzel@uni-bamberg.de)

Submitted: 5 March 2026 **Published:** 19 March 2026

Issue: This editorial is part of the issue “Ocean Pop: Marine Imaginaries in the Age of Global Polycrisis” edited by Anja Menzel (University of Bamberg/University of Johannesburg) and Charlotte Gehrke (German Institute of Development and Sustainability–IDOS), fully open access at <https://doi.org/10.17645/oas.i518>

Abstract

In an era of global polycrisis, including climate change, biodiversity loss, and geopolitical disruption, how the ocean is depicted and imagined in popular culture plays a crucial role in shaping the public understanding of ocean-related challenges and societal responses to them. We introduce the concept of *ocean pop*—the portrayal of oceanic spaces, issues, and both human and non-human actors in popular media—as a framework for critically examining these imaginaries. We contextualise the concept by showing how popular culture both reflects and shapes dominant (political) discourses about the ocean, spanning topics from environmental protection to piracy and warfare. The articles of this thematic issue underline their contributions to interdisciplinary, multimedia scholarship within the blue humanities and social sciences. Beyond showcasing insights into popular culture artefacts, we highlight the value of *ocean pop* in addressing empirical challenges and normative questions alike. In doing so, we invite scholars to refine and extend the concept as a framework for understanding and reconfiguring contemporary engagements with the ocean.

Keywords

blue humanities; blue social science; marine imaginaries; marine social science; ocean governance; ocean pop; polycrisis; popular culture

1. Introduction

The ocean has historically been a profound source of fascination, myth, and cultural significance. In the current era of global polycrisis—spanning escalating climate change, biodiversity loss, and disruptions to the liberal international order—marine spaces and their representations in popular culture have gained analytical

urgency. Popular culture artefacts and discourses do not merely register these entangled crises; they actively participate in shaping the public understanding of and policy responses to an ocean in crisis.

Examining how the multiple crises facing the ocean are imagined in popular culture matters. Ocean ecosystems are heavily affected by the interconnected crises of climate emergency, pollution, and biodiversity loss, yet, they are crucial for global climate stability, food security, environmental health, and safe navigation. Turning our attention to marine imaginaries thus opens a critical vantage point on the socio-political ordering of ocean space. Examining how crises are aesthetically framed, emotionally charged, and morally coded in popular culture allows us to trace how these imaginaries shape public perception and influence policy decisions, ultimately informing effective responses to these urgent challenges.

Research on imaginaries and marine spaces spans a multitude of disciplines and thematic areas, underscoring the importance of an interdisciplinary approach. In this thematic issue, we thus bring together a diverse yet complementary range of concepts and disciplines from the blue humanities and social sciences—including literature, media studies, anthropology, and human geography—to enhance our understanding of texts related to ocean spaces, actors, and issues and to analytically grasp the complex relationship between popular culture, public discourse, and policy impacts in the context of the ocean in crisis.

We begin by establishing a shared definition of marine imaginaries before coining the concept of *ocean pop*. We then situate the thematic issue within the broader dynamics of the global polycrisis. Finally, we outline the articles that comprise this thematic issue and identify avenues for further research informed by these contributions.

2. Marine Imaginaries

The term imaginary is defined as “that social domain of seeing, experiencing, thinking, fantasizing, discussing and enacting aspects of the material world” (Neimanis et al., 2015, p. 480). This domain of the social imaginary is shaped through shared discourses and practices, reproducing the values, norms, and beliefs held by a social group (C. B. Anderson et al., 2023, p. 74; Taylor, 2003).

Research on social imaginaries examines their manifestation in a variety of contexts, from imagined communities (B. M. Anderson, 2006) to political (Grant, 2014), spatial (O’Brien, 2025), technoscientific (Marcus, 1995), or future imaginaries (Lewis, 2024), to name a few (see also Strauss, 2006). This variety of imaginaries stresses the importance of context-specific analyses, which may otherwise lose nuance or lack the opportunity to develop detailed analyses if forced to revert to the umbrella category of imaginaries. By focusing on the context in which it is specifically used, researchers can respond to criticism that the idea of the imaginary concepts is too broad or vague and overlaps with other concepts, like ideology (Grant, 2014).

Specifically in the context of the ocean, scholars of ocean imaginaries have invoked the “spatial turn” and call attention to the benefits of distinguishing between land-based and marine imaginaries, which are principally anchored in different, though interacting, materialities (Connery, 1996). Steinberg (2018, p. 215) similarly draws attention to this boundary-blurring and at times defying feature of the ocean as a space of both opening and closure, distinguishing it from other spaces because “the ocean cannot easily be enclosed”

physically or through regulatory mechanisms. To stress this interaction of marine and land-based imaginaries, Siriwardane-de Zoysa (2021, pp. 90–91) employs the concept of “seascapes” to highlight the relational qualities of the marine spaces “as fluid borderlands and as liminal, interactional zones...rife with myriad socio-ecological dynamics that unfold between land, sea and air.”

Bringing together these notions of imaginaries and the spatiality of the ocean, scholars have developed the labels of “oceanic imaginary” or “imaginaries,” referring to “epistemological and ontological constellations that suggest a particular way of visualising, knowing and relating to ocean spaces” (Ntona & Schröder, 2020, p. 245; see also Hereniko, 2001). In this context, the terms “ocean” and “marine” imaginaries are often used synonymously. To provide a clear definition and avoid terminological overlap with our concept of *ocean pop*, we use the term marine imaginaries throughout this thematic issue.

The literature distinguishes between a variety of marine imaginaries. The following overview is by no means exhaustive, but should serve illustrative purposes. One of the most prominent marine imaginaries relates to the idea of the ocean as an ungoverned or uncontrolled space. Historically, the sea has been repeatedly depicted as a place of adventure and lawlessness for pirates (Sanna, 2018), as well as an untameable natural force, endangering the safety of seafarers but also serving as an imaginary of myth and mystery (Colby, 2018; Dake, 1992). In modern times, securitization imaginaries create a narrative in which order at sea is under threat, often with the goal of legitimizing naval countermeasures or projecting naval power (see e.g., Kinacioglu, 2023, on maritime migration; McNeill, 2023, on piracy).

At the same time, colonial imaginaries emphasize the notion of the ocean as a space of conquest and exploitation (DeLoughrey, 2019). The ocean is routinely imagined as an indefinite source of economic growth and wealth, a site of extraction with natural resources only waiting to be untapped for capitalist purposes (Mallin & Barbesgaard, 2020). By contrast, Indigenous perspectives highlight the ocean as a site of cultural significance, identity, and kinship, and emphasize its role in the resistance against Western-dominated imaginaries (Ingersoll, 2016). Environmental imaginaries perceive the oceans to be in need of protection and conservation, as vulnerable marine ecosystems are under increasing pressure from global warming and increased economic activity (Engel et al., 2021; Steinberg et al., 2018). Finally, scientific imaginaries perceive the ocean as a site of future-oriented possibilities, whether that is exploring and exploiting deep and distant oceanic spaces (Ratté, 2019) or developing technological fixes for environmental challenges such as geoengineering.

Overall, marine imaginaries clearly have an impact on how societies interact with oceanic spaces. Popular culture plays a crucial role in this—how the sea is portrayed within popular media eventually shapes public attitudes, behaviours, and policies towards oceanic spaces, issues, and actors. We thus propose the concept of *ocean pop* to analytically grasp marine imaginaries and the popular culture artefacts in which they are created and represented.

3. Ocean Pop

Our concept of *ocean pop* refers to the portrayal of oceanic spaces, issues, and both human and non-human actors within popular media. With the concept, we aim to combine cultural and media studies, which offer rich analyses of popular artefacts, such as movies, television shows, video games, music, and more, with

international relations and political science research, which provides explorations of the broader (geo-)political implications of the marine imaginaries created through and inspiring these artefacts. In doing so, we seek to bridge the disciplinary divide between the blue humanities and social sciences, stressing the importance of adopting a multidisciplinary lens to analyse marine imaginaries. *Ocean pop* thus emphasises the intersection of these representations with ocean politics, exploring how marine imaginaries influence public perception, policy, and the socio-political dynamics related to ocean spaces, actors, and issues.

Critics often discredit popular representations as lacking seriousness or legitimacy (cf. high vs. low art distinction; see Brottman, 2005; see also Baym, 2008). Scholars also stress the idealization of imagined spaces, often constructed in conjunction with popular media, e.g., envisioning pristine natural environments (Steinberg et al., 2018, p. 176). Yet, we can indeed observe many instances in which popular marine imaginaries have initiated real-world impact over time and across a variety of media types. In the 15th and 16th centuries, wall paintings in the Doge's Palace commemorating Venetian naval battles defeating the Ottomans served to reinforce a clear demarcation from Islam vis-à-vis the Venetian Christendom (Connery, 2010, p. 689). In 1851, the novel *Moby-Dick* presented the figure of the whaler as an ocean-based facilitator of exploration and world travel in the 19th century (Long, 2011). Over a century later, Teaiwa (1994) highlighted how the Pacific Ocean's violent colonial and militarized history is overlaid with Western imaginaries of leisure and sexualized beauty, epitomized in the bikini swimsuit named after a nuclear testing site, the Bikini Atoll.

In our contemporary shared memory, the movie *Jaws* (1975) is perhaps the most notable example of a marine popular culture artefact with real-life implications. It affected shark policies for decades (Pepin-Neff, 2019) and continues to fuel the public's fear of sharks to this day, reproduced in what Bolton (2023) labels the sharksplotation genre. *Free Willy* (1993), in turn, led to over 20 million dollars spent on rewilding the movie's animal lead, the orca Keiko (Colby, 2018). With the global rise of the internet, digitally literate populations worldwide can now produce and share oceanic narratives. A recent example of a viral news story that has resulted in a variety of memes is orcas ramming yachts off the Iberian Peninsula from approximately 2020 onwards (Riederer, 2023). It is therefore evident that how we perceive the ocean indeed shapes how we interact with it. Popular culture representations of ocean spaces, actors, and issues navigate the complex boundary between absurdity and seriousness, effectively engaging diverse audiences and thereby shaping discourse and real-world actions on marine matters.

4. Global Polycrisis and Marine Imaginaries

In 2022, Adam Tooze coined the term “polycrisis” to describe current economic and non-economic crises such as Covid-19, the Russian invasion of Ukraine, and the increasingly urgent climate crisis that interact with each other “so that the whole is even more overwhelming than the sum of the parts” (Tooze, 2022). The buzzword has since gained traction in academic research and is increasingly utilised in anthropology (Henig & Knight, 2023), sustainability (Lawrence et al., 2024; Sogaard Jørgensen et al., 2023), economy (Helleiner, 2024), and international relations studies (Brosig, 2025).

Broadly speaking, a polycrisis can be defined as “a nested set of globally interactive socio-economic, ecological and cultural-institutional crises that defy reduction to a single cause” (Swilling, 2013, p. 98). It is characterised by a temporal simultaneity of crises and by a dense interconnectivity between multiple global

systems. Crises in systems such as the economy, trade, environment, health, and international security do not just add up; they intersect and interact, thus multiplying the degradation of humanity's prospects and the future of the planet (Lawrence et al., 2022, pp. 2–5). Crises can be caused by long-term stresses, like increasing socio-economic inequality, global warming, and demographic change, as well as short-term triggers, such as political uprisings, bankruptcies, or the extinction of a keystone species (Lawrence, 2024, p. 2) that might tip an already stressed system into crisis, eventually creating disruptive effects in other systems and even feedback loops. Because a global polycrisis has no single underlying cause, it requires systemic, transboundary, and multidisciplinary solutions. Yet another characteristic of a systemic crisis is deep uncertainty about the underlying drivers of the crisis and their consequences (Renn et al., 2019), thereby complicating potential mitigation strategies.

The ocean is indeed a site of multiple interconnected fundamental crises. Ocean warming, acidification, pollution, rising sea levels, and mass extinction are all inextricably linked to the climate emergency and fuel one another further (Venegas et al., 2023). This has destructive implications for human food security and the overexploitation of marine resources. It also forces migration and thus promotes maritime insecurity, which is already exacerbated by the naval power projections of global powers. Finally, the current crisis of multilateralism (Börzel & Zürn, 2021), manifesting in the rise of authoritarian regimes and a resurgence of nationalist policies in many countries, means that international institutions are increasingly unable to address these global issues, neither individually nor in their causal complexity.

5. Contributions to the Thematic Issue

In this thematic issue, scholars of a wide range of blue humanities and social sciences build on the notion of *ocean pop* to examine how popular representations depict oceanic spaces, actors, and issues to evoke certain marine imaginaries within the broader framework of the polycrisis, thereby underscoring the relevance of popular culture in facilitating and informing public and policy discourses.

In her analysis of the *Pirates of the Caribbean* franchise and contemporary regimes to counter piracy, Anja Menzel (2026) explores the tension between lawlessness and legality at sea. She demonstrates how, in both fiction and reality, legal frameworks governing piracy constitute marine imaginaries that resonate with and shape our perceptions of legality and morality within marine contexts.

The Polar Sounds project, conducted by Geraint Rhys Whittaker (2026), highlights the potential of creative engagement in enhancing understanding of marine environments. By involving musicians and sound artists to reinterpret acoustic recordings of the Arctic and Antarctic oceans, this project exemplifies how artistic processes can cultivate new auditory imaginaries of oceanic spaces.

Charlotte Gehrke's (2026) examination of popular depictions of marine mammal "celebrities" traces evolving public attitudes toward ocean conservation over the last 70 years. Her analysis shows how anthropomorphic framing can enhance public engagement with conservation messages, fostering emotional connections to ocean ecosystems.

Similarly, Antje Scharenberg (2026) delves into the aesthetic representations of fish in popular culture, showcasing how subsea activists challenge depictions that promote "charismatic," yet extractive perceptions

of fish to foster deeper appreciation for marine habitats. This underscores the need for a nuanced understanding of aesthetic preferences in conservation efforts.

In a different realm, Erdem Lamazhapov (2026) explores how video games depict polar oceans as geopolitical frontiers, influencing global political narratives and player interactions. This highlights the role of digital media in shaping contemporary understandings of oceanic spaces, revealing how entertainment can intersect with geopolitical discourse.

Finally, the critical review of popular ocean documentaries by Steven Mana'oakamai Johnson and Angelo Villagomez (2026) underscores the importance of decolonizing marine narratives. They demonstrate how these films often portray oceanic crises through a colonial lens, privileging Western narratives. By obscuring the structural and historical roots of ocean degradation, Indigenous and frontline communities are being marginalized. The authors' proposed principles for more just and inclusive, decolonial ocean storytelling highlight the necessity of incorporating diverse voices into popular culture artefacts to develop a more equitable and comprehensive understanding of oceanic spaces and the socio-political dynamics that shape them.

Collectively, these studies reflect overarching themes of tension between representation and reality, the influence of narrative techniques on public engagement, the need to decolonize marine narratives, interdisciplinary approaches to understanding oceanic issues, and the significant impact of cultural context on perceptions of the ocean. Together, they underscore the complexities inherent in the representations of ocean spaces, actors, and issues in popular culture, ultimately contributing to the understanding of marine imaginaries in the face of global polycrisis.

6. Outlook

Popular culture both reflects and influences societal understanding of crises, revealing how oceanic realities are imagined, contested, and legitimized. The concept of *ocean pop* holds particular value for empirical analysis of these phenomena, as its deliberately interdisciplinary nature encompasses diverse forms of popular culture and media, thereby challenging the trivialization of popular media in academic analysis. The articles featured in this thematic issue engage with a wide array of popular cultural media, such as video games, blockbuster films, documentaries, and music, yet the concept's scope can and should be broadened to include other texts, like performance art, comics, novels, and digital material.

By focusing on the context of polycrisis, *ocean pop* illustrates the significant role of popular culture during times of multiple crises. With this, normative questions around ocean ownership and the capacity to shape oceanic futures become increasingly salient: Who is represented in marine imaginaries and who is absent? Which power structures are reinforced? Whose visions of justice are promoted? From the perspective of the blue humanities and social sciences, these inquiries involve deconstructing existing relations and challenging assumptions often taken for granted. In uncovering these underlying dynamics, the study of marine imaginaries can improve collective responses to oceanic crises. We therefore encourage further critical engagement with the concept of *ocean pop* and invite others to refine, contest, and further develop this approach as a framework for understanding and reshaping contemporary ocean governance in the age of global polycrisis.

Funding

The publication of this article was supported by the Open Access publication fund of the University of Bamberg.

Conflict of Interests

The authors declare no conflicts of interests.

References

- Anderson, B. M. (2006). *Imagined communities: Reflections on the origin and spread of nationalism* (3rd ed.). Verso.
- Anderson, C. B., Dicenta, M., Archibald, J. L., & Valenzuela, A. E. J. (2023). How changing imaginaries of nature and tourism have shaped national protected area creation in Argentine Patagonia. In T. Gale-Detrich, A. Ednie, & K. Bosak (Eds.), *Natural and social sciences of Patagonia* (pp. 71–97). Springer. https://doi.org/10.1007/978-3-031-38048-8_4
- Baym, G. (2008). Serious comedy: Expanding the boundaries of political discourse. In J. C. Baumgartner & J. S. Morris (Eds.), *Laughing matters: Humor and American politics in the media age* (pp. 21–38). Routledge.
- Bolton, M. (2023). A shark eating its own tail: Sequel, cycle, and remake in the Jaws franchise. In K. Merlock Jackson & P. L. Simpson (Eds.), *"This Shark, swallow you whole": Essays on the cultural influence of Jaws* (pp. 176–199). McFarland & Company.
- Börzel, T. A., & Zürn, M. (2021). Contestations of the liberal international order: From liberal multilateralism to postnational liberalism. *International Organization*, 75(2), 282–305. <https://doi.org/10.1017/S0020818320000570>
- Brosig, M. (2025). From neologism to promising research agenda? The global polycrisis and IR. *International Relations*. Advance online publication. <https://doi.org/10.1177/00471178251333294>
- Brottman, M. (2005). *High theory/low culture*. Palgrave Macmillan. <https://doi.org/10.1057/9781403978226>
- Colby, J. M. (2018). *Orca: How we came to know and love the ocean's greatest predator*. Oxford University Press.
- Connery, C. L. (1996). The oceanic feeling and the regional imaginary. In W. Dissanayake & R. Wilson (Eds.), *Global/local: Cultural production and the transnational imaginary* (pp. 284–311). Duke University Press. <https://doi.org/10.1215/9780822381990-012>
- Connery, C. L. (2010). Sea power. *PMLA*, 125(3), 685–692.
- Dake, K. (1992). Myths of nature: Culture and the social construction of risk. *Journal of Social Issues*, 48(4), 21–37. <https://doi.org/10.1111/j.1540-4560.1992.tb01943.x>
- DeLoughrey, E. M. (2019). *Allegories of the Anthropocene*. Duke University Press.
- Engel, M. T., Vaske, J. J., & Bath, A. J. (2021). Ocean imagery relates to an individual's cognitions and pro-environmental behaviours. *Journal of Environmental Psychology*, 74, Article 101588. <https://doi.org/10.1016/j.jenvp.2021.101588>
- Gehrke, C. (2026). Animal Celebrities—Then and now: Exploring oceanic imaginaries through celebrity marine mammals. *Ocean and Society*, 3, Article 11516. <https://doi.org/10.17645/oas.11516>
- Grant, J. (2014). On the critique of political imaginaries. *European Journal of Political Theory*, 13(4), 408–426. <https://doi.org/10.1177/1474885113519259>
- Helleiner, E. (2024). Economic globalization's polycrisis. *International Studies Quarterly*, 68(2), Article sqae024. <https://doi.org/10.1093/isq/sqae024>
- Henig, D., & Knight, D. M. (2023). Polycrisis: Prompts for an emerging worldview. *Anthropology Today*, 39(2), 3–6. <https://doi.org/10.1111/1467-8322.12793>
- Hereniko, V. (2001). David and Goliath: A Response to "the oceanic imaginary." *The Contemporary Pacific*, 13(1), 163–168. <https://doi.org/10.1353/cp.2001.0010>

- Ingersoll, K. A. (2016). *Waves of knowing: A seascape epistemology*. Duke University Press. <https://doi.org/10.1215/9780822373803>
- Johnson, S. M., & Villagomez, A. (2026). Representation and Power in Ocean Conservation Documentaries: A decolonial analysis. *Ocean and Society*, 3, Article 11626. <https://doi.org/10.17645/oas.11626>
- Kinacioglu, M. (2023). Militarized governance of migration in the Mediterranean. *International Affairs*, 99(6), 2423–2441. <https://doi.org/10.1093/ia/iia232>
- Lamazhapov, E. (2026). Digital frontiers: The polar regions and popular geopolitics in video games. *Ocean and Society*, 3, Article 11462. <https://doi.org/10.17645/oas.11462>
- Lawrence, M. (2024). Polycrisis in the Anthropocene: An invitation to contributions and debates. *Global Sustainability*, 7, Article e5. <https://doi.org/10.1017/sus.2024.2>
- Lawrence, M., Homer-Dixon, T., Janzwood, S., Rockstöm, J., Renn, O., & Donges, J. F. (2024). Global polycrisis: The causal mechanisms of crisis entanglement. *Global Sustainability*, 7, Article e6. <https://doi.org/10.1017/sus.2024.1>
- Lawrence, M., Janzwood, S., & Homer-Dixon, T. (2022). *What is a global polycrisis? And how is it different from a systemic risk?* Cascade Institute. <https://cascadeinstitute.org/technical-paper/what-is-a-global-polycrisis>
- Lewis, J. E. (2024). The future imaginary. In T. J. Taylor, I. Lavender, G. L. Dillon, & B. Chattopadhyay (Eds.), *The Routledge handbook of cofuturisms* (pp. 11–22). Routledge; Taylor & Francis.
- Long, J. W. (2011). Plunging into the Atlantic: The oceanic order of Herman Melville’s *Moby-Dick*. *Atlantic Studies*, 8(1), 69–91. <https://doi.org/10.1080/14788810.2011.539790>
- Mallin, F., & Barbesgaard, M. (2020). Awash with contradiction: Capital, ocean space and the logics of the blue economy paradigm. *Geoforum*, 113, 121–132. <https://doi.org/10.1016/j.geoforum.2020.04.021>
- Marcus, G. E. (Ed.). (1995). *Technoscientific imaginaries: Conversations, profiles, and memoirs*. University of Chicago Press.
- McNeill, C. (2023). Deterritorialized threats and the “territorial trap”: The geographical imaginaries of piracy in the Gulf of Aden. *Alternatives: Global, Local, Political*, 48(2), 170–188. <https://doi.org/10.1177/03043754231163219>
- Menzel, A. (2026). Law and legality in *Pirates of the Caribbean* and Contemporary Counter-Piracy: More guidelines than rules? *Ocean and Society*, 3, Article 11459. <https://doi.org/10.17645/oas.11459>
- Neimanis, A., Åsberg, C., & Hayes, S. (2015). Post-humanist imaginaries. In *Research handbook on climate governance* (pp. 480–490). Edward Elgar Publishing.
- Ntona, M., & Schröder, M. (2020). Regulating oceanic imaginaries: The legal construction of space, identities, relations and epistemological hierarchies within marine spatial planning. *Maritime Studies*, 19, 241–254. <https://doi.org/10.1007/s40152-020-00163-5>
- O’Brien, P. (2025). Spatial imaginaries and the construction of regions: A cultural political economy approach. *Territory, Politics, Governance*, 14(3), 383–403. <https://doi.org/10.1080/21622671.2025.2465261>
- Pepin-Neff, C. L. (2019). *Flaws: Shark bites and emotional public policymaking*. Palgrave Macmillan.
- Ratté, S. (2019). (Un)seen seas: Technological mediation, oceanic imaginaries, and future depths. *Environment and Society*, 10(1), 141–157. <https://doi.org/10.3167/ares.2019.100109>
- Renn, O., Lucas, K., Haas, A., & Jaeger, C. (2019). Things are different today: The challenge of global systemic risks. *Journal of Risk Research*, 22(4), 401–415. <https://doi.org/10.1080/13669877.2017.1409252>
- Riederer, R. (2023, December 28). The year of the orca. *New Yorker*. <https://www.newyorker.com/culture/2023-in-review/the-year-of-the-orca>
- Sanna, A. (Ed.). (2018). *Pirates in history and popular culture*. McFarland.
- Scharenberg, A. (2026). Fishy imaginaries: The cultural politics of de/objectifying fish. *Ocean and Society*, 3, Article 11461. <https://doi.org/10.17645/oas.11461>

- Siriwardane-de Zoysa, R. (2021). Decolonizing seascapes: Imaginaries and absences on an island hub. *Postcolonial Interventions*, 6(1), 56–101. <https://doi.org/10.5281/ZENODO.4483976>
- Søgaard Jørgensen, P., Jansen, R. E. V., Ortega, A., Wang-Erlandsson, L., Donges, J. F., Österblom, H., Olsson, P., Nyström, M., Lade, S. J., Hahn, T., Folke, C., Peterson, G. D., & Crépin, A.-S. (2023). Evolution of the polycrisis: Anthropocene traps that challenge global sustainability. *Philosophical Transactions of the Royal Society*, 379(1893), Article 20220261. <https://doi.org/10.1098/rstb.2022.0261>
- Steinberg, P. E. (2018). The ocean as frontier. *International Social Science Journal*, 68(229/230), 237–240. <https://doi.org/10.1111/issj.12152>
- Steinberg, P. E., Tasch, J., & Gerhardt, H., Keul, A., & Nyman, E. A. (2018). *Contesting the Arctic: Politics and imaginaries in the circumpolar North*. I.B. Tauris.
- Strauss, C. (2006). The imaginary. *Anthropological Theory*, 6(3), 322–344. <https://doi.org/10.1177/1463499606066891>
- Swilling, M. (2013). Economic crisis, long waves and the sustainability transition: An African perspective. *Environmental Innovation and Societal Transitions*, 6, 96–115. <https://doi.org/10.1016/j.eist.2012.11.001>
- Taylor, C. (2003). *Modern social imaginaries*. Duke University Press. <https://doi.org/10.2307/j.ctv11hpgvt>
- Teaiwa, T. K. (1994). Bikinis and other s/pacific n/oceans. *The Contemporary Pacific*, 6(1), 87–109. <https://doi.org/10.5749/minnesota/9780816665051.003.0002>
- Tooze, A. (2022, October 28). Welcome to the world of the polycrisis. *Financial Times*. <https://www.ft.com/content/498398e7-11b1-494b-9cd3-6d669dc3de33>
- Venegas, R. M., Acevedo, J., & Treml, E. A. (2023). Three decades of ocean warming impacts on marine ecosystems: A review and perspective. *Deep Sea Research Part II: Topical Studies in Oceanography*, 212, Article 105318. <https://doi.org/10.1016/j.dsr2.2023.105318>
- Whittaker, G. R. (2026). Sonoshaping the Frozen Seas: Exploring Sonic Imaginaries in the Polar Sounds Project. *Ocean and Society*, 3, Article 11424. <https://doi.org/10.17645/oas.11424>

About the Authors



Charlotte Gehrke is a researcher at the German Institute of Development and Sustainability (IDOS) in Bonn. Her work examines the intersection of science communication, policy, and diplomacy, with an empirical focus on polar and ocean governance.



Anja Menzel is a researcher at the University of Bamberg and a senior research fellow at the University of Johannesburg. She specialises in ocean governance, particularly the combat of maritime piracy. Her current research projects explore the nexus between maritime security and sustainability, and the role of development finance for the blue economy.

Law and Legality in *Pirates of the Caribbean* and Contemporary Counter-Piracy: More Guidelines than Rules?

Anja Menzel ^{1,2} 

¹ Institute of Political Science, University of Bamberg, Germany

² SARCHi Chair: African Diplomacy and Foreign Policy, University of Johannesburg, South Africa

Correspondence: Anja Menzel (anja.menzel@uni-bamberg.de)

Submitted: 30 September 2025 **Accepted:** 5 November 2025 **Published:** 19 March 2026

Issue: This article is part of the issue “Ocean Pop: Marine Imaginaries in the Age of Global Polycrisis” edited by Anja Menzel (University of Bamberg/University of Johannesburg) and Charlotte Gehrke (German Institute of Development and Sustainability-IDOS), fully open access at <https://doi.org/10.17645/oas.i518>

Abstract

Marine imaginaries—cultural and political ways of imagining order at sea—shape both fictional representations of piracy and contemporary efforts to govern it, reflecting enduring fascination with the ocean as a space of both disorder and morality. As part of this broader imaginary, *Pirates of the Caribbean* dramatises a tension between lawlessness and legality at sea through the Code of the Brethren. Although this fictional code of conduct is frequently invoked by the franchise’s protagonists as the cornerstone of pirate culture, the rules set out in the Code are regularly bent or ignored to serve individual or collective self-interest. Notably, the Code is perceived as “guidelines” rather than actual rules, yet exerts clear normative influence. This article compares this fictional rule of law among pirates in the Disney franchise with contemporary regional regimes governing piracy, reflecting on the tension between formal rules and the operational adaptability of maritime governance in both settings. Similar to the Code in *Pirates of the Caribbean*, not all anti-piracy agreements are legally binding. Drawing on interviews with decision-makers, the article explores the binding nature of regional agreements and draws parallels to the informality of rules in the films. Discussing the practical benefits of soft law for effective anti-piracy cooperation, the article adds to the growing literature on “blue legalities,” exploring oceanic issues from a combined humanities and law perspective.

Keywords

blue legalities; blue humanities; counter-piracy; law and legality; marine imaginaries; ocean governance; ocean pop; piracy; *Pirates of the Caribbean*

1. Introduction

From Hollywood to the Gulf of Aden, questions of law, order, and legitimacy at sea are anything but straightforward. Shaping public understandings of maritime governance and piracy, popular culture has long imagined the ocean as a space lacking governance, where authority is contested, and order emerges in unexpected ways (Sadowski, 2025). The *Pirates of the Caribbean* franchise dramatises this legal ambiguity through a consistent reference to the Code of the Brethren, which is simultaneously binding and malleable. In this article, I juxtapose the fictional code with contemporary regimes to counter-piracy, which differ in their bindingness, and argue that both can be understood as marine imaginaries: despite their legal ambiguity, they are important reference points exerting clear normative influence on actors. Reading the popcultural narrative alongside contemporary counter-piracy regimes not only reveals parallels between fiction and reality, but it also highlights how maritime governance can add insight to the discussion on the polycrisis. At a time when the rule of law in international politics is under increasing strain (Alter, 2023) and international institutions are progressively perceived as unable to address global issues, counter-piracy presents a telling case study that shows how formal legality and informal flexibility affect cooperation efforts between states.

The representation of piracy and pirates in popular media is a rich and active field of research. Introductory works providing a good overview of the general portrayal of piracy in popular media include Jowitt (2005), who offers a concise overview of the ways pirates are understood across different genres, and Sanna (2018), whose edited volume presents a deep dive into popular culture depictions of piracy in history, literature, cinema, and television. Specifically, the *Pirates of the Caribbean* series has been increasingly scrutinised in academia since the release of its first film in 2003, with contributions spanning from disciplines such as literature (Zhanial, 2018), film (Pheasant-Kelly, 2013), pedagogy (Pollock, 2014), to leadership (Kohn & Urick, 2025). One strand of literature discusses the role of female pirates in the films (Porter, 2016; Steinhoff, 2011). To a large part, the literature is concerned with the series' protagonist Jack Sparrow, portrayed by Johnny Depp, studying the character's ambiguous gender identity, sexuality, and nationality (e.g., Fradley, 2012; Steinhoff, 2012), concluding he is framed as an atypical Disney "anti-hero" (Petersen, 2007, p. 72).

The analysis of the role of rules and law in popular depictions of piracy is yet scarce. One exception is Thomson (2011), who scrutinises the decision-making process of pirates in probably the most famous pirate novel, Robert Louis Stevenson's *Treasure Island* (1883), and notes that the pirates' unwavering adherence to a heavily legalistic, formally democratic mode of decision-making in the novel ultimately contributes to their downfall (Thomson, 2011, p. 212). Another exception is Sadowski (2025), who offers a comprehensive discussion of the relationship between popular pirate imaginaries and the law, contrasting the image of pirates as outlaws with their image as symbols of liberty. However, to my knowledge, no contribution to date has investigated the role of the law in *Pirates of the Caribbean* specifically.

A plethora of literature is concerned with contemporary counter-piracy initiatives as well as their legal frameworks. Most recent contributions include Wambua (2022), who critically discusses the United Nations Convention on the Law of the Sea's (UNCLOS) shortcomings, specifically the lack of a concrete legal definition of piracy as well as the lack of a definitive enforcement mechanism. Similarly, Otto (2018) argues that the legal definition of piracy under UNCLOS is inadequate, as it excludes criminal activities in the territorial waters of states. Menefee (2020) gives an overview of the treaties and agreements dealing with

piracy over the last century, including not only international but also regional initiatives. Finally, Menzel (2018, 2022) scrutinises regional agreements to counter-piracy and also discusses their legal status. Nevertheless, no contribution has thus far engaged with the effect of the legal status of these regimes on the actual cooperation between states to counter-piracy.

In analysing both the legal status of the fictional pirate code in *Pirates of the Caribbean* and the legal status of contemporary regional counter-piracy regimes, this article therefore aims to address the two gaps in the literature identified above. In doing so, it adds to the growing literature on “blue humanities,” which highlights how culture and literature shape human–ocean relations (DeLoughrey, 2017; Mentz, 2009), as well as to the discussion on “blue legalities” focusing on the constitution of formal and informal legalities regarding ocean law and governance (Braverman & Johnson, 2020). Methodologically, this implies the examination of legal norms as products of cultural meaning-making, interpreting them within the wider imaginative frameworks through which the ocean is understood (Steinberg, 2001). Yet, a comparison of a fictional piracy code and non-fictional counter-piracy codes is not straightforward, as it compares distinctively different phenomena while spanning across different disciplines and literatures (cultural and media studies vs. international law and international relations). The juxtaposition between fiction and reality should therefore not be understood as a causally robust empirical comparison, but rather as a creative, exploratory approach to the issues of legality and bindingness. I am convinced that adding contemporary counter-piracy into the analysis offers various added benefits. First, I can utilise the extensive data I have collected for another project on counter-piracy regimes, which gives in-depth insights into the role of legality in the combat of piracy. Second, and more importantly, it allows me to draw parallels between fiction and reality, which underlines how even flexible rules can shape behaviour and facilitate cooperation, eventually offering lessons for designing more effective and adaptable counter-piracy policies.

To juxtapose such different cases, I am utilising the concept of marine imaginaries to explore the legal nature of both the rules of pirates in *Pirates of the Caribbean* and contemporary counter-piracy regimes. To this, I add the concept of legality, taken from international relations (IR) literature, to explore the degree of legal obligation in the films and counter-piracy cooperation. Combining these two perspectives, I argue that both in fiction and reality, the (counter-)piracy codes can be understood as imaginaries—despite a differing degree of legality, they act as reference points around which the expectations of protagonists/actors converge, and therefore have an impact on the actual behaviour of actors. In doing so, the article proceeds as follows: First, I introduce the concept of marine imaginaries and legality and discuss my methodology and data. Second, I examine marine imaginaries in *Pirates of the Caribbean*, with a specific focus on its pirate code. Third, I introduce contemporary regional counter-piracy regimes. Considering why some agreements are legally binding while others are not, I discuss the implications of their legal status on actual policy outcomes. Fourth, I draw parallels between marine imaginaries of law and legality in both fiction and reality. Finally, the article closes with an outlook on further research potential.

2. Central Concepts

Marine imaginaries can be understood as “epistemological and ontological constellations that suggest a particular way of visualising, knowing and relating to ocean spaces” (Ntona & Schröder, 2020, p. 245). In other words, marine imaginaries are collective narratives and assumptions of how actors make sense of the ocean, in turn influencing how they interact with oceanic spaces. This may refer to different dimensions,

which are often intertwined (Montana & Hartman Davies, 2024): Politically, states and (non-)governmental international institutions imagine the ocean for political purposes, whether for geopolitical claims, power projections, security purposes, or cooperation efforts. Socially, different communities interact with the ocean, whether that concerns migration, labour, leisure, or other social practices. Technically, the ocean is perceived as a space that can be explored, measured, and controlled, resulting in scientific knowledge, but also framing the ocean as an actionable environment to be protected or exploited. Economically, the oceans can be perceived as a site of resources, development, and trade, which also shapes environmental and social outcomes. Culturally, the ocean is imagined in history, art, literature, and other media, including popular media, thereby shaping public perception of marine spaces and issues. In sum, the way we think about the ocean influences how we interact with, govern, exploit, or protect oceanic spaces (Gehrke & Menzel, 2026).

IR literature has long considered why some international agreements are legally binding, while others are not, and what this institutional design means for the effectiveness of an agreement (Raustiala, 2005, p. 581). If “an international agreement [is] concluded between states in written form and governed by international law” (Vienna Convention, 1969, Art. 2) it is formal law and can be considered legally binding. Non-binding agreements, often also referred to as “soft law,” are more indeterminate to define, but are generally not governed by international law. The literature discusses several advantages and disadvantages that states consider when they decide on the legal status of an agreement. Non-binding agreements offer flexibility to states, which is particularly important if domestic ratification processes are complicated, if they need to negotiate the agreement in a timely manner, if states have significantly diverging preferences about issues, if they face uncertainty about the policy issue at hand, or if they face high sovereignty costs (Abbott & Snidal, 2000, pp. 434–450; Shaffer & Pollack, 2009, p. 719). Under these conditions, states may prefer soft law, which offers the opportunity to agree to a swift compromise without having to legally commit outright—adjustments are still possible at a later point in time (Guzman, 2005, p. 591). For these reasons, informal or soft law is indeed considered to be particularly important in ocean governance, as the flexibility and speed that are typically associated with informal lawmaking are especially important when there are emerging or pressing issues to address (Klein, 2022, p. 16), which was the case specifically for piracy during the 2000s and 2010s.

“Hard law,” on the other hand, offers other advantages to states. Legally binding agreements bolster the credibility of a commitment, and when the risk of opportunistic behaviour by other states is high, hard law may present a more enforceable cooperation option (Abbott & Snidal, 2000, pp. 426–430). Yet, (non-)compliance is a crucial variable to consider here. Legally binding agreements may deter states that either intend not to fully comply with an agreement or know they might not be capable of complying from joining. This might lead states to opt for a legally binding, but less ambitious agreement, which may affect the overall performance of the cooperation. Conversely, a non-binding agreement may offer the opportunity to promote deeper commitments, which might eventually be more effective in changing the behaviour of parties (Raustiala, 2005, p. 610). At the same time, compliance with rules is not the sole indicator of the performance of an agreement. Some extent of non-compliance may be acceptable, particularly if it is due to party capacity and not aimed at undermining the whole agreement (Chayes & Chayes, 1993). To sum up, states consider a variety of advantages and disadvantages when deciding on the legal form of agreements. Questions of legal form, in turn, matter for the implementation and finally the success of agreements, and are therefore important to consider.

For my subsequent analysis of the legal status of rules in *Pirates of the Caribbean* and regional counter-piracy regimes, I draw on a variety of empirical material. For the first part on *Pirates of the Caribbean*, the main media are the films of the franchise, particularly the first and third instalments of the series. For the second part on regional counter-piracy agreements, I utilise interview material collected in 2016 and 2017 with practitioners involved in the drafting of the codes, and interview material collected in 2025 with practitioners involved in the implementation of the codes. My interview partners were identified through online research, personal contacts, and a snowball system of recommendations. While this approach is not completely free of selection bias, the practitioners nevertheless add valuable insights into the role of legality when drafting and implementing international agreements. The response rate to my requests was over 70%. In total, I have conducted 13 semi-structured interviews, either in person, online, or via telephone or email. Twelve were in English and one was in French. The interviewees come from diverse backgrounds, such as navies, national governments, international organisations, industry, and/or academia. Their personal details have been anonymised for confidentiality reasons. An overview of the interviews conducted can be found in the Supplementary File.

3. *Pirates of the Caribbean*

Pirates of the Caribbean is a five-part fantasy swashbuckler film series released between 2003 and 2017. Originally based on an amusement ride at Disneyland established in 1967 in Anaheim, California, the Disney media franchise now also includes books, video games, and various other merchandise. As of 2025, the film series alone has grossed almost 4.5 billion US dollars globally (Awasthi, 2025), and the franchise is considered to have become the currently most formative depiction of piracy in popular culture (Petersen, 2007, p. 79).

The main protagonist of the film franchise is Jack Sparrow, the eccentric and cunning captain of the Black Pearl. His ship was stolen by his mutinous first mate, Hector Barbossa, who shifts between rival and reluctant ally during the series. Another main protagonist is Will Turner, a blacksmith who is later revealed to be the son of a pirate. He becomes entangled in piracy when Barbossa kidnaps Elizabeth Swann, a governor's daughter and Turner's love interest. Over the course of the films, Swann's character sees a change from aristocrat to active participant in pirate culture. Set in the so-called "Golden Age" of piracy (ca. 1650 to 1730), the protagonists' adventures lead them to clash with colonial powers, the East India Trading Company—which seeks to eliminate piracy and enforce law and order to maintain its trade monopoly—and supernatural forces, including cursed treasure, magical objects, undead crews, and the sea itself (Verbinski, 2003, 2006, 2007).

3.1. *Marine Imaginaries in Pirates of the Caribbean*

The *Pirates of the Caribbean* franchise invokes a plethora of marine imaginaries, which draw heavily on historical, romanticising images of pirates first introduced in the 19th century (Zhanial, 2018, p. 168). First, the sea is presented as a supernatural site imbued with otherworldly forces between the living and the dead, effectively constituting a character on its own. It is dangerous, but also a source of fascination. Second, the sea is framed as a site of resistance and freedom. Pirates are portrayed as societal outlaws (e.g., former slaves, prisoners, women, and/or non-Europeans) resisting the imperial and commercial control by the British Empire and the East India Trading Company. This is contrasted with the image of the ocean as a commodified site for trade and profit, as put forward by the East India Trading Company. Third, the sea is

imagined as a lawless, anarchic space, ungoverned or beyond the reach of (imperial) law. Pirates are hunted by the British Empire precisely because they operate outside of imperial law. To sum up, pirates escape the constraints of state, society, and law as they revolt against imperial control. Piracy is imagined as anarchy, which is juxtaposed with the Empire representing law and order.

But does this mean the pirates in *Pirates of the Caribbean* are really lawless? On closer inspection, it becomes clear that pirates are outlaws, but they are by no means lawless. While cooperation between pirates is unstable, trust is low, and alliances shift regularly, they have a unifying charter for collective governance: the Code of the Brethren.

3.2. Law and Legality in *Pirates of the Caribbean*

The legal cornerstone of pirates in the *Pirates of the Caribbean* franchise is the fictional Code of the Brethren (also referred to as Code of the Order of the Brethren, Pirata Codex, or Pirate Code), a code of conduct loosely based on real-life examples from the Golden Age of piracy. Historically, pirate codes—so-called “articles”—were written constitutions that specified rules and punishments in case of noncompliance with these rules in order to minimise conflict on board of pirate ships (Leeson, 2007). Although only a few authentic article documents have survived, the basic elements of pirate constitutions display a remarkable similarity across different crews (Rediker, 1987). The articles determined the division of the loot, established rules on decision-making and voting among crew, regulated discipline and behaviour on board, and put forward compensation for injuries (Fox, 2013).

Building on these historical examples, the fictional code in *Pirates of the Caribbean* entails regulations concerning decision-making procedures, hierarchical command authority, and individual rights of pirates. The Code is portrayed to have been established by the second meeting of the so-called Brethren Court, the governing body of pirates made up of nine Pirate Lords, and physically written down in the Pirata Codex. Specific rules of this fictional code include the right to parlay, which allows temporary protection for individual pirates to be brought before the enemy captain to negotiate an issue or a truce without being attacked, and the equal sharing of treasure found between all crew members (Platt & Dakin, 2007, pp. 10–11). The Code is protected by the so-called Keeper of the Code, a specially appointed member of the Brethren Court. To become pirate king, the elective monarch of the Pirate Lords and leader of the Brethren Court, the elected pirate must swear by the Code.

3.2.1. *The Curse of the Black Pearl*

The viewer of the franchise first encounters the Code in the first instalment of the film series, *The Curse of the Black Pearl*. Elizabeth Swann, having been captured by pirates looking for a pirate medallion in her possession, invokes the right to parlay and requests to speak to the captain of the pirates. Her request is granted, and she is brought aboard the Black Pearl, where a crew member slaps her. Captain Barbossa, witnessing the scene, immediately steps in and reminds the crew member of the protection of parlay (Verbinski, 2003, 38). In the ensuing conversation with Barbossa, Swann requests the cessation of hostilities and offers the medallion in return. After Barbossa agrees to the deal, the crew prepares to leave without bringing Swann back to shore:

Swann: “Wait...You have to take me to shore! According to the Code of the Order of Brethren...”

Barbossa: “First, your return to shore was not part of our negotiations nor our agreement, so I must do nothing. And secondly, you must be a pirate for the Pirate’s Code to apply, and you’re not. And thirdly, the Code is more of what you’d call guidelines than actual rules.” (Verbinski, 2003, 40)

While Barbossa seems to follow the rule of parlay in the beginning, he makes it clear that he perceives the Code to be a flexible instrument that can be customised according to one’s preferences. Importantly, he emphasises that it only applies to pirates, although at that moment he cannot be certain whether Swann is a pirate herself, given that she is in possession of a pirate medallion. Yet, as a result of his lax interpretation of the Code’s bindingness, Swann is not released.

A second rule codified in the Code that is mentioned throughout the first film is “any man who falls behind is left behind.” It is first brought up in a scene between Turner, Sparrow, and his first mate Gibbs when Sparrow and Turner prepare to go on shore. Sparrow answers Gibb’s question as to what should happen were the worst to occur: “Keep to the Code” (Verbinski, 2003, 1:07). Sparrow later clarifies for Turner that the Code he was referring to was the Pirates’ Code, indicating his crew should leave him to his own devices and probably his death should he not return to the ship (Verbinski, 2003, 1:09). This becomes important later in the film where Swann is able to free Sparrow’s crew and ship, while Sparrow and Turner are still fighting Barbossa and his men. She plans on rescuing Sparrow and Turner, but the crew refuses to help her, pointing out that, according to the Code, they are not obligated to wait for or rescue any crew member who cannot keep up:

Gibbs: “There is the Code to consider.”

Swann: “The Code? You’re pirates! Hang the Code, and hang the rules! They’re more like guidelines anyway.” (Verbinski, 2003, 1:58)

Unable to convince Sparrow’s crew to ignore “any man who is left behind stays behind,” Swann leaves the ship on her own to rescue Turner and Sparrow. This marks a turning point in the film and symbolises Swann’s slow transition from a civilian to a pirate: While she advocated for the literal bindingness of the Code in the beginning of the film, she has now assumed Barbossa’s position. In doing so, she too has adapted a flexible perspective on the bindingness of the Code serving her best interest. In contrast, the “real” pirates strictly follow the Code. As the rescue is perceived to be dangerous, this is also in their best interest.

Eventually, Sparrow is captured by the British Navy, but manages to escape. He is surprised to find his crew, which was supposed to leave him behind, awaiting him with his ship. As the imminent danger is gone, his crew has followed Swann’s plea and reconsidered:

Sparrow: “Weren’t you supposed to keep to the Code?”

Gibbs: “We figured they were more actual...guidelines.” (Verbinski, 2003, 2:12)

In sum, in *The Curse of the Black Pearl*, the Code serves as a key plot mechanism and establishes that pirates have their own rules and traditions. The returning motif of rules vs. guidelines serves a humorous purpose in the form of comical relief, but also underlines how ambiguous the Code is perceived—it is interpreted arbitrarily or manipulated creatively to further the self-interests of the protagonists.

3.2.2. *At World's End*

While the Code plays a central role in the first film of the series, in the second film, *Dead Man's Chest*, the Code is not mentioned. Although the second film revolves around the central motifs of doing the “right thing” and keeping one’s promises, law and legality do not play an explicit role (Verbinski, 2007). Rather, the second film is used to set the scene for the third film of the series, *At World's End*, in which the Code plays an even more important role than in the first instalment.

In *At World's End*, Lord Cutler Beckett, chairman of the East India Trading Company, is set to expand the company’s business into the Caribbean, and to this end, wants to eradicate piracy completely. Under the order of the British king and aided by the Royal Navy, a “war against piracy” is proclaimed. Beckett executes hundreds of persons suspected of being pirates and wants to exterminate the Brethren Court. Barbossa, one of the nine Pirate Lords, recognises the danger posed by Beckett and the East India Trading Company, and urges his fellow Pirate Lords to convene in order to set free Calypso, the goddess of the sea, as a measure against Beckett (Verbinski, 2007, 13). Although some Pirate Lords, such as Sparrow and Sao Feng of Singapore, are sceptical that the Court can initiate a meaningful intervention, Barbossa insists it would be their only hope (Verbinski, 2007, 1:01), as the English are not bound by the honour of the Code of the Brethren (Verbinski, 2007, 1:07).

Upon convening the Fourth Court of the Brethren, it becomes clear that Sao Feng has been killed by Beckett’s crew. Before his death, Sao Feng named Swann as his successor, and she joins the other Brethren, completing the Court. A lively discussion ensues about whether Calypso should be freed. When news spreads that the Court’s location has been betrayed and that Beckett is on his way to attack it, it is agreed that the pirates should fight and that war should be declared:

Barbossa: “As per the code, an act of war, and this be exactly that, can only be declared by the Pirate King.”

Sparrow: “You made that up.”

Barbossa: “Did I, now? I call on Cap’n Teague, Keeper of the Code.”

Representative of Pirate Lord Sumbhaje: “Sri Sumbhaje proclaims this all to be folly. Hang the code! Who cares a--- [A gunshot is fired, killing the representative of Sumbhaje. It is revealed that the gun was fired by Teague].”

Teague: “Code is the law.” (Verbinski, 2007, 1:43–1:44)

Edward Teague, who is revealed not only to be the Keeper of the Code but also Sparrow’s father, then consults the physical copy of the Code labelled *Pirata Codex* and confirms Barbossa’s claim that only the Pirate King can declare war. As Keeper of the Code, Teague is appointed to protect the Code and makes plain that the Code is not something that can be freely interpreted, challenged, or ignored, linking to the running gag of “guidelines rather than rules” in the first film. Teague even physically enforces the Code by shooting the representative of Pirate Lord Sumbhaje, who dared to openly oppose the Code. The reaction of the pirates attending the

Brethren Court shows that they not only respect Teague because of his violent action, but also because he has a palpable authority by virtue of the office he holds.

However, the pirates assert that a successful election is unlikely, as the Pirate King is elected by popular vote and each Pirate Lord traditionally only votes for themselves. Yet, Sparrow calls for a vote. Eight of the nine Pirate Lords vote for themselves until Sparrow finally votes for Swann. A heated discussion ensues, to which Sparrow defiantly responds: “Am I right to understand that you lot will not be keeping to the Code then?” (Verbinski, 2007, 1:46). The camera cuts to Teague, a stern look on his face. Intimidated by him, the pirates sit down and accept the vote—Swann is confirmed as King of the Brethren Court, and in this function, she immediately calls to war, which is ultimately won by the pirates.

This key scene in the film changes the whole trajectory of the plot. In contrast to the first film, where it was underlined that the Code is a rather blurry instrument that can be arbitrarily interpreted to further one’s own self-interest, the Code is now presented as a legitimate legal framework in written form, and as such, “legally” binding. Although the Code is still used to pursue egoistic motives (e.g., the Pirate Lords mostly vote for themselves), it is also highlighted that the Code gives official authority to offices such as the Keeper or the King. The Code is “the law,” according to Teague, and must be followed verbatim, even physically enforced if needs be. As a result, the pirates are compliant with the decision of the Brethren Court and legitimise Swann as the Pirate King despite their obvious disdain, which not only highlights the political importance of the Code but also serves as a symbol of unifying the fragmented society of pirates against a common enemy.

In the fourth and fifth instalments of the franchise, *On Stranger Tides* and *Dead Men Tell No Tales*, the Code is not relevant to the respective storylines and is thus not mentioned anymore.

4. Contemporary Counter-Piracy Regimes

Maritime piracy is regulated by the 1982 UNCLOS, which legally defines piracy and grants states universal jurisdiction in international waters to seize pirate vessels and prosecute offenders. It currently has 169 UN state parties (Division for Ocean Affairs and the Law of the Sea, n.d.). UNCLOS is complemented by the 1988 Convention for the Suppression of Unlawful Acts Against the Safety of Maritime Navigation (SUA), which broadly criminalises behaviour endangering the safety of maritime navigation and has 165 UN state parties (International Maritime Organization, n.d.). Although SUA does not explicitly mention maritime piracy, most of the acts it criminalises correspond in whole or in part to actions committed by pirates in international or territorial waters (the latter is legally referred to as “armed robbery” against ships; Treves, 2013, p. 147). Both UNCLOS and SUA are legally binding.

Regional agreements and governance mechanisms with a differing degree of formality also play a crucial role in coordinating anti-piracy efforts and fostering capacity-building. The focus of this article lies on three regional agreements to counter-piracy which cover different world regions: the Regional Cooperation Agreement on Combating Piracy and Armed Robbery Against Ships in Asia (ReCAAP), the Code of Conduct Concerning the Repression of Piracy and Armed Robbery Against Ships in the Western Indian Ocean and the Gulf of Aden (also Djibouti Code of Conduct [DcoC]) and the Code of Conduct Concerning the Repression of Piracy and Armed Robbery Against Ships, and Illicit Maritime Activity in West and Central Africa (also Yaoundé Code of Conduct [YcoC]). These codes have been established successively and heavily draw on each other in terms of

their institutional design (Menzel, 2018), yet differ in their degree of legal obligation, which makes them an interesting case study.

4.1. *Regional Counter-Piracy Regimes*

ReCAAP was finalised in 2004 during the heyday of piracy and armed robbery in Southeast Asia. It aims at fostering data collection on piracy and facilitating capacity-building efforts in Asia. Membership is open to all states, and currently, 21 states are contracting parties, including 14 Asian littorals, the US, Australia, and several European states (ReCAAP, n.d.). Indonesia and Malaysia, although two of the three states in the region most affected by piracy, have not joined ReCAAP due to concerns over extra-regional influences. They were, however, involved in the drafting process. ReCAAP is legally binding and obliges member states to prevent and suppress piracy and armed robbery against ships, and to arrest pirates or persons who have committed armed robbery against ships (ReCAAP, 2004, Art. 3.1), but only in their own territory (ReCAAP, 2004, Art. 2.5).

The DCoC was established in 2009 under the auspices of the International Maritime Organization to repress piracy and armed robbery against ships in the Western Indian Ocean and the Gulf of Aden. Membership is restricted to littoral states of the Indian Ocean region, and 20 out of 21 eligible states have signed the agreement (DCoC, n.d.-a). The DCoC's institutional design is, in large parts, inspired by ReCAAP and includes similar provisions on prosecution, data collection, and capacity-building (Menzel, 2018). The DCoC was amended in 2017, when the Jeddah Amendment was adopted. It broadened the scope of the agreement, which now also covers maritime crime more generally, including human trafficking and smuggling, illegal, unreported and unregulated (IUU) fishing, illegal trade in wildlife, crude oil theft, and the illegal dumping of toxic waste. As of 2025, 18 of 20 DCoC member states have signed the Jeddah Amendment (DCoC, n.d.-b). Neither the DCoC nor the Jeddah Amendment is legally binding.

The YCoC focuses specifically on the combat of piracy and armed robbery, but also more broadly on transnational organized crime in the maritime domain, which, among others, includes maritime terrorism, IUU fishing, illegal arms and drugs trafficking, money laundering, illegal oil bunkering, and illegal dumping of toxic waste. It was established in cooperation with the Economic Community of West African States, the Economic Community of Central African States, the Gulf of Guinea Commission, and representatives from the International Maritime Organization, and was adopted in 2013 by 25 eligible West and Central African states (Vreÿ, 2014, pp. 26–27). Its institutional design concerning prosecution, information-sharing, and capacity-building is heavily inspired by the DCoC, with over half of the document being a verbatim copy of the DCoC agreement text (Menzel, 2018, p. 162). Like the DCoC, the YCoC is not legally binding.

This poses an interesting question: If the regional agreements build on each other and are therefore very similar in their institutional design, why did the DCoC and YCoC not adopt the legal bindingness of the ReCAAP agreement? Does the legal status of regional agreements to counter-piracy make a difference in their implementation and success, and are there any plans to change the legal status quo of the DCoC and YCoC?

4.2. *The Legal Status of Regional Counter-Piracy Regimes*

Legally binding regimes are conventionally assumed to support cooperation efforts (Raustiala, 2005, p. 613)—after all, a binding agreement can hold all parties legally accountable and incentivise compliance with rules. Indeed, when the DCoC and YCoC were set up, there was an intention among policymakers to make the regimes legally binding for member states, and the original agreement texts contain provisions to this effect. The DCoC calls for consultations within two years of the code’s effective date to arrive at a binding agreement (DCoC, 2009, Art. 13). The Jeddah Amendment to the DCoC contains the appeal for consultations within five years of the effective date on the merit of developing a binding agreement (DCoC, 2017, p. 33), and the YCoC calls to turn the code into a binding multilateral agreement within three years of being in effect (YCoC, 2013, Art. 17).

Policymakers were aware that the legal status of the agreements would be pivotal to interested parties during the drafting process. Interviews shed light on the cost-benefit calculations being made during drafting. Many decision-makers highlighted that a legally binding status would have made the internal legal processes to join more difficult, as many states did not have adequate national legislation to prosecute piracy (Interview 1, 2016; Interview 11, 2025; Interview 12, 2025). Specifically for the DCoC, it was a concern that this would add significant time to the process, and that the whole project would lose the international momentum it had around 2008 at the height of Somali piracy, resulting in states potentially losing interest in accession (Interview 3, 2016). Sovereignty concerns and border-related tensions also played a role in both the DCoC and YCoC setups, and non-binding agreements were a way of ensuring that these concerns did not prevent accession (Interview 9, 2025; Interview 11, 2025). Instead of insisting on a binding code, it was more important for policymakers to have as many littoral states as possible on board to signal a strong, cohesive regional commitment to combating piracy.

Another issue was capacity: Compared to the Asian ReCAAP model, where extra-regional states with high enforcement capacities, such as the US and European states, were among the founding members, the regional cooperation mechanisms in East, Central, and West Africa were open for regional membership only. A high level of legal obligation would not only have meant that states would have been reluctant to join, but also that states with low maritime enforcement capacities would not have been able to deliver on the commitments they had made. A decision-maker expressed it like that: “If you make something legally binding that they [potential member states with low enforcement capacity] can’t achieve, then the moment they’ve signed it, they’ve failed” (Interview 5, 2017). To avoid failure before cooperation had even started, aspirational, non-binding agreements were preferred.

The choices made during the setup of the DCoC and the YCoC concerning their legal status clearly impact the institution’s operations. Membership is important for the success of a cooperation, yet effective collaboration is difficult if key states are not on board due to concerns over the legal status of an agreement. This is the case with ReCAAP. Although ReCAAP is generally considered to be a milestone in counter-piracy cooperation in Asia, to a considerable extent precisely because it is legally binding, two of the three states most affected by piracy in Asia chose not to join ReCAAP. Indonesia and Malaysia claimed concerns over sovereignty as their reason for non-accession (Interview 2, 2016), which is reinforced by the fact that ReCAAP’s provisions are legally binding. This underlines that the degree of legal bindingness is indeed an important consideration during institutional design. While Indonesia and Malaysia regularly cooperate with ReCAAP on a low-key

level, the non-membership of these states, which are crucial in the combat of piracy in the region, impedes the effectiveness of cooperation efforts to a significant extent (Menzel, 2022). In line with this, interviewees across the board expressed appreciation for the fact that virtually all DCoC or YCoC littoral states had joined the agreements, emphasising the importance of a unified approach among member states that was achieved precisely because both agreements were drafted as non-binding from the start.

Whether the non-binding status of the DCoC and YCoC has further implications on effective cooperation to combat piracy is disputed among the interviewees. Some policymakers were critical of the legal status and expressed the opinion that a non-binding agreement resulted in inconsistent implementation and uneven commitments across states (Interview 6, 2025). One interviewee highlighted the negative operational impact of the Codes' legal status, as this would lead to cooperation not being fully effective or transparent during joint maritime operations, leading to delayed or incomplete information sharing (Interview 11, 2025). Similarly, another practitioner argued that a binding code would offer clearer obligations for information exchange as well as greater predictability and uniformity in response measures (Interview 6, 2025). Another issue mentioned was the lack of mechanisms supporting accountability, dispute settlement, and enforcement (Interview 7, 2025). Therefore, some policymakers supported the call for a legally binding agreement with strong enforcement mechanisms, which would force states to comply with the Codes' rules (Interview 13, 2025). Remarkably, this perspective is particularly held among practitioners involved in the direct, day-to-day business of the Codes. It is also remarkable that interviewees working in the context of the YCoC specifically highlighted a problem with less committed states (Interview 11, 2025), therefore calling for a legally binding agreement.

By contrast, the majority of interviewees expressed the view that the non-binding nature of both the DCoC and YCoC either did not matter for the implementation of the agreements or that it would even be conducive to cooperation. Many interviewees underlined that a non-binding agreement allows for flexible and voluntary participation of regional and extra-regional states, and promotes informal but effective cooperation across jurisdictions with differing legal systems (Interview 6, 2025; Interview 9, 2025). In a similar vein, several practitioners highlighted that political acceptance within the member states would be more important than the legal status of the agreements. One argued that the member states would be able to follow deeper ambitions with a non-binding agreement, as member states would retreat to the lowest common denominator if the agreement were to be made legally binding (Interview 8, 2025). One interviewee stated that the YCoC's operation had gained traction over the last 10 years without legally binding provisions. Instead of changing the legal status of the agreement, it would be more important to further strive for the formulation of harmonised standard operating procedures, which would strengthen the overall collaboration (Interview 12, 2025).

Despite highlighting many advantages of legally non-binding agreements to counter-piracy, none of the interviewees opposed a legally binding agreement. Instead, a legally binding agreement was often perceived as "nice to have, but not necessary" (Interview 9, 2025)—an ultimate goal, but not a high priority for practitioners as long as the cooperation between states works nonetheless. Therefore, interviewees across the board agreed that the legal status of both the DCoC and the YCoC is not likely to change in the short term. Moving the agreements to binding instruments is still the official goal pursued by, e.g., the Chair of the DCoC (Interview 7, 2025) and in high-level meetings related to the YCoC (Interview 11, 2025). There were also single national calls in recent years to make the YCoC binding, such as by Nigeria in 2021 (Nigerian

Maritime Administration and Safety Agency, 2021). Unsurprisingly, this specific call came from a member state with large operational capacities and a high maritime crime rate (Interview 9, 2025). Yet, the conditions for change are currently not favourable in general. Interviewees named a variety of reasons for this, mainly high costs related to adopting adequate legal, operational, or institutional reforms on the domestic level (Interview 7, 2025; Interview 8, 2025). Other issues include concerns over national sovereignty, a fear of creating border-related tensions with neighbouring countries, and a decrease in maritime threat perception in recent years that minimises the pressure to act (Interview 8, 2025; Interview 11, 2025).

Overall, interviewees agreed that the regional agreements are an important tool for counter-piracy cooperation, irrespective of their legal status. While certain aspects of the institutions' proceedings could profit from a legally binding agreement, practitioners across the board highlighted that the agreements work more or less as intended, providing an arena for interested states to deepen their cooperation to combat piracy and other maritime crimes. As one interviewee expressed it: "The binding aspect of it [the agreement] will come, but it is not a necessary condition for it to be effective" (Interview 9, 2025).

5. Discussion: The Codes as Marine Imaginaries

Comparing the analysis of the legal status of the Code of the Brethren in *Pirates of the Caribbean* and the regional counter-piracy agreements reveals surprising parallels between fiction and reality: In both, we can observe ambiguity regarding the role of law and legality, yet this does not necessarily impede governance. In the first instalment of *Pirates of the Caribbean*, the Code is regularly ignored or altered for self-interest, yet implicitly changes the behaviour of protagonists in key moments of the film. This highlights how a certain amount of noncompliance, if not undermining the legal framework in general, is acceptable for the Code to still be influential, as discussed similarly in IR literature (Chayes & Chayes, 1993). In the third instalment of the franchise, the bindingness of the Code is even more pronounced—the Code is presented as legally binding and is enforced with authority in situations that are crucial for the legitimacy of the whole framework. In the case of regional counter-piracy agreements, the analysis has highlighted how, despite their legal status, the codes foster cooperation between states, promote information-sharing, and build trust, therefore effectively contributing to the combat of maritime crimes.

As such, both the fictional and the actual codes can be considered "marine imaginaries": They are collective narratives with which actors make sense of ocean governance. In the fictional case, the ocean is portrayed as a space of both disorder and moral code, and order is imagined through a tension between lawlessness and legality. Although legality is often fluid, the Code nevertheless influences the perception of legal and illegal ("right" and "wrong") behaviour and eventually not only impacts the actions of protagonists but also how the audience imagines order at sea. In the real-world case, the non-binding regional agreements to counter-piracy may benefit from a more legally binding arrangement, yet they are functional and promote a change in behaviour of member states. In that regard, the contemporary codes constitute an imaginary of maritime order that resonates with policymakers and governments as well as with a broader public understanding of maritime crime governance.

The parallels between fiction and reality are further highlighted in a comparison of a quote from the first *Pirates of the Caribbean* film with an interview with a DCoC decision-maker (Table 1). In both instances, the codes are understood as an important foundation, but they do not need to be followed at all times in order

to promote meaningful cooperation. In that sense, the legal status of an agreement is not a value in and of itself. Rather, it is a pragmatic assessment of the costs and benefits of legal bindingness, which may vary from instance to instance, as discussed in IR literature on legality (Abbott & Snidal, 2000; Raustiala, 2005). Ultimately, cooperation depends as much on the actual rules provided by the codes as on the willingness of the parties involved. Therefore, although the fictional and real codes vary in their degree of legality, this does not mean that they do not have an impact on the actual behaviour of protagonists or states. On the contrary, the codes are important reference points to which actors align their behaviour regardless of their legal status.

Table 1. Comparison of quotes on the bindingness of codes.

Barbossa in <i>The Curse of the Black Pearl</i>	Decision-maker, DCoC
“The Code is more of what you’d call guidelines than actual rules” (Verbinski, 2003, 40).	“Now, that’s [the non-binding status of the agreement] not the end of the world, because actually the Code isn’t ultimately the bottom line” (Interview 2, 2016).

6. Conclusion

In the article, I have juxtaposed the legal frameworks of both fictional representations of piracy in *Pirates of the Caribbean* and contemporary efforts to govern it. The analysis revealed that in fiction and reality, protagonists and states constantly navigate between formal rules and informal flexibility. Thus, the codes of conduct constitute marine imaginaries—they are specific ways of understanding order at sea that resonate with and shape public understanding of maritime governance.

As this article took an unconventional approach by comparing fictional and non-fictional codes, expanding the scope of analysis to include historical pirate codes or depictions of pirate codes in other popular culture media would certainly shed light on potential variation across time or between different media or genres. Similarly, future research could benefit from scrutinising not only efforts to combat contemporary piracy, but the practice of piracy itself. Modern pirates are known to form elaborate governance networks (Shortland & Varese, 2016), and it would be interesting to see whether they also establish informal codes of conduct and how these compare to historical or fictional counterparts.

Finally, the results hold important policy implications. Interviews with counter-piracy practitioners have highlighted that non-binding agreements offer important flexibility, underlining how informal law of the sea can play a facilitative or “thickening” role in addition to existing legally binding frameworks (Klein, 2022, p. 18). Minimising concerns over legal bindingness, thus, may allow states to agree on a more ambitious and therefore more meaningful cooperation. As tensions between binding rules and adaptability matter for a multitude of issues beyond maritime crime governance, policymakers should generally be aware of the costs and benefits attached to the legal status of agreements. This is even more important in a world where the legitimacy of international agreements is increasingly challenged.

Acknowledgments

I wish to thank the interviewees for their time and invaluable insights, the reviewers of this article for their constructive feedback, and Timothy Walker for his much-appreciated assistance.

Funding

The publication of this article was supported by the Open Access publication fund of the University of Bamberg.

Conflict of Interests

In this article, editorial decisions were undertaken by Charlotte Gehrke (German Institute of Development and Sustainability).

Supplementary Material

Supplementary material for this article is available online in the format provided by the author (unedited).

References

- Abbott, K. W., & Snidal, D. (2000). Hard and soft law in international governance. *International Organization*, 54(3), 421–456.
- Alter, K. (2023). The contested authority and legitimacy of international law: The state strikes back. In C. Daase, N. Deitelhoff, & A. Witt (Eds.), *Rule in international politics* (pp. 214–241). Cambridge University Press.
- Awasthi, P. (2025, July 14). Which pirates of the caribbean movie made the most money vs. budget? Here's the winner. *KoiMoi*. https://www.koimoi.com/hollywood-news/which-pirates-of-the-caribbean-movie-made-the-most-money-vs-budget-heres-the-winner/#google_vignette
- Braverman, I., & Johnson, E. R. (2020). *Blue legalities: The life and laws of the sea*. Duke University Press.
- Chayes, A., & Chayes, A. H. (1993). On compliance. *International Organization*, 47(2), 175–205.
- DeLoughrey, E. (2017). Submarine futures of the Anthropocene. *Comparative Literature*, 69(1), 32–44.
- Division for Ocean Affairs and the Law of the Sea. (n.d.). *Chronological lists of ratifications of accessions and successions to the Convention and the related Agreements*. UN. https://www.un.org/Depts/los/reference_files/chronological_lists_of_ratifications.htm
- Djibouti Code of Conduct. (n.d.-a). *Signatory states*. <https://dcoc.org/about-us/dcoc-states>
- Djibouti Code of Conduct. (n.d.-b). *Who we are*. <https://dcoc.org/about-us/jeddah-amendment>
- Djibouti Code of Conduct. (2009). *Code of conduct concerning the repression of piracy and armed robbery against ships in the Western Indian Ocean and the Gulf of Aden*.
- Djibouti Code of Conduct. (2017). *Revised code of conduct concerning the repression of piracy, armed robbery against ships, and illicit maritime activity in the Western Indian Ocean and the Gulf of Aden Area*.
- Fox, E. T. (2013). *'Piratical schemes and contracts': Pirate articles and their society 1660–1730* [Unpublished doctoral dissertation]. University of Exeter.
- Fradley, M. (2012). 'Why doesn't your compass work?': Pirates of the Caribbean, fantasy blockbusters and contemporary queer theory. In K. Ross (Ed.), *Handbook of gender, sex and media* (pp. 294–312). Wiley.
- Gehrke, C., & Menzel, A. (2026). Ocean Pop: Marine Imaginaries in the Age of Global Polycrisis. *Ocean and Society*, 3, Article 12337. <https://doi.org/10.17645/oas.12337>
- Guzman, A. T. (2005). The design of international agreements. *European Journal of International Law*, 16(4), 579–612. <https://doi.org/10.1093/ejil/chi134>
- International Maritime Organization. (n.d.). *Ratifications by state*. <https://www.imo.org/en/about/conventions/pages/statusofconventions.aspx>
- Jowitt, C. (2005). 'Parrots and pieces of eight': Recent trends in pirate studies. *Literature Compass*, 1(1). <https://doi.org/10.1111/j.1741-4113.2004.00015.x>
- Klein, N. (2022). *Unconventional lawmaking in the law of the sea*. Oxford University Press.

- Kohn, P., & Urick, M. J. (2025). *Leaders of the Caribbean: Lead by the code*. Emerald Publishing.
- Leeson, P. T. (2007). An-arrgh-chy: The law and economics of pirate organization. *Journal of Political Economy*, 115(6), 1049–1094.
- Menefee, S. P. (2020). A century of piracy treaties: An overview for the future. In P. K. Mukherjee, M. Q. Mejia, & J. Xu (Eds.), *Maritime law in motion* (pp. 547–561). Springer.
- Mentz, S. (2009). Toward a blue cultural studies: The sea, maritime culture, and early modern English literature. *Literature Compass*, 6(5), 997–1013.
- Menzel, A. (2018). Institutional adoption and maritime crime governance: The Djibouti Code of Conduct. *Journal of the Indian Ocean Region*, 14(2), 152–169. <https://doi.org/10.1080/19480881.2018.1467360>
- Menzel, A. (2022). Fragmentation or effective governance? The regime complex of counter-piracy in Asia. *Politics and Governance*, 10(3), 80–89. <https://doi.org/10.17645/pag.v10i3.5380>
- Montana, J., & Hartman Davies, O. (2024). Large-scale marine protected areas and imaginaries of progress in ocean governance. *Geo: Geography and Environment*, 11(2), Article e00155. <https://doi.org/10.1002/geo2.155>
- Nigerian Maritime Administration and Safety Agency. (2021). *Gulf of Guinea security: Jamoh calls for uniformity of laws*. <https://nimasa.gov.ng/gulf-of-guinea-security-jamoh-calls-for-uniformity-of-laws>
- Ntona, M., & Schröder, M. (2020). Regulating oceanic imaginaries: The legal construction of space, identities, relations and epistemological hierarchies within marine spatial planning. *Maritime Studies*, 19, 241–254. <https://doi.org/10.1007/s40152-020-00163-5>
- Otto, L. (2018). Defining maritime piracy: The problem with the law. *Acta Criminologica: African Journal of Criminology & Victimology*, 31(2), 134–148.
- Petersen, A. (2007). ‘You believe in pirates, of course...’ Disney’s commodification and ‘closure’ vs. Johnny Depp’s aesthetic piracy of ‘Pirates of the Caribbean.’ *Studies in Popular Culture*, 29(2), 63–81.
- Pheasant-Kelly, F. (2013). Pirate politics and the spectacle of the other: Pirates of the Caribbean. In F. Pheasant-Kelly (Ed.), *Fantasy film post 9/11* (pp. 67–86). Palgrave Macmillan.
- Platt, R., & Dakin, G. (2007). *Pirates of the Caribbean: The complete visual guide*. DK Publishing.
- Pollock, E. A. (2014). *Popular culture, piracy, and outlaw pedagogy: A critique of the miseducation of Davy Jones*. Springer. <https://doi.org/10.1007/978-94-6209-613-4>
- Porter, J. (2016). The ambiguous captain Jack Sparrow: Destabilizing gender, politics, and religion in Pirates of the Caribbean. In D. Brode & S. T. Brode (Eds.), *Debating Disney: Pedagogical perspectives on commercial cinema* (pp. 151–161). Rowman & Littlefield.
- Raustiala, K. (2005). Form and substance in international agreements. *American Journal of International Law*, 99(3), 581–614. <https://doi.org/10.2307/1602292>
- Rediker, M. (1987). *Between the devil and the deep blue sea: Merchant seamen, pirates and the Anglo-American maritime world, 1700–1750*. Cambridge University Press.
- Regional Cooperation Agreement on Combating Piracy and Armed Robbery Against Ships in Asia. (2004). *Regional cooperation agreement on combating piracy and armed robbery against ships in Asia*.
- Regional Cooperation Agreement on Combating Piracy and Armed Robbery Against Ships in Asia. (n.d.). *About ReCAAP information sharing centre*. https://www.recaap.org/about_ReCAAP-ISC
- Sadowski, M. M. (2025). Pirate imageries and the law: Utopias, seven seas and sunken treasures. *International Journal for the Semiotics of Law*, 38, 1357–1395. <https://doi.org/10.1007/s11196-024-10176-6>
- Sanna, A. (2018). *Pirates in history and popular culture*. McFarland.
- Shaffer, G. C., & Pollack, M. A. (2009). Hard vs. soft law: Alternatives, complements, and antagonists in international governance. *Minnesota Law Review*, 94, 706–799.

- Shortland, A., & Varese, F. (2016). State-building, informal governance and organised crime: The case of Somali piracy. *Political Studies*, 64(4), 811–831.
- Steinberg, P. E. (2001). *The social construction of the ocean*. Cambridge University Press.
- Steinhoff, H. (2011). *Queer buccaneers: (De)constructing boundaries in the Pirates of the Caribbean film series*. LIT.
- Steinhoff, H. (2012). Gender, sexuality, nationality, and the pirate as mobile signifier in *Captain Blood*, *Anne of the Indies*, *Cutthroat Island*, and *Pirates of the Caribbean*. In H. Paul, A. Ganser & K. Gerund (Eds.), *Pirates, drifters, fugitives: Figures of mobility in the US and beyond* (Vol. 221, pp. 103–135). Winter.
- Thomson, A. (2011). 'Dooty is dooty': Pirates and sea-lawyers in treasure island. In G. Moore (Eds.), *Pirates and mutineers of the nineteenth century* (pp. 211–222). Ashgate Publishing.
- Treves, T. (2013). Piracy and the international law of the sea. In D. Guilfoyle (Ed.), *Modern Piracy: Legal challenges and responses* (pp. 117–146). Edward Elgar Publishing.
- Verbinski, G. (Director). (2003). *Pirates of the Caribbean: The curse of the Black Pearl* [Film]. Walt Disney Pictures.
- Verbinski, G. (Director). (2006). *Pirates of the Caribbean: Dead man's chest* [Film]. Walt Disney Pictures.
- Verbinski, G. (Director). (2007). *Pirates of the Caribbean: At world's end* [Film]. Walt Disney Pictures.
- Vienna Convention on the Law of Treaties, 1969.
- Vreÿ, F. (2014). Perspectives on maritime co-operation in the Gulf of Guinea. *Acta Criminologica: African Journal of Criminology & Victimology*, 27, 17–35.
- Wambua, M. (2022). A critical review of the global legal framework on piracy: 40 years after UNCLOS. *Maritime Affairs: Journal of the National Maritime Foundation of India*, 18(1), 134–148. <https://doi.org/10.1080/09733159.2022.2091020>
- Yaoundé Code of Conduct. (2013). *Code of conduct concerning the repression of piracy, armed robbery against ships, and illicit maritime activity in West and Central Africa*.
- Zhanial, S. (2018). "Take what you can...": Disney's Jack Sparrow and his indebtedness to the pirate genre. In A. Sanna (Ed.), *Pirates in history and popular culture* (pp. 167–177). McFarland.

About the Author



Anja Menzel is a senior researcher at the University of Bamberg, Germany, and a senior research fellow at the University of Johannesburg, South Africa. She holds a PhD from the University of Greifswald, Germany, and is a Fellow of the Bavarian Academic Alliance for Peace, Conflict and Security Research. Anja specialises in ocean governance, particularly the combat of maritime piracy. Her current research projects explore the nexus between maritime security and sustainability, and the role of development finance for the blue economy.

Sonoshaping the Frozen Seas: Exploring Sonic Imaginaries in the Polar Sounds Project

Geraint Rhys Whittaker ^{1,2} 

¹ Helmholtz Institute for Functional Marine Biodiversity (HIFMB), University of Oldenburg, Germany

² Alfred Wegener Institute Helmholtz Centre for Polar and Marine Research, Germany

Correspondence: Geraint Rhys Whittaker (geraint.whittaker@hifmb.de)

Submitted: 26 September 2025 **Accepted:** 26 November 2025 **Published:** 14 January 2026

Issue: This article is part of the issue “Ocean Pop: Marine Imaginaries in the Age of Global Polycrisis” edited by Anja Menzel (University of Bamberg/University of Johannesburg) and Charlotte Gehrke (German Institute of Development and Sustainability–IDOS), fully open access at <https://doi.org/10.17645/oas.i518>

Abstract

Artists have long shaped cultural imaginaries of the polar regions, and advances in acoustic technologies over recent decades have expanded these imaginaries to include the sounds of the polar seas. Collecting such recordings, however, typically requires specialised equipment and substantial logistical and financial resources, limiting access to those able to travel to the poles. Art–science collaborations therefore play a crucial role in making polar acoustic data accessible for creative interpretation to those unable to visit. This article examines such a project, Polar Sounds, that provided 103 musicians and sound artists from 31 countries with recordings from the Arctic and Antarctic oceans and invited them to compose new works from these materials. Unlike most projects requiring artists to enter the field, Polar Sounds brought the field to them. Using interviews with 63 participating artists, the study investigates how their imaginaries of the polar seas evolved through engagement with the acoustic data. By tracing the artists’ interpretive journeys, this article explores what artistic creativity can reveal about how non-polar scientists come to know and then reimagine polar worlds, as well as how sound offers unique spatial perspectives for understanding representations of the ocean.

Keywords

art–science; ocean communication; polar sounds; science communication; sonic imaginaries

1. Introduction: Popular Perceptions of Polar Worlds

Due to melting sea ice, the expansion of tourism and advancements in exploration technologies, the polar regions and their oceans are more accessible to humans than they have ever been (Hemkendreis & Jürgens, 2024). This access, however, is largely limited to a narrow segment of society—primarily scientists, seafarers,

military personnel, commercial companies, wealthy tourists, and, in the case of the Arctic, the region's Indigenous and local residents. As such, most people will never directly encounter these places. Yet, despite this physical distance, the polar regions and their oceans occupy a unique position in contemporary popular culture and global environmental imaginaries (Nielsen et al., 2024), prompting some to suggest that they have become the most mediated places on earth (Glasberg, 2012; Kelman, 2022; Steinberg et al., 2015).

Think for a moment of what the aesthetics of these regions mean to you, and depending on your own familiarity, you are likely to be able to describe a scene that features at least some of the following: ice, snow, the cold, isolation, certain endangered mammals, Indigenous communities, or a place under threat due to human-induced climate change. Such prominent polar imaginaries have been established over time through multimedia representations in novels, poetry, films, documentaries, photography, the diary notes of early scientists and explorers (Hansson, 2018; Hince et al., 2015; Leane, 2018; Lehtimäki et al., 2021; Truswell, 2015), as well as news coverage analysing the polar regions' role in geopolitical issues such as climate change, resource exploitation, and Indigenous politics (Dodds et al., 2017; Nilsson & Christensen, 2019; Nuttall et al., 2018; Pincus & Ali, 2016). What most people know about the polar regions, therefore, relies heavily on how they are represented to global audiences, and determining who is able—or unable—to construct these narratives, as well as how they do so, is essential for understanding the power relations underpinning such imaginaries (Nielsen, 2020; Salazar, 2017; Steinberg et al., 2015).

Artists have long played—and continue to play—an important role in shaping polar imaginaries from both within and beyond the regions themselves (Hemkendreis & Jürgens, 2024; Huhmarniemi & Jokela, 2020; Jokela, 2024; Michałowska, 2020; L. Roberts et al., 2021; Stevens et al., 2019; Whittaker et al., 2024). Their perspectives can either reproduce established historical narratives and stereotypes about these places or offer alternative interpretations of polar aesthetics that challenge dominant media representations (Bloom, 2022), thereby introducing “new modes of perception” through which to engage with the polar regions and their oceanic spaces (Crawley et al., 2023, p. 280). In doing so, they make meaningful contributions to the continually evolving “mosaic” of polar imaginaries (Steinberg et al., 2015, p. 12). Historically, artistic representations of the oceans have primarily focused on visual representations above the waterline (Crawley et al., 2023). Increasingly, however, as acoustic technologies advance, more attention is being given by artists and humanities researchers to the materialities of sound for creating and exploring relations deep within the volumes of polar ocean spaces (Coutu et al., 2024; Dobrin, 2021; Helmreich, 2016; Steinberg et al., 2025; Whittaker et al., 2024).

Sound is a critical component of oceanic understanding: it is used by mammals as a form of communication and navigation and used by scientists to understand ocean worlds and the anthropogenic impacts on them (Duarte et al., 2021; Erbe et al., 2025; Van Opzeeland & Slabbekoorn, 2012). Direct engagement with sounds from the polar regions, however, is usually only possible through acoustic data collected by scientists in the Arctic and Antarctic oceans. Such recordings are challenging for artists to collect independently, as they typically require specialised equipment and substantial logistical and financial resources. When provided with this sonic data, however, artists can offer novel perspectives on polar environments by connecting “the under land, the world above, and the observer” to alternative imaginaries of polar worlds and polar futures (Coutu et al., 2024, p. 28; Gilmurray, 2020). Art–science projects are thus one way to make accessible the sounds of the polar seas and reimagine them through various lenses beyond their scientific utility (Whittaker et al., 2024).

This article will explore a project that did this, Polar Sounds. Polar Sounds was initiated and coordinated by me (an artist-researcher) in conjunction with acoustic scientist Ilse Van Opzeeland, marine geographer Kimberley Peters, and in collaboration with the global sound mapping project, Cities and Memory. Through this collaboration, more than 100 musicians and sound artists from around the world were paired with acoustic data from the polar oceans collected by scientists from the Ocean Acoustics Group at The Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research (AWI OZA). The artists were given the freedom to compose new works using these recordings, opening up the sounds of the polar seas to people who otherwise would not have access to them (Whittaker et al., 2024). Unlike many previous artistic sound projects associated with the regions, the artists involved in Polar Sounds did not undertake residencies there and remained in the comfort of their own homes. As such, the project responds to Leane and Marx's (2025, p. 3) call for greater understanding of how people with "no special connection" relate to polar spaces.

This article begins by discussing polar and oceanic imaginaries, before introducing the Polar Sounds project and outlining the methodology used to gather artists' reflections. It then examines insights from the interviews to explore the *process* of how the artists produced their compositions to understand how their sonic imaginaries of the polar regions and their oceans evolved through the creation of their pieces. By exploring the process of how the artists' own imaginaries changed through participation in the project—rather than providing a textual analysis of the individual pieces—the article responds to earlier calls I have made for more academic work which takes the holistic and transformative journey of an art-science collaboration seriously, and the relations it can foster with ocean spaces. In other words, this approach emphasises that the process is "as valuable as the art that is produced" (Whittaker, 2023, p. 4) and extends the literature on art-science collaborations beyond only textual interpretations, to illuminate their impact across multiple levels of engagement (Paterson et al., 2020; Schnugg, 2019). By attending to the processes and practices through which imaginaries are constituted—rather than solely to their outcomes—we can more effectively apprehend the "active creation of subject-space relationships" and analyse how "formerly unknown spaces and places," such as the polar regions, become "conveyed with meaning" (Pohl & Helbrecht, 2025, p. 1502) by individuals who might otherwise be unlikely to encounter them.

2. Constructing Polar Ocean Imaginaries Through Creativity

As with outer space, the polar regions and their oceans—though inaccessible to most people—have long captured the imaginaries of populations who live far from them (Leane, 2023; Triscott, 2017). For this article, imaginaries refer to the ways in which people construct understandings of how a place is and how it is thought to be. They consist of the "stories and legends" that give "legitimacy" to collective narratives (Taylor, 2004, p. 23), functioning not only as a frame of consciousness for social life but also come to construct it (B. Anderson, 2006). In the context of ocean imaginaries, although, as J. Anderson and Peters argue (2014, p. 9), "representation can only take us so far in knowing water worlds," the imaginaries that exist in society matter because they can impact popular opinion on what the ocean is and what it can be (Steinberg et al., 2015). How imaginaries develop also matters as they are inherently contested and never politically neutral, with certain narratives dominating discourse, marginalising alternative voices and perspectives (Levy & Spicer, 2013; P. Roberts et al., 2016). Imaginaries, therefore, become important mechanisms through which populations create—or fail to create—connections with places. It is thus vital to understand what Jessop (2010, p. 339) calls the "meaning-making instruments" that are used to maintain and uphold imaginaries within social life.

Once such meaning-making instrument is art. How artists tell stories about the sea influences how it lives in the cultural imagination (Mathieson, 2016). Because polar ocean spaces are inaccessible to most people, the stories told about them are often constructed either by a select few or by individuals likely to never experience these environments firsthand (Steinberg, 2014). As a result, the imaginaries that emerge presuppose the improbability of most people's direct physical contact with these regions (Roldan & Nielsen, 2022). Access to these spaces for artists is generally limited and unless they are Indigenous to—or living in—the Arctic, or are granted a commission to visit either poles—such as The Arctic Circle residency program, a yearly expedition which sails to the Arctic with a team of “international artists of all disciplines, scientists, architects, and educators” (The Arctic Circle, n.d.)—only a small number have the privilege of working directly with the materialities of these environments (Jackson, 2019; Nielsen et al., 2025). Consequentially, art–science collaborations—where artists and scientists work together to share data and think through scientific topics via a creative lens (Jung et al., 2022; Whittaker, 2023)—can provide an indirect method for those who do not have access to these regions to come into contact with their materialities. Thus, these collaborations contribute to constructing new imaginaries of polar and oceanic spaces by shaping connections between science, society, and the sea, in “excess” far from the oceans' depths (Peters & Steinberg, 2019).

When discussing how art–science collaborations contribute towards the construction of polar imaginaries, it is important to clarify what is meant by polar regions. These regions can be defined in various ways depending on legal, scientific, social, and cultural perspectives, but are generally referred to as the areas around the North and South poles, including the Arctic and Antarctic oceans and territories, respectively (Polar Region, n.d.). In popular imaginaries of the climate polycrisis, the polar regions are often homogenised, grouped alongside “deserts,” “rainforests,” and “coral reefs” as globally recognised “threatened environments” at the forefront of climate change (Hansen, 2019, p. 3). Imagining the polar regions as a singular entity, however, has complex social and cultural consequences. On the one hand, it can obscure the specificity of place and the diversity of issues within each region, marginalising, for example, the stories and lives of local and Indigenous people in the Arctic and those who have cultural ties to Antarctica (Agsten, 2021; Dodds & Woodward, 2021; P. Roberts & Howkins, 2023; Wehi et al., 2022). On the other hand, conceptualising them together under the term “polar” can symbolically unite these two critical places at the forefront of cryosphere politics, fostering connections of solidarity and inspiring climate action and consciousness (Mamzer et al., 2021). Accordingly, when this article refers to the polar regions collectively, it does so whilst recognising the key differences between them: most notably that the Arctic is home to four million people, and the two regions differ in their governance structures. At the same time, it acknowledges their shared characteristics: their symbolic roles in a rapidly changing cryosphere, their importance in global politics and cultural discourse, and their aesthetic similarities in how they are represented and imagined, as will become evident throughout this article (Bloom, 2022; Nuttall et al., 2018).

This tension is important to acknowledge when considering how artistic projects contribute to the imaginaries of polar worlds. In the Arctic, Indigenous communities have been creating ocean-informed art for generations (Aamold et al., 2017; Ellis et al., 2015; Hessel, 1998). Consequentially, any discussion of what polar art is and what it can become must recognise the diverse contributions that emerge across different territories and scales. This raises important ethical questions: Who gets to contribute to polar art? Whose work is discussed? Who gets access? And should more polar art be created if doing so risks reproducing various forms of exclusion? Some have even suggested that Antarctica should be left free from

artistic or further interpretation, to preserve the possibility “of walking the other way, not exploring any further, not taking any more pictures, not allowing any more tourism, not collecting any more information” (Jijón, 2022, p. 107).

This article argues, however, that art–science collaborations are vital interventions for building “a new cultural commons” (Bloom, 2022, p. 5) of engagement with the polar regions and their imaginaries, enabling participation by multiple actors across multiple scales—and that the term polar is useful for doing so. Such collaborations are a crucial means of diversifying access to locations that are central to the environmental futures of everyone on the planet. One of the motivations for creating the Polar Sounds project was the belief that sharing scientific data is a key way to open avenues for people from diverse backgrounds, from all over the world, to engage the polar regions without having to visit them. This approach democratises science and scientific data, whilst provoking wide-ranging conversations about some of the most pressing environmental challenges the polar regions and their oceans face (Whittaker, 2023; Whittaker et al., 2024). In other words, sharing scientific data that is fundamental to environmental futures with a broad range of participants creates new forms of connection that expand the possibilities of what this data can be and what it represents. As Steinberg et al. (2015) argue, imaginaries are never fixed; we must attend to the various ways they are continually being made and remade. Thus, analysing art–science projects contribute to understanding the fluid and continually evolving nature of polar imaginaries.

3. Sonic Imaginaries of Polar Worlds

The roots of the word imaginary derive from the word image (Grimshaw-Aagaard et al., 2019), and when discussing polar imaginaries, it is unsurprising that visual perspectives dominate, while sonic imaginaries are less recognisable in popular consciousness (Coutu et al., 2024). Returning to the question posed earlier about describing polar aesthetics, imagining what the polar regions and their oceans *sound* like to you is likely to be far more difficult. What you might describe is a place of silence, perhaps listing the sounds of the wind, prominent mammals, or even the ice (Martin, 2015). However, sound is a fundamental component of polar marine life above and below the waterline, with many species relying on it for communication, navigation, and reproduction (Thomisch et al., 2016; Van Opzeeland et al., 2013). Sound is also a crucial tool that scientists use to understand the polar regions (Llobet et al., 2023) and—as in many other oceans in the world—the polar oceans are becoming louder due to increased human activity (Duarte et al., 2021). Sound is thus an important sense to consider when discussing polar imaginaries.

From a cultural perspective, increasing attention is being given to sound as an important signifier for understanding polar relations, with many of these accounts focusing on the role of music in shaping polar imaginaries (Griffiths, 2015; Nielsen et al., 2025). This includes music created by local and Indigenous communities (Aubinet, 2023; Cocq & Dubois, 2020), music played by sailors and research scientists during expeditions (Watson, 2015), and music later inspired by the “heroic age” of exploration (Wiesel, 2012). Moving on from music, other studies have explored the sounds of daily life, including the sounds from inside and outside polar living quarters (Pharaoh, 2015). More recently, artists and humanities scholars are engaging directly with acoustic data collected in the Arctic and Antarctic oceans to create and contest understandings of polar ocean relations (Dobrin, 2021; Whittaker et al., 2024). Sound artists such as Alie Giles, Andrea Polli, Paul D. Miller (DJ Spooky), Jana Winderen, Daniel Blinkhorn, Douglas Quin, Chris Watson, Max Eastley, and Cheryl E. Leonard, among many others, have made significant contributions

through artistic interpretations of polar acoustic data (Giles, 2015; Gilmurray, 2020; Philpott, 2020). These projects, however, typically involve artists travelling to the Arctic or Antarctica to collect the sounds themselves (Samartzis, 2015) and are therefore shaped by the perspective of visitors to the regions. This article, however, focuses on a unique art–science project, Polar Sounds, which instead brought recordings from the Arctic and Antarctic oceans to a large number of artists from around the world, without requiring them to leave their homes. The artists were not only given access to a distinctive collection of polar ocean recordings, but were also given the freedom to compose whatever they wished using the sounds. Accordingly, this article explores the imaginaries the artists held of the sonic world of the polar seas before participating in the project and then how they subsequently developed through the works they created.

4. The Polar Sounds Project

The Polar Sounds project emerged from an ongoing art–science collaboration between me, an artist-researcher, Ilse Van Opzeeland, an acoustic scientist, and marine geographer Kimberley Peters. We have been working together to explore how art–science collaborations can be used both to create opportunities to think differently about and with the ocean and ocean science, and how these approaches can be shared with wider audiences for the purpose of science communication and public engagement (Whittaker, 2023, 2024; Whittaker et al., 2024, 2025). During early discussions while planning potential art–science projects, one idea we wanted to investigate was what would happen if some of the acoustic data collected from the polar oceans at the AWI OZA were shared with musicians and sound artists from around the world. We therefore sought answers to some of the following questions:

Could we discover how familiar non-scientists are with the soundscapes of the polar seas? Could we understand not only how artists interpret these sounds but also what they do with them and produce from them? Could we use that as a basis to both shift the sounds from the lab to the wider world, and to allow different publics to engage those sounds not just through listening, but creating? What might these endeavours in creativity tell us about how people understood and understand the ocean, before and after the creative process? This, in essence, was the basis of Polar Sounds. (Whittaker et al., 2024, p. 4)

To develop the project, we partnered with Cities and Memory, one of the world’s largest sound-mapping websites, and through this collaboration, a call for artists was publicised. A total of 103 artists from 31 countries were selected to take part in the project, ranging from professional to amateur and everything in between. Polar Sounds is therefore a unique art–science project because of the unusually high number of artists who were given access to this scientific data simultaneously.

Each artist received one sound clip from an archive that included biological sounds (such as the vocalisations of whales and seals), geological sounds (such as collapsing and colliding ice shelves), and anthropogenic sounds (such as seismic air guns and shipping noise). Snippets of these sounds can be found on the website of the [AWI OZA](#). The artists were then given three months to create a composition of their choice, and the resulting pieces ranged from songs to soundscapes to fictional narratives, among other forms. When the project launched in February 2023, it gained significant news media attention, appearing on prominent television, radio, and online platforms globally, as well as being widely shared across various social media platforms. As a result, it reached a potential audience of millions (Whittaker et al., 2024). It became a

meaningful point of connection between the polar regions, the scientific knowledge produced about them, artists, and diverse publics (for an in-depth analysis of the design of the Polar Sounds project, see Whittaker et al., 2024). The Polar Sounds project remains online, and all the compositions are available to listen to [here](#). The works continue to have a new life through the Polar Portal art installation—a repurposed phone booth that houses the compositions and allows members of the public to listen in an isolated space. The Portal will travel to various locations, enabling audiences to experience Polar Sounds in situ. As such, the project and its legacy continue to evolve three years after its initial launch.

5. Methodology: Preparing for Polar Exploration

This article is not a textual analysis of the individual compositions themselves, although they will be referenced throughout. Instead, it focuses on the process the artists underwent in creating their pieces and how participation helped them navigate their sonic imaginaries of the polar seas. By process here, I do not mean the conditions that led to the creation of the project—this has been discussed in detail in Whittaker et al. (2024). Rather, it focuses on “the creative and cultural” journey the artists experienced when “embedding the scientific and technological elements in concept and knowledge creation” (Birsal et al., 2022, p. 121), into their thought process. In other words, this article examines the decision-making that shaped how the artists familiarised themselves with the acoustic data, reflecting on what their imaginaries of the polar regions were prior to participation and how these developed through creating their compositions. It illustrates how imaginaries of polar worlds are constructed and reproduced through intimate engagement with their materialities—in this case, acoustic data collected in the Arctic and Antarctic oceans. By doing so, this article follows how the artists’ experience of shaping the sounds of the frozen seas, allowed them to interact with a place which although at first “does not make sense” due to it lying “outside the normal coordinates, experiences, backgrounds, and so on, of an individual (or group of individuals) and thus might seem senseless, nonsensical, or incomprehensible,” then how through creativity, it “suddenly starts to make sense (Pohl & Helbrecht, 2025, p. 1502).

To explore this, interviews were conducted after the artists submitted their compositions—for a detailed explanation of participant selection, see Whittaker et al. (2024). Briefly, an open call attracted over 300 applicants, which was narrowed to 103 based on criteria including prior experience and diversity considerations to “ensure representation across genders and locations” (Whittaker et al., 2024, p. 4). Participation required artists to agree in principle to being interviewed. However, despite multiple email invitations sent before and after the submission of their pieces, only 63 artists—just over half of all participants—made themselves available. This highlights a common challenge faced by researchers coordinating art–science projects; for some of the artists, their sole priority was creating the work, and nothing beyond. As such, after the initial contact, we chose not to continue to pursue anyone who was not interested in contributing to the research component.

Interviews ranged from 30 minutes to two hours, depending on the availability of both the interviewer and interviewee, language proficiency, and internet constraints. All interviews were conducted online and in English. Because participants’ first languages included English, Japanese, Greek, Arabic, and Swahili, among many others, hiring translators was beyond the scope of the project. For some participants, conducting the interviews in English felt restrictive; when discussing technical or emotional elements of their work, they noted difficulty expressing themselves clearly. It is therefore important to acknowledge the linguistic

challenges of a global project and how these differences can shape the direction of conversation. Artists were based in countries including Argentina, Egypt, Israel, Wales, India, Estonia, Ecuador, Chile, Slovenia, Hong Kong, New Zealand, Brazil, Indonesia, and Kenya, amongst others. Participants with at least part of their countries being within the Arctic Circle included those from Norway, Sweden, Iceland, the US, Canada, and Russia.

The interview structure was divided into four sections. The first section focused on getting to know the artists and understanding why they wanted to contribute to the project. The second section explored the artists' familiarity with the topic. Questions addressed what they knew about the polar regions and the soundscapes of the polar seas before participating, as well as how they reacted when they first heard the acoustic data. The third section examined the artistic process and the reasoning behind their creative decisions. The final section investigated what the participants learned about the soundscapes of the polar seas through their involvement with the project and how this influenced their future understanding of the regions.

Before each interview, all participants were asked to listen to their composition, and I, as the interviewer, also listened to every piece more than once. Upon submitting their compositions, participants were also asked to provide a short-written description of their work, which I read prior to each interview (when interviews were not possible, some of these descriptions have been used instead in this article to describe certain pieces, all of which can be read on the polar sounds website provided earlier). These ranged from a few sentences to a couple of paragraphs. After all interviews were completed, they were transcribed and then coded in NVivo, with the coding structured to reflect the four sections identified above. In this article, interview data will be referred to in two ways: first, through quotations presented in text boxes, and second, within the text through smaller snippets referring to the artist's name, followed by the title of their composition in brackets. To listen to the compositions of the featured artists, please refer to the previously provided link, where you can use the search function to locate pieces by title.

6. Discussion: How Familiar Are You With the Sounds of the Polar Seas?

To understand the imaginaries the artists held about the polar regions before participating in the project, two primary lines of inquiry were pursued: First, what the artists knew about the regions and their soundscapes prior to involvement, and second, what motivated them to take part. When asked about their prior knowledge, most participants did not distinguish between the Arctic and Antarctica, instead speaking about them in similar terms. This may be because the project was titled Polar Sounds and was framed in a way that encouraged artists to think of these regions collectively rather than as distinct places. Although participants were informed that the sounds they would have access to were recorded in the Arctic and Antarctic oceans, their descriptions offered little differentiation beyond geographic location. This suggests that the artists' initial perceptions echoed broader popular narratives that often merge the two regions into a single, undifferentiated imaginary. Therefore, when analysing the interviews, it is important to consider how wider popular imaginaries of the polar regions contribute to a homogenised view of the Arctic and Antarctica, rather than treating them as separate worlds—and to reflect on the consequences of this (P. Roberts & Howkins, 2023).

Of the 63 interviewees, none had visited Antarctica, and only two had visited the Arctic Circle. One of the artist's experiences of the polar regions involved flying over the Arctic from Japan to Europe. Four participants

mentioned either visiting Iceland on holiday or taking part in an artist residency there. As a result, Iceland served as a point of comparison; even though participants acknowledged that most of the country is not part of the polar regions, they nevertheless viewed it as similar enough to influence how they imagined those environments to be. Alaska was cited in a similar way by two participants who had visited and felt its cold climate made it comparable. These comparisons suggest that weather and climate have strong “imaginative components” that shape the “natural and intangible cultural heritage” (Adamson & Rapson, 2024, p. 2) through which people who have never visited the polar regions imagine them to be.

Regarding familiarity with polar scientific data, one artist had previously used Antarctic data in a creative project, and three others had worked with Arctic data. Two additional participants explained that, through their careers as scientists, they had worked with data from the regions, though not in an artistic context. Overall, however, the majority of artists had no direct experience with either visiting or working with the polar regions. Most of what they knew came from visual or written representations—film, television, books, photography or news, and social media. Influential sources included popular films such as the *March of the Penguins*, and nature documentaries by David Attenborough, Jacques Cousteau, and Werner Herzog. When asked how they imagined these places, many offered similar responses: they envisioned ice, snow, cold temperatures, the mammals that inhabit the regions, and the idea of the poles as indicators of environmental decline and climate change. A dominant imaginary among participants was how the polar regions are unfamiliar and inhospitable places to humans. Words such as “unknown,” “remote,” “solitude,” “untouched,” “undiscovered,” and “loneliness” were frequently used (Box 1).

Box 1. Reflections on prior polar imaginaries.

I don't...you know I don't feel like I know a ton about the Polar regions! I feel like you know I'm aware that they're cold regions at the earth's pole, and the Arctic is to the north and the Antarctic is to the south, and that they're vast regions and that they're really important, and...and the...the climate and the circulation of ocean currents that kind of keep the climate stable in our world...I...because of my work, I focus a lot on climate impact, so you know sea level rise and...and melting glaciers and...and melting sea ice are something that are on my mind a lot! But in terms of like you know sort of wonder of the Arctic and the Antarctic, I sort of have this general...general idea but not that much familiarity. (Elizabeth LoGiudice, *As Above, So Below*)

Probably the...high fragility and the loneliness, but things make a lot of sense to me, you know...it's a place that it's not made for humans, you know! And I have a high respect for the place that they're not made for humans, in which ok, you must to go there, put all your equipment and you must to survive there but it's not something you live, with, very spontaneously...But this feeling of loneliness and fragility especially you know, like an image, like a poetry, like a lyric image, you know, this is what I feel there. (Rodrigo Romero-Flores, *Under Threat*)

I think one thing is like the solitude in a way. Because I'm a quite anxious person or, yeah, probably not an anxious person. I'm living in an anxious space and it's...[laughs] it's been a long anxious space! So like being alone in a place is just...sort of like psychological situation that interests me in a way and the...yeah, the solitude probably, and like how wild and remote these areas are. And yet like on the same globe. The extremes I think also like fascinate me in a way, the cold and the darkness and then the light, like how...because it's really an extreme environment. (Nathalie Rosenbaum, *Translatlantilexic*)

These reflections illustrate how the longstanding “metaphor of the continent as a blank-page” (Leane, 2007, p. 68) continues to influence people's perceptions, imbuing the regions with a sense of mystery that shapes many individuals' relationships with them (Brackett, 2010). This romantic tension between the known and

unknown—so prominent in polar literature for centuries (Leane, 2015; Wilson, 2003)—clearly lives in the imaginations of people with no direct connections to these places. Many artists also shared that because the polar regions were perceived as unlike anywhere else in the world, they held a particular intrigue. This was often cited as a key motivation for participating in the project. The regions’ perceived “barrenness” and their being “unlike anywhere else on earth” (Yao, 2024, p. 4) underscore their power to capture public imaginations, and inspired many of the artists to want to engage with the regions’ acoustic materialities. Yet, this same imaginary also highlights the challenge noted earlier of depicting the Arctic and Antarctica together: viewing the regions as barren and uninhabited risks erasing the 4 million people who live within the Arctic Circle and those who have continuing cultural connections to Antarctica.

Absent from these imaginaries was the volumetric nature of polar geographies (Squire, 2017; Steinberg & Peters, 2015; Yao, 2024), and, consequentially, their sonic dimensions—particularly those beneath the waterline. When asked what these regions and their oceans *sounded* like, most participants had limited knowledge. Some mentioned whale sounds, encountered through “whale therapy” recordings, and two participants referred to Roger Payne’s 1970s LP songs of the Humpback Whale. It is notable that, just as visual imaginaries of the Arctic have become intertwined with the image of the polar bear (Born, 2018; O’Neill, 2022), sonic imaginaries of the polar seas were similarly linked to a charismatic iconic mammal: whales. Although beyond the scope of this project, this raises questions about why certain species become pervasive symbols of ocean soundscapes, what the consequences of this are, and how such associations might be used to foster emotional connections with distant places central to climate change action (O’Neill, 2022; Whittaker et al., 2025).

Because this was a sound art project, some participants also referenced prominent sound artists who have worked in the polar regions, such as Chris Watson and Jana Winderen, and a few vaguely recalled hearing polar sounds in nature documentaries. Overall, however—and perhaps surprisingly, given that the group included sound artists, musicians, and individuals interested in soundscapes—familiarity with what polar environments actually sound like was largely absent from their imaginaries. At the outset of the project, their sonic imaginaries of the polar regions centered on notions of places that were “untouched,” “undiscovered,” and “quiet.” This perceived absence of sound was tied to an idea of the polar regions as pristine and unspoiled—forming what has been described as a “sonic utopia” (Jäggi, 2021). This aligns with existing research showing that imaginaries of the polar regions are often dominated by visual landscapes (Mamzer et al., 2021), with little attention paid to sound or what occurs beneath the waterline. As a result, when considering the impacts of polycrises on ocean spaces, most artists entered the project with little awareness of the politics of sound and had no emotional, physical, or intellectual connection to it. In other words, the dominant sonic imaginary of the polar seas was that of a vast space largely silent, isolated, and disconnected.

7. The Act of Listening

Before receiving an individual sound to work with, participants were able to listen to every clip in the collection and rank their top three preferences. After hearing the sounds, many emphasised not only their unfamiliarity with the soundscapes of the polar seas but also how different the recordings were from what they had imagined. Most participants were surprised to learn how busy and sonically rich the oceans are, and many were unaware of the acoustic impacts of anthropogenic noise in these regions or had not considered the issue in depth. Upon listening to the sounds for the first time, participants consistently described them

as “otherworldly,” “alien,” and “mysterious.” These initial encounters elicited strong emotional reactions: some artists laughed, others mentioned getting “goose bumps,” and many described feelings of “awe,” “fear,” “loneliness,” and “inspiration.” Thus, the sounds created a visceral and emotional connection between the data, the polar regions, and the participants—unlike anything they had experienced before (Box 2).

Box 2. Reflections on polar soundscapes.

I wasn't aware of the kind of drilling sounds and those kind of...and the sounds of ships and that kind of thing, because I listened to all of the recordings, all fifty of them when I started the project, and I'm glad I did that, just to get a sort of idea of the whole thing. And that was...that was quite an eye-opener really to hear all of the sounds....It's a noisy place, it's a very populous place, and I don't...you don't tend to think about that, being a land-based creature! (Claire Pearson, Briefest Encounter)

You view like all the footage of these Arctic regions on television and they look so sparse and bare, but you listen to some, particularly the animal, the Whale song and stuff like that, just the place is crowded, it's just teeming with life underneath, there's just so much happening, it's fascinating, you know and it's like you know this is just...this is a city for a different species. (Cárthach Ó Nuanáin, What Lies Beneath the Ice Is Sacred)

But yes, I immediately began to imagine like this is...a very special context, you know, like this is not an everyday soundscape or this is not a...these are not everyday sounds for me. So it was quite new, it was quite surprising. (Jorge Martinez Valderrama, Voces en el Mar Polar)

Yeah, I mean...ok, so like for...it...it sounded like very ethereal and very...magical, you know, like there...and that one in particular I really liked, there was a lot of like aliasing and like static in it. And so there was like some...it felt like it was like sort of a recording into like another world. You know like if we were able to record the like ghost world or something like that. (Daniel Koestner, Balaena)

Oh, I mean it's such a longing...it's such a beautiful, longing...mysterious voice, you know that I guess...I guess my first...impulse was intrigue and wonder and astonishment, which I feel like we need in our lives a little bit more! This curiosity, right? So I was very curious. (Jane Rigler, In Reverence of a Blue Heart)

These reactions demonstrate how sound is a deeply embodied medium that can move us both physically and emotionally (LaBelle, 2007). In this project, sound offered a way to experience the materialities of the polar regions not only externally but internally within the body (Coutu et al., 2024). Given the central role of emotions in understanding environmental polycrises, ocean spaces, and changing polar environments (Levi & Peters, 2024; Lewis & Broadwell, 2024; McKinley et al., 2023; Thomas-Walters et al., 2025), it is important to emphasise how sound provided a unique pathway for forming a connection to these unseen places. Even before the artists began shaping the recordings, it was evident that the “act of listening” offered a powerful, “embodied and immersive” experience that “transported” them deep into the polar seas (Barclay, 2022, p. 38).

When selecting which sound they wanted to work with, the artists' reasons for choosing particular recordings varied. For many, the choice began with an instinctive emotional reaction—they simply liked the sound. For others, the origin of the sound was what intrigued them—the species or source made the recording appealing. Some participants were drawn to the technical qualities of the sound—its tone, frequency, pitch, percussive qualities, or whether it contained a “natural” melody. For these artists, the sound's origin mattered less than its sonic characteristics. Others chose or avoided sounds from which they could extract a broader political or environmental meaning. For example, Tara Downs (The Physicist and the Selkie) intentionally avoided certain recordings, such as the collapsing ice shelves, because they found them

emotionally “triggering” and instead preferred to work with something more melodic and less politically charged. Others, including myself, were drawn to these very sounds. In my case, the seismic airgun appealed because of its emotional resonance: to me, it sounded like a war on the oceans and I wanted to explore that idea in my piece *First Contact*. This underscores how both negative and positive emotions are central to how people understand and relate to symbolic places key in environmental conflicts and how sound can be an important catalyst in provoking these responses (Brosch, 2021; Kovács et al., 2024).

Listening to the recordings thus made the artists “accountable to the entangled demands of the historic present” (Wright, 2022, p. 2) of the polar regions, offering powerful points of contact for recognising the importance of the changing soundscapes. The diversity of emotional responses also illustrates that listening is a highly varied process; no two people hear the sounds of the polar seas in the same way. This reminds us that as Howes (2019, p. 26) states, the “perception” of sound “is a cultural act, not simply a psychophysical phenomenon,” and when considering how broader publics might interpret unfamiliar scientific acoustic data, it is important to recognise that sonic imaginaries of “sustainable climate” (Barron & Losleben, 2025, p. 202) will be shaped, perceived, and acted upon differently depending on how such recordings are related to. This shows how, for those who have no connection to the polar regions, field recordings can become “mutable documents” (Wright, 2022, p. 150), which can significantly shape emotions, transforming what is initially collected to be scientific data into being tools of inspiration and embodied connection (Whittaker et al., 2024).

8. Sonoshaping the Polar Seas: How Did You Create Your Piece and Why?

Once the artists received their sound clips, the extent to which they familiarised themselves with the source and the meaning of the sound depended on how much research they chose to undertake. Most conducted a brief internet search to find images or videos related to the sounds’ origins. Some engaged in more in-depth research, taking time to learn as much as possible about the sound and its context, drawing on policy reports, news articles, and academic papers. A small number, however, preferred not to research the sound at all; they wanted to respond intuitively, without additional information (Box 3):

Box 3. Reflections on how much the artists wanted to know.

No, no, I was...it was more instinctive, and it was all suggested by the sound...The sound created images in my mind and in my ears. (Carlos Devizia, *A Taste of the Endless*)

Ah, for me, I let the sound guide me because the polar...the earth poles actually were something new and were something relatively new to me. And for that...that sound was actually you know like a guide, like a guide into which now it would lead me now to a place where I have never known, and it’s an unfamiliar territory, into which no....So you’re actually discovering things that are actually new, but then you haven’t known about them. So for me, it was that guide, the sound was a guide for me to the polar...to the poles actually, to Antarctica and the Arctic. For me, it prove...it proved to be a guidance and a...I wouldn’t call it a leader, but it led me into finding that...that piece of music. (Wahinya Mwirikia, *Thayù (Peace)*)

Yeah, I little bit, yeah, I didn’t go in-depth or anything, but yeah, I did want to read up about this particular seal and you know learn a bit more. Because I like to maybe to try and incorporate some of that knowledge into the piece, you know. And I think that was what I was going for, or at least was in my mind when I was putting together the piece, is that this seal is...not a lot is known about it, it’s only found in a relatively small area I think. So that I...that kind of...idea of it being a bit of a mystery, that was something that I was trying to like incorporate into my piece. (Adrian Williams, *Once More, Ross Seal*)

Box 3. (Cont.) Reflections on how much the artists wanted to know.

Yeah, yeah, I did some research because I wanted to emulate somehow like the organic interaction of the animal in its community, and in relation with its environment, with its context. So...yeah, I wanted to know...I mean I had these sounds that were very interesting for me, but still I search for...for many more, like I tried to...to find if there was something else that this seal would do with the sound, and how and when you know. So yeah, I wanted to learn what they eat, how they sleep. So yeah, I tried to emulate a little bit of that...like routine in the piece, like I tried to make it sound like a...a soundscape that is...we'll get to that, but something that was very natural and organic. (Jorge Martinez Valderrama, Voces en el Mar Polar)

This variation highlights the different ways the artists' compositions were shaped—or not—by their pre-existing polar imaginaries, regardless of how limited these might have been. Some relied solely on their prior knowledge, creating compositions without researching what polar soundscapes are or might be. Others expanded their understanding through further research, incorporating this new knowledge into their creative process. In other words, some artists created a world in response to the sound based on what they already knew, whilst others enriched their knowledge. When considering how non-scientists engage with scientific data and the materialities of the polar seas, the amount of knowledge they possess—and are willing to acquire—significantly influences how they interact with it and what they can imagine it to be—or not be. As Grimshaw-Aagaard et al. (2019, p. 1) note, how we imagine places to be sonically has “its genesis in past experience” and so when understanding how people with no direct experience of polar environments form place-attachments to them, it must be emphasised that imaginaries are fluid entities linking people in particular patterns of “obligation, desire and commitment, increasingly over geographical distances of great length” (Urry, 2002, p. 256). It also shows that, once in the hands of the public, scientists cannot control what happens to their data (Whittaker, 2024) and that acoustic recordings become “vulnerable conduits of knowledge” in which “their partial and perforated status leaves them open for use and abuse” (Wright, 2022, p. 150). In other words, the narratives that emerge from such data are not only unpredictable but remain rooted in the humans who generate them, along with their accumulated experiences and personal knowledges.

9. Multi-Sensory Imaginaries

The compositions produced were highly diverse, ranging from musical pieces (Diana Chester, *Whale Walking*; Mr Sakitumi, *Majestic Mammalia*; and Elissa Goodrich, *Sounding with the Whales*), works of spoken word (David Lol Perry and Fyfe Dangerfield, *Stand By* and Ana Mora, *Reflections on the Seals*), songs with lyrics (Hauser, *Sealed*), to underwater jam sessions (Baying Ridges, *Sea Creatures*), and even a dystopian play for voices (Geraint Rhys Whittaker, *First Contact*), to name only a few. Collectively, these works demonstrate how artistic creativity provides multiple ways of interpreting acoustic data, creating “a mosaic of applications” (Wright, 2022, p. 150) that stretch the boundaries of what polar oceanic data is imagined to do and represent (Paterson et al., 2020). Although one condition of participating was that each composition incorporate at least part of the original sound clip, artists varied widely in how they edited the material. Some believed the clips should be altered as little as possible in order to, as Nathalie Rosenbaum (Translatlantilexic) noted, remain “true” to the sound and do it “justice.” These participants felt that altering them too much would, as Wahinya Mwirikia (Thayù Peace) stated, change the “vibe.” Some artists wanted the original sound to remain the focal point of the piece, in order to prevent the sound from becoming, as Óscar Mascareñas (Deep Blanco) put it, “an ornament” or mere “addition” to a broader musical composition.

For others, the sound served more as a catalyst for imagining new worlds and futures for ocean acoustics (Geraint Rhys Whittaker, *First Contact*), and for some artists, fidelity to the original recording was less important. In this sense, participants approached their compositions in diverse ways: some treated the process as a conversation with the sounds themselves; others constructed imagined worlds they believed the sounds could inhabit, informed by pre-existing imaginaries of polar soundscapes; and others developed what Jane Rigler (*Reverence of a Blue Heart*) described as new “dialogues” for envisioning alternative worlds, or what Elissa Goodrich (*Sounds with the Whales*) termed “dreamscapes” in which polar sounds might reside. This diversity highlights how sonic sources can generate radically different creative outcomes for polar imaginaries and that artists negotiate varying degrees of fidelity to the original recordings, from careful preservation of their sonic “integrity” to more transformative reinterpretations that used the sounds as prompts for speculative or narrative exploration.

However, sound alone was not the only sense which influenced the shaping of the pieces. For most of the artists, having what Amanda Stuart (*Oceana—The Underwater World of Orca and Ross*) calls a “visual soundscape” to help paint an “aural picture” was important when deciding how to approach their pieces. As many artists explained, because they had never experienced polar worlds firsthand, establishing a visual understanding was essential to their creative process. They would often refer back to whatever visual imaginaries of the polar regions they could find as a foundation for creating sonic ones. This underscores that, because imagination involves “high-level cognitive ability that can occur in different sensory modalities” (Krüger et al., 2024, p. 1870), the ways people construct imaginaries of distant ocean spaces are multi-sensory and multidimensional; they are not independent of other lived imaginaries or sensory experiences formed elsewhere. In other words, because multisensoriality is vital for “stimulating creativity” (Cimier et al., 2025, p. 6), it must be highlighted that the sonic imaginaries of the polar seas created in this project were also shaped by existing visual imaginaries of the polar regions. As such, although the recordings collected in the polar oceans may contain “novel qualities geared toward sound,” they always pass through “an assembly of multisensory, technological, and contextual production” (Wright, 2022, p. 150). In the same way that atmospheres in physical space can be curated through various sensory experiences such as sound, light, touch, and smell (Böhme, 2016; Spence, 2022), when we consider how sonic imaginaries are portrayed and perceived in times of polycrises—particularly by those who cannot experience them in situ—we must remain attentive to their multidimensional and multi-sensual qualities. That is, when understanding how artists imagine the polar worlds sonically, we must do so across the senses, paying attention to the importance of mental imagery and the multiple “representations accompanying the experience of sensory information with external stimulus” (Cimier et al., 2025, p. 1).

10. Polar and Un-Polar Moods: Instruments of Imaginaries

Ranging from hopeful to melancholic, and from dark to curious, the compositions became metaphors for emotional extremes. Because “emotional experience” is crucial for sound perception (Asutay & Västfjäll, 2019, p. 384), choosing the right sound can either complement or disrupt how polar imaginaries are perceived and portrayed. For many artists, the key to shaping these perceptions lay in the instruments they selected. Some instruments were chosen because they aligned with the expectations artists held about what a sonic imaginary of the polar seas should sound like, whereas other instruments were considered “un-polar.” For example, Carlos Devizia (*A Taste of the Endless*), a saxophone player, refrained from using his main instrument because he felt it did not fit the mood of the piece. By contrast, for Nicolo Scolieri (*Surface Feeling*), the flute was a natural

choice for evoking ice, snow, and polar worlds because of its “pitch” and “fluidity.” The diverse use of the piano across the compositions further illustrates how instrument choice shaped the emotional atmospheres attached to sonic imaginaries of polar worlds. For Pria Wood (*Meditation on Erignathus*), introducing piano was a difficult decision because it felt “manmade,” in contrast with the sounds of the bearded seals. For Ana Mora (*Reflections on the Seals*), however, the piano offered an “intimate,” “calm,” and “peaceful” tone. Meanwhile, for Daniel Koestner (*Balaena*), the piano was the perfect instrument to “carry” the bowhead whale’s voice, with the remaining instruments forming “the space that the whale would exist in.”

These examples suggest that musical instruments—their timbre and acoustic properties—were fundamental in constructing the “emotional landscape” (Liu et al., 2018)—and in this case, *seascape*—of the compositions. By attributing certain instruments as “ill-suited” (Schutz et al., 2008, p. 127) and privileging others, the artists, through selecting the expressive palette of their pieces, were making clear decisions over how the sonic atmospheres of the polar regions should and should not sound. This process allowed them to manipulate the emotional resonances attributed to these unfamiliar places by crafting the specific narrative they wished the acoustic data to communicate. This suggests that although most artists were unfamiliar with the soundscapes of the polar seas, the emotional atmospheres they created were strongly influenced by preconceived imaginaries shaped by existing representations in popular culture. Dominant imaginaries influence how people think a place should or should not be, and when imagining a polar soundscape, many artists relied on the “acoustically external” world they already knew and lived in (Riddoch, 2019). Thus, although they were conjuring up new *submersive* atmospheres of the ocean deep using unfamiliar data collected below the waterline (Whittaker, 2025), it was the visual dominance of what they knew above the water that often guided—and ultimately shaped—the emotional trajectories of their compositions.

11. Spatialising Polar Connections

Because the artists were unable to rely on personal connections with the regions, they used familiar reference points from their own lives to shape a sense of place attachment—the “interplay of emotions, knowledge, beliefs, and behaviors” (Junot et al., 2018, p. 50)—that creates familiarity with places they had never visited. Personal spatial references were particularly prominent, as the artists drew on their own sense of place to open conversations with the ideas the sounds inspired. For Hossam Hilal (*Hoot*), the guttural and rhythmic call of the minke whale took him to Wādī al-Ḥītān (the Valley of the Whales) in his country of Egypt, inspiring him to connect the Arctic desert to the deserts of his home landscape. Using the daf, a drum widely utilised in his culture, he echoed a sound similar to that of the minke whale, providing a constant pulse throughout his piece, linking place, tradition, and the distinct environmental histories of the two regions.

In my piece *First Contact*, after likening the sounds of seismic airguns to bombs exploding and wondering how this might impact whale populations, I turned to the audio archives of my home city, Swansea. There, I found oral histories of local residents describing the impact of the bombings during the Second World War. Drawing on these recordings, I created a fictional narrative in which the whales themselves speak—using the archival human voices as if they were the voices of the whales to describe the impact the seismic airguns had on them in the ocean. And for Gardika Gighi (*Unknown Arctic Dreams*), the Javanese gong, a central gong in a gamelan orchestra, became a way to connect environmental issues in his home country of Indonesia with those in the polar regions. The spatial reflections highlighted in these examples became what Pohl and Helbrecht (2025, p. 1490) call “geographical sensemaking” tools used by the artists to negotiate their polar imaginaries. Thus,

the process of making the compositions and engaging with the acoustic data on an intimate level produced unique multi-spatial imaginaries and a “relational way through which the subject situates spatial environments, relates them to their own self, and positions themselves regarding wider social and political issues” (Pohl & Helbrecht, 2025, p. 1490).

The spatial references that the artists used to shape their compositions were likewise echoed in the additional sound recordings they incorporated, which were drawn from non-polar imaginaries. Pratyay Raha (*Crosswave*) used recordings of rain in Kolkata alongside the sound of the crabeater seal to imagine what it might be like if the seals were present in her city. Gabriel Edvy (*The World Is Passing Away and So Is Its Desire*) mixed in wolf howl field recordings from a wolf conservatory in New York to represent the sound of a wendigo—an evil mythical creature in Algonquian folklore—thereby linking ideas of environmental destruction across spaces and cultures. When Jessica Rowlands (*Rhythms of the Ice*) first heard the sound of narwhals, she sensed a natural rhythm in their calls. To highlight the tensions between animal sounds and human-made ones, she juxtaposed the narwhal recordings with pre-recorded sounds of weaving machines. And for Eva Q Månsson (*Sirens of Antarctica*), combining the sound of the ross seal with that of a war siren produced a composition intended as a “warning” about the dangers of human-induced climate change.

Thus, the compositions and their associated imaginaries were not isolated; they were woven together through multiple spatialities and materialities. In other words, when polar imaginaries are created by those who have never visited the regions, they are not independent of other sonic imaginaries; they are multifaceted, interconnected, and relational. This shows how the artists’ engagement with the sounds of the polar seas went far beyond simply responding to scientific data. They developed multidimensional relationships with the recordings, drawing on an array of spatial and personal imaginaries that extended beyond the bounds of immediate polar geographies. This underscores how sound holds what Aceska and Doughty (2023, p. 1374) describe as a “spatializing capacity” to imagine and reimagine the “symbolic and material boundaries between people and spaces.” Therefore, when considering sonic imaginaries in times of environmental polycrises, it is crucial to remember that reacting to sound is a process that is “constantly creating an auditory image that situates us within our current environment and mediates our relationship to it and its other inhabitants” (Truax, 2019, p. 654). Thus, when exploring wider polar imaginaries—how they develop, how we relate to them, and who has the opportunity to shape and portray them—they cannot be separated from personal politics and positionalities.

12. “I Can Reach Around the World With my Slippers On”: Post Project Reflections

Whilst most of the artists initially participated in the Polar Sounds project out of curiosity and fun, the process ultimately became a transformative experience for many in diverse ways. Although, as with all projects, some artists took part and then moved on without much further reflection, for the majority, involvement in Polar Sounds inspired a desire to learn more about the polar regions and their oceans. As Vincent Kather (*Acoustic Encounters of a Fin Whale*) explained, a “curiosity was woken” within him, and for Nicole Vereau (*Profunda Señal*), the project motivated her to study more about the origin of the sound that she was given. As she stated, she had never seen a whale in her life, and through participating in the project, it helped her “understand the real scale of this...it... gives me more...motivation to study whales!”

For others, the project rekindled an existing interest in the regions, allowing them to access imaginaries beyond their previous reach, and to engage with them at a much more embodied level. As Nicolo Scolieri (Surface Feeling) noted, he felt connected to the polar regions and their oceans, even though, as he simply put it, “I’ve had no connection up until this point.” Being able to listen—and then work—with often unheard sounds of the polar seas was a visceral experience that forged intimate relations both with the sounds themselves and with the spatialities of the polar regions. This was emphasised by Oscar Mascarenas (Deep Blanco), who, although he did not necessarily learn new information, described forming an embodied connection both “through the sounds of the seals” and through the sounds “that I created.” For him, the project gave “the opportunity to be there somewhat through my ears, and my imagination....it has made this vastness very real, very physical.” And for Simon Holmes and Pete Nash (Ghost Nets), participation revealed the threat of sound pollution in the polar oceans; in their words, it “opened” their eyes and encouraged them “to think about pollution in a very different way.” For some, the project inspired a desire to visit the polar regions; for others, having access to the data without physically needing to travel there changed their minds about wanting to visit. In other words, becoming familiar with the materialities of the polar seas was enough for some artists to conclude that certain places should remain off limits, out of respect for the uniqueness of these environments. And for others, participating in the project gave them an invaluable opportunity to politicise their pieces and use them as a form of audio activism. David Lol Perry and Fyfe Dangerfield (Stand By) felt it was their duty to participate in order to “weaponise the sound,” and Amanda Stuart (Oceana) hoped anyone listening to her piece would “stop, listen, and think.”

These post-project reflections, therefore, emphasise the power sound artists can wield in creating works that can “encourage others” to:

Open our ears to ecological issues, to listen to and understand the warning signals, and to explore ways in which we might learn to live more harmoniously within the ecosystems of which we are a part, and upon which we all depend. (Gilmurray, 2020, p. 458)

By participating in the project and having control over how their sonic imaginaries were shaped, the artists gained a sense of agency, feeling like they could contribute to contemporary and future conversations surrounding ocean health and polar futures (Gabriel, 2014). As such, through becoming intimately familiar with the sounds of the polar seas, most artists felt more aware, engaged, and connected to the polar regions, and many expressed that their sonic imaginaries shifted—from viewing the polar seas as acoustically sparse to recognising them as diverse and acoustically rich.

13. Conclusion: A Multi-Dimensional Future of Participatory Polar Imaginaries

As the oceans play a pivotal role in understanding climate polycrises, the polar regions are—and will continue to remain—critical in these discussions. Not only are they key sites for regulating atmospheric and oceanic processes (Mukherjee, 2024), but they also hold an influential and distinctive place in popular environmental and climate imaginaries (Steinberg et al., 2015). Because both the Arctic and Antarctica are largely out of physical reach for most of the world’s population, storytelling remains vitally important for shaping the imaginaries of these regions (Alexander et al., 2020; Glasberg, 2012; Pincus & Ali, 2016). However, their physical inaccessibility often means narratives are controlled by a limited few. This article responds to calls for more projects and research that bring the materialities of the polar oceans to people who live far from

them (Leane & Marx, 2025), by examining what happens when acoustic data from the Arctic and Antarctic oceans are shared with artists around the world who are invited to compose works about them, from the comfort of their own homes.

In summary, four significant points emerge from this article. First, before participating in the project, the artists knew little about the diversity of ocean acoustics in the polar regions or about the detrimental impact humans are having on the soundscapes of the sea (Duarte et al., 2021). Although the effects of anthropogenic noise in polar environments have long been examined (Duarte et al., 2021; Erbe et al., 2025; Van Opzeeland & Boebel, 2018), greater attention needs to be paid to understand why the politics of sound are so absent from public cultural imaginaries of the poles and what the consequences of this omission may be. Second, sound is an effective medium for creating embodied, emotional connections between diverse publics and scientific data (Whittaker et al., 2024). The Polar Sounds project demonstrates that engaging with sound—and being allowed to shape with the materialities of ocean spaces (Dobrin, 2021)—offers a visceral way to relate to polar environments and to emotionally register the environmental crises facing our oceans. When physical distance makes first-hand understanding extremely difficult, sound can forge connections and render otherwise inaccessible places accessible (Helmreich, 2016). The process of playing with sonic imaginaries of the polar seas proved to be both transformative and educational, fostering meaningful engagement with scientific data and creating a deeper understanding of the politics of polar spaces. It also provided the opportunity to shape multiple realities of what the sonic imaginaries of the polar seas can be, thus providing a moment to use creativity as a tool for pondering various environmental pasts, presents, and futures.

This brings us to the third point emerging from this research: how people interact with and construct imaginaries of distant polar oceans is inherently multi-sensory and multi-spatial. In other words, to understand the “effects and emotions of socio-natural engagements” (Barron & Losleben, 2025, p. 192), attention must be paid to how imaginaries intersect multiple sensory expressions. Although participants had limited prior knowledge of the soundscapes of the polar seas, their creation of sonic imaginaries was nonetheless shaped strongly by pre-existing visual imaginaries with what a polar soundscape should—or should not—sound like. Whether reflected through the instruments selected or the emotions and moods conveyed, many artists noted that certain atmospheres felt “more polar” than others. Dominant imaginaries of the polar regions clearly influenced the final compositions, indicating a need for further research into how and why such imaginaries become established. Artistic engagement, however, became a way of exploring these dominant narratives, but also challenging them through allowing the individuals to explore what the regions should and should not sound like. Thus, when considering how polar imaginaries are constructed, I suggest we take into account the many ways that different senses interact; even in the creation of sonic imaginaries, visual imaginaries are highly influential. This article, therefore, calls for adding this “dimensionality” to the way environmental imaginaries are analysed and hopes to be a “springboard for more detailed exploration of embodied apprehension” (Joy & Sherry, 2003, p. 280).

Finally, this article underscores that art–science collaborations are a critical interdisciplinary means for non-scientists to engage with scientific data and the environmental politics of ocean polycrises (Paterson et al., 2020; Whittaker, 2023). Art and science are “indistinguishable in the contemplation of wonder and the quest for understanding” (Griffiths, 2015, p. 13), and thus, with increasing calls to understand the societal impacts of research (Brenninkmeijer, 2022), as well as to engage “diverse stakeholder groups in collaborative processes”

(Britton et al., 2021, p. 2) of environmental action and robust ocean understanding, this article advocates for making polar and oceanic data more freely available for members of the public to play with, edit, and explore. As this research demonstrates, environmental imaginaries are powerful, and granting artists the freedom to shape them through collaborative practice can “elucidate openings for more just, effective, and sustainable futures” (Chhetri et al., 2023, p. 267). As such, the more points of contact that can be created between society and the sea to inspire and familiarise non-scientists with ocean crises, the better equipped society will be to support future protection of the polar seas and beyond.

Acknowledgments

The Polar Sounds project is a collaboration between Cities and Memory, the Helmholtz Institute for Functional Marine Biodiversity (HIFMB), and the Alfred Wegener Institute for Marine and Polar Science (AWI). It was led by Geraint Rhys Whittaker as part of the postdoctoral project Can You Hear the Crisis of the Sea in collaboration primarily with Ilse Van Opzeeland of the Ocean Acoustics Lab at AWI, and also with Kimberley Peters of the Marine Governance Group at the HIFMB. Thank you to Stuart Fowkes, founder of Cities and Memory, for his invaluable commitment, enthusiasm, and hard work not only in this collaboration but also to the world of sound art in general. Thank you also to all the wonderful artists who participated in the project and gave up their time to be interviewed.

Conflict of Interests

The author declares no conflict of interests.

References

- Aamold, S., Haugdal, E., Jørgensen, U., & Phillips, R. (2017). *Sámi art and aesthetics: Contemporary perspectives*. Aarhus University Press.
- Aceska, A., & Doughty, K. (2023). The sounds of who we are: rethinking divided cities through sound. *Urban Geography*, 45(8), 1371–1384.
- Adamson, G., & Rapson, J. (2024). Weather, heritage, and memory. *WIREs Climate Change*, 15(6), Article e913.
- Agsten, A. (2021). *Reforming the Arctic narrative: Indigenous storytelling, journalism and the potential of co-production in the north*. The Belfer Center for Science and International Affairs. <https://www.belfercenter.org/publication/reforming-arctic-narrative#in-this-section-nav-4>
- Alexander, K. A., Marx, K., Hunt, L., & Zhang, M. (2020). Antarctic representation in print media during the emergence of Covid-19. *Antarctic Science*, 34(2), 180–190.
- Anderson, B. (2006). *Imagined communities*. Verso.
- Anderson, J., & Peters, K. (2014). ‘A perfect and absolute blank’: Human geographies of water worlds. In J. Anderson & K. Peters (Eds.), *Water worlds: Human geographies of the ocean* (pp. 3–19). Routledge.
- Asutay, E., & Västfjäll, D. (2019). Sound and emotion. In M. Grimshaw-Aagaard, M. Walther-Hansen, & M. Knakkegaard (Eds.), *The Oxford handbook of sound and imagination* (Vol. 2, pp. 368–390). Oxford University Press.
- Aubinet, S. (2023). *Why Sámi Sing knowing through melodies in northern Norway*. Routledge.
- Barclay, L. (2022). Sounding extremes: Ecological sound art in the Anthropocene. *Circuit*, 32(2), 37–44.
- Barron, E. S., & Losleben, K. (2025). Emplacing watery encounters: Listening, care, and embodied knowledge in places of climate change. *Progress in Environmental Geography*, 4(2), 190–207.
- Birsel, Z., Marques, L., & Loots, E. (2022). Daring to disentangle: Towards a framework for art-science-technology collaborations. *Interdisciplinary Science Reviews*, 48(1), 109–128.

- Bloom, L. E. (2022). *Climate change and the new polar aesthetics: Artists reimagine the Arctic and Antarctic*. Duke University Press.
- Böhme, G. (2016). *The aesthetics of atmospheres*. Routledge.
- Born, D. (2018). Bearing witness? Polar bears as icons for climate change communication in National Geographic. *Environmental Communication*, 13(5), 649–663.
- Brackett, G. L. (2010). At the end of the earth: How polar ice and imagination shape the world. *Terrae Incognitae*, 42(1), 19–33.
- Brenninkmeijer, J. (2022). Achieving societal and academic impacts of research: A comparison of networks, values, and strategies. *Science and Public Policy*, 49(5), 728–738.
- Britton, E., Domegan, C., & McHugh, P. (2021). Accelerating sustainable ocean policy: The dynamics of multiple stakeholder priorities and actions for oceans and human health. *Marine Policy*, 124, Article 104333.
- Brosch, T. (2021). Affect and emotions as drivers of climate change perception and action: A review. *Current Opinion in Behavioral Sciences*, 42, 15–21.
- Chhetri, N., Ghimire, R., & Eisenhauer, D. (2023). Geographies of imaginaries and environmental governance. *The Professional Geographer*, 75(2), 263–268.
- Cimier, A., Biancardi, B., Guegan, J., Segonds, F., Mantelet, F., Jean, C., Gazo, C., & Buisine, S. (2025). Multisensory objects' role on creativity. *Journal of Creativity*, 35(1), Article 100092.
- Cocq, C., & Dubois, T. A. (2020). *Sami Media and Indigenous agency in the Arctic north (new directions in Scandinavian studies)*. University of Washington Press.
- Coutu, C., Ferloni, G., Riquet, J., & Steinberg, P. (2024). Mediating Arctic soundscapes. In J. Riquet (Ed.), *The mediated Arctic poetics and politics of contemporary circumpolar geographies* (pp. 33–54). Manchester University Press.
- Crawley, G., Critchley, E., & Neudecker, M. (2023). Imaginaries art, film, and the scenography of oceanic worlds. In K. Peters, J. Anderson, A. Davies, & P. Steinberg (Eds.), *The Routledge handbook of ocean space* (pp. 277–297). Routledge.
- Dobrin, S. I. (2021). *Blue ecocriticism and the oceanic imperative*. Routledge.
- Dodds, K., Hemmings, A. D., & Roberts, P. (2017). *Handbook on the politics of Antarctica*. Edward Elgar Publishing.
- Dodds, K., & Woodward, J. (2021). *The Arctic: A very short introduction*. Oxford University Press.
- Duarte, C., Chapuis, L., Collin, S. P., Costa, D. P., Devassy, R. P., Eguiluz, V. M., Erbe, C., Gordon, T. A. C., Halpern, B. C., Harding, H. T., Havlik, M. N., Meekan, M., Merchant, N. D., Miksis-Olds, J. L., Parsons, M., Predragovic, M., Radford, A. N., Radford, C. A., Simpson, S. D., . . . Juanes, F. (2021). The soundscape of the Anthropocene ocean. *Science*, 371, Article 583.
- Ellis, D., Ades, D., Browne, C., & Mauzé, M. (2015). *Art of the Arctic: Reflections of the unseen*. Black Dog Publishing.
- Erbe, C., Houser, D., Bowles, A., & Porter, M. B. (2025). *Marine mammal acoustics in a noisy ocean*. Springer.
- Gabriel, N. (2014). Urban political ecology: Environmental imaginary, governance, and the non-human. *Geography Compass*, 8(1), 38–48.
- Giles, A. (2015). Musical adventures in Antarctica. In B. Hince, R. Summerson, & A. Wiesel (Eds.), *Antarctica: Music, sounds and cultural connections* (pp. 83–88). ANU Press.
- Gilmurray, J. (2020). Ecological sound art. In M. Bull & M. Cobussen (Eds.), *Bloomsbury handbook of sonic methodologies* (pp. 449–458). Bloomsbury Academic.
- Glasberg, E. (2012). *Antarctica as cultural critique: The gendered politics of scientific exploration and climate change*. Palgrave Macmillan.

- Griffiths, T. (2015). Introduction: Listening to Antarctica. In B. Hince, R. Summerson, & A. Wiesel (Eds.), *Antarctica: Music, sounds and cultural connections* (pp. 1–14). ANU Press.
- Grimshaw-Aagaard, M., Walther-Hansen, M., & Knakkegaard, M. (2019). Introduction: Volume 2. In M. Grimshaw-Aagaard, M. Walther-Hansen, & M. Knakkegaard (Eds.), *The Oxford handbook of sound and imagination* (Vol. 2, pp. 1–11). Oxford University Press.
- Hansen, A. (2019). *Environment, media and communication* (2nd Ed.). Routledge.
- Hansson, H. (2018). The Arctic in literature and the popular imagination. In M. Nuttall, T. R. Christensen, & M. J. Siegert (Eds.), *The Routledge handbook of the polar regions* (pp. 45–56). Routledge.
- Helmreich, S. (2016). *Sounding the limits of life essays in the anthropology of biology and beyond*. Princeton University Press.
- Hemkendreis, A., & Jürgens, A. S. (2024). Communicating loss: Ice research, popular art and aesthetics. In A. Hemkendreis & A. S. Jürgens (Eds.), *Communicating ice through popular art and aesthetics* (pp. 3–24). Springer.
- Hessel, I. (1998). *Inuit art: An introduction*. Douglas & McIntyre.
- Hince, B., Summerson, R., & Wiesel, A. (2015). *Antarctica: Music, sounds and cultural connections*. ANU Press.
- Howes, D. (2019). Embodiment and the senses. In M. Bull (Ed.), *The Routledge companion to sound studies* (pp. 24–34). Routledge.
- Huhmarniemi, M., & Jokela, T. (2020). Arctic arts with pride: Discourses on Arctic arts, culture and sustainability. *Sustainability*, 12(2), Article 604.
- Jackson, A. (2019). A changing cultural climate: Realising the value of artists working in Antarctica. *Polar Record*, 55(5), 351–357.
- Jäggi, P. (2021). Listening to reveries: Sounds of a post-Anthropocene ecology. *Fusion Journal*, 19, 90–101.
- Jessop, B. (2010). Cultural political economy and critical policy studies. *Critical Policy Studies*, 3(3/4), 336–356.
- Jijón, R. (2022). A decolonial perspective of Antarcticiness. In I. Kelman (Ed.), *Antarcticness: Inspirations and imaginaries* (pp. 105–114). UCL Press.
- Jokela, T. (2024). A way to Arctic art education: Intersections of land, art and northern knowledge. In S. Willis, R. Shin, & A. Richards (Eds.), *The intersectionality of critical identities in art education* (pp. 200–211). SEA Publications.
- Joy, A., & Sherry, J. F., Jr. (2003). Speaking of art as embodied imagination: A multisensory approach to understanding aesthetic experience. *Journal of Consumer Research*, 30(2), 259–282.
- Jung, J., Gupa, D., Colton, H., Thoms, J., Owens, D., Threlfall, J., & Juniper, S. K. (2022). Doubling down on wicked problems: Ocean artscience collaborations for a sustainable future. *Frontiers in Marine Science*, 9, Article 873990. <https://doi.org/10.3389/fmars.2022.873990>
- Junot, A., Paquet, Y., & Fenouillet, F. (2018). Place attachment influence on human well-being and general pro environmental behaviors. *Journal of Theoretical Social Psychology*, 2(2), 49–57.
- Kelman, I. (2022). Proffering Antarcticiness. In I. Kelman (Ed.), *Antarcticness: Inspirations and imaginaries* (pp. 1–5). UCL Press.
- Kovács, N., Jordan, G., Berglund, F., Holden, B., Niehoff, E., Pohl, F., Youssni, M., Zevallos, I., Ágoston, C., Varga, A., & Kökönyei, G. (2024). Acting as we feel: Which emotional responses to the climate crisis motivate climate action. *Journal of Environmental Psychology*, 96, Article 102327.
- Krüger, B., Hegele, M., & Rieger, M. (2024). The multisensory nature of human action imagery. *Psychological Research*, 88, 1870–1882.
- LaBelle, B. (2007). *Background noise: Perspectives on sound art*. Continuum.
- Leane, E. (2007). Isolation, connectedness and the uses of text in heroic-era Antarctica: The cases of inexpressible and Elephant Islands. *Island Studies Journal*, 2(1), 67–76.

- Leane, E. (2015). The poetry of Antarctic sound and the sound of Antarctic poetry. In B. Hince, R. Summerson, & A. Wiesel (Eds.), *Antarctica: Music, sounds and cultural connections* (pp. 107–120). ANU Press.
- Leane, E. (2018). The Antarctic in literature and the popular imagination. In M. Nuttall, T. R. Christensen, & M. J. Siegert (Eds.), *The Routledge handbook of the polar regions* (pp. 57–66). Routledge.
- Leane, E. (2023). Representing the Polar regions through historical fiction. In A. Howkins & P. Roberts (Eds.), *The Cambridge history of the polar regions* (pp. 252–278). Cambridge University Press.
- Leane, E., & Marx, K. (2025). Public engagement with the polar regions: An introduction. *The Polar Journal*, 15(1), 1–9.
- Lehtimäki, M., Rosenholm, A., & Strukov, V. (2021). *Visual representations of the Arctic: Imagining shimmering worlds in culture, literature and politics*. Routledge.
- Levi, S., & Peters, K. (2024). Concerning emotions: Feminist contributions to reflexive marine governance. *Journal of Environmental Policy & Planning*, 27, 66–78.
- Levy, D. L., & Spicer, A. (2013). Contested imaginaries and the cultural political economy of climate change. *Organization*, 20(5), 659–678.
- Lewis, M., & Broadwell, E. (2024). Mental health in polar scientists: Navigating the emotional landscape of climate change. *PLOS Climate*, 3(2), Article e0000359.
- Liu, X., Xu, Y., Alter, K., & Tuomainen, J. (2018). Emotional connotations of musical instrument timbre in comparison with emotional speech prosody: Evidence from acoustics and event-related potentials. *Frontiers in Psychology*, 9, Article 737.
- Llobet, S. M., Ahonen, H., Lydersen, C., & Kovacs, K. M. (2023). The Arctic and the future Arctic? Soundscapes and marine mammal communities on the east and west sides of Svalbard characterized through acoustic data. *Frontiers in Marine Science*, 10, Article 1208049.
- Mamzer, H., Skedsmo, P. W., & Węśławski, J. M. (2021). Attitudes towards the Polar regions as a reflection of the sense of responsibility for the environment. Theoretical background for further study. *Frontiers in Environmental Science*, 9, Article 610926.
- Martin, S. (2015). Frames of silence: Some descriptions of the sounds of Antarctica. In B. Hince, R. Summerson, & A. Wiesel (Eds.), *Antarctica: Music, sounds and cultural connections* (pp. 179–188). ANU Press.
- Mathieson, C. (2016). Introduction: The Literature, history and culture of the sea, 1600–present. In C. Mathieson (Ed.), *Sea narratives: Cultural responses to the sea, 1600–present* (pp. 1–21). Palgrave Macmillan.
- McKinley, E., Burdon, D., & Shellock, R. J. (2023). The evolution of ocean literacy: A new framework for the United Nations Ocean Decade and beyond. *Marine Pollution Bulletin*, 186, Article 114467.
- Michałowska, M. (2020). Artists in the face of threats of climate change. *Oceanologia*, 62(4), 565–575.
- Mukherjee, A. (2024). Role of atmospheric and oceanic processes on decadal change of Antarctic sea-ice between 2000–2019. *Dynamics of Atmospheres and Oceans*, 107, Article 101481.
- Nielsen, H. (2020). Identifying with Antarctica in the ecocultural imaginary. In T. Milstein & J. Catro-Sotomayor (Eds.), *Routledge handbook of ecocultural identity* (pp. 225–239). Routledge.
- Nielsen, H., Leane, E., Bergstrom, D. M., & Philpott, C. (2024). Antarctic science on the musical stage. In A. Hemkendreis & A. S. Jürgens (Eds.), *Communicating ice through popular art and aesthetics* (pp. 143–161). Springer.
- Nielsen, H., Leane, E., Philpott, C., Jackson, A., & Senatore, M. X. (2025). Cultural connections with Antarctica and the southern ocean. In M. P. Meredith, J. Melbourne-Thomas, A. C. Naveira Garabato, & M. Raphael (Eds.), *Antarctica and the Earth System* (pp. 260–282). Routledge.
- Nilsson, A. E., & Christensen, M. (2019). *Arctic geopolitics, media and power*. Routledge.

- Nuttall, M., Christensen, T. R., & Siegert, M. J. (2018). *The Routledge handbook of the polar regions*. Routledge.
- O'Neill, S. (2022). Defining a visual metonym: A hauntological study of polar bear imagery in climate communication. *Transactions of the Institute of British Geographers*, 47(4), 1104–1119.
- Paterson, S. K., Le Tissier, M., Whyte, H., Robinson, L. B., Thielking, K., Ingram, M., & McCord, J. (2020). Examining the potential of art-science collaborations in the Anthropocene: A case study of catching a wave. *Frontiers in Marine Science*, 7, Article 340.
- Peters, K., & Steinberg, P. (2019). The ocean in excess: Towards a more-than-wet ontology. *Dialogues in Human Geography*, 9(3), 293–307.
- Pharaoh, M. (2015). Mawson's musings and morse code: Antarctic silence at the end of the 'heroic era,' and how it was lost. In B. Hince, R. Summerson, & A. Wiesel (Eds.), *Antarctica: Music, sounds and cultural connections* (pp. 15–22). ANU Press.
- Philpott, C. (2020). Mixing ice: DJ Spooky's musical portraits of the Arctic and Antarctic. In C. Philpott, E. Leane, & M. Delbridge (Eds.), *Performing ice* (pp. 87–112). Palgrave Macmillan.
- Pincus, R., & Ali, S. H. (2016). Have you been to 'The Arctic'? Frame theory and the role of media coverage in shaping Arctic discourse. *Polar Geography*, 39(2), 83–97.
- Pohl, L., & Helbrecht, I. (2025). Geographical sensemaking: Situating, relating, and positioning as spatial practices between self and world. *Annals of the American Association of Geographers*, 115(7), 1489–1505.
- Polar Region. (n.d.). In *Britannica*. <https://www.britannica.com/science/polar-region>
- Riddoch, M. (2019). Imagining the sounds themselves. In M. Grimshaw-Aagaard, M. Walther-Hansen, & M. Knakkegaard (Eds.), *The Oxford handbook of sound and imagination* (Vol. 1, pp. 54–77). Oxford University Press.
- Roberts, L., Kutay, C., Melbourne-Thomas, J., Petrou, K., Benson, T. M., Fiore, D., Fletcher, P., Johnson, E., Silk, M., Taberner, S., Filgueira, V. V., & Constable, A. J. (2021). Enabling enduring evidence-based policy for the southern ocean through cultural arts practices. *Frontiers in Ecology and Evolution*, 9, Article 616089.
- Roberts, P., & Howkins, A. (2023). Introduction: The problems of polar history. In A. Howkins & P. Roberts (Eds.), *The Cambridge history of the polar regions* (pp. 1–31). Cambridge University Press.
- Roberts, P., Howkins, A., & Van der Watt, L. M. (2016). Antarctica: A continent for the humanities. In P. Roberts, A. Howkins, & L. M. Van der Watt (Eds.), *Antarctica and the humanities* (pp. 1–23). Palgrave Macmillan.
- Roldan, G., & Nielsen, H. (2022). Antarcticness at the ends of the world. In I. Kelman (Ed.), *Antarcticness: Inspirations and imaginaries* (pp. 31–59). UCL Press.
- Salazar, J. F. (2017). Mediating Antarctica in digital culture: Politics of representation and visualisation in art and science. In K. Dodds, A. D. Hemmings, & P. Roberts (Eds.), *Handbook on the politics of Antarctica* (pp. 125–141). Edward Elgar Publishing.
- Samartzis, P. (2015). The nature of sound and the sound of Nature. In B. Hince, R. Summerson, & A. Wiesel (Eds.), *Antarctica: Music, sounds and cultural connections* (pp. 133–136). ANU Press.
- Schnugg, C. (2019). *Creating arts-science collaboration: Bringing value to organizations*. Palgrave Macmillan.
- Schutz, M., Huron, D., Keeton, K., & Loewer, G. (2008). The happy xylophone: Acoustics affordances restrict an emotional palate. *Empirical Musicology Review*, 3(3), 126–135.
- Senungetuk, H. A. (2017). *Indigenous musics of the Arctic*. Oxford bibliographies in music.
- Spence, C. (2022). Experimental atmospheric: A multi-sensory perspective. *Qualitative Market Research*, 25(5), 662–673.
- Squire, R. (2017). "Do you dive?": Methodological considerations for engaging with "volume." *Geography Compass*, 11(7), Article e12319.
- Steinberg, P. (2014). Mediterranean metaphors: Travel, translation and oceanic imaginaries in the 'new

- mediterraneans' of the Arctic ocean, the Gulf of Mexico and the Caribbean. In J. Anderson & K. Peters (Eds.), *Water worlds: Human geographies of the ocean* (pp. 23–37). Routledge.
- Steinberg, P., Baxter, R., Egan, E. S., Kramvig, B., Lehman, J., Winderen, J., & Winterling, S. M. (2025). Listening to/in the field: Polyphony in the exploring Arctic soundscapes project. *GeoHumanities*, 11(1), 94–115.
- Steinberg, P., & Peters, K. (2015). Wet ontologies, fluid spaces: Giving depth to volume through oceanic thinking. *Environment and Planning D: Society and Space*, 33, 247–264.
- Steinberg, P., Tasch, J., & Gerhardt, H. (2015). *Contesting the Arctic: Politics and imaginaries in the circumpolar north*. I.B. Tauris.
- Stevens, C., O'Connor, G., & Robinson, N. (2019). The connections between art and science in Antarctica: Activating Science*Art. *Polar Record*, 55(4), 289–296.
- Taylor, C. (2004). *Modern social imaginaries*. Duke University Press.
- The Arctic Circle. (n.d.). *Program*. <https://thearcticcircle.org/program>
- Thomas-Walters, L., Goldberg, M. H., Tedaldi, E., Kohmoto, K., Rosenthal, S. A., & Leiserowitz, A. (2025). The role of emotion in climate change communication. *Environmental Communication*, 19(3), 346–359.
- Thomisch, K., Boebel, O., Clark, C., Hagen, W., Spiesecke, S., Zitterbart, D., & Van Opzeeland, I. C. (2016). Spatio-temporal patterns in acoustic presence and distribution of Antarctic blue whales. *Balaenoptera musculus intermedia* in the Weddell Sea. *Endangered Species Research*, 30, 239–253. <https://doi.org/10.3354/esr00739>
- Triscott, N. (2017). Curating contemporary art in the framework of the planetary commons. *The Polar Journal*, 7(2), 374–390.
- Truax, B. (2019). Imagining acoustic spaces through listening and acoustic ecology. In M. Grimshaw-Aagaard, M. Walther-Hansen, & M. Knakkegaard (Eds.), *The Oxford handbook of sound and imagination* (Vol. 1, pp. 652–667). Oxford University Press.
- Truswell, E. (2015). Thulia: A tale of the Antarctic (1843): The earliest Antarctic poem and its musical setting. In B. Hince, R. Summerson, & A. Wiesel (Eds.), *Antarctica: Music, sounds and cultural connections* (pp. 23–36). ANU Press.
- Urry, J. (2002). Mobility and proximity. *Sociology*, 36(2), 255–274.
- Van Opzeeland, I., & Boebel, O. (2018). Marine soundscape planning: Seeking acoustic niches for anthropogenic sound. *Journal of Ecoacoustics*, 2(1), Article 4.
- Van Opzeeland, I., & Slabbekoorn, H. (2012). Importance of underwater sounds for migration of fish and aquatic mammals. *Advances in Experimental Medicine and Biology*, 730, 357–359.
- Van Opzeeland, I., Van Parijs, S., Kindermann, L., Burkhardt, E., & Boebel, O. (2013). Calling in the cold: Pervasive acoustic presence of humpback whales (*Megaptera novaeangliae*) in Antarctic coastal waters. *PLoS One*, 8, Article e73007.
- Watson, B. (2015). Made and played in Antarctica: People's music in a far-flung place. In B. Hince, R. Summerson, & A. Wiesel (Eds.), *Antarctica: Music, sounds and cultural connections* (pp. 189–204). ANU Press.
- Wehi, P. M., Scott, N. J., Beckwith, J., Rodgers, R. P., Gillies, T., Van Uitregt, V., & Watene, K. (2022). A short scan of Māori journeys to Antarctica. *Journal of the Royal Society of New Zealand*, 52(5), 587–598.
- Whittaker, G. R. (2023). Creatively connecting science, society and the sea: A mini-review of academic literature focusing on art-science collaborations and the ocean. *Frontiers in Marine Science*, 10, Article 1234776.
- Whittaker, G. R. (2024). A song for Pelagibacter. Using creative improvisation as a tool for novel science communication through the Ocean Science Jam. *Frontiers in Marine Science*, 11, Article 1430701.

- Whittaker, G. R. Peters, K., & Van Opzeeland, I. (2025). Narrators of submersive affective atmospheres: Analysing oceanic representations through narratives of sound. *Emotion, Space and Society*, 55, Article 101067.
- Whittaker, G. R., Peters, K., & Van Opzeeland, I. (2024). Oceans sing, are you listening? Sounding out potentials for artistic audio engagements with science through the Polar Sounds project. *Marine Policy*, 169, Article 106347.
- Wiesel, A. (2012). Music and the polar regions: Sound explorations. *The Polar Journal*, 2(2), 444–450.
- Wilson, E. (2003). *The spiritual history of ice: Romanticism, science and the imagination*. Palgrave Macmillan.
- Wright, M. P. (2022). *Listening after nature, field recording, ecology, critical practice*. Bloomsbury Academic.
- Yao, J. (2024). Borderscape Antarctica: The uncanny geographical imaginaries of Terra Australis Incognita. *Political Geography*, 114, Article 103178.

About the Author



Geraint Rhys Whittaker is an artist-researcher interested in exploring how art–science collaborations can be used to investigate, challenge, and change public perceptions on some of the most pressing threats facing our oceans.

Animal Celebrities—Then and Now: Exploring Oceanic Imaginaries Through Celebrity Marine Mammals

Charlotte Gehrke 

German Institute of Development and Sustainability (IDOS), Germany

Correspondence: Charlotte Gehrke (charlotte.gehrke@idos-research.de)

Submitted: 12 October 2025 **Accepted:** 2 December 2025 **Published:** 19 March 2026

Issue: This article is part of the issue “Ocean Pop: Marine Imaginaries in the Age of Global Polycrisis” edited by Anja Menzel (University of Bamberg/University of Johannesburg) and Charlotte Gehrke (German Institute of Development and Sustainability–IDOS), fully open access at <https://doi.org/10.17645/oas.i518>

Abstract

This study examines portrayals of marine mammal celebrities (MMCs) in popular culture over the past 70 years, reflecting evolving public attitudes toward ocean conservation. It identifies four main types of MMCs, each linked to a specific era and shaped by changes in media landscapes, perceptions of marine mammal agency and welfare, and conservation priorities: (1) Hollywood MMCs (ca. 1960–1990s)—wild animals captured and exhibited in aquaria, cast as celebrities based on their roles in traditional mass media (blockbuster movies); (2) MMCs in human care (ca. 1990s–2010s)—animals housed in aquaria whose fame stemmed from public concern about their welfare and calls for their release; (3) rescued MMCs (ca. 1980s–present)—marine mammals cared for by humans after they were injured in the ocean; and (4) endangered and dangerous MMCs (2010s–present)—wild animals that approach humans, demonstrate human-like behaviours, or interact with boats. Introducing the method of “following the animal,” the article provides examples of celebrity animals that illustrate each of the four categories, such as the dolphin Flipper and the walrus Freya. The study contributes to the thematic issue on Ocean Pop: Marine Imaginaries in the Age of Global Polycrisis by highlighting the mutual influence of media, animal celebrity, and conservation, and urges further research into how shifting representations shape global engagement with marine life and the environment.

Keywords

anthropomorphism; charismatic megafauna; conservation; ecosystem sentinels; environmental policy; imaginaries; marine mammals; ocean pop; polycrisis

1. Introduction

Environmental and conservation scholars and advocates have long held conflicting opinions concerning the use of animal mascots and “real” animals in environmental conservation, favouring the attention and benevolence it yields towards animals and ecosystems, while remaining wary of its potential to foster misrepresentations of the “real” animals and their lived reality (see, for example, Gouabault et al., 2011; Jepson & Barua, 2015; Leader-Williams & Dublin, 2000; Moore, 2023). These discussions are further complicated when relating them to celebrity animals, whose popular imaginary exists only in the context of what this article labels anthropomorphic empathy, referring to the emotional bond humans forge with (celebrity) animals whose appearance or behaviours they perceive as mimicking human features or habits.

This article explores the intersection of animal celebrity and care for the environment in the context of the oceanic environment, which is home to a myriad of fascinating animals while also facing severe environmental issues, including biodiversity loss, ocean acidification, and other impacts of the climate crisis. The article identifies animal celebrities that have come to define oceanic imaginaries over the past approximately seven decades, with a particular focus on marine mammal celebrities (MMCs).

In doing so, the article establishes four categories of MMCs, each corresponding to an approximate time period: (1) Hollywood MMCs (ca. 1960–1990s)—animals that were captured by humans in the open ocean and brought to aquaria, who were then cast as celebrities based on their roles in traditional mass entertainment; (2) marine mammals in human care (ca. 1990s–2010s)—animals in aquaria whose celebrity revolved around public outcries concerning their treatment in captivity and demands to release them back into the open ocean; (3) rescued marine mammals (ca. 1980s–present)—animals whom humans cared for after the marine mammals were injured in the open ocean; and (4) endangered and dangerous marine mammals (ca. 2010s–present)—animals in the open ocean who appear to seek out human company, display human-like behaviors, or interact with manmade boats. The article observes that the first two categories of animal celebrities were particularly associated with common bottlenose dolphins (*Tursiops truncatus*) and orcas (*Orcinus orca*). The third and fourth categories featured a more diverse cast of species, such as walruses and beluga whales, although they still included dolphins and orcas.

The article introduces a method it terms “following the animal” to trace animal celebrity representation across various forms of media over an extended period of time. Examining how oceanic animal celebrities have been framed in the media through an explorative discourse analysis, the article considers what the discursive construction of these animal celebrities may indicate about broader public sentiments towards the protection of these animals and their oceanic habitats. The article argues that the different types of MMCs reflect shifting trends in the protection desired for oceanic environments and animals, as well as the perceived agency afforded to marine mammals. Both in the methods section and conclusion, the article suggests avenues for future research to further explore these categories and trends in greater breadth and depth. Before diving into this analysis, the following section introduces readers to the central concepts and existing research that inform the study, including marine imaginaries, animal celebrities, and anthropomorphic empathy.

2. Animalising Marine Imaginaries

Imaginaries are “shared discourses and practices that reproduce a social group’s values, norms, and beliefs” (Anderson et al., 2023, p. 74; see also C. Taylor, 2004). This article explores imaginaries in the oceanic context, contributing to the research on popular representations of human and more-than-human actors in oceanic settings. The article thus engages with the concept of “ocean pop” coined by the editors of this thematic issue. As noted in the introduction of this thematic issue, the concept of ocean pop is defined as the “portrayal of oceanic spaces, issues, and both human and non-human actors within popular media” (Gehrke & Menzel, 2026). The following section addresses the relevance and potential impacts of this media portrayal, as well as the public perceptions it fosters, beginning with a brief introduction to what makes an animal celebrity, followed by a short discussion of the empathetic response these celebrities may elicit.

2.1. Mediatized Animals

This study focuses on the discursive construction of animal celebrities, specifically in the form of MMCs. In doing so, it contributes to filling the literature gap identified in conservation and celebrity studies concerning animal celebrities, with both strands of research highlighting the importance of certain species and individual animals with whom humans forge parasocial bonds. These species may be discussed as keystone or sentinel species, or ecosystem sentinels (Moore, 2008, 2023), referring to animals whose welfare can serve as an indicator for overall ecosystem health. In the conservation literature, they may also be discussed as flagship species, whose population is likely declining or otherwise affected by environmental issues, leading the respective species to serve as an “umbrella species” (A. M. Smith & Sutton, 2008, p. 127) for flora and fauna in the respective region that can illustrate the potential or actual harms of environmental threats to wider audiences (see Jepson & Barua, 2015; Williams et al., 2000).

Charismatic megafauna, in particular, are often at the centre of these discussions. Lorimer describes the “non-human charisma” that these animals are thought to embody as “the distinguishing properties of a non-human entity or process that determine its perception by humans and its subsequent evaluation” in his article by the same title (Lorimer, 2007, p. 915). In the oceanic context, the spotlight is thus often placed on charismatic marine mammals, as opposed to species that are considered less visually appealing, such as blobfish (see Probyn, 2017; Scharenberg, 2026), considered too “other” and thus less suitable to anthromorphisation, including deep-sea animals and zooplankton (see Gehrke, 2024; Jamieson et al., 2021), or perceived to be too frightful to provoke caring feelings, like sharks (see Fuchs, 2018; Pepin-Neff, 2019).

While other marine animals may be as well known as some marine mammals, their public perception may operate on a different level. For instance, the shark from the 1975 Steven Spielberg movie *Jaws* may be more famous than some of the marine mammals discussed in this article. However, the shark is usually not known by name but rather by association with the film, and rather than being associated with an individual real-life shark, related discussions often centre on sharks as a whole or the animatronic sharks used for much of the film. Nevertheless, the *Jaws* antagonist had an immense impact on oceanic imaginaries, public perceptions of sharks, and related legislation, which have been thoroughly researched (see Fuchs, 2018; Pepin-Neff, 2019).

As the above example indicates, rather than focusing on entire species, this article is concerned with individual animals—animal celebrities—who may come to represent their species and shape public perceptions of it for

decades to come. According to Giles (2013, p. 11), “celebrity is essentially a process by which media turn individuals (not necessarily humans) into objects of desire,” with “the media [playing] a determining role in this process.” For media consumers, a celebrity can serve as an object of desire and canvas on which they project their desires, creating unequal parasocial relationships in which members of the public wish to know more about, emulate, and encounter famous strangers (Hartmann, 2016).

In particular, this article explores what Giles (2013) terms the *anthropomorphic* animal celebrity in his taxonomy of animal celebrities. According to Giles (2013, pp. 118–119), anthropomorphic animal celebrities have “human qualities attributed to them,” he explains, “the animal is celebrated because of its ability (or presumed ability) to perform a behaviour thought to be uniquely human.” For example, in the Hollywood era of animal celebrities analysed in this article (see Subsection 4.1.1), accounts often praised the MMC’s desired human-like qualities and behaviours, such as intelligence, the ability to perform tricks, and even assist human beings.

While Giles’ (2013, p. 126) examination of animal celebrity—anthropogenic and otherwise—focuses exclusively on “animals that lived most of their lives in captivity,” this study demonstrates how animal celebrities increasingly include animals that do not live in captivity, although many of them still interact directly with humans. The study further expands the literature on MMCs by covering an extensive time frame (1960s to present day) and associated shifts in media culture, from the monoculture of blockbuster movies featuring animal stars to the siloed algorithms of social media showing regionally famous animal celebrities (see Chayka, 2025).

It is important to note that there is “no ‘real’ or ‘authentic’ person [or animal] at the centre [of these media discourses, neither in film or television nor on social media], and any notion of personality is simply an anthropomorphic projection” (Giles, 2013, p. 116). While this article uses the term “real” in quotation marks to refer to the animals themselves in addition to their public or stage personas (e.g., categorising the bottlenose dolphin Mitzi as the “real” animal, with Flipper being their stage name), both real and mediated animals are discursively constructed via various forms of media (for further explorations of the real animals behind the “real” and perceived animals, see Butler, 2009, as cited in Johnson, 2015, p. 296; Despret & Latour, 2016; Kalof & Whitley, 2021, p. 289).

These mediated animals have often been humanised, individualised, “othered” (see George et al., 2016), and distinguished from their fellow animals to a point that challenges generalisations about their respective species based on these individual animals. Yet, these animal celebrities also provide insights into how humans perceive the respective species and their attitudes and behaviours towards them. Researchers have highlighted similar problematic aspects of animal fame and related media, including animal-based conservation campaigns, press coverage, and research.

For instance, Troudet et al. (2017) introduced readers to the concept of taxonomic bias, indicating that certain species receive disproportionate attention compared to others, with the importance afforded to the animals not forcibly correlating with their role, e.g., in the respective ecosystem or the extent to which they are affected by phenomena, such as the climate crisis or ocean acidification. According to the study, birds and mammals are among those receiving the most attention (Fraser et al., 2022; Troudet et al., 2017). However, studies of social media have shown that animals previously thought to be less appealing in the literature, such as invertebrates,

do receive significant attention online (Heathcote, 2021). Many researchers encourage these trends, including Scharenberg (2026), who shares her research on “fishy imaginaries” in another article featured in this thematic issue, arguing for a broader diversity of animal celebrities to support a more comprehensive spectrum of care for the environment.

In discussing why and how humans (should) care about these animals, questions of empathy (“the ability to imagine oneself in another’s place and understand the other’s feelings, desires, ideas, and actions,” Empathy, 2025) and anthropomorphism (“the interpretation of non-human things or events in terms of human characteristics,” Guthrie, 2025) are often raised in the subject literature, as highlighted in the following subsection.

2.2. Anthropomorphic Empathy

In 1980, Michael W. Fox (1980, p. 346), the editor-in-chief of the *International Journal for the Study of Animal Problems*, published an editorial entitled “Empathy or Anthropomorphism?” describing the kind of “anthropomorphic projection” (Giles, 2013, p. 116) that defines animal celebrities:

How can a person actually project his or her consciousness into another being? Preposterous, impossible...—until it is experienced...When I empathize with an animal or person, that individual’s suffering becomes mine, for I experience, through imagining, that suffering. But when I anthropomorphize an animal, the reverse occurs: my suffering becomes its suffering because I judge it on the basis of my own subjective experience, as if the animal were a person. (Fox, 1980, p. 346)

The notions of celebrity and the equation of anthropomorphism and empathy are inherently entangled in this context; as Parkinson (2023, p. 93) notes, “anthropomorphisation of an animal is fundamental to their reception as a star.” This article thus uses the term anthropomorphic empathy to describe the type of compassion afforded to and awarded to animals whose behaviours or appearances are framed as humanlike.

As the example of the orca Keiko, also known as Willy from the 1993 film *Free Willy*, demonstrates, anthropomorphic empathy for the public persona (see Subsection 4.1.1, Hollywood MCCs) may spur compassion for the animal actor (see Subsection 4.1.2, MCCs in Human Care). While many accounts concerning the perception of celebrity animals have been critical with reference to their welfare, scholars also point out that the care and compassion that these animals evoke can lead to greater attention, care, and engagement for environmental protection (see Gehrke, 2024; Greving & Kimmerle, 2021; Swim & Bloodhart, 2015). Exploring this symbiotic relationship between (animal) celebrities and environmental advocacy, Abidin et al. (2020), for instance, include celebrity animals, like Cecil the lion or Knut the polar bear, alongside other human and fictional examples of celebrity environmental advocates, like Steve Irwin, Jane Goodall, or Tarzan (see Dicenta, 2024; for MMC-related examples, see Epstein, 2008).

A more ambitious call for (more-than-human) empathy may imply an inherent compassion towards other beings, regardless of their appearance, mannerisms, appeal, utility to oneself, or other similarities to humans. This draws attention to Indigenous approaches decentring human perspectives, such as Todd’s call for pluralistic and kinship-based approaches to human–animal relations (see Kanngieser & Todd, 2020; Todd, 2015). Furthermore, Davé (2023) highlights how colonial critiques of anthropomorphism have historically

been used to dismiss cultures in which animals, humans, and deities coexist, citing India as an example. Similarly, Despret and Latour (2016) highlight accusations of anthropomorphism as a means for researchers to claim exclusive authority to know animals.

In his 1980 editorial, Fox (1980, p. 346) suggests the term “fellow-feeling” to better capture this idea of humans empathising with animals. With growing interest in posthuman and more-than-human research in recent years (Cudworth & Hobden, 2023), scholars can observe the rise in related concepts, such as Donald’s (2018, 2019) more-than-human empathy, building on Puig de la Bellacasa’s (2017) work on care in the discipline of science, technology, and society studies:

More-than-human empathy moves away from the subjective notion of empathy as recognising the vulnerability of another human and opens it up to a wider assemblage inclusive of non-human others and technologies....Like care, this idea of more-than-human empathy is not [a] hard and fast theory but an experiment in caring. (Donald, 2018, p. 53)

Finally, it should be noted that many of the terms used to discuss animal celebrities and marine mammals are laden with epistemological and normative assumptions, such as ideas of wildness, the ocean, and the domestication or treatment of animals, which the article cannot fully explore due to format limitations. For example, “captivity” is still commonly used to describe animals in zoos, aquaria, and other manmade enclosures, and it appears frequently in the materials analysed for this study. Meanwhile, experts often also use the term “in human care,” suggesting a higher level of care, even though it is often employed interchangeably with “captivity” (cf. Brando et al., 2018). This article adopts the term “human care” to align with existing research and highlight the language shift reflecting changing attitudes towards animals in captivity, especially those caught in the wild for display (see Subsection 4.1.2). The next section describes how the animal celebrities studied were identified and how discourse around them was analysed.

3. Methods and Materials

3.1. Identifying Celebrities

In identifying celebrity animals, the author established three criteria based on the study’s focus and existing literature on animal celebrities. For the purpose of this study, animal celebrities need to (a) be characterised as marine mammals; (b) be identified by individual personal names, similar to those assigned to humans or companion animals, such as Reggie or Freya; and (c) connect to real-life animals (cartoon characters with no distinct real-life animal on which they were based were excluded, whereas animals in fictional narratives relating to and embodied by “real” marine mammals were included). Media discussing MMCs also predominantly use gendered personal pronouns (he/she), as is common with fellow humans or companion animals, such as dogs, rather than gender-neutral ones used for subjects without personalised identities (it), further adding to their personification and anthropomorphisation (see Gouabault et al., 2011; Scharenberg, 2026).

To select the most well-known animals, the author compared online listicles of famous marine mammals. Following an initial overview of online rankings of famous marine mammals, the study identified five groups of marine mammals to focus on in the analysis of MMCs: dolphins, orcas, seals, walruses, and whales

(including beluga, grey, and humpback whales). It should be noted that these group names do not correspond uniformly to a specific taxonomic rank; rather, they denote popular categories (e.g., with orcas both categorised as dolphins and whales, as described in the following paragraph). Next, the author analysed online listicles concerning each of the five groups (see, for example, Gunther's [2019] *10 of the World's Most Famous Whales* or Renovables [2025] *The Most Famous Whales in the World and Their Stories*) as well as searching for stories about each of the five groups in news publications. Here, the listicles mitigated the recency bias in news reports by including historically famous animals, such as the dolphin Flipper. For the news analysis, the author searched online archives of individual English-language newspapers of record, including the *New York Times* and *The Guardian*. The two newspapers were chosen after piloting the search in various newspapers of record, including *The Times*, *The Washington Post*, and *The Wall Street Journal*, and finding that the two selected yielded more substantive animal-based search results.

For each search, the study examined the first five news stories (excluding mismatches, such as stories about the Miami Dolphins, an American football team, or the musician Seal), noting whether the story mentioned a celebrity animal and, if so, recording the name of the celebrity animal. To identify MMC-related articles, the author employed animal-based keyword searches using group labels, including “dolphin(s),” “whale(s),” “walrus(es),” and “seal(s).” In the case of orcas, which are taxonomically the “largest member of the dolphin family (Delphinidae)” (Killer Whale, 2025), this keyword search resulted in conflicting representations, as orcas were at times considered dolphins and at other times described as whales, often using their alternative descriptor “killer whales.” Since the article is concerned with the public perception of the animals, including prominent misconceptions, orcas described as whales as well as orcas classified as dolphins were included in the coding process.

The newspaper and listicle analysis showed that a few animal groups (especially dolphins and orcas) and some of their most famous representatives (Flipper, Winter, and Keiko) appeared much more frequently compared to others. To narrow the study’s focus to specific MMCs (see Table 1), celebrity animals were selected based on the frequency and relative prominence of their mentions (how often they were identified by name, how high on the listicles they were listed, and how much importance news sources attributed to them). It is notable that despite the broad public interest in seals and California sea lions (*Zalophus californianus*) making up the largest share (27%) of marine mammals housed in zoos and aquaria (Brando et al., 2018), only a few locally or regionally known seal celebrities were identified through the coding process, such as the seal pup Chappy who appeared on a busy street in Connecticut (US), or the grey seals Pinkafo and Frisbee who were rescued on the Norfolk coast (UK).

Table 1. Overview of identified MMCs by group.

	Dolphins	Orcas	Seals	Walruses	Whales
MMC (in alphabetical order)	Mitzi, also known as (aka) Flipper	Iberian orca subpopulation	Chappy	Freya	Delta and Dawn
	Reggie	Keiko, aka Willy	Pinkafo and Frisbee	Wally	Hvaldimir
	Winter	Tahlequah			Putu, Siku, and Kanik, aka Bonnet, Crossbeak, and Bone

Depending on the popularity of the respective animal group, two to three celebrities were identified. The author selected animals from different time periods where possible (see Table 2). When groups of animals became collectively famous, they were counted as one: The humpback whales Delta and Dawn, observed together in San Francisco Bay in 2007; the grey seals Pinafo and Frisbee, known for having a flying frisbee stuck around their necks; the grey whales Putu, Siku, and Kanik (also known as Bonnet, Crossbeak, and Bone), popularized through Operation Breakthrough (“Oct 7, 1988 CE,” 2023); and the Iberian orca subpopulation, known for ramming and sinking boats in the Mediterranean. In cases when a single stage name, such as Flipper, was assigned to multiple “real” animals, the analysis focused on the animal with whom the stage name was first made famous.

Table 2. Overview of MMC categories and associated animals, the media formats through which they became famous, and public response.

	Category description	Animal celebrities (name(s) and species)	Primary media formats and time periods
Hollywood	Animals that were captured by humans in the open ocean and brought to aquaria, who were then cast as celebrities based on their roles in traditional mass entertainment	Flipper, aka Mitzi (bottlenose dolphin) Willy, aka Keiko (orca)	Fictional films and television (1960s–1990s)
In human care	Animals in aquaria whose celebrity revolved around public outcries concerning their treatment in human care and demands to release them back into the open ocean	Keiko, aka Willy (orca)	Documentary films and series (1990s–2010s)
Rescued	Animals that humans cared for after the marine mammals were injured in the ocean	Winter (bottlenose dolphin) Putu, Siku, and Kanik, aka Bonnet, Crossbeak, and Bone (grey whales) Delta and Dawn (humpback whales) Pinkafo and Frisbee (grey seals) Chappy (grey seal)	Fictional and documentary films and series, news, and later social media (1980s–present)
Endangered and dangerous	Animals in the open ocean who appeared to seek out human company, display human-like behaviors, or interact with manmade boats	Tahlequah, aka J35 (orca) Iberian orca subpopulation (orca) Hvaldimir (beluga) Freya (walrus) Wally (walrus) Reggie (bottlenose dolphin)	Social media and news (2010s–present)

Note: The stage name (Willy) and celebrity name (Keiko) are switched between the “Hollywood” and “in human care” MMC categories to reflect the identity for which the animal was most famous in association with the respective category and time period.

3.2. Following the Animal

Having identified 13 animal celebrities (individuals, pairs, and groups), the author sought to immerse themselves in popular culture discourses about them. To do so, the author developed the methodological approach of “following the animal” through various forms of media. In addition to analysing news coverage about each of the animal celebrities identified via a Google keyword search using the respective animal’s name (e.g., Flipper) and group (e.g., dolphin), the researcher consequently sought out content about the respective animal in other media too. Here, the author aimed to analyse the media for which the animals are most known (e.g., the movie *Dolphin Tale* for the dolphin Winter), identified via online research using a Google keyword search.

The ability to transcend different types of media is critical for examining popular culture artefacts, as public perceptions of these are likely shaped through various media, including news coverage, fictional films or television shows, documentaries, and more (cf. Cook, 2004). By “following the animal,” the author is thus not limited to simply one medium but can draw on a wide variety of representations. Often, the analysis of one medium, such as a magazine article, organically led to the review of another piece of media mentioned therein. In analysing the media content (news and magazine articles, online listicles, books, movies, television episodes, documentary films, and podcast episodes), the author sought to understand dominant discourses, identifying ways in which the respective celebrity animals were predominantly framed. Based on this analysis of dominant discourses, four categories of MMCs emerged, as detailed in Section 4.

Although this article aims to provide a comprehensive analysis of MMCs, certain limitations apply. Like every analytical approach, “following the animal” is not without its limitations, as results are, for instance, shaped by search engine algorithms, and many materials may be difficult to access, requiring additional time or financial resources to locate. This is particularly the case for historic materials, such as those associated with the oldest MMC analysed in this study, Flipper (aka Mitzi, who died in 1972).

Furthermore, the article utilises discourse analysis, a subjective approach to research (see S. Taylor, 2013), to analyse MMCs as popular culture artefacts, examining dominant discourses concerning these animals in news publications, television shows, movies, and online listicles. Furthermore, due to the language in which this study was conducted, the results were likely skewed towards animal celebrities popular in regions where English-language texts are frequently read.

Additionally, the materials analysed for this article are not exhaustive—by virtue of the animals being celebrities, there is a wealth of material about them. Future studies may attempt to analyse *all* the material available on one of these animals, though a completely comprehensive analysis may be impossible. The article focused on the most widely consumed materials, which likely reflect the materials that inform the broader public’s perception of these animals. While the article covers a broad temporal range and a wide array of marine mammals and media formats, it remains difficult to generalise based on a select few examples.

Finally, due to format, time, and resource constraints, the study does not account for mentions of MMCs in other popular culture formats. Particularly with examples of older animals that have since passed away, modern audiences may be more familiar with them through references in other popular culture formats rather than the original source material. For instance, young adults today may not have watched the 1963

film *Flipper* (Clark, 1963) or the 1964–1967 series by the same title (Browning, 1964–1967). Yet, as the news and listicle analysis performed for this article shows, they are likely still familiar with the famous dolphin. Further research would be required to assess how exactly these audiences learned of the dolphin's existence. One may speculate that younger audiences watched remakes of the original media, like the 1996 movie *Flipper* (Shapiro, 1996) or the 1995 television series *Flipper* (Crombie, 1995–2000), or encountered stories of or references to the famous animal in films, like *Apollo 10 ½: A Space Age Childhood* (Linklater, 2022), documentaries, like *The Cove* (Psihoyos, 2009) or television shows, such as *Golden Girls* (T. Hughes, 1989), as well as parodies, like *The Muppets Tonight* show (Halvorson, 1996).

4. Results

4.1. MMCs: *From Flipper to Freya*

The analysis of media featuring MMCs led to the identification of four categories of animal celebrities, as illustrated in Table 2 and outlined in the following subsections. While the four categories overlap, in some cases including the same animal celebrities in multiple categories, they also represent different, though also partially overlapping, periods in time, thus reflecting shifting attitudes towards marine mammals from the 1960s to the present day.

The categories also demonstrate shifting attitudes towards MMCs in human care—from the fascination for seemingly companion-animal-like MMCs, such as Flipper (Subsection 4.1.1), to demands for the release of captive orca, exemplified by the Free Keiko campaign (Subsection 4.1.2), to the move towards human care for injured and lost animals (Subsection 4.1.3), and ultimately the focus on wild animals in the ocean (Subsection 4.1.4). In doing so, the categories also offer insights into the non-human agency (see Lorimer, 2007) of animal celebrities, which is restricted by human actors and infrastructure for almost all the examined MMCs, with a few notable exceptions discussed in the final subsection (Subsection 4.1.4). This transition from MMCs removed from the ocean to their return to the ocean, and ultimately to marine mammals becoming famous in their natural habitat reflects broader trends in ocean imaginaries and conservation, from the focus on protecting specific flora and fauna and addressing individual problems to an ecosystem-based approach and a focus on transboundary threats (see Moore, 2023).

Another notable shift reflected in the categories concerns the decline of monoculture in media, with the move away from a common cultural vocabulary shaped by Hollywood-produced films and television shows, such as *Flipper* and *Free Willy*, towards a more complex media structure, including the emergence of algorithmically curated online content. The study shows that this change in media trends aligns with the shifts in the perception of MMC animal welfare described in the above paragraph, and a move from fictionalised MMCs towards a greater focus on the “real” animals, though fictional MMC narratives do not entirely come to a halt. For instance, while the orca Keiko first became famous for its titular role in *Free Willy* (Wincer, 1993) and the “real” orca became famous as a result, the emphasis in news and fictional media concerning the bottlenose dolphin Winter is on the “real” animal that inspired the stories. Furthermore, despite the move away from media monoculture, marine mammals continue to be cast in the role of celebrities. While the number of almost globally recognised household names, such as Flipper, has declined, the study observes an increase in the number of regionally famous animals, such as the UK's dolphin Reggie and walrus Wally or Norway's beluga whale Hvaldimir and walrus Freya.

The comparatively large number of celebrity animals associated with the fourth category of endangered and dangerous marine mammals in the analysed media coverage may be due to (a) the shift from monoculture to social media (see Chayka, 2025) producing several lesser or more regionally known animal celebrities compared to fewer media industry-curated film stars and documentary protagonists, (b) the recency bias of the media sources used to identify celebrity marine mammals (see Section 3), and (c) the concerning trend of an increasing number of marine mammals seeking out human contact. The latter has been recorded and analysed by casual observers, journalists, marine biologists, and zoologists, with many attributing the trend to increasing human infringement on traditional habitats and anthropogenic environmental changes, including the climate crisis (see Subsection 4.1.4, Endangered and Dangerous MMCs).

4.1.1. Hollywood MMCs

The first category concerns animals that were captured by humans in the open ocean. They were then transported to aquaria and taught to perform certain behaviours, and eventually cast as celebrities based on their roles in Hollywood-produced blockbuster movies. This category is the only one which predominantly focuses on animal stars, whose star persona was carefully crafted by the American film industry, rather than celebrities whose fame often spans beyond the medium of film including news reporting and social media, though both stars and celebrities' fame is discursively constructed "through...complex representational processes" (Parkinson, 2023, p. 95).

The two most famous examples of this category are the bottlenose dolphin Mitzi, best known for playing the titular role in the 1963 movie *Flipper*, and the orca Keiko, who became famous for portraying Willy, the main animal character in the 1993 film *Free Willy*. While the "real" orca Keiko would eventually become famous in their own right (see subsequent Subsection 4.1.2, MMCs in Human Care), Mitzi and other animal actors of her generation were better known by their stage name, which lived on as other dolphins also played the role of Flipper. While earlier media coverage concerning the animal film stars (both "real" animals and the roles they portray) focused on the animals' intelligence and ability to fascinate audiences, in more recent decades, discussions have increasingly revolved around the MMCs' welfare, as detailed in the following subsection.

4.1.2. MMCs in Human Care

The second category concerns animals that were captured in the wild and whose welfare in human care became a source of public outcry, with many demanding the animals' release back into the open ocean. The most famous examples of this category all concern orcas. While this article focuses on Keiko (aka, Willy), other famous orcas associated with this category include the orcas Shamu and Tilikum, the subject of the famous documentary *Blackfish* (Cowperthwaite, 2013), who were exhibited and performed in shows at Sea World, a marine theme park chain.

The public outcry to release the orca Keiko following the popularity of *Free Willy*, using the slogan "Free Keiko," was ultimately successful, with more than 20 million US dollars spent on preparing the orca for release, transport, and ensuring its continued survival once out in the open ocean (Colby, 2018). While Keiko's release was considered a failure with the orca returning to its keepers to be fed and seeking out human company, scientists maintained: "In terms of giving Keiko a better life, it was 100 percent successful," explaining that the release failed because the orca had been "captured young and...held in captivity too long

for him to break ties with humans” (Doughton, 2009, para. 3, 10). Furthermore, media coverage concerning Keiko’s fame and release often stressed the significance of Keiko’s example for broader demands to release captive marine mammals; as Alarcón (2024, 32:48–32:53, emphasis added) puts it in his podcast series about Keiko: “What if Keiko, the *individual*, could become Keiko, the *symbol*?”

Others, however, pointed to the crux of celebrity animal culture, arguing that the immense effort and resources poured into making a (positive) example of Keiko may have yielded more good if they had been distributed more broadly. As Malene Simon Hegelund, senior scientist at the Greenland Institute of Natural Resources and co-author of a study assessing Keiko’s release (Simon et al., 2009), explained: “The fortune spent on Keiko might have been better invested in conservation programs to protect whales and their habitat....But that’s not as appealing as the adventures of a single whale” (Doughton, 2009, para. 30).

4.1.3. Rescued MMCs

The third category of MMCs concerns animals that were cared for by humans after being injured in the ocean. These animals are also often cited as positive examples of marine mammals successfully reintroduced to their oceanic habitat or whose continued life in human care is justified by the likelihood that their release into the open ocean would fail or lead to the animal’s suffering or death. For instance, in discussions of Keiko’s failed release, the orca Springer (aka, A73) is sometimes cited as a positive counterexample, having been briefly held in a pen after the animal was found lost near Seattle in January 2002, and successfully reintroduced to its birth pod in Puget Sound later that year (see, for example, Doughton, 2009).

Examples of rescued MMCs can be divided into two subcategories: The first concerns animals found and helped in the open ocean, like the humpback whales Delta and Dawn, a mother and calf who were observed swimming up the Sacramento river (“the wrong way”) in 2007. They were treated with antibiotics for their wounds and returned to the open ocean (S. Hughes, 2007). Another example can be found in the grey whales known by their Iñupiat names Putu, Siku, and Kanik (English names: Bonnet, Crossbeak, and Bone). The whales were first discovered trapped amid pack ice in the Beaufort Sea by an Iñupiaq Hunter in early October 1988, and their story quickly spread and soon garnered international media attention (“Oct 7, 1988 CE,” 2023). After initial efforts to free the whales failed, the US State Department requested the assistance of Soviet icebreakers, which managed to clear a path for the whales to escape in late October (“Oct 7, 1988 CE,” 2023). The operation was considered successful, although the youngest whale (Kanik) died before they were freed, and the status of the two remaining whales was unknown once they swam away (“Oct 7, 1988 CE,” 2023). This may indicate that anthropomorphic empathy only extends as long as humans can observe the animals.

The second concerns animals that were transported to veterinary or animal care facilities, with the animals either being successfully treated and released back into the ocean, continuing to receive care in the respective facility, or dying despite treatment. The grey seal pup Chappy is an example of the last option, having been found on a busy street in the American town of New Haven, Connecticut, and being taken into human care, but later dying due to an intestinal disease (Hassan, 2025). By contrast, the grey seals Frisbee and Pinkafo were found along the Norfolk coast in 2017 and 2018, respectively, with a flying ring (used to play frisbee) around their necks, from which they were freed by volunteers and successfully released back into the ocean (J. Hobson, 2025).

Finally, perhaps the most famous example of a dolphin rescued, treated, and continuing to live out its days in human care concerns the bottlenose dolphin Winter, who was found entangled in a crab trap line as a young dolphin in 2005, losing its tail flukes and parts of its tail as a result. The dolphin was then treated at the Clearwater Marine Aquarium, where it managed to swim and was eventually fitted with the world's first functional prosthetic dolphin tail. Winter's story went on to inspire the book *Winter's Tail* (Hatkoff et al., 2011), the films *Dolphin Tale* (C. M. Smith, 2011) and *Dolphin Tale 2* (C. M. Smith, 2014), and even a Nintendo DS videogame (Moby Games, 2009). These films that made Winter famous also raise questions concerning the mixed use of footage from the "real" dolphin Winter's medical treatment and the curated material explicitly filmed for the purpose of the *Dolphin Tale* movies. The use of "real" and "mediated" content highlights questions concerning the relationship between "authentic" footage of "real" animals and its ability to evoke emotions and desire to protect animals compared with artistic and synthetic animal celebrities, such as those depicted in and via cartoons, animatronics, animation, CGI, and more (see Koutras, 2023, for an exploration of indexical realism in film). Furthermore, these films often highlight anthropogenic aspects of dolphin behaviour or physique. For instance, in *Dolphin Tale 2*, the fictional main character Sawyer Nelson explains, "science doesn't know whether dolphins feel emotions the way we do: fear, joy, sadness. But their brains are as complex as ours....So, like always, we treated her [the dolphin] as gently as we treat one of us" (C. M. Smith, 2014, 02:21–02:39). Similarly, media coverage concerning Winter often noted the dolphin inspiring human amputees, especially children, with Winter described as "an ambassador for prostheses" (Anthes, 2013).

4.1.4. Endangered and Dangerous MMCs

The final category of MMCs concerns animals living in the open ocean, who appear to seek out human company, display human-like behaviours, or interact with manmade boats. The celebrity animal examples in this category can be classified into two groups: First, the beluga whale Hvaldimir, the walruses Freya and Wally, and the bottlenose dolphin Reggie concern wild animals that sought out and interacted with humans and boats. Second, the orca Tahlequah and the Iberian orca subpopulation concern wild animals whose contact with human infrastructure, or lack thereof, marks a significant departure from how the other animals analysed in this study have been discussed in the media.

Though each animal's story in the first group maps a slightly different outcome of close human contact, as detailed in the following paragraphs, the dominant framing of media coverage of Reggie, Freya, Wally, and Hvaldimir, respectively, notes concern for their safety due to their proximity to humans. Of the four animals, the beluga whale, Hvaldimir (also sometimes spelt Whaledimir), was the only one spotted in the ocean that was believed to have previously been in human care. The whale received its name—a combination of Russian President Putin's first name, Vladimir, and the Norwegian word for whale (*hval*)—from a Norwegian radio show after first being spotted by a Norwegian fisherman in 2019 (Treisman, 2024).

At the time, the whale was wearing a camera harness with the imprint "Equipment St. Petersburg," and subsequent news coverage playfully framed Hvaldimir as a "Russian spy whale" (Treisman, 2024). While researchers have traced the history of marine mammals used for military operations (see Colby, 2020), and the news outlet *Barents Observer* obtained satellite images of an Arctic marine mammal facility of the Russian navy, from which Hvaldimir was speculated to originate (Nilsen, 2019), news coverage and online content concerning the whale primarily focused on its interactions with humans, including being petted and

fetching a phone and a camera that had been dropped in the ocean. As Hvaldimir continued to seek out humans and boats, animal advocates and legislators explored long-term solutions, including setting up a sanctuary in the Norwegian fjord and reintroducing the whale to a wild beluga population around Svalbard, which would prevent the animal from harm resulting from interactions with humans. However, the whale died in 2024 before these plans could be realised.

Another Norwegian animal celebrity, the walrus Freya, was first spotted in the capital city of Oslo in the summer of 2022 (McCarthy, 2023). The walrus was often observed resting on boats, some of which sank as a result. Norwegian authorities issued warnings not to approach Freya due to the danger posed to oneself and the animal, a call echoed in news coverage and social media content discussing Freya. Yet, as humans were repeatedly observed in close proximity to Freya and the walrus appeared to be in distress, Freya was ultimately euthanised (McCarthy, 2023). In a statement concerning the decision, the Norwegian Directorate of Fisheries (2023, as cited in McCarthy, 2023, para. 12) explained that “the possibility for potential harm to people was high and animal welfare was not being maintained.” By contrast, a little over a decade earlier, news coverage of the walrus Wally’s appearance in the UK, France, Spain, and Iceland also mentioned people observing the walrus’ behaviour. Yet, the focus of news reporting was on concerns that the animal had ventured so far south from its Arctic habitat, emphasising the impacts of the climate crisis (Bryant, 2021).

Reggie is a male bottlenose dolphin who came to Lyme Bay (UK) in 2025, making headlines for his relatively frequent encounters with humans, interacting with swimmers and kayakers, but also being hurt by a boat propeller strike around June 2025 (Davies, 2025). As of the writing of this article in early autumn 2025, analysed online discourse concerning Reggie continues to caution the public of—“he doesn’t really know the harm he could be doing to us in the water” (Davies, 2025, para. 7)—and for Reggie—“the situation is becoming dangerous, for the swimmers and the dolphin. But he’s not a dangerous dolphin” (Sandeman, 2025, as cited in Davies, 2025, para. 8)—perhaps alluding to Freya’s fate.

In contrast to Reggie, Freya, Wally, and Hvaldimir’s stories of human interaction, the cases of Tahlequah and the Iberian orca subpopulation in this category stand out as distinct outliers. First, the orca Tahlequah, also known as J35, first made headlines in 2018, when she was spotted carrying the dead body of her calf for over two weeks (17 days) over a distance of approximately 1,600 kilometres (Bragg, 2025). Though several of her calves (J47, J57) survived in the years before and since (Razek & Jackson, 2024), in January 2025, Tahlequah once again made headlines for carrying the dead body of her calf for over a week (Bragg, 2025). Tahlequah had been spotted with her living calf in December 2024, although experts had already noted that they may be in poor health (Razek & Jackson, 2024). Media coverage of Tahlequah’s behaviour was exclusively framed as a mother mourning the loss of her child, notably distinguishing it from other animals discussed in this article. While the orca’s behaviour is interpreted as reflecting human-like emotions, it is the only animal featured in the study that does not interact with humans, yet is observed by humans to the point of animal celebrity.

Second, approximately from 2020 onward, a pod of orcas off the Iberian Peninsula was observed interacting with boats, often pushing the rudder with their noses; while similar behaviour has been observed in other regions of the world, the Iberian orca subpopulation is most famous for this behaviour (M. Hobson, 2024). The orcas have since interacted with numerous vessels, even sinking some, with many scientists suggesting that the orcas’ intention is to play rather than to attack humans; as experts from the Atlantic Orca Working Group (GTOA) explain, “there are no known direct intentional attacks on humans” and the Iberian orca

population does “not eat seals or anything that would mistake humans for food” (GTOA, n.d.; see also M. Hobson, 2024). The incidents have become so frequent and well-known that orca and sailing-based organisations, such as GTOA, have begun providing information on where orcas have been sighted and observed to ram boats, and even introduced safety recommendations and a traffic light system to inform of potential orca encounters (GTOA, n.d.).

In the context of this study, the group of orcas ramming boats represents another exception. While all the animal celebrities examined in this article are primarily discussed using individual names and in terms that demonstrate care or support for the animals in question and their welfare, the group of orcas is unique in that they are the only animals perceived to be dangerous based on their interactions with humans—or more precisely, boats that carry humans, though this distinction is not always made as explicit in the media coverage—and elicit sentiments of solidarity for their behavior. To the best of the author’s knowledge, no casualties have occurred in the boat ramming incidents to date, with the people on board being rescued before their vessels sank. While the language of “attacks” is used in much of the media coverage of these incidents, it implies potentially misplaced intentionalities (cf. shark attacks in Pepin-Neff, 2019).

This is a notable departure from other incidents in which orcas in human care have been observed as attacking and, in some cases, injuring and killing humans. In these incidents, the orcas’ behaviour towards humans has been at least initially assessed negatively, with orcas framed as lashing out against their keepers, though many accounts also emphasised empathy for the animals’ condition and welfare in human care (see Subsection 4.1.2, MMCs in Human Care). In the case of the orca subpopulation ramming boats, much of the discourse concerning the orcas’ behaviours is entangled in notions of class and capitalism, for instance, with the orcas being framed as avengers of polluted oceans, striking the yachts of the rich who are thought to contribute to this ecological crisis through their conspicuous consumption. Some statements in support of the Iberian orca population also cited other orca-MMCs discussed in this article, linking wild MMCs to those in human care. For instance, a popular tweet poses the rhetorical question, “Y’all raised an entire generation on free Willy [sic] and expect us to take the yacht’s side???” (Nicholas, 2023, as cited in LeBel, 2025).

As briefly noted in Subsection 4.1, these outliers and the rising number of wild animal celebrities identified in this category of MMCs may be related to a shift in the media landscape amid the proliferation of smartphones with higher-quality cameras and internet capabilities and platforms for image and video sharing. We thus observe a shift from curated and scripted media content of MMCs to unscripted animal behaviours becoming the basis of celebrity. This may imply a growing public desire for “authentic” visuals of marine mammals in their “natural” environment, contrasting the mass of curated influencer and AI-generated content. Future research should investigate these media trends and outlier cases in further detail.

5. Conclusion

In summary, this article investigated representations of celebrity marine mammals in popular culture, introducing the methodological approach of “following the animal” to identify four categories of animal celebrities: (1) Hollywood MMCs, (2) marine mammals in human care, (3) rescued marine mammals, and (4) endangered and dangerous marine mammals. The findings demonstrate a shift in the categories and groups of animal celebrities and their origins, noting the driving factors of the changing media landscape and the symbiotic relationship between animal celebrities, welfare, and conservation. In doing so, the article

addresses the tension between the individualisation and anthropomorphisation of celebrity animals and their role in reflecting and shaping marine imaginaries, highlighting that the framing of celebrity animals reflects and reinforces dominant discourses in ocean conservation. Each of the four categories enables specific care and management regimes, building on different kinds of anthropomorphism, from audiences praising Hollywood stars for their human-like intelligence, to sympathising with orcas held in captivity, to caring for animals in need of medical assistance, and ultimately the complicated mixture of fear, fascination, and empathy for wild animals perceived as performing human emotions and behaviours. The article highlights how these changing attitudes towards animal welfare and conservation are reflected and affected by popular culture artefacts concerning MMCs. Further research should explore the breadth and depth of (marine) animal celebrity and the ongoing trend of MMCs defying previous conventions concerning the agency of animal celebrities and the type of contact they have with humans and human infrastructures. Furthermore, future research should explore the relationship between marine care facilities and the cultivation of animal celebrities, as exemplified by the dolphin Winter and the Clearwater Marine Aquarium.

Acknowledgments

Thank you to the three reviewers for their thoughtful and inspiring suggestions, to Anja Menzel for co-editing this thematic issue with me, and to Vanessa Bach for encouraging me to pursue this article.

Funding

Publication of this article in open access was made possible through the institutional membership agreement between the German Institute of Development and Sustainability (IDOS) and Cogitatio Press.

Conflict of Interests

In this article, editorial decisions were undertaken by Anja Menzel (University of Bamberg/University of Johannesburg).

Data Availability

The data that support the findings of this study are available from the author, Charlotte Gehrke, upon reasonable request.

LLMs Disclosure

This article was written without LLM tools, with the exception of autocorrect functions to ensure correct spelling and grammar.

References

- Abidin, C., Brockington, D., Goodman, M. K., Mostafanezhad, M., & Richey, L. A. (2020). The tropes of celebrity environmentalism. *Annual Review of Environment and Resources*, 45, 387–410. <https://doi.org/10.1146/annurev-environ-012320-081703>
- Alarcón, D. (Host). (2024). *Episode 1: Save the whale* [Audio podcast]. The New York Times. <https://www.nytimes.com/interactive/2024/podcasts/serial-good-whale.html>
- Anderson, C. B., Dicenta, M., Archibald, J. L., & Valenzuela, A. E. J. (2023). How changing imaginaries of nature and tourism have shaped national protected area creation in Argentine Patagonia. In T. Gale-Detrich, A. Ednie, & K. Bosak (Eds.), *Tourism and conservation-based development in the periphery* (pp. 71–97). Springer. https://doi.org/10.1007/978-3-031-38048-8_4

- Anthes, E. (2013, March 1). A dolphin's tale: How researchers gave one bottlenose a prosthetic tail. *Scientific American*. <https://www.scientificamerican.com/article/how-researchers-gave-bottlenose-dolphin-prosthetic-tail>
- Atlantic Orca Working Group. (n.d.). *Recommendations*. <https://www.orcaiberica.org/en/recomendaciones>
- Bragg, J. (2025, January 7). Orca mom is carrying a dead calf for the second time, raising concerns among scientists. *CNN*. <https://edition.cnn.com/2025/01/07/science/orca-carrying-dead-calf-tahlequah>
- Brando, S., Broom, D. M., Acasuso-Rivero, C., & Clark, F. (2018). Optimal marine mammal welfare under human care. *Behavioural Processes*, 156, 16–36. <https://doi.org/10.1016/j.beproc.2017.09.011>
- Browning, R. (Executive Producer). (1964–1967). *Flipper* [Television Broadcast]. NBC.
- Bryant, M. (2021, October 1). 'He's so majestic': Wally the walrus hits Iceland on tour of Europe. *The Guardian*. <https://www.theguardian.com/world/2021/oct/01/hes-so-majestic-wally-the-walrus-hits-iceland-on-tour-of-europe>
- Chayka, K. (2025). *Filterworld*. Random House.
- Clark, J. B. (Director). (1963). *Flipper* [Film]. Metro-Goldwyn-Mayer.
- Colby, J. M. (2018). *Orca*. Oxford University Press.
- Colby, J. M. (2020). Conscripting Leviathan. *Diplomatic History*, 44(3), 466–478. <https://doi.org/10.1093/dh/dhaa011>
- Cook, I. (2004). Follow the thing: Papaya. *Antipode*, 36(4), 642–664. <https://doi.org/10.1111/j.1467-8330.2004.00441.x>
- Cowperthwaite, G. (Director). (2013). *Blackfish* [Film]. Manny O. Productions.
- Crombie, D. (Executive Producer). (1995–2000). *Flipper* [Television Broadcast]. NBC.
- Cudworth, E., & Hobden, S. (2023). Animalising international relations. *International Relations*, 37(3), 398–422.
- Davé, N. N. (2023). *Indifference: On the praxis of interspecies being*. Duke University Press.
- Davies, C. (2025, August 25). The perilous charm of Reggie the friendly dolphin. *The Guardian*. <https://www.theguardian.com/environment/2025/aug/25/the-perilous-charm-of-reggie-the-friendly-dolphin>
- Despret, V., & Latour, B. (2016). *What would animals say if we asked the right questions?* University of Minnesota Press.
- Dicenta, M. (2024). The promise of interspecies desegregation: Allying with capybaras against gated communities in Buenos Aires' wetlands. *Environment and Planning F*. Advance online publication. <https://doi.org/10.1177/26349825241255688>
- Donald, M. M. (2018). *Entanglements with empathy* [Unpublished doctoral dissertation]. University of Glasgow.
- Donald, M. M. (2019). When care is defined by science. *Area*, 51(3), 470–478.
- Doughton, S. (2009, May 13). The \$20M lessons of “freeing” Keiko the whale. *The Seattle Times*. <https://www.seattletimes.com/seattle-news/the-20m-lessons-of-freeing-keiko-the-whale>
- Empathy. (2025). In *Encyclopaedia Britannica*. <https://www.britannica.com/science/empathy>
- Epstein, C. (2008). *The power of words in international relations*. MIT Press.
- Fox, M. W. (1980). Empathy or anthropomorphism? *International Journal for the Study of Animal Problems*, 1(6), Article 346.
- Fraser, G., Grattan, F., Shaw, J., Hedley, S., McLeod, K. E., Robinson, K., Ward, P. J., & Tennent, E. (2022). 'Lemme get uhhhhh froot.' *New Zealand Journal of Psychology*, 51(1), 46–58.
- Fuchs, M. (2018). Becoming-shark? In J. Hackett & S. Harrington (Eds.), *Beasts of the deep* (pp. 172–183). John Libbey.
- Gehrke, C. (2024). Practitioner perspectives on arctic marine mammals in environmental news reporting. *The Northern Review*, 56, 9–36. <https://doi.org/10.22584/nr56.2024.002>

- Gehrke, C., & Menzel, A. (2026). Ocean Pop: Marine Imaginaries in the Age of Global Polycrisis. *Ocean and Society*, 3, Article 12337. <https://doi.org/10.17645/oas.12337>
- George, A. E., Schatz, J. L., Nocella, A. J., II., & C. Hurley, S. (2016). *Screening the Nonhuman: Representations of animal others in the media*. Lexington Books. <https://doi.org/10.5040/9781978731738>
- Giles, D. C. (2013). Animal celebrities. *Celebrity Studies*, 4(2), 115–128. <https://doi.org/10.1080/19392397.2013.791040>
- Gouabault, E., Dubied, A., & Burton-Jeangros, C. (2011). Genuine zoocentrism or dogged anthropocentrism? *Humanimalia*, 3(1), 77–100. <https://doi.org/10.52537/humanimalia.10059>
- Greving, H., & Kimmerle, J. (2021). You poor little thing! *Human Dimensions of Wildlife*, 26(2), 115–131. <https://doi.org/10.1080/10871209.2020.1800146>
- Gunther, S. (2019, July 3). 10 of the world's most famous whales. *Treehugger*. <https://www.treehugger.com/worlds-most-famous-whales-4869290>
- Guthrie, S. E. (2025). Anthropomorphism. In *Encyclopaedia Britannica*. <https://www.britannica.com/topic/anthropomorphism>
- Halvorson, G. (Director). (1996, October 25). Muppets tonight (Season 1, Episode 10) [TV series episode]. In *Muppets tonight*. ABC.
- Hartmann, T. (2016). Parasocial interaction, parasocial relationships, and well-being. In L. Reinecke & M. Beth Oliver (Eds.), *The Routledge handbook of media use and well-being* (pp. 131–144). Routledge.
- Hassan, A. (2025, March 4). Baby seal who was rescued from a busy Connecticut street has died. *New York Times*. <https://www.nytimes.com/2025/03/04/us/chappy-seal-dead-new-haven.html?searchResultPosition=6>
- Hatkoff, J., Hatkoff, I., & Hatkoff, C. (2011). *Winter's tail*. Scholastic.
- Heathcote, G. (2021). Animals of Instagram: Taxonomic bias in science communication online. *Journal of Science Communication*, 20(4), Article A10. <https://doi.org/10.22323/2.20040210>
- Hobson, J. (2025, May 13). I'm obsessed with protecting seals. *The Guardian*. <https://www.theguardian.com/environment/2025/may/13/jennifer-hobson-protecting-seals-from-plastic-flying-toy-rings>
- Hobson, M. (2024, May 30). Why are orcas ramming boats? They might just be bored teenagers. *National Geographic*. <https://www.nationalgeographic.com/premium/article/orcas-boats-sinking-spain-play>
- Hughes, S. (2007, May 30). Delta and dawn home free? *CBS News*. <https://www.cbsnews.com/news/delta-and-dawn-home-free>
- Hughes, T. (Director). (1989, October 28). Love under the big top (Season 5, Episode 5) [TV series episode]. In *Golden girls*. NBC.
- Jamieson, A. J., Singleman, G., Linley, T. D., & Casey, S. (2021). Fear and loathing of the deep ocean: Why don't people care about the deep sea? *ICES Journal of Marine Science*, 78(3), 797–809. <https://doi.org/10.1093/icesjms/fsaa234>
- Jepson, P., & Barua, M. (2015). A theory of flagship species action. *Conservation and Society*, 13(1), 95–104. <https://doi.org/10.4103/0972-4923.161228>
- Johnson, E. R. (2015). Of lobsters, laboratories, and war: Animal studies and the temporality of more-than-human encounters. *Environment and Planning D: Society and Space*, 33(2), 296–313. <https://doi.org/10.1068/d23512>
- Kalof, L., & Whitley, C. T. (2021). Animals in environmental sociology. In B. Schaefer Caniglia, A. Jorgenson, S. A. Malin, L. Peek, D. N. Pellow, & X. Huang (Eds.), *Handbook of environmental sociology* (pp. 289–313). Springer. https://doi.org/10.1007/978-3-030-77712-8_14
- Kanngieser, A., & Todd, Z. (2020). From environmental case study to environmental kin study. *History and Theory*, 59(3), 385–393. <https://doi.org/10.1111/hith.12166>

- Killer Whale. (2025). In *Encyclopaedia Britannica*. <https://www.britannica.com/animal/killer-whale>
- Koutras, K. (2023). Documentary fictions: Jacques Rancière and the problem of indexical media. *Film-Philosophy*, 27(2), 262–281. <https://doi.org/10.3366/film.2023.0229>
- Leader-Williams, N., & Dublin, H. T. (2000). Charismatic megafauna as ‘flagship species.’ In A. Entwistle & N. Dunstone (Eds.), *Priorities for the conservation of mammalian diversity* (pp. 53–81). Cambridge University Press.
- LeBel, S. (2025, August 13). “Capsize the rich”: Orca memes and anti-capitalist interspecies solidarity. *NiCHE*. <https://niche-canada.org/2025/08/13/capsize-the-rich-orca-memes-and-anti-capitalist-interspecies-solidarity>
- Linklater, R. (Director). (2022). *Apollo 10 1/2: A space age childhood* [Film]. Netflix Animation; Minnow Mountain; Submarine; Detour Filmproduction.
- Lorimer, J. (2007). Nonhuman charisma. *Environment and Planning D: Society and Space*, 25(5), 911–932. <https://doi.org/10.1068/d71j>
- McCarthy, L. (2023, April 30). Freya, the Walrus killed by Norwegian officials, is immortalized as a sculpture. *The New York Times*. <https://www.nytimes.com/2023/04/30/world/europe/freya-walrus-statue-norway.html?smid=url-share>
- Moby Games. (2009). *Winter’s tail* [Video game]. Crave Entertainment. <https://www.mobygames.com/game/159448/winters-tail>
- Moore, S. E. (2008). Marine mammals as ecosystem sentinels. *Journal of Mammalogy*, 89(3), 534–540. <https://doi.org/10.1644/07-MAMM-S-312R1.1>
- Moore, S. E. (2023). Chasing inter-species communication: What marine mammals are telling us about our oceans. *ICES Journal of Marine Science*, 80(4), 690–697. <https://doi.org/10.1093/icesjms/fsad030>
- Nilsen, T. (2019, May 27). Satellite images reveal Russian navy’s secret Arctic marine mammal facility. *The Barents Observer*. <https://www.thebarentsobserver.com/security/satellite-images-reveal-russian-navys-secret-arctic-marine-mammal-facility/157494>
- Oct 7, 1988 CE: Operation breakthrough. (2023, October 19). *National Geographic*. <https://education.nationalgeographic.org/resource/operation-breakthrough>
- Parkinson, C. (2023). Making animals visible in star and celebrity studies. In J.-R. Schluchter (Ed.), *Tiere–Medien–Bildung* (pp. 89–98). kopaed.
- Pepin-Neff, C. L. (2019). *Flaws*. Palgrave Macmillan.
- Probyn, E. (2017). How to represent a fish? *Cultural Studies Review*, 23(1), 36–59. <https://doi.org/10.5130/csr.v23i1.5110>
- Psihoyos, L. (Director). (2009). *The Cove* [Film]. Participant Media; Oceanic Preservation Society; Diamond Docs; Skyfish Films.
- Puig de la Bellacasa, M. (2017). *Matters of care*. University of Minnesota Press.
- Razek, R., & Jackson, A. (2024, December 24). Orca carried her dead calf for 17 days. She now has a new baby. *CNN*. <https://edition.cnn.com/2024/12/24/us/tahlequah-orca-calf/index.html>
- Renovables. (2025). *The most famous whales in the world and their stories*. <https://renovables.blog/en/zoology/The-most-famous-whales-in-the-world-and-their-stories>
- Scharenberg, A. (2026). Fishy Imaginaries: The Cultural Politics of De/Objectifying Fish. *Ocean and Society*, 3, Article 11461. <https://doi.org/10.17645/oas.11461>
- Shapiro, A. (Director). (1996). *Flipper* [Film]. The Bubble Factory.
- Simon, M., Hanson, M. B., Murrey, L., Tougaard, J., & Ugarte, F. (2009). From captivity to the wild and back: An attempt to release Keiko the killer whale. *Marine Mammal Science*, 25(3), 693–705. <https://doi.org/10.1111/j.1748-7692.2009.00287.x>

- Smith, A. M., & Sutton, S. G. (2008). The role of a flagship species in the formation of conservation intentions. *Human Dimensions of Wildlife*, 13(2), 127–140. <https://doi.org/10.1080/10871200701883408>
- Smith, C. M. (Director). (2011). *Dolphin Tale* [Film]. Alcon Entertainment.
- Smith, C. M. (Director). (2014). *Dolphin Tale 2* [Film]. Alcon Entertainment.
- Swim, J. K., & Bloodhart, B. (2015). Portraying the perils to polar bears: The role of empathic and objective perspective-taking toward animals in climate change communication. *Environmental Communication*, 9(4), 446–468. <https://doi.org/10.1080/17524032.2014.987304>
- Taylor, C. (2004). *Modern social imaginaries*. Duke University Press. <https://doi.org/10.1215/9780822385806>
- Taylor, S. (2013). *What is discourse analysis?* Bloomsbury Academic.
- Todd, Z. (2015). Fish pluralities: Human-animal relations and sites of engagement in Paulatuuq, Arctic Canada. *Études/Inuit/Studies*, 38(1/2), 217–238. <https://doi.org/10.7202/1028861ar>
- Treisman, R. (2024, September 3). Beloved ‘Russian spy whale’ Hvaldimir is found dead under mysterious circumstances. *NPR*. <https://www.npr.org/2024/09/03/nx-s1-5098968/hvaldimir-russian-spy-beluga-whale-dead>
- Troudet, J., Grandcolas, P., Blin, A., Vignes-Lebbe, R., & Legendre, F. (2017). Taxonomic bias in biodiversity data and societal preferences. *Scientific Reports*, 7, Article 9132. <https://doi.org/10.1038/s41598-017-09084-6>
- Williams, P., Burgess, N., & Rahbek, C. (2000). Flagship species, ecological complementarity and conserving the diversity of mammals and birds in sub-Saharan Africa. *Animal Conservation*, 3, 249–260.
- Wincer, S. (Director). (1993). *Free Willy* [Film]. Le Studio Canal+; Regency Enterprises; Alcor Films; Donner/Shuler-Donner Productions.

About the Author



Charlotte Gehrke is a researcher at the German Institute of Development and Sustainability (IDOS) in Bonn. Her work examines the intersection of science communication, policy, and diplomacy, with an empirical focus on polar and ocean governance.

Fishy Imaginaries: The Cultural Politics of De/Objectifying Fish

Antje Scharenberg 

Department of Politics and International Relations, University of Southampton, UK

Correspondence: Antje Scharenberg (a.scharenberg@soton.ac.uk)

Submitted: 30 September 2025 **Accepted:** 16 December **Published:** 19 March 2026

Issue: This article is part of the issue “Ocean Pop: Marine Imaginaries in the Age of Global Polycrisis” edited by Anja Menzel (University of Bamberg/University of Johannesburg) and Charlotte Gehrke (German Institute of Development and Sustainability-IDOS), fully open access at <https://doi.org/10.17645/oas.i518>

Abstract

This article discusses how fish are imagined in and beyond Western popular culture. Activists and scholars with an interest in marine conservation have argued that it is difficult to mobilise for fish welfare due to their alleged lack of charisma and sentience. Expanding these existing studies on fish ethics, this article argues that in order to understand why few people seem to care for fish, we need to critically interrogate how fish are constructed in popular culture. Methodologically, the article develops its argument based on ethnographic fieldwork with actors who *resist* popular representations of fish from *under water*. I draw on 10 qualitative interviews with subsea activists and conservation divers, as well as 18 months of participant observation at and in the Baltic, the North Sea, and the North Atlantic, using snorkelling and scuba technologies, during which I encountered various species of fish. Based on this fieldwork, I discuss three hegemonic fish imaginaries in Western popular culture, which present fish as either décor, monsters, or biomass. I argue that what runs through all three representations is that fish are not only objectified as “lively capital”—a fate they share with other more-than-human animals—but rendered as *lesser-than-animal*. In consequence, popular representations of fish serve to legitimise their industrial extraction by equating fish with a wider inventory of oceanic “resources” and “raw materials” like oil, wood, or minerals. By contrast, the people I accompany in my fieldwork encounter fish in radically different ways.

Keywords

animal ethics; fish; fishing; lively capital; more-than-human; multispecies justice; ocean activism; representation

1. Introduction: Encountering Fish Above and Below the Water

The image is difficult to forget once you saw it—a hybrid creature with the body of a tuna and the face of a panda bear. This, of course, is exactly what WWF’s 2011 advertising campaign intended. The campaign

was launched in the context of Atlantic bluefin tuna nearly having been hunted to extinction (Probyn, 2017; Telesca, 2020). Its tagline, “would you care more if I was a panda?” implies a clear message: if only people would consider fish to be as cute as panda bears, tuna populations could be saved. WWF’s tuna campaign is illustrative of a problem that concerns animal rights activists and scholars alike: many people “(at least in many Western cultures)” seem to have difficulties “when it comes to relating empathetically to fishes” (Greenhough et al., 2024, p. 2). One possible explanation that immediately comes to mind is that humans and fish live in different elements. The fact that fish live “under the water, out of sight, out of mind” (Greenhough et al., 2024, p. 450) means that most humans do not encounter fish in their natural habitat, but in the terrestrial world, that is, from the surface. As Ferguson (2006, p. 121) writes, before the latter half of the 19th century, subaquatic animals “were usually portrayed either alive at the water’s surface or dead and desiccating on land.”

With the rise of Victorian aquaria in the late 19th century and underwater film technologies in the early 20th century, this changed as Westerners were now able to encounter fish—if still on the surface—then at least alive, namely behind glass or on the screen (Elias, 2019; Granata, 2021; Starosielski, 2013). Given that surface encounters behind glass or on screens define many Westerners primary exposure to live fish until today, it seems necessary—when thinking about the question of why many people do not seem to care about fish—to interrogate how fish are constructed in Western popular culture and everyday life. As scholarship of subaquatic representations demonstrated, how the subsea is imagined is not value-neutral but has deep political implications (Alaimo, 2025; Jue, 2020; Probyn, 2017; Starosielski, 2013).

Unlike scholars who have interrogated popular imaginaries of the ocean and fish on the screen, this article approaches the question of how we encounter fish not by textual analysis, but from the perspective of those who encounter fish in a radically different way, namely, *under water*. Besides 10 qualitative interviews with conservation divers, my argument derives from 18 months of *ocean ethnography* conducted in the North Sea, the Baltic Sea, and the North Atlantic between 2024 and 2025. During this period, I accompanied marine conservationists into the intertidal zone, coastal waters, and offshore areas using bathyscopes, snorkelling, and scuba diving technologies in order to monitor, restore, and document endangered marine habitats and species. As part of this work, during dozens of hours spent under water, I encountered different types of fish, including the three specific species I focus on in this article: Atlantic gobies, pelagic blue sharks, and Baltic plaice.

As different scholars have shown, human–fish relations are multiple: they are not only culturally specific, but also shift with changes in the ecological or economic context within which they take place (Satizábal & Dressler, 2019; Todd, 2014). Depending on context, humans might understand fish, to name but some examples, as “ornaments, pets, specimens, and food” (Granata, 2021, p. 11), as “milk” (“protein”), “meat,” “resources” (Satizábal & Dressler, 2019), and as “trophies in sport fishing,” or, contrastingly, as “non-human persons with agency” (Todd, 2014, p. 223). Given the importance of context, it is crucial to point out that my own ethnographic work took place in the waters bordering three Western European countries (the UK, Germany, and the Netherlands). Consequently, my analysis is limited to their respective first languages (English, German, and Dutch). Moreover, I specifically focus on Anglo-spheric popular culture because of how fish-themed films and documentaries from the US (such as Disney’s *Finding Nemo*, or Steven Spielberg’s *Jaws*) and the UK (such as the BBC’s *Blue Planet*) have become global media phenomena. Thus, they impacted the cultural imaginaries of fish even in countries such as Germany and the Netherlands, where English is not the first language. While this focus on Anglo-Western imaginaries of fish is necessarily limiting and certainly not representative of *all* (and perhaps not even the majority of) human–fish relations across the

globe, I will argue that a consideration of how fish are represented in Anglo-Western popular culture is nevertheless important for understanding how these imaginaries help to legitimise the industrial-scale extraction of fish “stock” as a dominant global governance paradigm.

Drawing on ethnographic encounters with fish under the sea, the argument in this article unfolds in three steps. Firstly, I will review existing scholarship dealing with human–fish encounters as a question of aesthetics, ethics, and economics. Secondly, discussing my fieldwork findings, the article offers three common tropes in the popular Western imaginary of fish, which represent fish as décor, monsters, or biomass. Here, I will also demonstrate how undersea conservationists’ fish encounters from below the waterline differ from these popular imaginaries. Ultimately, the third section of this article argues that all three imaginaries not only objectify fish as “lively capital” (Collard, 2020) but also render them as *lesser-than-animal*. In consequence, Western popular representations of fish serve to legitimise their industrial extraction by imagining fish not as animals but as “resource-objects,” thus equating them with “raw materials” like oil, minerals, and wood. When encountered under water in the context of marine conservation, however, fish present themselves in a radically different way.

2. Caring for Fish: Aesthetics, Ethics, and Economics

The question of why humans seem to care more about the well-being of some animals than others has occupied scholars and conservationists for some time. One popular line of explanation and a key assumption that runs through much research is the implied message in the aforementioned WWF campaign: the cuter, more colourful, or more spectacular an animal is, the more humans care about their well-being. As Lorimer (2007, p. 911) argues in his seminal study of “non-human charisma”: “Affect provides the vital motivating force that impels people to get involved in conservation.” Thus, charisma is instrumentalised in conservation contexts, for instance, in the shape of “flagship species,” in order to benefit the conservation of specific species or wider habitats. The term flagship species refers to charismatic megafauna, often large mammals such as pandas and polar bears, or, in the aquatic realm, whales and dolphins, with a high emotional, public appeal (see, for instance, Gehrke, 2024; Jepson & Barua, 2015).

Charisma has arguably become a popular line of campaigning for the simple fact that *it works*. Gehrke (2024) demonstrates how Arctic practitioners continue to use polar bears in their communication about political issues in the Arctic because it will grant these issues greater media attention, in the hope that this will lead to better conservation. At the same time, scholars like Gehrke have also criticised and pointed to the limits of flagship species as a communication strategy, because of the inherent risk of misrepresenting what is at stake. For instance, polar bear health may say little about the actual state of Arctic wildlife in the context of climate change, for while polar bears may be able to adapt to new conditions, the general state of the Arctic may still be in decline.

Conservationists and scholars concerned with fish ethics in particular have also pointed to the limits of mobilising charisma for fish welfare. As one of Gehrke’s (2024, p. 17) interviewees puts it: “it’s more resonant if you’re talking about polar bears than if you’re talking about freshwater fish.” Similarly, Telesca (2020, p. xiv, emphasis added) implies that—compared to tuna—many people seem to find it easier to sympathise with Tilikum, the famous captured orca at Sea World, for the chlorine in his pool “stung and reddened his eyes *just like yours and mine would have.*” Unlike orcas or pandas, Driessen (2013, p. 252) argues, fish “are

quintessentially non-cuddly animals, cold, slimy, and with their unblinking and sideways directed eyes they don't have a 'face' to us." Tellingly, it was a fish called *Psychrolutes microporosus*—better known by its less flattering name "blobfish"—who was voted the "world's ugliest animal" (Jamieson et al., 2021; Probyn, 2017).

Concerned with how humans might care for animals that are not considered to be cute or even seen as ugly, Driessen (2013, p. 253) argues for an "ethics of awe," which could apply "beyond those that look impressive or pretty" and work via other characteristics that leave an impression on humans, such as "amazing abilities." With regards to tuna, we might think, for instance, of their "cheetah-like" speed (Telesca, 2020, p. xv). However, awe, too, hits a similar limitation as charisma: What of those who can neither be understood as cute nor awe-inspiring? What of those who are "boring" to humans? Do they *deserve* to be killed? Indeed, a key limitation here is that in looking for cuteness, human-like features, or awe-inspiring qualities, human preferences remain the primary reference point against which a fish's worthiness is judged.

A second line of argument regarding how people may begin to care about fish is to do with fish sentience, thus moving from the question of a species' individual characteristics and *aesthetics* to questions of *ethics* and fish welfare. Here, scholars have argued that exposure to animal suffering may mobilise compassion with animals that humans might otherwise find difficult to relate to. If only we saw more "pictures of distressed wildlife" (Greving & Kimmerle, 2021, p. 128), "displaying the gruesome reality of immense amounts of suffering" (Driessen, 2013, p. 255), scholars argue, people would start caring. However, Driessen admits, the difficulty with fish is that the question of whether or not fish feel pain was long scientifically disputed and even though there is evidence today that fish *do* suffer, the assumption that they do not seems to stick. Indeed, Greenhough and colleagues' study of laboratory aquarium workers' relations to fish shows that workers had to learn to recognise fish suffering, because fish suffering *looks different* to human suffering: "[I]f a person is in pain, they're either going to make a face or cry....Fish don't do any of that" (Greenhough et al., 2024, p. 458). Respective scholarship, which acknowledges that fish *may suffer*, thus recommends what Wadiwel (2016) terms a "politics of doubt." Other scholars proposed ethical concepts such as animal agency (Edelblutte et al., 2023) and dignity (Franks et al., 2023), which go beyond the focus on pain and take into consideration the complexity of animals' liveworlds, including their cultures, cognition, or sociality.

From a more practical point of view, scholarship on professional human–fish relations does reveal that humans who spend time with fish *do* tend to care about fish in different ways. Greenhough et al. (2024, p. 449) show how aquarium workers "find ways to empathise with fishes" once they learn to recognise a fish's ill health. At the same time, while respective studies offer insightful observations about the meaning of care—such as that caring for fish means caring for water quality—Greenhough et al. (2024, pp. 455–456) also note that the care given by aquarium workers, for instance, still occurs in the context of captivity for human *use*, in which we "bring the fishes up to 'our level,' whilst we humans stay with our feet on land, not in the water."

As scholarship on artisanal and Indigenous fishing practices demonstrates, where humans encounter fish from *within* their own environment rather than—literally and figuratively—*looking down* on them (Franks et al., 2023), human–fish encounters might be understood as more equal, "reciprocal relationships between people and 'fish-as-non-human persons'" (Todd, 2014, p. 218). Todd demonstrates how the people from Paulatuuq of the Inuvialuit settlement region in the Canadian Western Arctic engage with fish in multiple ways, including through "storytelling, philosophizing, sharing, theorizing, songs, ways of respecting and linguistic definitions," which "extend far beyond the utilitarian procurement of food" (Todd, 2014, p. 222).

Here, as Todd (2014, p. 225) points out, fish are not “separate from humans,” but “intimately woven into every aspect of community life.” Similarly, Satizábal and Dressler (2019, p. 7) describe how interactions with fish are an essential part of the everyday “rhythms, memories, stories, and practices of marine social spaces” in Afro-descendent small-scale fishing communities in Colombia’s Gulf of Tribugá. That respective communities “speak often of fish as milk—as sustenance, protein, and source of life” is illustrative of a “deep physical and emotional connection between them and the Gulf’s waterscapes” (Satizábal & Dressler, 2019, p. 8). Crucially, both studies highlight how respective ways of encountering fish can clash with national policies and industrial practices driven by commercial logics and global value chains.

In line with respective studies of human-fish encounters *in* the water, my aim in this article is to demonstrate how Western conservationists’ fish encounters *under* the water similarly contrast with predominant economic logics and, in my case, Western cultural imaginaries of fish. Thus, this article will engage in most depth with scholarship concerned with how non-human animals are folded up into capitalist relations of labour, property, and commodity governance (Barua, 2016; Collard, 2020; Fair, 2024; Shukin, 2009; Telesca, 2020; Wadiwel, 2016). Telesca’s (2020) discussion of the commodification of tuna, for instance, reveals how international governance bodies existing to protect tuna serve instead to manage tuna to extinction. Here, “the problem is not the institution per se but the values that arrange it” (Telesca, 2020, p. 30). In order to understand the meaning of care in this context, she suggests, we therefore need to analyse the “hegemonic regime of value that eradicates entire life-forms for the sake of commodity empires” (Telesca, 2020, p. 5). Similarly, Collard (2020, pp. 7–8) argues that scholarship of human–animal relations “has not adequately grappled with capitalism as an organizing structure for human-animal relations.” For instance, charisma’s “emphasis on enchantment does not explain the logics of accumulation or how value is generated through the traffic in spectacular, lively commodities” (Barua, 2016, p. 739).

In what follows, I draw and expand on respective scholarship to demonstrate how Western popular culture has helped to normalise the imaginary of fish as commodified objects and how such imaginaries in turn serve to legitimise exploitative human–fish relations. The next section will draw out three hegemonic tropes of fish representations pervading Western popular culture and everyday life that have stood out in my fieldwork. At the same time, my subsea fieldwork with marine conservationists and ocean activists (see Scharenberg, 2025)—taking place in the fish’s natural habitat—also shows how humans may relate to fish in a radically different way, namely on eye-level.

3. En/Countering Popular Fish Imaginaries Under Water

3.1. *Decorative Fish: The Aesthetic “Deficiencies” of the Goby*

When I joined a group of seagrass conservationists on a particularly cold February day in 2023 to better understand and support their endeavour of restoring local seagrass meadows, I found myself shivering in a wetsuit that was way too thin for the icy wind and water temperatures of UK winters. Still, I was convinced that it was all going to be worth it. After all, besides helping to restore a crucial ecosystem, there was the prospect of possibly seeing marine mammals like seals or different types of sharks, which could be found within the proximity of the particular seagrass meadows we were monitoring. In the many hours I spent under water over the course of several months, planting and measuring seagrass shoots, I was secretly always hoping to see a smaller-spotted catshark in particular, whom I had only ever encountered washed up dead on the beach

where I lived, and was keen to meet alive. I often asked my fellow divers and snorkellers whether they had seen one. “No,” they responded on most occasions, but had I seen the pipefish pretending to be a seagrass leaf? I hadn’t.

Over the course of the next few months, during which we returned to the same meadows over and over again, I gradually began to see the underwater seascape through the eyes of my research participants and started to get to know the many inhabitants of the area. While there were—and I did eventually see—the occasional catshark and seal, I began to also notice the vast variety of other fish using the seagrass meadow as a nursery or hunting ground: from “commercially valuable” species like cod and plaice—whom many UK residents will have only encountered wrapped in batter in their local chippy—to different types of wrasse, gobies, and blennies hiding amidst cobbles and pebbles or swimming through the meadow. As I learned more about this fascinating habitat, I began to question why it had been so important to me to see specific species when there was such an abundance of life to be encountered here. It was not until I spoke to Chris, a local underwater videographer and conservationist, about their experience of diving in the UK, that I realised where I had gone wrong. Chris told me:

I will spend a whole dive and not really move that far, because I just watch what’s going on, from the smallest goby to a large crab, you watch how things interact, and that’s what I film a lot of my time. A really nice example is you look at a goby and to most people it’s a plain-looking fish that doesn’t really do much except live in the sand, but actually, when you sit and watch them, they have the most amazing personality....They build nests...it’s star-shaped around and it looks really cool. I always think back to that Blue Planet 2 shoot where they filmed puffer fish and the puffer fish make these nests. I always think, well...it’s tropical...it’s a charismatic species but then you come close to home and there’s this small fish that does the exact same thing they do and there is proper character behind it and it’s like: please tell me what the difference is...except one is in warm water and the other is in colder temperate seawater. (Interview, March 2024)

Chris’s implied critique of the BBC’s popular ocean documentary and how it represents underwater habitats is echoed by academic scholarship in media and cultural studies (Cubitt, 2005; Starosielski, 2013). As respective scholarship demonstrates, the hegemonic view of the underwater world is skewed by a colonial gaze that is drawn towards tropical, colourful habitats and charismatic species. Elias’ (2019) insightful study, *Coral Empire*, traces this view back to the rise of aquaria and diorama in the late 19th and then underwater photography and film in the early 20th century, which helped construct the underwater as a modern spectacle for the purpose of enchanting Western audiences. Coral reefs in the Bahamas and Australia, for instance, were regarded as the backyard of the British empire. Jue (2025) shows how this skewed aesthetic view that favours colourful species like tropical coral persists and forgets about the cold-water species that can be found closer to home—a fate that the North Sea goby encountered by Chris shares. As part of this wider fascination with tropical habitats, fish were turned into “objects of beauty” or “curiosities” (Elias, 2019, p. 9). In other words, they were constructed as *decorative objects*, valued for their aesthetic properties and “ornamental functions” and collected for the purpose of “visual consumption” (Granata, 2021, p. 87, emphasis added). Elias (2019, p. 9, emphasis added) demonstrates “how the desire to look at animals, to hunt with cameras, and to consume the exotic world through photographic reproductions and cinematic projections embodied symbolic as well as physical violence,” while objectifying “marine animals as source of knowledge and entertainment” (Elias, 2019, p. 1).

Crucially, the construction of fish as *décor* is thus not merely an aesthetic matter but underlies a profit-driven logic that puts fish to work and on display for paying customers to see. Even ocean documentaries produced by public broadcasters like the BBC, as Cubitt (2005) demonstrates with the example of *Blue Planet*, are impacted by the logic of revenues through international sales, which even influences how episodes are structured to be able to include advertising breaks. Unsurprisingly, what sells best in the attention-based economy are “spectacular cinematography” defined by “grandeur”—“the series opens with a sequence on blue whales”—or “rarity” (Cubitt, 2005, p. 48). As such, they tend to favour the most charismatic, the most colourful, or the most “bizarre.” As Jamieson et al. (2021) demonstrate, based on their critical analysis of the *Blue Planet II* episode that focusses on the deep sea, attention is given, here, not only to the “prettiest” but also to the “ugliest,” “alien” creatures of the deep, which paints a skewed image of the deep ocean through spectacular, loaded language (see also Alaimo, 2025). For Jamieson et al. (2021, p. 797), such representations contribute to why people do not seem to “care about the deep sea.”

Another example of how Western audiences have come to expect underwater habitats to look a particular way is the public aquarium, which has shaped the British popular imaginary of what can be found under the waves from the Victorian era (Granata, 2021) until today. In their study of contemporary public aquaria in the UK, Squire and Peters (2025, p. 10) demonstrate how aquaria “are carefully designed to enchant, enthrall and entice audiences.” This involves aquarists constructing (and viewers expecting) tanks in which the water is crystal clear, specific species (notably sharks, “Nemo’s,” and “Dory’s”) are present, and something (preferably colourful or spectacular) can be seen in every part of the tank. Put simply, the fish-encounters of the Western aquarium visitor, who already knows that there is a near guarantee that “there’d be Dory’s” (Squire & Peters, 2025, p. 7), contrast starkly with Chris’s experiences in UK undersea habitats. If mainstream audiences have been conditioned to expect only the prettiest, ugliest, or the most spectacular species, Chris’s encounter with the goby took place while spending hours in the murky waters of the North Sea, not expecting much but to witness what was there. Rather than projecting learned aesthetic preferences for charismatic mammals, spectacular species, or colourful coral onto the cold-water habitat in which they spent time, Chris adapted their mode of seeing to the environment in which they found themselves. For them, the key was to encounter animals like the goby (Figure 1) on their own terms.



Figure 1. Leopard-spotted gobies, arguably two of the more charismatic members of the gobiidae family.

3.2. *Monstrous Fish: The Production of Sharks as Machinic “Others”*

After more than an hour of boat ride, in the summer of 2024, I was bobbing on the surface of the pelagic Atlantic, encircled by three sharks. Far from nightmarish, this was a *desirable* situation. I had come out here with a group of conservationists precisely because we wanted to not only see sharks but to be in the water with them in order to observe their behaviour and monitor this particular population. North Atlantic blue sharks, the species to which the three individuals encircling me belonged, had been added to the International Union for Conservation of Nature’s red list as “near threatened” in 2018, partially as a result of ending up as “bycatch” or of being caught for their fins to enter into the global shark fin trade. In order to help protect the species, the conservationists whom I accompanied were gathering data about this population by tagging, observing, and getting to know the sharks that lived in this particular area of the North Atlantic.

As we prepared to enter the water, another person, who swam with pelagic sharks for the first time, asked the inevitable question: how likely was it that we might get *attacked*? The question was hardly surprising. All fish considered, few fish have as bad a reputation as sharks. Jo, one of the conservationists on the trip, later told me that she gets this question nearly every time she talks about her work. In fact, one of the biggest challenges to shark conservation, as I have been told by several interviewees, is this: if you say shark, people think *Jaws*.

Once again, activists and conservationists are not the only ones blaming popular culture for the negative reputation of fish. Several scholars have written about and dissected Steven Spielberg’s 1975 blockbuster *Jaws* (for instance Ferguson, 2006; Neff, 2015), which sparked not only its own film genre—the shark thriller, including several *Jaws* sequels, other shark-attack-themed films such as *Open Water*, *The Meg*, or *Sharknado*, as well as a video game named *Jaws Unleashed* (Fuchs, 2018). Fuchs (2018, p. 181) critiques that what *Jaws* also does is “effectively reducing the shark to its jaws.” Indeed, the film industry has constructed sharks as *monstrous* “killing machines” (Verne, 2025, p. 198), driven by the *intention* to attack (Neff, 2015) and a primal drive to kill that exclusively defines their being (Fuchs, 2018).

While Spielberg’s depiction of great white sharks may have defined the contemporary imaginary of sharks like no other, *Jaws* did not invent attack-focused shark representation. “The original ‘Jaws’ attack” arguably took place in 1749 when Brook Watson, the owner of the Boston Tea Party’s tea, went for a swim in Havana harbour (Bendersky, 2002). The scene was captured on canvas a few decades later by the painter John Singleton Copley, whose depiction of the shark reminds of the *Jaws* poster in that it shows a gaping mouth full of teeth, ready to bite. Wide open shark jaws also appear on J. M. W. Turner’s famous painting *The Slave Ship* from 1840, as well as in Winslow Homer’s *The Gulf Stream* from 1899. In Copley’s depiction of *Watson and the Shark*, we also see how Western humans typically respond to shark attacks: above the shark’s head looms her fate in the shape of a person about to ram a spear into her back—signalling that “only a dead shark is a good shark.” This trope later occurred even in Jacques Cousteau’s *The Silent World*, from 1956, which originally included “scenes of the crew killing sharks” (Starosielski, 2013, p. 152). Indeed, the very first-ever moving image caught of a shark was a shot of a shark being killed (Elias, 2019).

It is worth noting that respective representations of sharks can include moments in which the monster imaginary is complicated, even in movies such as *Jaws*. More than complicating, recent documentaries like Ocean Ramsey’s *Shark Whisperer* seek to actively contest this trope of sharks as monsters and re-present sharks as in need of conservation. However, scholars have shown that conservation-minded action and

representations can have limitations or even cause harm (see Edelblutte et al., 2023). Tagging, for instance, has been criticised for causing harm to individual sharks, and TV programmes like *Expedition Great White*, which set out in the name of shark protection, still indulge in masculinist beast vs. man fantasies, anthropocentric narrations, and displays of human domination (see Fuchs, 2022). Indeed, what shark representations from Copley to Spielberg demonstrate is that shark imaginaries in popular and high culture often intimately connect shark encounters with, and thus legitimise, shark killings. Neff's (2015) work compellingly shows that *Jaws* even influenced shark policy in Australia. Similarly, in Réunion, killing sharks used to be a go-to method for dealing with shark "attacks" (Verne, 2025). At the same time, Verne's study of human-shark encounters also illustrates that where humans are willing to change their behaviour, living *with* sharks (see also Fish, 2024), rather than attempting to separate humans and sharks by default, may be possible. This might include critically assessing when and how humans need to be in the water with sharks at all (as in the case of excessive shark-themed tourism), or employing "underwater shark spotters," who "move in the water like fish," encountering sharks on eye-level (Verne, 2025, p. 212),

Back on our boat in the North Atlantic, Jo answered the question of possible blue shark "attacks" by telling us that humans are not on the sharks' menu. If a blue shark were to bite, it would be because they were "seeking information," seeing that a human bobbing about on the surface in the middle of the ocean is a rather unlikely sight for them. The circling, Jo explained, is one way of getting information. If they need more, they might use their mouths to inspect an unknown object, the equivalent of what humans would use their hands for, rather than bites being an intentional "attack." To prevent this kind of contact, Jo tells us to stay calm in the water, wear fins to avoid erratic movement, and lock eyes with the sharks at all times to tell them we are fellow predators, not food. Put differently, we should adapt our behaviour and position in the water to that of the shark (Figure 2).



Figure 2. Blue shark encounter in the open ocean.

3.3. Fish Biomass: The Reduction of Plaice to “Fish Stock”

We had been out at sea for several hours and were in the middle of hauling up several hundred kilos worth of net on deck when one of the divers suddenly shouted, “Stop!” They spotted a fish in the net that was still moving. With her mouth wide open and gills pulsating in need of oxygen, she only entangled herself further when trying to free herself. Carefully, the diver peeled her out of the net, put her back into the water, and we watched her disappear beneath the waves. The scene encapsulates precisely why the divers I accompanied out on the Baltic Sea had come here: to pull ghost nets out of the sea in order to stop the unnecessary death of fish. The term “ghost net” refers to fishing nets that have either been lost or deliberately dumped at sea and which subsequently drift in the water column or get entangled on reefs or shipwrecks. As one of the divers explained to me: the nets keep killing even when they are no longer in operation because what they caught attracts other marine life, including seals or porpoises, who subsequently get entangled. As if to prove a point, the next net we hauled up contained a fish for whom we came too late. Half decomposed, he could hardly be identified—the drifting ghost net had turned him into a ghost of himself (Figure 3).



Figure 3. Dead fish caught in a ghost net, probably a bull-rout.

While the sight was bleak enough on the surface, the images the divers regularly brought up from underneath were even more gruesome. When I asked them what the situation looked like under water, Finn, one of the divers who often takes an underwater camera down to document and make visible (see Alaimo, 2025) the damage and suffering caused by ghost nets, told me about a particularly horrific scene:

Sometimes you document things you’d rather not film. Once, for example, we encountered a plaice caught in a net whose eyes were being eaten by crabs while he was still alive. He couldn’t swim away

and so the crabs took him to pieces; that was tough [to watch]. There's always the question of how long you point the camera at that scene for...before you free them. (Interview, July 2024)

Finn's struggle to watch and document such a situation illustrates the mental and political dilemma of documenting animal suffering for the purpose of, on the one hand, mobilising compassion, and, on the other, gathering evidence for the purpose of resisting the status quo. As Finn explained to me, it is not clearly regulated who is responsible for recovering nets once they are lost at sea, which is why volunteer divers fill this gap. Moreover, by documenting the damage these nets cause under water—including in marine protected areas—they have a lever with which they can demand change.

At the same time, my conversation with Finn demonstrates that this work is not only emotionally and physically challenging for the divers involved, but it also points to the limits of mobilising the argument of animal sentience and compassion through the documentation of animal suffering. Finn told me that many people he talks to are supportive of them removing such nets, but that there is a limit to that support:

We often meet supporters who see our ship and ask, "what can we do?" Our answer is: "Well, you can stop eating fish and a lot would be won already." More often than not, they respond: "That's too radical." (Interview, July 2024)

Here we explicitly return to the question with which I began this article: why do people not care about fish, even when their suffering and destructive fishing techniques are being made visible? In other words, why, even when they might feel compassion for a fish's unnecessary death, do people still think that the idea of not eating fish sounds too crazy, indeed *too radical*? For Finn, the answer to why many people in the West do not seem to care for fish is this: "We don't regard them as animals." Instead, the English word *fish stock* (see Driessen, 2013), as well as the German *Fischbestand* and the Dutch *visbestand*, signals an inventory rather than a population of beings. As one interviewed UK conservationist put it, people tend to think of *seafood*, not *sealife*.

The question of language and how people refer to and encounter fish was an issue that kept coming back in various conversations I had with conservation divers. Another example that several research participants gave is that Westerners do not tend to think of fish as individuals. In this sense, fish are different from other objectified animals such as farm animals. If you ask a farmer how many cows they have, they will likely tell you the number of individual animals, say 100 cows. If you ask an industrial fishing person how many fish they caught, they will answer, say, 100 tons (an amount pelagic supertrawlers can catch in a day). Fish, in other words, is measured as "biomass" not beings (see also Telesca, 2020, p. xvii). "Bycatch" (*Beifang* in German and *bijvangst* in Dutch have the same connotation) is another such term that lumps individuals together into one undistinguishable squish of undesirable catch: a form of "rubbish" that gets broomed back into the sea while dead or dying. In Sir David Attenborough's recently released documentary *Ocean*, we see the kind of footage that activists like Finn have been documenting for years. Here, a bottom trawling net is dragged across the ocean floor, destroying everything in its wake. It is the equivalent, as one conservationist told me, of going through the Amazon rainforest with a bulldozer and destroying an entire habitat to catch a single butterfly. If this happened on land, they said, most people would be outraged. But because it happens to fish under the sea, an environment that is often out of sight and out of the public eye, few seem to care.

By contrast, the activists and conservation divers I followed throughout my fieldwork have a radically different relationship to fish in that they relate to fish *on eye level*. Back on deck of the ghost net diving vessel, we stopped what we were doing to pull individual fish out of the net. Under water, activists like Finn pay attention to the horrific fate of individual fish suffering. In doing so, they arguably de-objectify fish, recognising their individual stories, families, and economic dynamics (Collard, 2020) of how they end up on people's plates. In doing so, what their actions amount to is a *de-objectification* of fish, recognising them not as objects to be extracted from the sea, but as *fellow animals*. Like many of those I met who, like Finn, consider themselves ocean *activists* (see Scharenberg, 2025), I have referred to individual fish in this article as “she,” “he,” or “them,” just like we would to a fellow human being. After all, as Telesca (2020, p. 243), who applies the same approach in her book on tuna, puts it: “Using the pronouns ‘she’ and ‘her’ is meant to contest and destabilize the commodification of fish. Surely a living being cannot be ‘it.’”

4. The De/Objectification of Fish as Lesser-Than-Animal

What, then, do the three tropes I have outlined in this article thus far tell us about how Western audiences commonly encounter fish in popular culture and everyday life? What each section demonstrates is that Western popular culture and the language used to refer to fish constructs fish as objects of sorts: (a) for the purpose of entertainment and enchantment (decorative fish), (b) as machinic others to be kept at bay (monstrous fish), or (c) as a resource for industrial-scale extraction (fish biomass). Fish are often reduced to functioning as part of the *backdrop*, elevated only if they fulfil the aesthetic requirements as decorative *objects* by being tropical, colourful, or awe-inspiring. In shark representations that reduce sharks to their jaws, sharks are objectified, quite literally, as killer *machines*. Here, sharks are treated less like an autonomous animal and more like a form of *pollution* that can be removed from popular beaches and bays by means of barriers (Fish, 2024; Verne, 2025). Finally, in industrial fishing, fish are lumped together into a “biomass” rather than being recognised as a population or individual animals. In short, fish are reduced, here, to the status of objects in an anthropocentric logic that renders fish as useful or instrumental to humans in aesthetic, leisure, or culinary terms. However, what I want to argue in what remains of this article is that the fate of fish is different from that of other “use animals”: fish are not only objectified into “lively capital” (Collard, 2020)—they are constructed as *lesser-than-animal*.

Crucially, the objectification of animals into commodities is not specific to fish (see Shukin, 2009). Building on Shukin's idea of “animal capital,” Collard's (2020, p. 5) work on the “exotic” pet trade shows how both domesticated and wild animals are folded into human property relations, in which animals are “*made thinglike*” when turned into a commodity or capital. Collard argues that animals are made thinglike by way of a process she terms *animal fetishism*—expanding Karl Marx's *commodity fetishism* by bringing it together with the scholarship of Donna Haraway and Sarah Ahmed. Collard (2020, p. 25, emphasis added) argues that, “animal fetishism is mobilized discursively...through the designation of *usefulness*” to humans. Animal fetishism, for Collard (2020, p. 24), “thus involves the *cutting off of the animal from the complex history of its own being*.” Making a similar argument for the specific case of tuna, Telesca (2020, p. xvii, emphasis added) criticises how “the *utilitarian* logic of fisheries management under extractive capitalism depends on an *alienated* citizenry's implicit internalization of value commoditized in such a way that accepts as normal the extermination of an ocean giant.” In other words, thinking of tuna as sushi has become the norm, while thinking of them as warm-blooded giants roaming the high seas is a marginalised perspective.

Yet, if objectification is the fate of all animals in an anthropocentric regime, there is still a fundamental difference in precisely *how* fish are objectified compared to other non-human animals. To paraphrase Orwell: all animals are objectified, but some animals are more objectified than others. While even pets are objectified, Collard (2020) shows that there is a paradox here, because their value as *lively capital* derives precisely from them staying alive—an argument that also applies to pet fish held in aquaria. The fate of farm animals is somewhat different. While they, too, need to stay alive in some cases (to provide milk or eggs, for instance), they are essentially kept to be killed and turned into food. There are animal welfare regulations for farm animals, including farmed fish, which outline how farm animals ought to be kept and killed to minimise animal suffering. However, wild fish caught commercially “are excluded from welfare regulations” even though fish are recognised as sentient beings in UK law (Garratt & McCulloch, 2022, p. 1).

In what ways, then, are fish different from other objectified animals like pets or farm animals? The very term “fish” is indicative here for it is unprecise at best: “fish” can be both plural or singular, refer to the animals themselves or to their “meat.” By contrast, the English expressions for terrestrial animals’ “meat” sustain a specific relation to the animal species or genus: In the process of hunting, deer get turned into veal, a killed cow becomes beef, a killed pig becomes pork, and a killed chicken’s meat becomes poultry. Moreover, as Franks et al. (2023, p. 233) pointed out: “‘fish’ is not a biologically meaningful group” but rather an artificial grouping that lumps together more than 30,000 different species of aquatic vertebrates, including *Agnatha* (jawless fish like the lamprey), *Chondrichthyes* (cartilaginous fish like sharks and rays), and *Osteichthyes* (bony fish like the blenny or the plaice). The English term *fishing* (as well as the German *Fischen* or the Dutch *vissen*) is no less problematic. Which other animal gets *turned into a verb*? The verbs “deering,” “chickening,” “cowing,” or “pigging” do not exist in the English language. The term “whaling” refers to a practice that is now banned from commercial exploitation, not least as a result of the Western public’s imaginary of whales having radically shifted over the last centuries—from monsters on medieval maps to intelligent beings “like us.” Birding, the exception to the rule, refers to the practice of admiring birds, rather than killing them. By contrast, fish, in the context of many fishing methods, do not even deserve individual deaths but can be scooped up as a “biomass” with heavy machinery and thrown back into the ocean as “bycatch” if deemed undesirable.

What these examples illustrate, then, is that fish are treated, in this imaginary, rather as a part of their environment or a wider inventory of ocean-based resources—part of a landscape to be harvested (like a forest in forestry or a field in agriculture) or, indeed, a kind of *raw material* in themselves, rather than “just” an objectified animal. Tellingly, the primary management device for “fisheries”—the maximum sustainable yield—was originally developed in the forestry sector, thereby equating fish to trees or crops and treating them akin to terrestrial vegetation to be divided up based on economic exploitation and geopolitical interests (Ramesh & Namboothri, 2018). In this sense, the very practice of fishing by way of dragging a net through the ocean is more akin to ploughing the ground to harvest wheat. Fish are, thus, *more akin to crop than to cows*, more like crude oil, less like a dog—they are thought of as a raw material to be extracted from the sea. Pets, in being rendered as objects, might be lesser than humans. Fish, however, are rendered here as *lesser-than-animal*, not quite *animal-objects*, but *resource-objects*, devoid of a life of their own even before they might be caught.

How, then, may fish be encountered otherwise? The human actors I met in my fieldwork encounter fish not as “lively capital,” but regard “the animal as a world-making subject” (Collard, 2020, p. 19). Using Collard’s terminology, we might say that these encounters thus serve to “defetishize,” or, indeed, *de-objectify fish*, in that

they recognise them as “relationally autonomous beings” with “lives of their own” (Collard, 2020, pp. 30–31). In my three case studies, activists and conservationists do this in different ways. Chris, rather than projecting aesthetic preferences onto the goby, accepts them as they are, returning to the same dive site time and again, which is precisely what allows them to acknowledge that the goby’s life is as complex and valuable as that of tropical fish. The shark conservationists I spent time with do not reduce sharks to their jaws but attempt to understand the animals’ behaviour in full. Rather than keeping them away, they adapt their behaviour in the water to safely be with and thus better understand sharks. Finally, Finn and his crew call fish “she,” not “it,” become witnesses to their deaths, and protect their habitats from ghost nets. In doing so, they shed light on the material relations of consuming fish, leading them to reassess our consumption (and production) habits and ultimately calling for a temporary moratorium on fishing in the Baltic Sea altogether. In sum, what they all do is to *de-objectify fish*, encountering fish as subjects in their own right. The radicality of de-objectifying fish, however, goes further than merely demanding fish welfare. What these acts of de-objectifying all have in common is that they invite Western humans to adapt their own behaviour, whether it is their sense of aesthetics, how they move in the water, or what they eat. That is, rather than attempting to change (the image of) fish, they seek to change the behaviour of (Western) humans.

5. Conclusion

By way of conclusion, let us return to where I began this article and consider a second example of how environmental NGOs have attempted to mobilise empathy for fish through powerful advertising imagery. This second advert shows a fish with a frightened expression on his face, not under water but on the surface, worse even: in a frying pan. The tagline “Frying Nemo” and image of Pixar’s protagonist about to land on a plate were used by the animal rights organisation PETA to get consumers to reflect on the question: “if fish had personality, would you protect them?” (see Driessen, 2013). While some might argue that films like *Finding Nemo* and respective adverts can mobilise compassion and care for fish, it is also true that *Finding Nemo* and *Finding Dory* have taught Western audiences that they can come and expect to see “Nemo’s” and “Dory’s” in public aquaria (Squire & Peters, 2025). *Finding Nemo* thus illustrates both the potential of “charismatising” fish through popular culture and its limits: while people might start caring, charisma and personality do not protect fish from capture and (here, decorative) objectification.

In this article, I drew on the perspective of underwater activists and conservation divers to argue that we need to understand fish imaginaries in and beyond popular culture not only through the lens of charisma, but also pay attention to the wider cultural politics through which fish are constructed as *lesser-than-animal*. Such an analysis reveals that charismatising fish—while it might increase care to some degree—still folds fish into existing extractive relations, rather than critiquing, and thus beginning to change, the cultural and economic logics that construct fish as *resource-objects* in the first place. Put differently, in focussing on constructing fish as more likeable animals, the charisma strategy misses the fact that fish are hegemonically understood *not even as animals* in Western culture. In order to understand why many people in the West do not seem to care about fish, we need to pay attention to how popular culture serves to legitimise an idea of fish as lesser-than-animal, that is, merely another oceanic resource to be extracted. In this sense, investigating human–fish relations also raises further questions about how Western humanity relates to the ocean at large.

My aim in this article was to demonstrate that encountering fish not from the surface (from the top-down) but from under water (from below) reveals not only how extractive relations get normalised, but also brings

other, more-than-human views of the ocean into view (see Armstrong, 2025; Armstrong & Scharenberg, 2025). Crucially, as Lobo and Parsons (2023), amongst others, have pointed out, many coastal and Indigenous peoples have encountered fish and other marine animals in respectful and caring ways for centuries. Satizábal and Dressler's (2019, p. 15) work with Afro-Colombian communities, who understand fish as "milk," provides a case in point, opening up a different vocabulary and set of imaginaries based on a much more "nurturing relationship between coastal people and the sea," compared to the extractive relationship that is implied in much of Western popular culture. In this sense, my work with subsea activists and conservation divers is in line with and seeks to contribute to existing and future struggles and scholarship that aim to expand an alternative, more-than-human vocabulary *from below*.

Acknowledgments

I would like to thank the journal's editors and specifically the thematic issue editors Anja Menzel and Charlotte Gehrke for making this issue possible, as well as the anonymous reviewers for their helpful feedback. Thanks also go to Chris Armstrong, Enrike van Wingerden, and the participants of the Multispecies Politics Workshop, who provided valuable feedback on an earlier version of this article. Finally, I am grateful to my human and non-human research participants who kindly shared their perspectives with me and without whom this article would not exist.

Funding

This article was made possible through a Swiss National Science Foundation Postdoc Mobility Fellowship, entitled Undersea Civil Society: Knowledge, Technologies, and Political Struggle in Oceanic Depths, project number P500PS_222095. Additionally, part of the 2024 fieldwork was funded by the University of St Gallen's GFF International Postdoctoral Fellowship under Grant 1031585.

Conflict of Interests

The authors declare no conflict of interests.

Data Availability

Due to the nature of the research, data sharing is not applicable to this article.

References

- Alaimo, S. (2025). *The abyss stares back: Encounters with deep-sea life*. University of Minnesota Press.
- Armstrong, C. (2025). The common heritage of Animalkind. *Environmental Politics*. Advance online publication. <https://doi.org/10.1080/09644016.2025.2486735>
- Armstrong, C., & Scharenberg, A. (2025). "Another ocean is possible": Thinking ocean justice beyond mastery. *Environmental Politics*. Advance online publication. <https://doi.org/10.1080/09644016.2025.2569171>
- Barua, M. (2016). Lively commodities and encounter value. *Environment and Planning D: Society and Space*, 34(4), 725–744. <https://doi.org/10.1177/0263775815626420>
- Bendersky, G. (2002). The original "Jaws" attack. *Perspectives in Biology and Medicine*, 45(3), 426–432. <https://doi.org/10.1353/pbm.2002.0043>
- Collard, R.-C. (2020). *Animal traffic: Lively capital in the global exotic pet trade*. Duke University Press.
- Cubitt, S. (2005). *EcoMedia*. Brill.
- Driessen, C. P. G. (2013). In awe of fish? Exploring animal ethics for non-cuddly species. In H. Röcklinsberg & P. Sandin (Eds.), *The ethics of consumption* (pp. 251–256). Brill.

- Edelblutte, É., Krithivasan, R., & Hayek, M. N. (2023). Animal agency in wildlife conservation and management. *Conservation Biology*, 37(1), Article e13853. <https://doi.org/10.1111/cobi.13853>
- Elias, A. (2019). *Coral empire: Underwater oceans, colonial tropics, visual modernity*. Duke University Press.
- Fair, H. (2024). Labor, violence and the unfamiliar: Animals' geographies of the more-than-human home. *Progress in Environmental Geography*, 3(4), 332–351. <https://doi.org/10.1177/27539687241278367>
- Ferguson, K. (2006). Submerged realities: Shark documentaries at depth. *Atenea*, XXVI(1), 115–129. <https://hdl.handle.net/20.500.11801/3296>
- Fish, A. (2024). *Oceaning: Governing marine life with drones*. Duke University Press.
- Franks, B., Webb, C., Gagliano, M., & Smuts, B. (2023). Looking up to animals and other beings: What the fishes taught us. In M. Challenger (Ed.), *Animal dignity: Philosophical reflections on non-human existence* (pp. 229–238). Bloomsbury.
- Fuchs, M. (2018). Becoming-shark? Jaws unleashed, the animal avatar, and popular culture's eco-politics. In J. Hackett & S. Harrington (Eds.), *Beasts of the deep: Sea creatures and popular culture* (pp. 172–183). John Libbey Publishing.
- Fuchs, M. (2022). Capturing the shark: White (eco-)masculinity and the pursuit of science in the docuseries Expedition Great White. *AAA: Arbeiten aus Anglistik und Amerikanistik*, 47(2), 243–258. <https://www.jstor.org/stable/27219076>
- Garratt, J. K., & McCulloch, S. P. (2022). Wild fish welfare in UK commercial sea fisheries: Qualitative analysis of stakeholder views. *Animals*, 12(20), Article 2756. <https://doi.org/10.3390/ani12202756>
- Gehrke, C. (2024). Practitioner perspectives on arctic marine mammals in environmental news reporting. *The Northern Review*, 56, 9–36. <https://doi.org/10.22584/nr56.2024.002>
- Granata, S. (2021). *The Victorian aquarium: Literary discussions on nature, culture, and science*. Manchester University Press.
- Greenhough, B., Roe, E., & Message, R. (2024). Amphibious ethics and speculative immersions: Laboratory aquariums as a site for developing a more inclusive animal geography. *Scottish Geographical Journal*, 140(3/4), 449–473. <https://doi.org/10.1080/14702541.2024.2378308>
- Greving, H., & Kimmerle, J. (2021). You poor little thing! The role of compassion for wildlife conservation. *Human Dimensions of Wildlife*, 26(2), 115–131. <https://doi.org/10.1080/10871209.2020.1800146>
- Jamieson, A. J., Singleman, G., Linley, T. D., & Casey, S. (2021). Fear and loathing of the deep ocean: Why don't people care about the deep sea? *ICES Journal of Marine Science*, 78(3), 797–809. <https://doi.org/10.1093/icesjms/fsaa234>
- Jepson, P., & Barua, M. (2015). A theory of flagship species action. *Conservation and Society*, 13(1), 95–104. <https://doi.org/10.4103/0972-4923.161228>
- Jue, M. (2020). *Wild blue media: Thinking through seawater*. Duke University Press.
- Jue, M. (2025). *Coralations*. University of Minnesota Press.
- Lobo, M., & Parsons, M. (2023). Decolonizing ocean spaces: Saltwater co-belonging and responsibilities. *Progress in Environmental Geography*, 2(1/2), 128–140. <https://doi.org/10.1177/27539687231179231>
- Lorimer, J. (2007). Nonhuman charisma. *Environment and Planning D: Society and Space*, 25(5), 911–932. <https://doi.org/10.1068/d71j>
- Neff, C. (2015). The Jaws effect: How movie narratives are used to influence policy responses to shark bites in Western Australia. *Australian Journal of Political Science*, 50(1), 114–127. <https://doi.org/10.1080/10361146.2014.989385>
- Probyn, E. (2017). How to represent a fish? *Cultural Studies Review*, 23(1), 36–59. <https://doi.org/10.5130/csr.v23i1.5110>

- Ramesh, M., & Namboothri, N. (2018). Maximum sustainable yield—A myth and its manifold effects. *Economic and Political Weekly*, 53(41), 58–63. <https://www.epw.in/journal/2018/41/review-environment-and-development/maximum-sustainable-yield.html>
- Satizábal, P., & Dressler, W. H. (2019). Geographies of the sea: Negotiating human–fish interactions in the Waterscapes of Colombia’s Pacific coast. *Annals of the American Association of Geographers*, 109(6), 1865–1884. <https://doi.org/10.1080/24694452.2019.1587282>
- Scharenberg, A. (2025). Ocean activism: Understanding political acts in extra-national terrain. *Social Movement Studies*, 24(5), 588–603. <https://doi.org/10.1080/14742837.2024.2321142>
- Shukin, N. (2009). *Animal capital: Rendering life in biopolitical times*. University of Minnesota Press.
- Squire, R., & Peters, K. (2025). Crafting the ocean: The geographies of environmental world-making. *Transactions of the Institute of British Geographers*. Advance online publication. <https://doi.org/10.1111/tran.70040>
- Starosielski, N. (2013). Beyond fluidity: A cultural history of cinema under water. In S. Rust, S. Monani, & S. Cubitt (Eds.), *Ecocinema theory and practice* (pp. 149–168). Routledge.
- Telesca, J. E. (2020). *Red gold: The managed extinction of the giant bluefin tuna*. University of Minnesota Press.
- Todd, Z. (2014). Fish pluralities: Human-animal relations and sites of engagement in Paulatuuq, Arctic Canada. *Études Inuit Studies*, 38(1/2), 217–238. <https://www.jstor.org/stable/24368324>
- Verne, J. (2025). Human-shark encounters beyond borders: (Post-humanist) attempts to navigate a maritime contact zone. In K. Peters & J. Turner (Eds.), *Ocean governance (beyond) borders* (pp. 197–222). Springer.
- Wadiwel, D. J. (2016). Fish and pain: The politics of doubt. *Animal Sentience*, 1(3). <https://doi.org/10.51291/2377-7478.1054>

About the Author

Antje Scharenberg is a political ethnographer and postdoctoral fellow at the University of Southampton, whose research investigates issues of ocean governance from below. Scharenberg conducts ocean ethnography, including ship-based and underwater participant observation with seagoing civil society, using seafaring, snorkelling, and scuba technologies. She has written about ocean justice, maritime solidarity, and ocean activism, and collaborates with artists and civil society actors working on related topics, including at the 2025 UN Ocean Conference in Nice, France.

Digital Frontiers: The Polar Regions and Popular Geopolitics in Video Games

Erdem Lamazhapov ^{1,2} 

¹ Department of Political Science, University of Oslo, Norway

² Fridtjof Nansen Institute, Norway

Correspondence: Erdem Lamazhapov (elamazhapov@fni.no)

Submitted: 1 October 2025 **Accepted:** 20 January 2026 **Published:** 26 February 2026

Issue: This article is part of the issue “Ocean Pop: Marine Imaginaries in the Age of Global Polycrisis” edited by Anja Menzel (University of Bamberg/University of Johannesburg) and Charlotte Gehrke (German Institute of Development and Sustainability-IDOS), fully open access at <https://doi.org/10.17645/oas.i518>

Abstract

Video games have emerged as a significant domain of popular culture, offering an excellent arena for analyzing popular geopolitics. Meanwhile, the polar regions occupy a marginal position in global geopolitics, yet they play an important role in geopolitical narratives. By connecting the literature on critical geopolitics and studies on ecocritical games, the current research examines how the polar oceans are portrayed as geopolitical frontiers across various video game genres, including strategy, adventure, and survival horror. It explores how video games produce and reproduce popular geopolitical imaginaries of the polar regions amid a global polycrisis. Drawing on the concept of governmentality, this study also analyzes how different titles encode state-centered, extractive, and colonial logics as well as alternative decolonial perspectives. We argue that video games both mirror and shape public understandings of polar geopolitics: They naturalize administrative, utilitarian views of the poles while also offering spaces in which to critique coloniality and imagine alternative relations to environment and governance.

Keywords

Antarctic; Arctic; climate change; governmentality; Indigenous; popular culture; popular geopolitics; strategy games; survival horror; video games

1. Introduction

Oceans are central to all life and, being core to human life as well, feature heavily in all human activity. They are also a domain of geopolitics, with nation-states reimagining maritime spaces and drawing boundaries on the seabed (Østhagen, 2022). As described in the editorial of this issue of *Ocean and Society*, oceans are a site

of a global polycrisis—a concept used to refer to an extremely harmful emergency, an “entanglement of crises in multiple global systems” (Lawrence et al., 2024, p. 2). An especially acute polycrisis affects the polar regions as part-land and part-ocean spaces. These regions have traditionally been understood as “exceptional spaces” because of both their ecosystems and their size, location, remoteness, and the radical difference from the way that political, legal, and economic control is exercised there (Dodds & Nuttall, 2016). Thus, the polycrisis in the polar regions is not only an ecological one, where the accelerating cryospheric collapse driven by climate change and biodiversity loss threatens these regions as we know them, but also a geopolitical one, with an ever-increasing scope of economic activity and great power rivalry.

Geopolitics is not a neutral description of fixed geographical or political facts but a specific way of viewing the world. It is therefore a set of representations, discourses, and practices that narrate and create geopolitical spaces (Powell & Dodds, 2014, pp. 8–10). Research on critical geopolitics has examined geopolitical discourses as the ways in which spaces are imagined and recounted (Dodds et al., 2022). Such discourses can be divided into three registers: formal, practical, and popular geopolitics (Dodds et al., 2022; Tuathail, 1999). Formal geopolitical discourses refer to theories about how geography determines, shapes, or influences international politics. Practical geopolitical discourses refer to representations of geographical spaces by policy practitioners like political leaders. Finally, popular geopolitical discourses are representations of geographical spaces in culture, especially popular culture. If the literature on critical geopolitics explores how spatial and geographical imaginaries are mobilized to construct taken-for-granted ideas about international relations, then that on popular geopolitics examines how these geopolitical narratives saturate popular culture (Dittmer & Dodds, 2008). As a regular and important part of that culture, video games are a significant avenue through which to investigate popular geopolitics (Neumann, 2018, p. xiii).

In such a context, video games are complex discursive representations. They are computational processes (Bogost, 2011), but they can also be read as texts (Chang, 2019, pp. 25–41). Rich ecocritical game scholarship has critically examined representations of the environment, climate crisis, and human–animal relationships in video games (De Beke et al., 2024). Using video games as a point of departure for discourse analysis, studies on popular geopolitics have analyzed how games construct “gameworld geopolitics” (Hughes, 2010, p. 124) and thus contribute to geopolitical discourses (Bos, 2018). The stories in video games vary greatly, from the fantastic to the everyday, from small-scale tales to grand historical narratives. In the study of world politics, popular culture is regarded as an outcome of world politics, a medium of inspiration for themes in international relations, evidence of the beliefs and norms espoused by international society, or elements that interact with other representations of politics (Neumann & Nexon, 2006). Popular culture is thus not merely reflective but also constitutive of international relations.

This research inquires into how popular imaginaries of polar geopolitics are propagated in and through video games, with particular focus on the polar regions and governmentality. It analyzes a range of video game genres and titles, from grand strategy to horror, to explore how these products encode the poles and mirror real-life representations of the Arctic and Antarctic. This exploration goes beyond surface semiotics (Backe, 2017), directed toward a broad spectrum of games of different genres to probe into the role that geopolitical imaginaries about the polar regions play in these games. The titles analyzed are Sid Meier’s Civilization series, Victoria 3, Detroit: Become Human, Nuclear Nightmare, the Syberia series, and Never Alone.

2. Playing Like the State: Games, Geopolitics, and Ecocritical Scholarship

Games are older than geopolitics. Wargaming emerged as a standard systematic practice in military training in the early 19th century, but its relationship with wars can probably be traced to the prehistoric origins of games (Crogan, 2015). Games, including video games, continue to have an important place in defense practice and therefore serve as a helpful window into geopolitical imaginaries. Indeed, formal geopolitics is often framed as a game, as evidenced by Medby's (2019) observation that game-related language features heavily in geopolitical discourses about the polar regions. Similarly, Steinveg's (2022) research on conferencing among policy actors shows that the language and practice of Arctic geopolitics are gamified. Given the prominence of language games and game language in polar geopolitics, it is necessary to study how geopolitical imaginaries about the polar regions are produced and reproduced in video games.

Games provide a "designed experience," wherein a game already determines possible outcomes (Squire, 2006). Bianchi (2014) illustrates how game design itself encodes ideologies about human-nature relationships, demonstrating that games convey normative judgments about how humans should interact with the environment. Juul (2011) argues that video games represent real rules embedded in fictional worlds, whereas Chang (2019, p. 20) contends that "games blend real worlds and fictional rules." Indeed, video games "often blend fantasy with realism and can draw on real-world places and peoples, which communicate ideas, perspectives, and ideologies pertaining to social realities" (Bos, 2018, p. 216). These products can reinforce existing narratives (Bos, 2018) and critique geopolitical narratives (Bos, 2023). Not only do they reflect hegemonic geopolitical discourses, but they also actively construct, influence, and naturalize them.

Video games are a methodological challenge for international relations given the complexity of their narrative, visual, and aural elements (Robinson, 2015). Research on critical geopolitics aims to "note the ways in which geopolitical discourse suffused everyday life" (Dittmer & Gray, 2010, p. 1665). An emergent strand of literature on critical geopolitics seeks to connect popular geopolitics, which has positioned itself as an indispensable avenue in the study of geopolitics, with ecocritical scholarship, which examines culture from an ecological perspective (dell'Agnese, 2021). Recent ecocritical contributions provide rich discussions of how the Arctic is constructed, represented, and imagined through the ideologies and interests rooted in hegemonic cultural discourses (Lehtimäki et al., 2021), while ecocritical game studies offer solid theoretical guidance for analyzing narratives in video games, which is directly applicable to geopolitical narratives. Although games may be read as texts (Chang, 2019, pp. 25–41), they are still computational processes (Bogost, 2011), but this computational character sets them apart from playground or board games, transforming simulated worlds into extremely complex environments (Bogost, 2011, p. 4). It is not only the semiotic content (text, images, etc.) of video games but also their structural components (game rules and mechanics) that convey meanings (Bianchi, 2014; Squire, 2006). Correspondingly, both these components comprise geopolitical imaginaries. Abraham and Jayemanne (2017) identify four primary modes in which the environment is depicted in games: the environment as backdrop, resource, antagonist, and text. They highlight how games often treat nature as subject to activity: "either an index of their movement (background) or subject to their extractive (resource), militarist (antagonist) or cognitive (text) gameplay" (Abraham & Jayemanne, 2017, p. 84).

In popular geopolitics, interesting issues for exploration are human-environment relationships in general and state-environment relations and the inferred association between player and state in particular. Postcolonial

scholarship has examined how video games portray colonialism in relation to land, space, and people (Mukherjee, 2017; Murray, 2024), with special consideration for the fact that many players are postcolonial subjects (Carpenter, 2021; Mukherjee, 2018). Indeed, video games guide a player to view their relationship with the state through the lens of governmentality (Kücklich, 2009; Punday, 2024). Governmentality (Foucault, 1991) refers to the rationalities that shape how institutions and actors think, behave, and regulate themselves, without recourse to laws or force. This concept offers a valuable heuristic for examining how the polar regions are subject to global governance mechanisms that aim to render them governable and secure (Albert & Vasilache, 2018). Foucault sees governmentality not merely as a shorthand for the state's administrative logic, but rather as referring to specific rationalities of governance, technologies, and techniques that produce governable subjects. Indeed, gameworlds function not merely as representations of real-world governmentality but as extensions of it, acting as "social factories" in which "all social life is part of economic production" (Kücklich, 2009, p. 348). Video games may invite a player to take on the role of a national leader and internalize the state's "gaze," naturalize the state's logic by using it as a background device for narratives, or explicitly reject the state and position themselves in opposition to it. The next section will briefly introduce the methods and data used in the articles.

3. Methods and Data

This article uses a qualitative, interpretive case-study approach to examine how the polar regions are represented across a purposive sample of video games. This study is guided by the theoretical framework of governmentality (Foucault, 1991), which provides the conceptual foundation for understanding how selected video games create popular geopolitical imaginaries of the polar regions by instantiating the rationalities, techniques, and production of governance. The analytical aim is to show how video games narrate the polar regions through their relationship to the state. This enables an examination of how gameworlds encode state-centred, extractive, colonial, or alternative Indigenous imaginaries of the polar regions.

The games were selected to provide a representative and broad illustration of how the polar regions are depicted in games, but are not meant to be representative of all popular imaginaries about the polar regions. Instead, they represent different points on the gradient of governmentality: from an explicit internalization of the sovereign gaze to a complete rejection of governmentality. Two games are selected in each of the three groups (internalized governmentality, ambivalent governmentality, and anti-governmentality), and the selected video games reflect diverse genres, including strategy games (Sid Meier's Civilization and Victoria 3), action-adventure (Detroit: Become Human), survival horror (Nuclear Nightmare), point-and-click adventure (Syberia), and puzzle-platformer (Never Alone). Empirically, the article examines textual/dialogic excerpts, in-game artefacts, and game rules. In doing so, the article builds on ecocritical scholarship to examine how each game represents the polar regions through distinct environmental modes and how these modes connect to governmental rationalities.

4. Internalizing the Sovereign Gaze: The Polar Regions as Frozen Fringes

Strategy games reflect geopolitical imaginaries about the polar regions in a way that marginalizes and territorializes these places. A player is invited to adopt the perspective of governmentality, acting as the embodiment of an administrative state, where population replaces citizens, statistics is the main mode of knowledge, power operates through optimization, and the ends are justified by *raison d'état* (Punday, 2024,

pp. 52–53). Sid Meier’s Civilization is one of the earliest and most successful franchises in the strategy game genre. In the game, a player selects a civilization from 4,000 BC and guides it through six millennia into the modern age, pursuing a victory that satisfies predefined conditions of triumph (e.g., military domination, science, culture, diplomacy, etc.). Civilizations in the game are functional representations of nation-states with fixed territories and borders, in which the state is an inheritor and driver of all human achievement (Pobłocki, 2003). Any land or territory is a terrain that contains resources, whose economic potential is actualized only as a result of the imposition of a political order by the state. Civilization recreates the doctrine of discovery, in which players are invited to claim terra nullius, that is, empty or occupied by uncivilized people (Leggott, 2023). As frontiers, unsettled spaces are defined in opposition to settled territories, which employ political techniques that enable the measurement of land, the control of terrain, and the imposition of political order over finite resources (Elden, 2010).

The polar regions are doubly marginalized in-game, even though they have been represented in the game since its first installment. This parallels the way that the Arctic and Antarctic have become “marginal” spaces on the global map” and the way that they “have been viewed through lenses of exploitation and extraction” (Medby et al., 2026, p. 9). First, the polar regions are physically marginalized in most campaigns, as games are played on randomly generated, usually cylindrical boards. Cylindrical boards are representations of Mercator-like map projections. However, the distortions of the Mercator projection are real: Distances are as great at the poles, and edges are actual barriers. In addition, given their limited economic utility to a player, the poles can serve only a marginal function in any campaign. The game’s core mechanic is the manner by which cities, located on the map, are situated on tiles, which represent mapped out “terrains,” like plains, mountains, hills, oceans, and marshes. They also comprise geographical features, such as rivers, resources, and forests. Each tile represents potential for players through “yields” or its economic utility to a civilization. This utility is realized through a combination of labor, represented by the city’s population accessing and “working” a tile on the board, and improvements on the map, such as mines and quarries.

In Civilization I, released in 1991 (MicroProse, 1991), the “Arctic” is the least useful terrain type for a player, yielding no economic resources unless it contains seals, a food resource. The “tundra,” intended to represent permafrost regions, is slightly better than the “Arctic” but generates only one unit of food and cannot be improved. Both terrain types occur along the northern and southern fringes of the cylindrical playing board, further solidifying their role as borders that delimit the playable area rather than as places of interest. Removing these terrains would minimally affect gameplay, but their portrayal in the game is important precisely because the environment is not only a resource but also a backdrop, a “smooth empty space in relation to which efficient movement takes place” (Abraham & Jayemanne, 2017, p. 79). Civilization games are designed to portray all of human history, thereby needing to ground in-game mechanics in what players know about the real-life geographic and economic characteristics of ideal-typical spaces. For this reason, most of the installments of Sid Meier’s Civilization franchise include an in-game encyclopedia. Civilization II describes the Tundra as follows:

In the far-northern regions of the world, and in isolated regions in the Antarctic, there are thousands of miles of barren plains known as tundra. These regions have an extremely low average temperature, and a very short summer season. The primary characteristic of the tundra is a layer of permanently frozen soil known as permafrost just below the topsoil layer, which prevents many plants from taking root and making agriculture all but impossible....Despite the harsh environment, a wide variety of animal life

flourishes in the tundra, providing possible sources of food, and providing trade potential for the fur and trapping industry. (MicroProse, 1996)

Chang (2019, p. 20) argues that games blend arbitrary in-game rules with in-game worlds experienced as real. By providing factual, popular-scientific information about the Tundra, the game combines popular imaginaries of the polar regions and legitimizes fictional regulations, such as the rule that tundras can produce only one unit of food. To do so, the game relies on imaginaries of real-world spaces to justify the fictional rules that it imposes. The representation of the polar regions changes together with the imaginaries associated with these real spaces. A notable example is the depiction of ice-covered areas of oceans. In *Civilization V* (Firaxis Games, 2010), these regions are represented as completely impassable hindrances, consistent with the in-game encyclopedia's description of them as "impassable, except to air and submarine units...[providing] nothing to cities" (Firaxis Games, 2010). In line with the territorial view of terrain, ice-covered regions are depicted not only as areas lacking in economic utility but also as impediments to blue-water passage.

A significant change in the representation of the polar regions was introduced in *Civilization VI: Gathering Storm* (Firaxis Games, 2019), which incorporates climate change as an in-game mechanic. As the developers state, the idea behind the central theme of *Gathering Storm* is to make the map more dynamic and enable a player to interact with it, along with the premises that the game should include a "semblance of climate change" and that "the global temperature is gonna rise and the sea levels will rise and the polar ice caps will melt" (Sid Meier's *Civilization*, 2018, 7:26). Accordingly, climate change expands the portrayal of the environment in Abraham and Jayemanne's (2017) typology beyond just backdrop and resource to also depict it as an antagonist.

This new game mechanic allows climate change to remove up to 85% of ice tiles on the board, turning them into passable ocean tiles. A player can track these developments and accurately predict how sea levels rise as polar ice melts (Figure 1). The player is also given several mitigation and adaptation measures to address climate change. For example, they can alleviate climate change by tasking cities with recapturing CO₂ emissions, thereby slowing the melting of the polar ice caps. As an adaptation measure to climate change-induced sea-level rise, cities can construct seawalls to prevent the flooding of coastal areas. Thus, although the game represents climate change as an antagonist, it also depicts it as a "tame technical problem" that can be effectively solved through policy and expertise (Dewulf, 2013). The logic of governmentality in this case becomes not merely representational but also operative, as the game socializes players into a governmental rationality that frames climate change as a problem of governance. The rules of *Civilization VI* are thus not just representations of ideologies, but also actively reproduce subject positions.

Civilization VI still describes ice as "impassable to ships (more than a few have come to grief, just ask the crew of the Titanic), and not much fun for other travelers. Except maybe the polar bears" (Firaxis Games, 2019). However, the types of economic resources in the game were gradually expanded beyond food and production to include faith and tourism. As a result, ice is no longer entirely useless and can now generate yields such as tourism, gold, and appeal when improved. The Tundra is also more useful to Russia and Canada, which receive special abilities to develop tundra tiles. In a game where no Arctic Indigenous peoples are present, these two countries emerge as uniquely adapted to colonizing this region. The game naturalizes the hegemonic narratives of these nations, where the Arctic is part of national identity (Grant, 1998; Hønneland, 2016). The economic exploitation of the Arctic by nation-states becomes almost deterministic.



Figure 1. A screenshot of the climate change menu in *Civilization VI: Gathering Storm*, showing the progression and effects of climate change.

The logic of governmentality is maximized even in games where a player is explicitly invited to serve as the state, and the person of “the sovereign becomes absorbed into an administrative state and an analytical and statistical system that relies not on power but on order and tactics” (Punday, 2024, p. 53). In the games produced by the Swedish studio Paradox Interactive, a player can become the “spirit of the nation” of any state-like formation within a historically rooted snapshot. *Victoria 3*, for example, is set in the period 1836 to 1936, in which a player starts a campaign as any historical state formation that existed in 1836 (Paradox Development Studio, 2022). There are no absolute goals or victory conditions for the player, and the game relies on the player setting and achieving their own objectives, which often include industrializing the nation, pursuing colonial expansion, and implementing legal reforms to bring the country under the player’s leadership into modernity. The entertainment value of the game derives from the player’s ability to enact an alternative history, starting from a “historical” map of the world in 1836 and a recreation of the course of history.

The polar regions are represented from the perspective of governmentality, wherein the population becomes the central concern of administration, driven by techniques of economic statecraft. The game map is a simplified Mercator projection of the globe, divided into smaller regions called “states,” which approximate historical regions with distinct economic structures. These states are territories, possess economic resources, and are inhabited by populations with distinct cultural and religious traits. The game assigns specific negative modifiers to Arctic territories: reduced economic efficiency in ranches, diminished construction efficiency, limited infrastructure, and halved migration attraction. Some states have positive traits, such as Arctic and Antarctic Whaling, which increases profitability for the whaling industry. This terrain modifier explicitly quantifies the extent to which these territories deviate from baseline regions in statistical terms. Following Chang (2019), this illustrates how fictional rules of the game represent real worlds through a governmentality perspective.

A distinctive feature of *Victoria 3* is its simulation of the international order based on “prestige,” intended to represent the diplomatic realities of the Victorian era. Prestige is a type of in-game currency that quantifies and mimics the real-world prestige-seeking behavior of states in international relations, whereby states wish to acquire prestige in order to gain entry into exclusive clubs (Gilady, 2022). In *Victoria 3*, prestige is an entry ticket to the Concert of Europe, where the great and major powers served structural functions in the operation of the international system. This vision of the international order is the unchangeable main part of the game. Prestige determines a nation’s rank among great and major powers and is accrued through measures of economic strength, military power, and international influence. Certain diplomatic actions and game mechanics are reserved for higher-ranking states, thereby incentivizing players to elevate their nations’ statuses in the global hierarchy.

Antarctic expeditions are one way through which a player can acquire additional prestige. The Antarctic expedition is one of several missions that include, for example, a voyage to the source of the Nile; these are meant to represent historically important events for imperialist projects of the 19th century. Antarctica does not appear as a map region, literally absent from the game’s conception of space. Still, a player can interact with the region by dispatching an expedition to Antarctica, triggering an event chain simulating the historic race to the South Pole between Amundsen and Scott. These interactive narrative events immerse the player in the perils and triumphs of polar exploration. Each event appears as a pop-up, with a short textual description. In one event, for instance, the player can decide whether the expedition leader should kill and eat the sled dogs to enhance their chances of survival. The player chooses the outcome of the event by selecting one of the provided options, which exerts either a negative or positive effect on the progression of the expedition. This particular event is inspired by a real dilemma faced by Amundsen and Shackleton in their Antarctic expeditions. A successful voyage to the Antarctic confers a small prestige boost to the player, and this prestige is framed in terms of its benefits to the administrative state, as it elevates the nation’s standing in the international hierarchy. This popular representation of polar exploration echoes the view of scientific presence and exploration as intertwined with global prestige. By framing the polar regions as sources of imperial prestige through scientific endeavors, *Victoria 3* mirrors how great powers still imagine the polar regions as sites of tremendous geopolitical influence (Lamazhapov, 2025; Yao, 2021).

The polar regions are by no means in focus in the *Civilization* or *Victoria* franchises, but they must be represented because of their idiosyncratic nature and their importance to global ecosystems, even as the games present a universalizing, territorializing characterization of the globe. Because the environment in Sid Meier’s *Civilization* is depicted through what the poles can offer to the state, they are portrayed as inhospitable and resource-poor frozen fringes of the map. Early installments claim that “glacial regions are inhospitable, containing little animal life, no plant life, and virtually no resources of any kind” (MicroProse, 1996). The expansion of the functions of the polar regions in contemporary installations reflects changes in popular imaginaries about the poles. The inclusion of tourism as a resource produced by ice mirrors the explosion of tourism in the polar regions (Maher et al., 2014). Melting ice opening up naval passages reflects the view of climate change as an opportunity for shipping, which is prevalent in discourses on the Arctic routes (Moe et al., 2024). The polar regions are overtly included due to their global ecological importance, yet they are framed through human-centric utilitarian lenses, in which they answer to the needs of state-centered technical governance. In *Victoria 3*, which more explicitly adopts a state-oriented perspective, polar specificity is framed in terms of its economic effects. The depiction of the polar regions embodies popular imaginaries about them and naturalizes the logic of the administrative state. Within the totalizing view of the state, the polar regions are marginalized both physically and economically.

5. Backgrounding the Poles: The Polar Regions as Geopolitical Hotspots

Detroit: Become Human (Quantic Dream, 2018) invokes the popular geopolitical imaginary about the Arctic as a geopolitical hotspot. Unlike the strategy games discussed previously, *Detroit: Become Human* is an action-adventure title where players take control of several characters. Unlike strategy games, where a player exercises god-like control over nation-states, *Detroit: Become Human* involves players in navigating a branching, narrative-driven story, in which their actions and choices directly affect the story's development. The game is set in a futuristic Detroit in 2038, where sentient human-like robots (androids) are part of everyday life, able to speak, move, and behave akin to human beings, yet remain marginalized and subjugated as machines meant to serve humans. The game's central conflict stems from the themes of recognition and emancipation. By entertaining a theoretical question about what it means to be recognized as human, it seeks to problematize narratives about race, gender, and sexuality (Leach & Dehnert, 2021). A player starts as a tool of state and corporate power, and the game's core question is whether they will remain one.

The narrative structure in *Detroit: Become Human* is complex, and the Arctic is only a background narrative device. Unlike strategy games inviting players to "play the state," the game reflects governmentality through a dispersed governmental apparatus that governs at the knowledge-power nexus through discourse, expertise, and biopolitical classification. Although the game is set in a place far from the Arctic and the player cannot interact with the region in any meaningful way, the geopolitics of the Arctic serves as a narrative geopolitical backdrop in the plot. The plot reveals that the mineral Thirium 310, which is essential for android production, is abundant beneath the Arctic ice. As polar ice caps continue to melt due to climate change, these resources become accessible and provoke a scramble between Russia and the US. The plot is revealed to the player through a series of disjointed news stories reporting that the Russian president has dispatched troops to the Arctic to secure Thirium reserves, prompting international condemnation and escalating tensions with the US.

A player can watch the news or read about these developments in fictional newspapers or through a series of newspaper reports and TV broadcasts, which have little effect on the characters' development (Figure 2). The unfolding of the geopolitical conflict exemplifies how significant global events influence everyday experiences. The in-game news is modeled on real-life actors, and the Arctic is included to sustain the suspension of disbelief regarding the fictional resource Thirium 310. These news snippets function as dispersed expert knowledge and public rationalities that normalize extraction as a state necessity, thereby producing a "regime of truth" about Arctic resources and national security. Grounded in real-life discourses about the Arctic, the game provides a popular culture representation of the "scramble for the Arctic," which was especially commonplace around 2008 and still shapes the way that the Arctic is thought about today (Dodds & Nuttall, 2016). Consider this fictional magazine article from the game:

Surplus Thirium reserves would allow either nation to experiment in more advanced android models, enhancing their military and industrial output tremendously....Add to this the strategic importance of the region—which connects Russia with Europe through Norway and Denmark (Greenland), as well as Canada—and the prospect of a peaceful resolution to the dispute seem unlikely. But a spokesperson for NATO is more optimistic: "Both nations stand to benefit from a stable, productive Arctic region. A conflict would benefit nobody." President Warren, however, recently torpedoed the notion: "It's simple. Russia has no business in the Arctic. If the Kremlin doesn't understand that, we will make them understand." (Quantic Dream, 2018)



Figure 2. A TV news story covering the unfolding Arctic conflict in Detroit: Become Human.

The passage vividly depicts the great-power rivalries in the Arctic, drawing on familiar tropes of the Arctic scramble. In its style, it could have been mistaken for an excerpt from a real news article, which includes a cast of usual suspects: Russia, the US, and NATO. The Arctic is territorialized and represented as a treasure trove of hidden and undivided resources, coveted by the world’s great powers. The geopolitics of the Arctic is narrated in terms of national interests. Even the Arctic exceptionalism narrative, which maintains that the US and Russia can cooperate in the Arctic despite their differences elsewhere, also appears. The game thus cleverly mirrors an actual political and academic debate on whether conflict or cooperation may prevail in the Arctic (Lackenbauer & Dean, 2021). By converting the remote, backgrounded Arctic into a calculable strategic resource, the game reflects a governmentality perspective that trains the player to accept the media-state knowledge–power nexus as authoritative and to take a stance vis-à-vis this background information, thereby informing the player’s moral decisions. This background governmentality perspective lends a geopolitical theater to the central conflict in the game, which is biopolitical. Foucault (1991) observes that governmentality reorients power from sovereignty to techniques of order and administration. Though the game narratively critiques governmentality and biopolitics, it also reproduces it procedurally, as the game’s Arctic resource logic naturalizes extractive rationality for the player.

Crucially, Detroit: Become Human invokes a popular imaginary of the Arctic along with its misconceptions. As Østhagen (2023) argues, common misconceptions about Arctic geopolitics include the beliefs that the region is riddled with territorial disputes, that vast Arctic resources drive conflict, that climate change directly causes geopolitical tension, and that the Arctic functions as a single, unified geopolitical region. The in-game narrative corresponds with both the logic of technology-driven resource extraction enabled by climate change and the representational view of the polar regions as the next frontiers and the last areas of the Earth that remain beyond the grip of nation-states. The game frames the conflict as “US and Russian claims to Arctic territory,” but the real-world Arctic is an ocean with seven out of eight maritime boundaries being agreed upon and free from territorial disputes (the dispute over Hans Island having been resolved in 2022; Østhagen, 2023). The only areas with unsettled legal status in the Arctic are the seabed beyond 200 nautical miles, where Arctic coastal states may assert their sovereign rights on the extended continental shelf (Jensen, 2015).

Sovereign rights are distinct from sovereignty, but these complex legal distinctions are lost in the popular imagination, as evidenced by the game, which signifies these differences by portraying the Arctic dispute as territorial and by suggesting that Russia plans to annex Arctic territories, as if they were terra nullius.

This logic of a looming geopolitical conflict can also be mobilized as a type of horror. *Nuclear Nightmare* (BG Productions, 2024) amplifies the sense of an impending polycrisis and renders it literal by forcing a player to fight against the clock. Developed by an American Los Angeles-based studio, BG Productions, and released in early access in October 2024, the game has garnered over 14,000 positive reviews on Steam in February 2026. Set in the polar regions, *Nuclear Nightmare* describes its environment as “the harsh Arctic landscape,” but it is actually situated in Antarctica (Steam, n.d.). The narrative is inspired by the 1982 classic *The Thing*: A deadly outbreak of the Black Goo virus has wiped out the personnel at Antarctic research stations, unleashing monstrous entities. Players, as members of an elite extraction team, are dispatched to recover classified intelligence before the US government initiates a nuclear strike on Antarctica to contain the virus.

The game employs the environment in all four senses suggested by Abraham and Jayemanne (2017): as backdrop, resource, antagonist, and text. The Antarctic is an effective backdrop: Its remoteness and the station’s status as a site of secretive research contribute to an atmosphere of dread and uncertainty. The equipment placed around the station, including a huge drilling rig, once again depicts the polar regions as an asset in states’ endless pursuit of natural resources. The polar environment is also an adversary, as players must contend not only with the monsters threatening them but also with extreme cold, which requires limiting the time spent outdoors to survive. The environment is likewise a text, given that players can piece together the game’s backstory by analyzing evidence in secret documents scattered throughout the station. Paradoxically, although the game is set in Antarctica, the fact that it is located in the polar regions remains only an incidental detail: The setting could have easily been swapped with outer space.

The biological horror builds upon the classic narrative of *The Thing*, linking alien threats to a biological nightmare, a trope dramatized through discourses surrounding the polar regions as sites of untapped danger. The virus and the abominations discovered at the station are veiled in secrecy, and the objectives of the game are to collect and upload classified reports, which suggest the unethical nature of the research. The species found originate from the drills installed at the station, where “frozen anomalies” and frozen lifeforms have been discovered, including unknown species like Arachnoid Cyst. These worries mirror actual discourses on the dangers posed by climate change in the polar regions: Thawing permafrost threatens to release ancient microorganisms, viruses, toxic chemicals, and radioactive materials (Miner et al., 2021). Drilling stations unleashing irregularities mobilize plausible scientific anxieties to construct narratives about potential disruptions to organized governance. The focus on discovering hidden, dangerous life forms parallels governmentality’s preoccupation with biopolitics and the production of systematic knowledge.

The geopolitical horror of the imminent US nuclear strike creates a time constraint but also betrays the popular imagination of an underlying assumption that the US is both a protector of the world and an arbiter in the unfolding crisis, with the ability to carry out unilateral action. The Antarctic station is international, but both the symbol of the International Science Foundation and the “UNS” are closely modeled on the symbols of the National Science Foundation and the US Antarctic Program (Figure 3). The possibility that the US will deliver a unilateral strike on Antarctica and that it holds a special responsibility for containing the biological hazard is

an unspoken, taken-for-granted premise of the game, in which the state exercises a monopoly over regulating spaces under its jurisdiction through rationalized authority grounded in power and knowledge.



Figure 3. UNS International Science Foundation sign guiding a player through the horrors lurking in the polar night.

It is the relationship between the state and the polar regions themselves that becomes the problem behind the geopolitical crisis. If states are indeed driven by territorial claims, resource extraction, and militarization, the polar regions become hotspots for these contradictions. *Detroit: Become Human*, which explicitly critiques biopolitics and governmentality, draws on popular imaginaries of the Arctic to criticize state-centered extractivism. Just as real-world depictions of Arctic geopolitics use climate change and conflict “to highlight the relevance and importance of the region” (Østhagen, 2023), the impending polycrisis, driven by climate change and geopolitics, accentuates the ethical dilemmas borne by the game’s characters, who fight against the state’s discriminatory policies. In *Nuclear Nightmare*, the polar environment amplifies horror by dramatizing the very real anxieties that accompany the collapse of the cryosphere and the polycrisis fomented by human activity. Popular imaginaries about the polar regions are thus mobilized to implicitly critique nation-states responsible for looming disasters, given their greed and hunger for resources. Both games push back against the governmentality gaze directed toward the polar regions, yet a player still functions as a tool of the state. Still, these games train the player in responsabilized micro-decisions, things under their plausible control, while accepting state managerialism at the geopolitical level.

6. Anti-governmentality: The Indigenous Arctic and Colonialism

The portrayal of the polar regions as uninhabited deserts obscures the fact that the Arctic region has been inhabited by humans for thousands of years. Popular imaginaries sometimes conflate the Arctic and Antarctica, erasing Indigenous peoples and portraying the former as an empty desert for adventure, extraction, or conquest rather than a lived homeland. Grand strategy games like *Civilization* and *Victoria 3* represent the Indigenous both as subjects to be colonized by a player and as potential agents of this colonization, but in the process, they “reify not only Western notions of advancement but state-centered

notions of who counts” (Carpenter, 2021, p. 46). Benoît Sokal’s *Syberia* excellently decenters the state and shows Indigenous agency. The game seeks to provide an alternative to governmentality, oriented toward lifeworld values, stewardship, and relational personhood. *Syberia* is a series of point-and-click adventure games following the story of an American adventurer, Kate Walker, a successful New York lawyer who travels to fictional locations across Europe and Asia, where she encounters fantastical animals in a steampunk alternative universe set in the 2000s. The protagonist’s journey ultimately leads her to the island of *Syberia* in the Russian Arctic, a homeland of the native Youkol people and a place where mammoths still live.

The game draws on the real historical experiences of colonized peoples of the Arctic and delivers a harsh critique of Western state-driven imperialisms. *Syberia* positively portrays the underrepresented Indigenous peoples of the Russian Arctic and excoriates Russian colonialism, which is a taboo topic in Russia to this day (Bogatova, 2025; Etkind, 2015). *Syberia* rejects governmentality by privileging Indigenous cosmologies as legitimate modes of knowing the environment. Still, *Syberia* (Sokal, 2002) and *Syberia II* (Sokal, 2004) lean heavily into the noble savage trope. In the first game, the Youkol are never encountered, only narrated through the eyes of a Western professor (Figure 4). They represent a mysterious and resilient people who have maintained their traditions despite the harsh climate and colonial experiences, as well as an alternative to modernity. Sokal dismisses the morally bankrupt West and the decrepit post-Soviet modernity. In fact, Kate Walker’s journey is a rejection of capitalist and patriarchal expectations. She abandons her corporate job and fiancé to pursue a personal quest that leads her to the Youkol. More than just a physical journey, the protagonist’s arc is a symbolic escape from modernity “to a timeless world immune from political economy” (Fletcher, 2008, p. 251). The Youkols’ Indigenous way of life and the remote setting of the Arctic contribute to deepening the divide between these worlds.

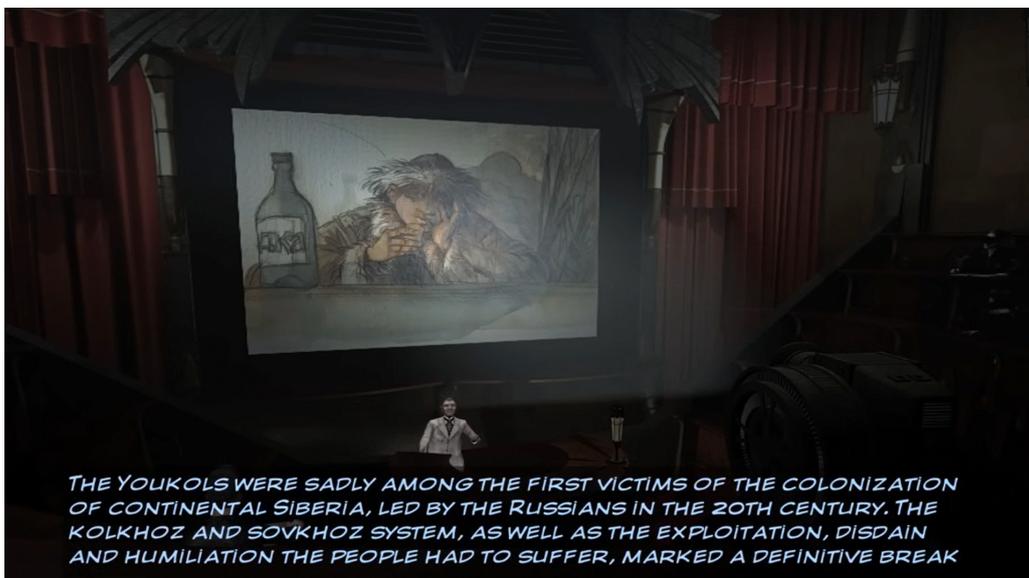


Figure 4. Professor Pons gives a lecture on the Youkol in *Syberia*.

The portrayal of the Youkol in the franchise changes throughout the installments. Descriptions of the Youkol by in-game scientists offer a critique of the imperialist origins of anthropology and ethnography. At the same time, *Syberia II* leans into humorous representations of the Youkol for comic relief. These people are

nameless, physically stout and short, with clear racialized features. Although the protagonist encounters many non-native speakers of English with comedic, stereotypical Russian and German accents, only the Youkol speak in ungrammatical, broken English. Capitalizing on the noble savage trope, these people embody hope in humanity's capacity to withstand crises. In *Syberia II*, we learn that "at the end of the last ice age, there were huge climatic changes" and "much of the land was flooded by water," but the Youkol, who are "a particularly advanced people for the age," constructed an enormous Ark, saving mammoths from extinction (Sokal, 2004). Their flaws are tempered in *Syberia 3* (Sokal, 2017), which renders the physical appearance of the Youkol less comedic and incorporates real Mongolian words into the Youkol vocabulary. Most importantly, we are introduced to a Youkol called Kurk, who is not only named but also an eloquent and reflective individual. This change reflects the increased emphasis on the names, voices, dignity, and agency of Indigenous groups. Similar to previous installments, the game explicitly rejects colonial institutions, such as the military and medical systems that seek to control and "cure" the Youkol.

The game critiques the government's use of infrastructure as a form of governmental technology. For example, in one scene, the government restricts Youkol mobility by establishing crossings that can be crossed only with a valid pass. The entire narrative is driven by the polycrisis, as the Youkols cannot complete their normal nomadic migration due to climate change and thus have to stay near a city. Yet, this population transfer creates a governance problem for the state, which reacts by restricting Youkol mobility. The player first learns of this system from the Youkols, then from the guard, and finally from a villager. The government then tightens control and destroys the pass machine, rendering the nomadic Youkols as an immobile, delegitimized population. The player observes a prototypical technology of governmentality in practice: nomadic presence is transformed into a problem of public order, in which stereotyping becomes an effective tool of governance, and accusations against the Youkols are not investigated because they do not need to be. The government destroys the pass machine at the camp exit and transforms nomadism from an ontological condition of Youkol life into an administratively manufactured pathology, regarding it as "degradation of public infrastructure." We learn from the villagers that the system is indeed discriminatory. Yet the villager teaches the player to subvert the system by providing an unstamped pass, urging the protagonist to forge the stamp, and thus showing how subjects of governmentality subvert and reproduce the regulatory regime through everyday tactics of informal economies of compliance. *Syberia 3* thus mocks the banality of bureaucratic techniques. Yet the player must still forge a pass to make progress, and success is achieved through a tacit politics of forgery that both subverts the governmentality and validates its documentary logic.

This rejection and decentering of Western colonial states continues in *Never Alone: Kisima Injitchujana*, developed by Upper One Games (2014) in collaboration with the Iñupiat people. The game presents a narrative grounded in the Iñupiat oral tradition and fully decenters the state, which is often portrayed as the pinnacle of human activity in the Arctic. The adventure follows Nuna, an Iñupiat girl, and her Arctic fox companion as they seek to save their village from a blizzard. The game constructs a functioning world where the state is practically nonexistent. The main antagonist, the Manslayer, is a "terrible man" who has destroyed two villages in his search for something. An anthropomorphized depiction of the state, the Manslayer is completely decentered in the narrative, and his motives remain unknown. The Indigenous worldview is central rather than an afterthought—a substantial departure from popular geopolitical imaginaries that typically prioritize state and colonial interests in the Arctic.

Both games come down to the level of human experience, but they also subtly reflect on larger geopolitical imaginaries. In the *Syberia* series, the game's polar setting intersects with Indigeneity as a point of radical difference between the remote Arctic, capitalist corporate America, decaying war-torn Europe, and decrepit post-Soviet Russia. *Syberia* confers agency to Indigenous peoples and depicts them as agents of their own future and an idealized point of resistance to the polycrisis: They persevere in spite of climate change and the ceaseless attempts of nation-states to colonize them. Likewise, *Never Alone* positions the Indigenous worldview as central to the story and decenters the state, focusing instead on the relationship between humans and the environment. In doing so, it subverts popular geopolitical imaginaries that prioritize state interests over Indigenous realities, unapologetically advancing a world where Indigeneity is celebrated. Instead of accepting the logic of governmentality, these games attempt to dismantle the archetype of state-driven modernity, presenting Indigenous ways of being, knowing, and doing as an effective alternative to entrenched geopolitical imaginaries. More nuanced and respectful representations of Indigenous peoples in video games can shape popular imaginaries and work against Indigenous erasure.

7. Conclusion

In many ways, video games reflect common geopolitical imaginaries about the polar regions and often carry misconceptions about them. As Østhagen (2023) argues, popular assumptions often amplify insignificant disputes in the Arctic while ignoring the complex set of governance mechanisms in the regions, exaggerate resource availability, and lack sophistication in the portrayal of climate change, which functions more as a condition rather than a cause of geopolitical conflicts in the regions. By using the polar regions as a narrative backdrop, video games can readily evoke a range of popular imaginaries about them. Common imaginaries include representations of the polar regions as *terra nullius*, or unclaimed but potentially claimable spaces, as frozen ocean, as spaces whose economic potential is unrealized due to encumbrance by ice, or as frontiers rich in natural resources needed by humanity (Steinberg et al., 2018).

Video games often adopt the state's gaze in their characterization of the polar regions. Governmentality helps us see how the relationship between the player and the state is encoded in gameworlds through game rules, mechanics, narrative, and audiovisual devices. Although these regions are rarely centered, typically occupying the fringes of the map or left outside the margins, they remain central in framing the main geopolitical landscape of video game narratives. The polar regions serve as focal points and framing devices that help make sense of everyday experiences beyond the poles. When narratives are explicitly set in the polar regions, they are chosen as settings because of their radical difference from the norm. These places are portrayed as remote, cold, and isolated; their departure from the norm allows for a suspension of the daily rules and conventions that govern life elsewhere. The poles act not just as framing devices but as the very stage upon which climate change, biological hazards, moral collapse, and the limits of human agency are dramatized. Their unique, vulnerable, and mysterious nature makes them perfect sites for maximizing and actualizing the logic underlying the global polycrisis in a tangible, immediate way. This uneven consideration of the polar regions as both marginalized spaces and as sites of acute geopolitical crises in gameworld geopolitics mirrors the fluctuating levels of attention paid by real-world states to the poles (Albert & Vasilache, 2018). However, video games may also reject the sovereign gaze. For example, by foregrounding Indigenous voices and disregarding the state-centric narratives of extractive economics, video games potentially create new imaginaries that subvert state-centric governance.

This article has sought to contribute to the study of popular geopolitics by expanding it to include digital narratives as a powerful medium through which geopolitical imaginaries are both reproduced and contested. It established a connection between critical geopolitics and ecocritical scholarship, which offers much to the field of critical geopolitics by providing scholars with tools to critically engage with how digital media articulates ecological threats and geopolitical tensions. More research is needed to explore not just surface semiotics, but also a more in-depth discussion of how video game mechanics may shape or reflect geopolitical imaginaries.

Acknowledgments

I would like to thank three anonymous peer reviewers whose advice has greatly improved the quality of this article. For discussions on the topic and comments on the article, thanks to the issue editors Charlotte Gehrke and Anja Menzel, as well as other contributors.

Funding

Publication of this article in open access was made possible through the institutional membership agreement between the University of Oslo and Cogitatio Press. The writing of this article was supported by the Norwegian Centre for Geopolitics.

Conflict of Interests

The author declares no conflict of interests.

Data Availability

The data that support the findings of this study are available from the author, Erdem Lamazhapov, upon reasonable request.

LLMs Disclosure

Grammarly LLM was used to ensure correct spelling and grammar.

References

- Abraham, B., & Jayemanne, D. (2017). Where are all the climate change games? Locating digital games' response to climate change. *Transformations*, 30, 74–94. https://opus.lib.uts.edu.au/bitstream/10453/121664/1/Trans30_05_abraham_jayemanne.pdf
- Albert, M., & Vasilache, A. (2018). Governmentality of the Arctic as an international region. *Cooperation and Conflict*, 53(1), 3–22. <https://doi.org/10.1177/0010836717703674>
- Backe, H.-J. (2017). Within the mainstream: An ecocritical framework for digital game history. *Ecozon@: European Journal of Literature, Culture and Environment*, 8(2), 39–55. <https://doi.org/10.37536/ECOZONA.2017.8.2.1362>
- BG Productions. (2024). *Nuclear nightmare* [Video game]. BG Productions.
- Bianchi, M. (2014). Rhetoric and recapture: Theorising digital game ecologies through EA's *The Sims* series. *Green Letters*, 18(3), 209–220. <https://doi.org/10.1080/14688417.2014.963881>
- Bogatova, G. (2025). Provincializing Russia: Recontextualizing postcolonial thought in the post-Soviet era. *Interventions*. Advance online publication. <https://doi.org/10.1080/1369801X.2025.2530114>
- Bogost, I. (2011). *How to do things with videogames*. University of Minnesota Press.
- Bos, D. (2018). Popular geopolitics and the landscapes of virtual war. In R. A. Saunders & V. V. Strukov (Eds.),

- Popular geopolitics: Plotting an evolving interdiscipline* (pp. 216–234). Routledge. <https://doi.org/10.4324/9781351205030>
- Bos, D. (2023). Playful encounters: Games for geopolitical change. *Geopolitics*, 28(3), 1210–1234. <https://doi.org/10.1080/14650045.2021.2002846>
- Carpenter, M. J. (2021). Replaying colonialism: Indigenous national sovereignty and its limits in strategic videogames. *The American Indian Quarterly*, 45(1), 33–55. <https://doi.org/10.1353/aiq.2021.a776046>
- Chang, A. Y. (2019). *Playing nature: Ecology in video games*. University of Minnesota Press.
- Crogan, P. (2015). Wargaming and computer games: Fun with the future. In M. Swalwell & J. Wilson (Eds.), *The pleasures of computer gaming: Essays on cultural history, theory and aesthetics* (pp. 147–167). McFarland.
- De Beke, L. O., Raessens, J., Werning, S., & Farca, G. (2024). *Ecogames: Playful perspectives on the climate crisis*. Amsterdam University Press. <https://doi.org/10.2307/jj.10819591>
- dell'Agnese, E. (2021). *Ecocritical geopolitics: Popular culture and environmental discourse*. Routledge. <https://doi.org/10.4324/9780429293504>
- Dewulf, A. (2013). Contrasting frames in policy debates on climate change adaptation. *WIREs: Climate Change*, 4(4), 321–330. <https://doi.org/10.1002/wcc.227>
- Dittmer, J., & Dodds, K. (2008). Popular geopolitics past and future: Fandom, identities and audiences. *Geopolitics*, 13(3), 437–457. <https://doi.org/10.1080/14650040802203687>
- Dittmer, J., & Gray, N. (2010). Popular geopolitics 2.0: Towards new methodologies of the everyday. *Geography Compass*, 4(11), 1664–1677. <https://doi.org/10.1111/j.1749-8198.2010.00399.x>
- Dodds, K., & Nuttall, M. (2016). *The scramble for the poles: The geopolitics of the Arctic and Antarctic*. Polity.
- Dodds, K., Woon, C. Y., & Xu, L. (2022). Critical geopolitics. In M. Lindroth, H. Sinevaara-Niskanen, & M. Tennberg (Eds.), *Critical studies of the Arctic* (pp. 77–98). Springer. https://doi.org/10.1007/978-3-031-11120-4_5
- Elden, S. (2010). Land, terrain, territory. *Progress in Human Geography*, 34(6), 799–817. <https://doi.org/10.1177/0309132510362603>
- Etkind, A. (2015). How Russia 'colonized itself': Internal colonization in classical Russian historiography. *International Journal for History, Culture and Modernity*, 3(2), 159–172. <https://doi.org/10.18352/hcm.481>
- Firaxis Games. (2010). *Sid meier's civilization V* [Video game]. Firaxis Games.
- Firaxis Games. (2019). *Sid meier's civilization VI: Gathering storm* [Video game]. Firaxis Games.
- Fletcher, R. P. (2008). Of puppets, automatons, and avatars: Automating the reader-player in electronic literature and computer games. In Z. Whalen & L. N. Taylor (Eds.), *Playing the past: History and nostalgia in video games* (pp. 239–264). Vanderbilt University Press.
- Foucault, M. (1991). Governmentality. In G. Burchell, C. Gordon, & P. Miller (Eds.), *The Foucault effect: Studies in governmentality* (pp. 87–104). Harvester Wheatsheaf.
- Gilady, L. (2022). *The price of prestige: Conspicuous consumption in international relations*. University of Chicago Press.
- Grant, S. D. (1998). Arctic wilderness—And other mythologies. *Journal of Canadian Studies*, 33(2), 27–42. <https://doi.org/10.3138/jcs.33.2.27>
- Hønneland, G. (2016). *Russia and the Arctic: Environment, identity and foreign policy*. I.B. Tauris.
- Hughes, R. (2010). Gameworld geopolitics and the genre of the quest. In F. MacDonald, R. Hughes, & K. Dodds (Eds.), *Observant states: Geopolitics and visual culture* (pp. 123–142). I.B. Tauris. <https://doi.org/10.5040/9780755620494>
- Jensen, Ø. (2015). The seaward limits of the continental shelf beyond 200 nautical miles in the Arctic Ocean: Legal framework and state practice. In L. C. Jensen & G. Hønneland (Eds.), *Handbook of the politics of the Arctic* (pp. 227–246). Edward Elgar Publishing. <https://doi.org/10.4337/9780857934741.00020>

- Juul, J. (2011). *Half-real: Video games between real rules and fictional worlds*. The MIT Press.
- Kücklich, J. R. (2009). Virtual worlds and their discontents: Precarious sovereignty, governmentality, and the ideology of play. *Games and Culture*, 4(4), 340–352. <https://doi.org/10.1177/1555412009343571>
- Lackenbauer, W. P., & Dean, R. (2021). Arctic exceptionalisms. In K. Spohr, D. S. Hamilton, & J. C. Moyer (Eds.), *The Arctic and world order* (pp. 327–355). Foreign Policy Institute.
- Lamazhapov, E. (2025). Polar contradictions: China's dialectical thinking about the Arctic. *Geopolitics*, 30(3), 1355–1390. <https://doi.org/10.1080/14650045.2024.2408601>
- Lawrence, M., Homer-Dixon, T., Janzwood, S., Rockström, J., Renn, O., & Donges, J. F. (2024). Global polycrisis: The causal mechanisms of crisis entanglement. *Global Sustainability*, 7, Article e6. <https://doi.org/10.1017/sus.2024.1>
- Leach, R., & Dehnert, M. (2021). Becoming the other: Examining race, gender, and sexuality in *Detroit: Become Human*. *Review of Communication*, 21(1), 23–32. <https://doi.org/10.1080/15358593.2021.1892173>
- Leggott, C. (2023). Terra nullius: Claiming land on civilization's empty earth. In D. Mitchell, A. Pearson, & T. D. Peters (Eds.), *Law, video games, virtual realities: Playing law* (pp. 269–289). Routledge. <https://doi.org/10.4324/9781003197805>
- Lehtimäki, M., Rosenholm, A., & Strukov, V. (2021). *Visual representations of the Arctic: Imagining shimmering worlds in culture, literature and politics*. Routledge.
- Maher, P. T., Gelter, H., Hillmer-Pegram, K., Hovgaard, G., Hull, J., Jóhannesson, G. Þ., Karlsdóttir, A., Rantala, O., & Pashkevich, A. (2014). Arctic tourism: Realities & possibilities. In L. Heininen, H. Exner-Pirot, & J. Plouffe (Eds.), *Arctic yearbook 2014* (pp. 290–306). Arctic Portal. https://arcticyearbook.com/images/yearbook/2014/Scholarly_Papers/15.Maher.pdf
- Medby, I. A. (2019). Language-games, geography, and making sense of the Arctic. *Geoforum*, 107, 124–133. <https://doi.org/10.1016/j.geoforum.2019.10.003>
- Medby, I. A., Kristoffersen, B., Steinberg, P., Dodds, K., Bennett, M. M., Bruun, J. M., & Kontou, D.-M. (2026). Polar projections: Political geographies of Arctic mapping. *Political Geography*, 124, Article 103391. <https://doi.org/10.1016/j.polgeo.2025.103391>
- MicroProse. (1991). *Sid meier's civilization* [Video game]. MicroProse.
- MicroProse. (1996). *Sid meier's civilization II* [Video game]. MicroProse.
- Miner, K. R., D'Andrilli, J., Mackelprang, R., Edwards, A., Malaska, M. J., Waldrop, M. P., & Miller, C. E. (2021). Emergent biogeochemical risks from Arctic permafrost degradation. *Nature Climate Change*, 11, 809–819. <https://doi.org/10.1038/s41558-021-01162-y>
- Moe, A., Andreeva, S., & Gunnarsson, B. (2024). More or less ice? Shipping in the Russian Arctic and the role of climate change. *Arctic Review on Law and Politics*, 15, 130–152. <https://doi.org/10.23865/arctic.v15.6504>
- Mukherjee, S. (2017). *Videogames and postcolonialism: Empire plays back*. Springer. <https://doi.org/10.1007/978-3-319-54822-7>
- Mukherjee, S. (2018). Playing subaltern: Video games and postcolonialism. *Games and Culture*, 13(5), 504–520. <https://doi.org/10.1177/1555412015627258>
- Murray, S. (2024). Postcoloniality, ecocriticism and lessons from the playable landscape. In L. O. De Beke, J. Raessens, S. Werning, & G. Farca (Eds.), *Ecogames: Playful perspectives on the climate crisis* (pp. 145–162). Amsterdam University Press. <https://doi.org/10.5117/9789463721196>
- Neumann, I. B. (2018). Foreword: An odd couple? Popular culture and geopolitics. In R. A. Saunders & V. V. Strukov (Eds.), *Popular geopolitics: Plotting an evolving interdiscipline* (pp. xi–xiv). Taylor & Francis. <https://doi.org/10.4324/9781351205030>
- Neumann, I. B., & Nexon, D. H. (2006). Introduction: Harry Potter and the study of world politics. In D. H. Nexon & I. B. Neumann (Eds.), *Harry Potter and international relations* (pp. 1–23). Rowman & Littlefield.

- Østhagen, A. (2022). *Ocean geopolitics: Marine resources, maritime boundary disputes and the law of the sea*. Edward Elgar Publishing. <https://doi.org/10.4337/9781802201567>
- Østhagen, A. (2023). *Five misconceptions in Arctic security and geopolitics*. The Arctic Institute. <https://www.thearcticinstitute.org/five-misconceptions-arctic-security-geopolitics>
- Paradox Development Studio. (2022). *Victoria 3* [Video game]. Paradox Interactive.
- Pobłocki, K. (2003). Becoming-state: The bio-cultural imperialism of Sid Meier's Civilization. *Focaal. European Journal of Anthropology*, 39, 163–177. <http://hdl.handle.net/10593/8609>
- Powell, R. C., & Dodds, K. (2014). Polar geopolitics. In R. C. Powell & K. Dodds (Eds.), *Polar geopolitics?* (pp. 3–18). Edward Elgar Publishing. <https://doi.org/10.4337/9781781009413.00008>
- Punday, D. (2024). *Infrastructure in video games*. Palgrave Macmillan. <https://doi.org/10.1007/978-3-031-72092-5>
- Quantic Dream. (2018). *Detroit: Become human* [Video game]. Sony Interactive Entertainment.
- Robinson, N. (2015). Videogames and IR: Playing at method. In F. Caso & C. Hamilton (Eds.), *Popular culture and world politics: Theories, methods, pedagogies* (pp. 91–100). E-International Relations Publishing.
- Sid Meier's Civilization (2018, November 21). *Civilization VI: Gathering storm—First gameplay (message from sid meier)* [Video]. YouTube. <https://www.youtube.com/watch?v=NChGloy1Cxw>
- Sokal, B. (2002). *Syberia* [Video game]. Microïds.
- Sokal, B. (2004). *Syberia II* [Video game]. Microïds.
- Sokal, B. (2017). *Syberia 3* [Video game]. Microïds.
- Squire, K. (2006). From content to context: Videogames as designed experience. *Educational Researcher*, 35(8), 19–29. <https://doi.org/10.3102/0013189X035008019>
- Steam. (n.d.). *Nuclear nightmare*. https://store.steampowered.com/app/2909110/Nuclear_Nightmare
- Steinberg, P., Tasch, J., & Gerhardt, H. (2018). *Contesting the Arctic: Politics and imaginaries in the circumpolar North*. I.B. Tauris.
- Steinveg, B. (2022). Arctic conferences as arenas for power games and collaboration in international relations. *The Polar Journal*, 12(2), 240–260. <https://doi.org/10.1080/2154896X.2022.2137086>
- Tuathail, G. Ó. (1999). Understanding critical geopolitics: Geopolitics and risk society. *Journal of Strategic Studies*, 22(2/3), 107–124. <https://doi.org/10.1080/01402399908437756>
- Upper One Games. (2014). *Never alone (Kisima Inñitchuṅa)* [Video game]. E-Line Media.
- Yao, J. (2021). An international hierarchy of science: Conquest, cooperation, and the 1959 Antarctic Treaty System. *European Journal of International Relations*, 27(4), 995–1019. <https://doi.org/10.1177/135406612111033889>

About the Author



Erdem Lamazhapov is a PhD research fellow at the Fridtjof Nansen Institute and the University of Oslo. His research focuses on China–Russia relations and China's role in the Arctic, including its great power ambitions and initiatives such as the Polar Silk Road.

Representation and Power in Ocean Conservation Documentaries: A Decolonial Analysis

Steven Mana'oakamai Johnson ¹  and Angelo O. Villagomez ² 

¹ Ashley School of Global Development and the Environment, Cornell University, USA

² Center for American Progress, USA

Correspondence: Steven Mana'oakamai Johnson (steven.johnson@cornell.edu)

Submitted: 28 October 2025 **Accepted:** 4 February 2026 **Published:** 19 March 2026

Issue: This article is part of the issue “Ocean Pop: Marine Imaginaries in the Age of Global Polycrisis” edited by Anja Menzel (University of Bamberg / University of Johannesburg) and Charlotte Gehrke (German Institute of Development and Sustainability–IDOS), fully open access at <https://doi.org/10.17645/oas.i518>

Abstract

Popular ocean documentaries play a crucial role in shaping public understanding of the ocean polycrisis. This article offers a critical review of popular ocean documentaries, examining their portrayal of the complex ocean polycrisis—encompassing climate change, biodiversity loss, and unfettered capitalism. While these films achieve widespread viewership and raise awareness of critical environmental issues, this analysis argues that they frequently operate through a colonial lens, concurrently marginalizing the crucial perspectives and experiences of communities most proximate to these crises. By often prioritizing Western scientific narratives, individualistic solutions, and visually arresting but potentially decontextualized imagery, these documentaries risk obscuring the systemic impacts of historical and ongoing colonialism and neocolonialism on ocean ecosystems and the livelihoods of Indigenous communities, small-scale fishers, and other coastal populations. This article analyzes the films' narrative structures, visual rhetoric, and the selection (or omission) of expert voices to demonstrate how they implicitly and explicitly frame the ocean crisis and its potential solutions. We identify persistent colonial patterns across the corpus and, drawing on these findings, propose five principles for decolonial ocean documentary filmmaking—centering frontline voices, upholding historical accountability, practicing epistemic justice, maintaining structural analysis, and prioritizing relational storytelling over spectacle—demonstrating that more just and inclusive ocean narratives are not only necessary but achievable.

Keywords

decolonizing methodology; documentary; ocean imaginaries; ocean justice

1. Introduction

The ocean polycrisis is a convergence of climate change, biodiversity collapse, pollution, overfishing, and socioeconomic inequality (Halpern et al., 2025). The dimensionality and scale of these interconnected crises exceed what traditional science alone can address, requiring engagement across multiple domains of knowledge production and dissemination (Bennett et al., 2023; Lawrence et al., 2024). Indeed, a reassessment of the dimensions of ocean literacy—knowledge, communication, behavior, awareness, attitudes, activism, emotional connection, access and experience, adaptive capacity, and trust and transparency—is needed to identify pathways outside of traditional scientific research to address these challenges holistically (McKinley et al., 2022; Spalding et al., 2023).

These literacies—oceanic and elsewhere—are actively formulated and reconfigured by society into cultural artifacts with varying degrees of access. Popular culture (pop culture) is a subset of these artifacts that has long been debated and eludes a simple definition. Parker offers both a summary of this debate and two helpful definitions, the second of which states that “popular culture consists of products that require little cultural capital, either to produce or else to consume” (Parker, 2011). Pop culture, with its ease of access, is a critical arena for contesting what is and what ought to be, facilitating reflections on the past, making sense of the present, and contemplating and creating the future. Importantly, pop culture is engaged with much more readily than science. Jasanoff presents the concept of “sociotechnical imaginaries”—collectively held visions of desirable futures animated by shared understandings of social life attainable through scientific and technological advance—as a productive framework for understanding how cultural productions shape policy possibilities and public engagement (Jasanoff, 2015). This has led to the development of fields such as culturomics—the quantitative analysis of culture through large-scale digital datasets—that demonstrate how cultural artifacts both reflect and shape societal priorities (Michel et al., 2011). Studies examining environmental discourse in books, films, and media reveal how cultural representations influence public environmental consciousness and political will for conservation action (Ladle et al., 2016; Leiserowitz, 2004; Troumbis & Iosifidis, 2020).

Understanding how ocean documentaries influence these sociotechnical imaginaries requires analytical frameworks attuned to the relationship between power and knowledge production. We adopt a decolonial lens for this analysis because modern ocean conservation exists within colonial constructs—materially, through the historical and ongoing dispossession of Indigenous peoples from marine territories and the overly economic framing of ocean resources; and epistemologically, through the systematic privileging of Western scientific knowledge over Indigenous and local ecological knowledge systems (Banivanua Mar, 2016; DeLoughrey, 2019). Decolonial theory illuminates how cultural productions such as documentary films both reflect and actively reproduce these colonial relations, shaping which voices are centered in ocean narratives, which knowledge is validated as authoritative, and which futures are made imaginable (Smith, 2022; Tuck & Yang, 2012). This framework is particularly suited to analyzing popular ocean documentaries because these films claim to reveal objective truth about marine crises while simultaneously making choices—about geography, protagonists, experts, and solutions—that position certain actors and knowledge systems as legitimate while marginalizing others. By examining these representational patterns through a decolonial lens, we can identify how even well-intentioned conservation media may perpetuate colonial ways of seeing that undermine the possibility for ocean justice.

In the oceanic context, these imaginaries profoundly influence how societies conceptualize human–ocean relationships, marine governance, and conservation priorities (Ntona & Schröder, 2020; Ratté, 2019; Steinberg & Peters, 2015). Despite—or rather because of—its enormity, most people have loose relationships with the ocean and often experience it primarily through pop culture artifacts. From Greek mythology to iconic films such as *Jaws*, *Free Willy*, and *Finding Nemo*, the ocean has always played a central role in the human imagination (Beaulieu, 2016; Militz & Foale, 2017). The ocean prominently features in numerous fictional works, but is also the focus of many of today’s most critically acclaimed and commercially successful nature documentaries—films that reach audiences in the tens of millions. Documentary film has emerged as a powerful medium for environmental communication, capable of combining aesthetic appeal, scientific authority, and emotional engagement (Brereton, 2022; Rust et al., 2015).

Ocean documentaries have emerged as particularly influential within environmental media. The genre evolved through distinct eras: J. E. Williamson’s 1914 invention of the underwater filming technology and Jean Painlevé’s scientific films established norms and conventions for the genre (Bellows et al., 2001; Cohen, 2022), Jacques-Yves Cousteau’s *The Silent World* (1956) and the BBC Natural History Unit (established 1953) created the mass-audience ocean documentary template used today (Duncan, 2018). Tensions between communicating science and creating spectacle have long been present, including those between conservation and exploitative goals (Crylen, 2018). Scholarship on mid-century ocean films identifies a paradox at their heart: They emerge during a period when Western nations regarded the oceans as objects of exploitation and domestication for “its ideal inhabitants: the white American Family” (Starosielski, 2012). Oceanographic expedition films from 1950–1970 exhibited “the continuity and discontinuity of colonial ideologies” in their representation of tropical marine spaces (Torma et al., 2012).

At the onset of the new millennium, the BBC Natural History Unit’s *Blue Planet* series (2001) set a new standard for ocean documentaries. By implementing new filming techniques and providing groundbreaking footage of species and ecosystems, *Blue Planet* received wide acclaim, both critically and commercially, with an estimated 12 million viewers at its initial UK release. Its success set the stage for numerous imitators, including Disney’s *Oceans* (2009) and its eventual sequel, *Blue Planet II* (2017). Notably, *Blue Planet II* incorporated more explicit conservation messaging, reflecting a broader shift towards activist environmentalism in nature documentaries (Hynes et al., 2021).

Coinciding with changes in the substance of ocean documentaries was a transformation in how viewers accessed these films. The 2010s saw the rise of streaming platforms as major distributors and producers of television and movie content, with investors pouring unprecedented sums into financing new content (Lotz, 2022). This shift expanded the potential audience for ocean documentaries, as it has become easier for viewers to subscribe to one or two services with on-demand viewing for their entertainment needs, rather than the older cable television models with static programming or reliance on box-office sales.

The success of these films has highlighted an opportunity to use documentaries as a mirror for what we see in society, including the identification of biases in the stories told and in who is cast as heroes and villains, saints and sinners, saviors and saboteurs. Critical scholars have identified how nature documentaries frequently reproduce colonial ways of seeing, positioning Western observers as objective witnesses to pristine nature while erasing Indigenous presence and knowledge (Chris, 2006; Mitman, 2012). This “Edenic” framing of nature as empty wilderness awaiting Western discovery and protection has deep colonial roots

and contemporary consequences for conservation, often displacing coastal communities in the name of preservation (Brockington & Igoe, 2006). Literature, film, and other cultural artifacts have helped entrench these frames in society's imagination, as in Conrad's portrayal of Africa as an "other world" (Achebe, 2014). In cases where people are integral to the Western imagination of a place, they are often in roles that supplicate to the needs of Western leisure (Mamiya, 1992). Similarly, the "white savior" narrative—wherein white protagonists become the primary agents of change in contexts of suffering, typically in the Global South—has been extensively critiqued. Studies such as Armitage (2003) highlight the early use of white savior tropes in advertising, while more recent works (McMain & Torres, 2023; Wang & Li, 2025) examine their persistence and adaptation in contemporary film and television.

In sum, media representations do not simply reflect reality but actively constitute environmental subjects and objects, shaping who can speak for nature and whose relationship with the environment is deemed legitimate or worthy of attention (Kimmerer, 2017). In this article, we analyze a selection of the most popular ocean documentaries available on streaming platforms. In the most successful of these movies, we strive to understand how ocean futures are shaped by the stories we tell in the present. Drawing on decolonial theory (Smith, 2022; Tuck & Yang, 2012), we investigate the narrative structures, visual rhetoric, and knowledge hierarchies that shape these influential cultural texts. From these findings, we derive a set of principles for decolonial ocean documentary—centering frontline voices, upholding historical accountability, practicing epistemic justice, maintaining structural analysis, and prioritizing relational storytelling—as a constructive pathway toward more just ocean futures.

2. Methods

2.1. Film Selection

Our analysis focuses on feature-length ocean documentaries that achieved significant commercial success, critical acclaim, and cultural influence. We sought consensus on budget, popularity, acclaim, and controversy. For each film, where available, we documented production budgets and viewership statistics from the Internet Movie Database (IMDb) and Rotten Tomatoes, using both the "tomatometer" (RTT) and "popcornmeter" (RTP), which measure critics and verified audience scores, respectively, to contextualize their reach and influence. Given limitations in data on views on digital streaming platforms, we were unable to quantify the exact number of views. We excluded serialized documentaries (such as the *Blue Planet* series) and heavily biographical features, such as *Mission Blue* about Dr. Sylvia Earle. However, we do include features that are narrower in focus, much like a memoir rather than an (auto)biography.

2.1.1. The Cove (2009)

The Cove represents a pivotal moment in ocean documentary history, establishing a template that future films (including one analyzed here) will follow, combining activist documentary approaches with investigative journalism, celebrity integration, and explicit advocacy goals. The film documented dolphin hunting in Taiji, Japan, using covert filming methods, hidden cameras, and military-grade technology, and employing confrontational tactics. The film was funded by the Oceanic Preservation Society, produced by Participant Media, and distributed by Lionsgate. The movie won Best Documentary Feature at the 2010 Academy Awards, demonstrating critical and commercial viability for conservation-focused documentaries.

The legacy of this film lies in its format, of Western activists investigating and exposing practices in non-Western settings, positioning Western (often white and male) subjects as heroes and non-Western spaces as arenas of environmental crisis. (Audience ratings: 8.4 IMDb; 95% RTT; 94% RTP).

2.1.2. *Chasing Coral* (2017)

The production of *Chasing Coral* spanned over 3.5 years (2013–2016), resulting in more than 500 hours of underwater footage. The film follows the format of *Chasing Ice*, the 2012 documentary about melting glaciers (Jeff Orlowski directed both *Chasing* films), which emphasizes the role and importance of recent camera technologies to “chase” environmental change. The budget was undisclosed but initially minimal, and the film was edited in director Craig Foster’s attic with support from the Sea Change Project before Netflix acquired it. The film screened at more than 80 festivals and at more than 3,000 community screenings in at least 100 countries following its July 2017 global release on Netflix. Filming locations included Bermuda and Australia’s Great Barrier Reef, with footage contributions from 30 countries documenting the 2014–2017 global bleaching event. *Chasing Coral* won the Audience Award at the 2017 Sundance Film Festival. (Audience ratings: 8.0 IMDb; 100% RTT; 89% RTP).

2.1.3. *Seaspiracy* (2021)

Seaspiracy received initial funding from British entrepreneur Dale Vince (amount undisclosed) and was produced by Kip Andersen, using the same production team as *Cowspiracy*. Upon its release on March 24, 2021, the film reached the top 10 on Netflix in 32 countries within days and generated a 5,000%+ increase in Google searches for “vegan seafood.” Approximately 50% of viewers reported considering reducing fish consumption. The film focused on global fishing practices, with particular emphasis on Japan, Thailand, and other Asian fisheries. Extensive academic scholarship has examined the film’s scientific accuracy, selective presentation, and effectiveness in raising awareness of the impacts of industrial fishing. (Audience ratings: 8.1 IMDb; 75% RTT; 87% RTP).

2.1.4. *Ocean with David Attenborough* (2025)

Ocean with David Attenborough represents a different lineage of the nature documentary: BBC Natural History Unit-style documentary, building on the decades-long authority of “host” David Attenborough. Distributed on Disney+, the film features a big-budget production aesthetic and prioritizes education over advocacy. This movie builds on the style, format, and success of the BBC series *Blue Planet* and its sequel, *Blue Planet II*. This film emphasizes the global state of the ocean and how human life flourishes when in harmony with it, and identifies industrial fishing as the greatest threat to the oceans, a recurring theme in ocean documentaries. (Ratings: 8.5 IMDb; 100% RTT; 94% RTP).

2.1.5. *Shark Whisperer* (2025)

With an estimated budget of 60,000 USD, *Shark Whisperer* represents a potential inflection point in the budget needed to tell visually impactful ocean stories. Directed by J. P. Stiles, Harrison Macks, and James Reed, this film was shot on O’ahu, Hawai’i, USA, and follows marine conservationist Ocean Ramsey. Released on Netflix on June 30, 2025, the film received considerable media attention due to controversy over Ramsey’s methods

and its focus on her personal brand rather than broader conservation issues. (Audience ratings: 6.9 IMDb; N/A RTT; 78% RTP).

2.2. Analytical Framework

Our analysis is grounded in decolonial methodology (Smith, 2022; Tuck & Yang, 2012), which centers questions of power, knowledge production, and colonial continuities in environmental contexts. This approach asks not only *what* is represented but *whose* perspectives are validated, *whose* experiences are centered, and *whose* futures are foreclosed by dominant narratives. We employ this framework because ocean documentaries operate at a critical intersection of representation and material consequence. These films establish epistemic authority to define the ocean crisis for global audiences, influencing public opinion, conservation funding, and marine policy. However, this authority is not neutral: It is built upon complex histories of oceanic exploration, extraction, and the privileging of Western ideologies over marine geographies (Banivanua Mar, 2016; Steinberg & Peters, 2015).

Documentary films work simultaneously through explicit content (what they say) and formal properties (how they present information visually and narratively). Understanding how ocean documentaries construct knowledge hierarchies and power relations requires analytical approaches that can examine both dimensions and their interaction. We integrate three complementary methodological traditions—critical discourse analysis, visual content analysis, and decolonial methodology—each addressing different aspects of documentary meaning-making while working synergistically to reveal patterns of colonial power in ocean conservation media. Our analysis employs critical discourse analysis (Fairclough, 2017) to examine how these documentaries construct knowledge about ocean crises and position various actors within narratives of environmental degradation and salvation. Drawing on feminist technoscience scholarship on the “god trick” of claiming a view from nowhere (Haraway, 1988), we attend to how films establish objective authority while often obscuring their own positionality. We examine what Spivak (1994) terms “epistemic violence”—the erasure of subaltern voices and knowledges—by tracking whose expertise is solicited, how different forms of knowledge are valued, and whose relationships with marine environments are rendered visible or invisible. This framework guides our analysis of how films construct narrative structures, deploy visual rhetoric, and select (or omit) expert voices to establish and create ocean futures. These approaches work synergistically: Critical discourse analysis identifies what is said (i.e., which actors are positioned as agents and which solutions are proposed); visual analysis examines how it is presented (camera work, editing, lighting, encoding authority, or marginality); and decolonial methodology asks whose interests are served (who benefits, what Indigenous knowledge is erased, and how patterns connect to policy).

This integrated approach allows us to examine not only content but also the structural choices—narrative arcs, visual rhetoric, and knowledge validation—through which ocean documentaries normalize particular ideas of ocean relations and authority while appearing to merely document environmental reality. Importantly, our analysis is not solely critical but also constructive: The colonial patterns we identify across our corpus will inform a set of principles for decolonial ocean documentary, developed in Section 4.1.

2.3. Caveats

Serialized documentaries were omitted, but longer documentaries can mean (though not always) more space for more voices. Less prominent (i.e., less well-funded/promoted) documentaries may also fill these gaps. The structural conditions of documentary film production—funding sources, distribution channels, intended audiences—shape what stories can be told and how. Most documentaries in our corpus received funding from Western foundations, institutions, and streaming platforms, with intended audiences primarily in wealthy Western nations. These production conditions constrain possibilities for decolonial storytelling, yet the discourse on leveraging the ubiquity of smartphones to tell stories is lively and promising (Canella, 2022; Dayan, 2024; Vickers, 2013).

2.4. Researcher Positionality

Decolonial methodology requires explicit acknowledgment of the researcher's positionality, recognizing that all knowledge production is situated (Smith, 2022). Author SMJ is Kānaka Maoli (Native Hawaiian) with deep familial and scholarly connections to Oceania, while author AOV is Chamorro and brings decades of work in ocean conservation and policy to this analysis. Both authors have and continue to live and work as diaspora in majority-white institutions. Our analytical responsibilities and commitments emerge from both our academic training and our inherited and lived experiences of how conservation narratives augment Indigenous presence and knowledge. This positionality allows us to identify patterns of colonial representation that might otherwise appear unremarkable within Western academic frameworks. We approach these films as scholars invested in ocean futures that are just, inclusive, and capable of reconciling a turbulent past, as the future is surely to present its own unique challenges.

3. Results and Discussion

The following analysis examines each film through three interconnected lenses identified in our analytical framework: narrative structures that position certain actors as heroes or villains; visual rhetoric that shapes emotional and political responses; and the selection or omission of expert voices that determine whose knowledge is deemed legitimate. Each pattern we identify is supported by specific examples from multiple films in our corpus, demonstrating systematic rather than isolated tendencies. The colonial patterns documented here ultimately inform the principles for decolonial ocean media that we develop in Section 4.1.

3.1. Most Top Documentaries Support the White Savior Narrative

Our critical discourse analysis of narrative structure and voiceover authority, combined with a visual content analysis of screen time allocation, reveals a dominant pattern in which white Western protagonists serve as the primary agents of environmental knowledge production and conservation action. This reproduces what Cole (2012) terms the “white savior industrial complex.” In ocean documentaries, narrative structures consistently position white filmmakers, scientists, or activists as those who truly “see” and “reveal” ocean crises and who bear the burden of saving species or ecosystems. Visual analysis shows that these protagonists receive disproportionate screen time and are privileged with visual and sonic framings. At the same time, local and Indigenous subjects appear peripherally, filmed from a greater distance, with fragmented testimony and significant shifts in background music.

Seaspiracy exemplifies this structure through convergent discursive and visual strategies. Discursively, the narrative structure positions its young British filmmaker, Ali Tabrizi, as a detective uncovering hidden truths about globalization and industrial fishing, with corporations in the UK, Africa, and Asia cast as antagonists. Voiceover authority rests entirely with Tabrizi, whose continuous narration interprets others' experiences and provides explanatory frameworks. Visual analysis reveals asymmetric treatment: Tabrizi appears in approximately 60% of scenes, filmed in intimate handheld close-ups that create viewer identification, often making direct eye contact with the camera, suggesting authenticity and transparency.

By contrast, West African fishers appear briefly (for fewer than 5 minutes total), with their ruined fisheries attributed to Asian industrial vessels. However, their own knowledge and advocacy work remain largely unexamined. They are presented at a greater distance, through fragmented commentary. When they are given a voice over their experiences of environmental degradation, Tabrizi's voice interjects to reframe them as evidence rather than as authority. This narrative arc structures Tabrizi's journey from naivete to enlightenment.

This representational strategy reflects what Rangan (2017) analyzes as the "humanitarian gaze" in documentary filmmaking—a mode of looking that positions others as "distant" and in need of rescue while consolidating the viewer's sense of moral agency and superiority. In ocean documentaries, this gaze operates through what we might term "ecological orientalism," adapting Said's (1977) concept to environmental contexts. *The Cove* extends this humanitarian gaze to the dolphins, while exoticizing the human-dolphin relationship without deeper consideration of how similar relationships in the West could be portrayed in a similarly "exotic" frame. Non-Western fishing communities are cast as sites of ecological degradation that require Western intervention, whereas the historical role of Western industrial capitalism in creating and maintaining the labor conditions that drive overfishing and economic desperation remains a lesser part of the narrative.

This pattern extends beyond *The Cove* and *Seaspiracy* to encompass most of our corpus. In *Chasing Coral*, the predominantly white crew is positioned as the primary agents of revelation: Their technological innovation—underwater time-lapse photography—is what makes the coral bleaching crisis visible to audiences, and the film's emotional arc follows their journey of discovery and devastation rather than centering the communities for whom multidimensional loss is a lived reality. *Shark Whisperer* offers the starkest instance of the white savior dynamic in the corpus: Ocean Ramsey is constructed as the singular agent of shark conservation in Hawai'i, her individual advocacy and personal brand serving as the narrative engine of the film, while Kānaka Maoli communities with deep cultural relationships to sharks appear only in subordinate roles.

The white savior pattern emerges from the interaction among the discursive, visual, and structural dimensions identified by our framework. Discursively, films construct narrative arcs centered on white protagonists' discovery and revelation, positioning others as objects to be known rather than knowledge holders in their own right. Visually, editorial decisions about how subjects are framed and the screentime they receive normalize this hierarchy. These representational patterns reinforce the image of the individual engaged in opposition to a system of corruption and conspiracy (Skiveren & Andersen, 2024). This adheres to Haraway's "god trick"—an objective, unbiased perspective on ocean crises that obscures how their positioning shapes what is seen and who is heard (Haraway, 1988).

3.2. Most Often, the Locale for the Setting Is Somewhere “Else” in the World

A related pattern involves the consistent geographic displacement of environmental crises to the Global South or other “elsewhere” locations, despite the global nature of ocean degradation and the disproportionate historical responsibility of wealthy nations for marine environmental damage. Discursively, some films frame crisis through spatial displacement—problems exist “over there”—while visual strategies employ spectacular imagery of an Eden in need of saving. This displacement performs ideological work, positioning the ocean crisis “over there” rather than implicating viewers’ own contexts in broader systems of extraction and exploitation.

Chasing Coral offers an instructive example of how geographic framing operates both discursively and visually. While documenting coral bleaching events globally, the film’s emotional climax centers on Australia’s Great Barrier Reef. The film powerfully communicates the impacts of climate change on coral ecosystems and the urgency of action. However, its geographic focus and lack of engagement with Australian Aboriginal, Torres Strait Islander, and Fijian peoples—who have managed reef systems for tens of thousands of years and whose traditional ecological knowledge offers critical insights into reef resilience—exemplify broader patterns of Indigenous erasure in environmental media (Plummer, 2018).

The documentary dedicates significant screen time to the technical challenges faced by the predominantly white film team in developing underwater time-lapse photography, positioning Western technological innovation as the means of revealing the coral crisis. Meanwhile, Aboriginal peoples’ intimate knowledge of reef ecology, their experience of reef changes over time, and their contemporary advocacy for reef protection receive no attention. This absence reflects the historic and ongoing displacement of Indigenous voices and a “disenchantment” of Westerners and nature (Johnson & Murton, 2007). These tendencies are akin to parachute science that treats Indigenous territories as sites for data extraction while dismissing Indigenous knowledge and sovereignty claims (de Vos & Schwartz, 2022). As Moulton (2024) demonstrates in their assessment of racialized geographies, environmental problems are frequently understood through the intersection of race and nature, impacting how we both manage and imagine the future of such places.

The Cove and *Seaspiracy* reinforce this geographic displacement. *The Cove* locates the crisis in Taiji, Japan—an isolated fishing village rendered as an exotic site of atrocity requiring Western activists to travel there and expose it, while the broader conditions of dolphin exploitation in Western contexts remain outside the frame. *Seaspiracy* extends this logic across multiple locations, each appearing as another “elsewhere” visited in rapid succession, constructing a geography of crisis that spans the Global South, while the structural role of wealthy Western nations in industrial fishing receives comparatively less scrutiny. *Shark Whisperer* demonstrates that geographic displacement need not require actual distance: Hawai’i is treated as an exotic marine frontier rather than an Indigenous territory.

Geographic displacement functions through spatial, temporal, and epistemological dimensions. Spatially, films locate crisis “elsewhere”—the Global South, remote islands, and exotic locations—through both linguistic choices (“pristine,” “remote,” and “untouched”) and visual aesthetics (aerial shots that emphasize distance and isolation, devoid of human presence). Temporally, narrative structures present crisis as emerging now, requiring urgent intervention, rather than as the slow violence resulting from centuries of colonial extraction, for which Western nations bear primary responsibility. Epistemologically, knowledge

validation privileges Western experts who travel to document the crisis while minimizing local and Indigenous peoples who live within and possess a sophisticated understanding of these systems, such as place names and histories. These choices may influence material consequences for ocean conservation, such as funding that flows to Western organizations working abroad (Betsill et al., 2021), policies designed by distant institutions imposed on local communities, and displacement of frontline peoples in the name of protecting “global heritage” (Igoe & Brockington, 2007). This convergence naturalizes a spatial imaginary in which the ocean crisis occurs elsewhere, requiring Western expertise and intervention.

3.3. *The White Gaze on Place*

Perhaps the most insidious pattern involves presenting marine locations as what we term “acultural geographies”—places represented as beautiful but essentially empty stages for environmental drama, devoid of human history, culture, or agency. Alternatively, if there is a human history, it is represented as a brutal geography of fear filtered through the white gaze (Fanon, 1970). This echoes longstanding colonial practices of representing colonized lands as *terra nullius* (Plumwood, 2002). In the marine context, these representations construct *mare nullius* (Mulrennan & Scott, 2002). Mulrennan and Scott argue that “assumptions of land–sea continuity underlie people’s cultural constructions of coastal and marine environments” (Mulrennan & Scott, 2002). We extend this physical and cartographic thinking to the domain of film representation.

This pattern operates across our corpus, both in its presence and in its absence. Viewers are presented with spectacular imagery of coasts, reefs, and marine life; Western protagonists discover and document these spaces that appear to be ignored despite the crises unfolding. Absent from view are the millennia of human–ocean relationships; pre-colonial place names and their embedded knowledge; colonial fractures of cultural stewardship systems; and contemporary struggles for sovereignty. Intentional or not, these absences naturalize the crisis narrative.

Shark Whisperer, the 2025 film focused on the activist and freediver Ocean Ramsey, exemplifies the use of acultural geography. The film is set in Hawai’i, where the protagonist was born, raised, and currently lives. Kānaka Maoli have a rich oral history and written record of the role that *mano* (shark in ‘ōlelo Hawai’i) play (Puniwai, 2020). Despite Ramsey’s attestation to the influence of this culture on her understanding of sharks’ value, these stories are not told in the film. The visceral images of shark culling in the 1980s and 1990s are highlighted as reasons for her advocacy. Yet, her advocacy is portrayed as untethered from the cultural significance of sharks in this geography.

The film briefly acknowledges this cultural context—Ramsey states that Hawaiian culture has “influenced her understanding” of shark value—but treats it as a personal anecdote rather than a place-based knowledge worthy of substantive engagement. When Kānaka Maoli are given screen time, it is brief and serves either as a legitimizer or a foil to her position. Either role is antithetical to Native Hawaiian philosophy, which holds that people serve the land and sea (Chang et al., 2019). Additionally, the film forgoes an exploration of Hawaiian place names for the various locations. Place-names are encoded with *mō’olelo* (stories) about people, historical events, or meaningful more-than-human dynamics (Oliveira, 2014). The erasure of these place-based relational knowledge systems not only severs audiences from historical knowledge systems but also constrains the possible environmental futures (Olazabal et al., 2024).

This pattern of acultural geography extends across our corpus. *Chasing Coral* locates the Great Barrier Reef as a ground-zero for the unfolding mass coral bleaching event, yet never mentions that Aboriginal Australians and Torres Strait Islanders have managed these reef systems for over 60,000 years. The film presents the reef as a natural wonder under threat rather than as territories with continuous Indigenous stewardship. When the film captures the emotional devastation of witnessing coral bleaching, the emotional labor is performed by the Western film crew; Aboriginal peoples' grief over the loss of their ancestral waters remains unimagined. Similarly, *The Cove* films in Taiji, Japan, but presents the location as simply a site of dolphin hunting rather than engaging with the complex local maritime history, fishing traditions, or the community's own debates about these practices.

Seaspiracy operates through a related but distinct form of acultural geography. Rather than lingering in any single location long enough to reveal cultural depth, the film moves rapidly across locales, treating each as an interchangeable site of environmental crisis. This anthology of atrocities structurally forecloses the possibility of understanding any location as a territory with its own culture, history, and human–ocean relationships. Communities appear as perpetrators or victims within a narrative controlled entirely by the Western filmmaker; their own relationships with marine environments remain invisible.

The material consequences of these representational and editorial choices are significant. When ocean conservation policies are developed and imposed on places presented as acultural, they frequently displace the communities that had stewarded these ecosystems (Jacobs et al., 2022). These approaches reentrench the *mare nullius* narrative, imposing an imaginary devoid of human inhabitants and elevating external authority. Ocean documentaries provide cultural legitimation for such actions. When operationalized in this manner, ocean documentaries facilitate the construction of spatial imaginaries that lack legitimate defenders and require intervention by those beyond local ability. Decolonial narratives would imagine an ocean future in which outsiders bring tools to support, rather than supplant, the strategies and stories of local communities (Bennett et al., 2022).

3.4. Knowledge Hierarchies and Epistemic Colonialism

Across our corpus, a clear hierarchy of knowledge emerges, privileging Western scientific expertise while marginalizing or entirely excluding other ways of knowing the ocean. This epistemic hierarchy reflects broader patterns of what de Sousa Santos (2015) terms “epistemicide”—the murder of knowledge systems that accompanies colonial domination. While scientific knowledge offers crucial insights into marine ecosystems and environmental change, our analysis reveals how films construct this knowledge as the only legitimate form; its exclusive privileging dismisses the sophisticated ecological knowledge developed by Indigenous peoples and coastal communities over generations (Gibbs et al., 2025; Latulippe, 2025; Leonard et al., 2022). Coding of expert appearances reveals stark patterns. Documentary after documentary features Western scientists—typically white men—as authoritative voices explaining the ocean crisis, while fishers, Indigenous knowledge holders, and communities living daily with marine ecosystems appear, if at all, as sources of anecdotal evidence rather than legitimate experts. Discursively, Western experts—coded as legitimate—are introduced through institutional credentials (university affiliations, research organizations), and their authoritative voiceover interprets the ocean crisis for viewers, providing uninterrupted analytical space. Visual analysis of interview staging shows scientists appear in settings that encode authority: laboratories with equipment visible, research vessels with organizational branding, and offices with

academic markers (diplomas, marine specimens, scientific charts). *Chasing Coral* features coral scientists explaining mechanisms of bleaching, but lacks traditional knowledge holders who could discuss observed changes in reef health over decades or generations. This pattern exemplifies what Harding (1993) analyzes as “strong objectivity”—the false equivalence between one particular standpoint (Western scientific) and universal objective truth. By positioning Western science as the sole legitimate knowledge system, these films participate in ongoing colonialism.

By contrast, when fishers, Indigenous knowledge holders, or community members appear, the visual and discursive treatment differs markedly. They appear in informal settings—on boats, in markets, outside homes—visual framing that implicitly codes their knowledge as local and anecdotal rather than systematic. Camera distance is typically greater than that used by scientists; shot durations are shorter; and the clips are fragmented rather than extended sequences, with editing frequently juxtaposing their testimony with scientific voices that reframe or interpret what they have said. Crucially, knowledge validation operates hierarchically: Scientists’ testimony serves as the explanatory authority, while local knowledge is treated as data requiring scientific interpretation.

The Cove and *Seaspiracy* both reproduce these knowledge hierarchies in specific ways. In *The Cove*, Western marine biologists and activists serve as the sole authorities on dolphin cognition and welfare; the Japanese fishing community’s understanding of their relationship with dolphins—whether rooted in tradition, livelihood, or local ecological knowledge—is rendered entirely invisible, subsumed by the activist’s investigative framing. *Seaspiracy* similarly positions Western experts—economists, scientists, NGO representatives—as the authoritative voices on industrial fishing, while fishers in Senegal, Thailand, and elsewhere who live within these systems appear only as brief, fragmented testimonials. When West African fishers speak about their depleted fisheries, their testimony is immediately reinterpreted through the filmmaker’s voiceover rather than being allowed to stand as expertise in its own right.

The few moments when documentaries include Indigenous or local knowledge prove instructive. In *Shark Whisperer*, Kānaka Maoli individuals appear briefly. However, their screen time totals approximately 2.5% of the 87-minute runtime. Knowledge hierarchies are evident when a Kānaka Maoli cultural practitioner describes the Hawaiian relationship with sharks, and Ramsey then explains shark behavior from a scientific perspective. Indigenous people and their knowledge remain subordinate to her mission, and their motivations are reduced to serving as either validation or opposition to Ramsey’s advocacy and conservation efforts, rather than fostering sovereign relationships with their territories. They become “legitimizing tokens”—included to demonstrate inclusivity while their epistemological contributions remain unengaged.

This epistemic colonialism has material consequences. Marine conservation policies shaped solely by Western scientific knowledge often fail when imposed on communities whose distinct understandings of marine ecosystems lead to divergent management priorities (Jacobs et al., 2022; Leonard et al., 2022). Moreover, by dismissing non-Western knowledge systems, ocean documentaries reinforce broader patterns of exclusion that keep Indigenous and local communities out of decision-making about their own territories (Jacobs et al., 2025). Ocean documentaries reproduce this epistemological colonialism not through explicit statements but through accumulated formal choices—screen time, camera work, editing, sound—that naturalize whose knowledge counts as authoritative.

3.5. Visual Rhetoric and the Aesthetics of Crisis

The visual language employed across these documentaries reveals patterns in how the ocean crisis is made knowable and emotionally resonant. Images do not simply document reality but actively construct particular ways of seeing and relating to their subjects (Azoulay, 2010). Ocean documentaries employ sophisticated visual and auditory rhetoric that shapes viewers' emotional and political responses to the marine crisis, creating sympathy or antipathy for the focal species. For example, sharks are often accompanied by ominous minor-keyed music (Nosal et al., 2016), while marine mammals such as dolphins are accompanied by more warm and uplifting music (Shiffman, 2022).

Spectacular imagery of marine life and seascapes dominates, presenting oceans as sites of sublime beauty. This aesthetic strategy serves important communicative functions, drawing audiences into engagement with marine environments they might never directly experience. However, the emphasis on beauty can obscure violence and complicate critical engagement. As DeLoughrey (2019) argues, "blue planet" aesthetics can produce what Nixon (2011) terms "representational challenges" in relation to the environmental crisis—the slow violence of ecosystem degradation resists spectacular visualization, leading filmmakers toward more visually dramatic but potentially depoliticizing imagery.

The Cove employs contrasting visual strategies, using hidden cameras, night-vision footage, and graphic imagery of dolphin slaughter to construct a thriller-like narrative of revelation and exposure. This aesthetic positions viewers as investigators uncovering hidden atrocity. The film alternates between beautiful underwater cinematography of dolphins in open ocean—implied as pristine and correct—and harsh documentary footage of the cove, suggesting dissonance and imbalance. This aesthetic juxtaposition suggests moral clarity: dolphins as beautiful innocents, hunters as villains. Additionally, camera positioning places viewers as investigators alongside activists, editing patterns build suspense through thriller conventions, and graphic imagery of blood-red water provides visceral shock. However, as Chouliaraki (2013) argues, such visual strategies risk creating "ironic spectatorship"—viewers who consume images of suffering as entertainment rather than with meaningful political commitment.

Chasing Coral and *Shark Whisperer* employ visual strategies that, while distinct from *The Cove*'s thriller aesthetics, reinforce the pattern of spectacular imagery to evoke emotional and political responses. *Chasing Coral* employs stunning underwater time-lapse sequences that render coral bleaching as a slow-motion spectacle—ghostly white reefs emerging over weeks and months. This imagery is extraordinarily effective at generating emotional impact, but it positions the crisis as merely ecological, ignoring the crisis of fishing communities. *Shark Whisperer* alternates between breathtaking footage of sharks in their habitat and visceral archival footage of shark culling in the 1980s and 1990s, mirroring *The Cove*'s moral-clarity strategy: beautiful creatures as innocents, cullers as villains, and a heroic protagonist bridging the two. The emotional arc is constructed almost entirely through visual contrast, with the cultural and political contexts of shark management in Hawai'i remaining outside the frame.

The deployment of expert voices follows predictable visual patterns. Scientists appear detached from the crises unfolding, waiting to swoop in like superheroes. Fishers and community members appear embedded within the turmoil, trapped by the crisis, and in need of saving. The portrayal of community in crisis furthers the weight and impact of the white savior narrative explored in Section 3.4.

3.6. Individualized Solutions and Depoliticization

A final pattern involves the tendency toward individualized solutions—particularly consumer choice and personal lifestyle changes—rather than structural critique or collective political action. While many films acknowledge systemic dimensions of the ocean crisis, their proposed responses typically emphasize individual responsibility, particularly through consumption choices. This reflects broader neoliberal environmentalism that displaces responsibility from corporations and states onto individual consumers (McCarthy & Prudham, 2004).

Seaspiracy concludes by advocating for personal choice not to consume seafood, framing this as the most effective intervention. While plant-based diets can reduce environmental impacts, this emphasis on individual consumer choice obscures questions of food sovereignty, the livelihoods of billions who depend on fishing, and the political-economic structures that drive industrial overfishing. Gephart et al. (2024) highlight the varied and complex nature of global seafood consumption. For example, the global increase from 1996 to 2019 was driven by a 162% increase in the inland and marine aquaculture sector, whereas marine capture fisheries declined by 21.5% over the same period. Additionally, nearly 50% of ocean nutrients are derived from the aquaculture sector, and 10% are destined for non-food uses, such as fishmeal and fish oil (FAO, 2024).

This tendency toward individualized solutions extends across the corpus, though it manifests differently in each film. *The Cove* concludes by mobilizing viewers toward individual acts of awareness and consumer choice—signing petitions, avoiding dolphin-show tourism, and refusing to purchase dolphin meat—without interrogating the structural economic and political conditions that sustain dolphin hunting in Taiji. The film’s power lies in its capacity to provoke moral outrage, but the actions it offers are commensurate with that outrage: personal, immediate, and emotional rather than structural. *Shark Whisperer* further localizes the solution, centering Ocean Ramsey’s individual advocacy and personal brand as the primary agent of change in shark conservation. The film’s narrative positions personal passion as a sufficient response to a crisis that is, structurally, driven by industrial fishing economies, wildlife management policies, and colonial patterns of resource extraction. *Ocean with David Attenborough* offers a more nuanced treatment: While the film does not entirely avoid individualization, its emphasis on the interdependence of healthy oceans and human flourishing gestures toward a more systemic understanding of ocean sustainability, though it stops short of explicitly naming the structural drivers.

This individualization performs ideological work. It suggests that the ocean crisis can be resolved through aggregated individual choices rather than requiring the transformation of political and economic systems. It allows viewers to feel empowered through consumer choices while avoiding more difficult questions about wealth distribution, colonial legacies, and whose livelihoods should be prioritized in transitions toward sustainability. As Dauvergne (2016) argues, this “environmentalism of the rich” centers concerns and solutions accessible to wealthy consumers while dismissing the needs and knowledge of marginalized communities.

3.7. The Exception to the Rule

Ocean with David Attenborough stands out as one of the exceptions to these general patterns. Despite covering nearly all ocean ecosystems—from coral reefs to the ocean depths—the film is interspersed with narrative accounts of human–ocean relationships from Liberia to Hawai’i. Broadly, *Ocean* centers a diverse

set of human–ocean relationships, rather than positioning any one experience or perspective as the primary agent of knowledge or praxis. The film is interspersed with vignettes that elevate local and Indigenous relationality to the environment (Tynan, 2021). For example, the film highlights the Kānaka Maoli relationality to the ocean as a valid system for sustainability and conservation without making it dependent on validation from Western epistemologies. This represents a fundamental departure from the hierarchies established in most films in the genre.

Centering these varied ocean identities helps expand how we might imagine who the ocean is for and what values need to be engaged with (Kelly et al., 2023). Furthermore, the expectation of Attenborough’s authority as a “subject matter expert” is subverted by his opening statement: “After living nearly 100 years on the planet, I now understand the most important place on Earth is not on land, but at sea.” Attenborough, who may serve as a caricature of the white male objective knower, demonstrates humility in his understanding of the importance of the oceans. Ultimately, these reflections reinforce the film’s central message: that human society flourishes and depends on healthy, thriving oceans. Importantly, this connects to the varied forms of ocean literacy that are fundamental for ocean sustainability (Shellock et al., 2024).

However, even this exceptional example reveals ongoing tensions in the genre. The film still employs a famous white British narrator, maintaining a sense of authority while subverting it. His stature may serve as a mechanism for establishing trust during, hopefully, a moment of transition. Imagining a fully decolonized film, we might have seen Attenborough feature in a vignette, rather than serve as the narrator and guide. Nevertheless, *Ocean with David Attenborough* demonstrates that progress is occurring within mainstream documentary production. Films can deploy narrative choices that reorient and deconstruct knowledge hierarchies.

3.8. Production Contexts and Structural Constraints

The patterns exhibited throughout our corpus do not emerge solely from individual creative choices or unconscious biases. Instead, these representational patterns reflect embedded constraints within the production, funding, and distribution systems of nature documentaries. Unpacking these material conditions is essential for evaluating how these patterns persist and for developing alternative frameworks for a more inclusive development of ocean futures.

Funding models and narrative constraints present the most significant challenge to transformation in this space. Ocean documentaries require substantial financial capital. Production budgets in our corpus range from an estimated 60,000 USD (*Shark Whisperer*) to well over 1 million USD (*The Cove*, *Chasing Coral*), with the BBC Natural History Unit’s productions easily exceeding those values. These financial packages create dependencies that shape narrative possibilities.

Complicating this matter is the emergence of the digital streaming platform model. Platforms such as Netflix and Disney+ are bellwethers for a significant shift in ocean documentary production. Netflix’s model, exemplified here by *Chasing Coral*, *Seaspiracy*, and *Shark Whisperer*, prioritizes content known to perform well algorithmically—films that generate immediate engagement, social media discussion, and subscription value. Algorithmic optimization shapes content in predictable ways. Netflix’s data-driven approach favors individual-centered narratives over complex systemic analysis because protagonist-driven stories test better with mainstream audiences in focus groups and A/B testing (Lotz, 2022). *Shark Whisperer* best exemplifies

this, as the narrative is constructed around not merely the issue of shark conservation but also the enigmatic personality of Ocean Ramsey.

4. Conclusion

Our systematic analysis of five prominent ocean documentaries from 2009 to 2025 reveals persistent colonial patterns in how the ocean crisis is represented, whose knowledge is validated, and what solutions are proposed. These patterns operate through convergent discursive, visual, and structural dimensions that naturalize Western authority while marginalizing Indigenous and frontline community voices, knowledge, and agency. Across our corpus, the films consistently center Western protagonists—filmmakers, scientists, and activists—as primary agents of knowledge and conservation, reproducing white savior dynamics while sidelining Indigenous voices. Crises are framed as occurring in the Global South or in romanticized “edens,” and ocean spaces are portrayed as empty, acultural geographies. This erasure perpetuates policies that displace communities and funnel resources to Western-led organizations. Western scientific expertise dominates through institutional credentials, extended screen time, and authoritative voiceovers, while Indigenous knowledge is tokenized as anecdotal and visually coded as less legitimate. Formal choices—camera angles, editing, and sound—reinforce epistemic hierarchies. Visual rhetoric emphasizes sublime beauty, obscuring colonial histories and structural drivers of ocean degradation, while claiming objectivity through Haraway’s “god trick.” Solutions lean toward individualized consumer actions rather than systemic change, reflecting neoliberal environmentalism. These patterns persist due to structural constraints: Streaming algorithms favor hero-centric narratives, funders demand clear villains and measurable impacts, and acquisition teams privilege conventional formats, leaving Indigenous and Global South perspectives largely excluded from mass-distributed ocean storytelling.

Documentary films are crucial modes for communicating the ocean polycrisis and identifying equitable and lasting solutions. These films help us better understand the world of marine social-ecological systems and their precarious position. The documentaries examined here have undoubtedly advanced public understanding of marine environments, fostering emotional connection to ocean life and raising awareness of critical threats. However, our analysis demonstrates that these films simultaneously risk perpetuating colonial relations of representation and knowledge production that undermine possibilities for just ocean futures. The marine imaginaries constructed by popular ocean documentaries matter. They shape which aspects of the ocean crisis become visible and urgent, whose knowledge counts as legitimate, whose livelihoods merit concern, and what futures appear possible. When these imaginaries center white Western protagonists as saviors, position crisis as occurring elsewhere, erase Indigenous and local community histories and agency, privilege Western scientific knowledge alone, and emphasize individual consumer solutions, they foreclose more transformative possibilities. These convergent patterns—white Western centering, Indigenous erasure, geographic displacement, knowledge hierarchies, visual depoliticization, individualized solutions, and structural production constraints—reveal how some of the most viewed and impactful ocean documentaries reflect colonial histories even while advocating for environmental protection.

4.1. *Toward Decolonial Ocean Media*

There remains a need for a more diverse set of narratives to counter the prevailing white savior narrative. What would a decolonial ocean documentary look like? Drawing directly on the colonial patterns identified

throughout the corpus, we propose five principles for decolonial ocean media. Each principle responds to a specific pattern our analysis uncovered: the marginalization of frontline voices, the erasure of Indigenous knowledge systems, the suppression of historical accountability, the obscuring of structural drivers behind individualized solutions, and the prioritization of spectacle over relational storytelling. Together, these principles constitute not abstract aspirations but an achievable framework—one that, as our analysis has shown, is already beginning to take shape within mainstream production:

- **Centering Frontline Voices:** Rather than following Western protagonists discovering ocean crisis, decolonial documentaries would center the knowledge, analysis, and visions of Indigenous peoples, small-scale fishers, and coastal communities living on the frontlines of ocean change. This requires not token inclusion but fundamental reorganization of narrative authority (Smith, 2022).
- **Historical Accountability:** Decolonial ocean media would engage honestly with colonial and neocolonial histories that produced the contemporary ocean crisis—the decimation of marine populations through industrial whaling and fishing originating in European colonization, the displacement of Indigenous peoples from coastlines, and the creation of economic systems compelling unsustainable resource extraction. Environmental crisis cannot be understood ahistorically (Whyte, 2018). Many contemporary conservation policies continue to perpetuate colonialism by relying on an incomplete and biased account of history (Villagomez & Johnson, 2024).
- **Epistemic Justice:** Rather than privileging Western scientific knowledge alone, decolonial approaches would take seriously the sophisticated ecological knowledge developed by Indigenous and local communities, treating these knowledge systems as equally legitimate and necessary for understanding and responding to the ocean crisis (Leonard et al., 2022). This requires humility about the limitations of Western science and a willingness to learn from other epistemologies, especially as the polycrisis escalates.
- **Structural Analysis:** Decolonial ocean documentaries would maintain a focus on the political and economic structures driving ocean degradation—capitalism’s growth imperative, colonial patterns of resource extraction, and unequal power relations that determine whose knowledge and whose livelihoods matter (Brockington & Duffy, 2010; Li, 2010). As emphasized in previous recommendations, many of the socioeconomic and conservation policies are rooted in colonialism.
- **Relational Rather Than Spectacular:** Rather than emphasizing spectacular imagery that positions viewers as distant observers of beautiful but threatened nature, decolonial media would explore relationships—how different communities understand themselves as related to marine environments, how colonial violence disrupted those relationships, and how they might be rebuilt (George & Wiebe, 2020; Todd, 2016).

4.2. *Limitations and Future Research*

These principles require systemic changes in funding, distribution, and audience development. Decolonial ocean media requires not just different stories but also different systems for producing and supporting them. However, our study has important limitations. We examined films primarily distributed through Western platforms (Netflix, Disney+) and funded by Western institutions, potentially missing alternative storytelling traditions. The limitations of our study, particularly the absence of systematic audience-reception research, leave open the investigation of how diverse viewers interpret these representations. Our corpus was limited to English-language feature documentaries, excluding shorter films, serialized content, and non-English

productions that may employ different frameworks. Additionally, the positionality and relationality of our author team privilege specific patterns. We acknowledge that no neutral viewing exists; all interpretation is situated, and our analysis reflects this positioning.

This study opens multiple avenues for future research examining ocean media, conservation discourse, and decolonial environmental communication. Our analysis identified representational patterns but did not examine how audiences interpret these films. Systematic reception research could investigate how Indigenous viewers, coastal community members, and Global South audiences read these documentaries, and whether viewing contexts and positionalities produce resistant or alternative readings that contest problematic framings. Alongside understanding how viewers interpret these messages, it is critical to understand where they receive environmental information, especially as more video content transitions to short-form “reels” such as those found on TikTok and Instagram. Shorter formats may be more inclined to some of the sensational tactics described earlier.

While we argued that documentaries shape conservation policy, establishing causal connections requires longitudinal research tracking specific films’ influence—how *The Cove* influenced dolphin policies, whether *Seaspiracy*’s success translated into measurable policy or funding changes, and which documentary strategies effectively influence policy versus generate attention without structural impact. As previous research has shown the impacts of the *Blue Planet* series on viewers’ plastic consumption behavior (Dunn et al., 2020), connecting these science communication tools to policy remains a promising and necessary next step.

These research directions reflect our conviction that critical analysis must be accompanied by constructive alternatives, empirical assessment of impacts, and genuine partnership with communities whose voices have been marginalized in ocean media. The ocean crisis is inseparable from the colonial crisis. The same systems that colonized peoples and dispossessed them of territories have colonized the oceans, treating marine environments as resources for extraction rather than as relations requiring responsibility (Davis & Todd, 2017). Therefore, addressing the ocean polycrisis requires decolonizing not only our material relationships with marine environments (Spalding et al., 2023) but also the imaginaries through which we understand those relationships.

Documentary films and other popular media have immense potential and are essential for advancing more just ocean futures. However, realizing this potential requires thoughtful reflection and a transformation in who tells ocean stories, whose knowledge is treated as authoritative, what histories are acknowledged, and what futures are made imaginable. Historical processes of colonization, industrialization, and exploitation shape both the material and the imaginary. Decolonial ocean documentaries would make these processes and their ongoing consequences visible, while centering the knowledge, agency, and visions of those communities fighting for ocean justice.

Acknowledgments

We want to thank the three anonymous reviewers for their time and care in reviewing this work. Their feedback helped sharpen and temper our thesis (Hili hewa ka mana’o ke ‘ole ke kūkākūkā—Ideas run wild without discussion). We also want to thank the thematic issue editors for creating this exciting intellectual space for us to bring our whole selves into.

Conflict of Interests

The authors declare no conflict of interests.

References

- Achebe, C. (2014). An image of Africa: Racism in Conrad's Heart of Darkness. In B. Moore-Gilbert, G. Stanton, & W. Maley (Eds.), *Postcolonial criticism* (pp. 112–125). Routledge.
- Armitage, K. C. (2003). Commercial Indians: Authenticity, nature, and industrial capitalism in advertising at the turn of the twentieth century. *Michigan Historical Review*, 29(2), 71–96.
- Azoulay, A. (2010). Getting rid of the distinction between the aesthetic and the political. *Theory, Culture & Society*, 27(7/8), 239–262. <https://doi.org/10.1177/0263276410384750>
- Banivanua Mar, T. (2016). *Decolonisation and the Pacific: Indigenous globalisation and the ends of empire*. Cambridge University Press.
- Beaulieu, M.-C. (2016). *The sea in the Greek imagination*. University of Pennsylvania Press.
- Bellows, A. M., Painlevé, J., McDougall, M., & Berg, B. (Eds.). (2001). *Science is fiction: The films of Jean Painlevé*. MIT Press.
- Bennett, N. J., Alava, J. J., Ferguson, C. E., Blythe, J., Morgera, E., Boyd, D., & Côté, I. M. (2023). Environmental (in)justice in the Anthropocene ocean. *Marine Policy*, 147, Article 105383. <https://doi.org/10.1016/j.marpol.2022.105383>
- Bennett, N. J., Le Billon, P., Belhabib, D., & Satizábal, P. (2022). Local marine stewardship and ocean defenders. *npj Ocean Sustainability*, 1(1), Article 3. <https://doi.org/10.1038/s44183-022-00002-6>
- Betsill, M. M., Enrici, A., Le Cornu, E., & Gruby, R. L. (2021). Philanthropic foundations as agents of environmental governance: A research agenda. *Environmental Politics*, 31(4), 684–705. <https://doi.org/10.1080/09644016.2021.1955494>
- Brereton, P. (2022). Cinema, ecology, and environment. In A. Hansen & R. Cox (Eds.), *The Routledge handbook of environment and communication* (pp. 329–342). Routledge.
- Brockington, D., & Duffy, R. (2010). Capitalism and conservation: The Production and reproduction of biodiversity conservation. *Antipode*, 42(3), 469–484. <https://doi.org/10.1111/j.1467-8330.2010.00760.x>
- Brockington, D., & Igoe, J. (2006). Eviction for conservation: A global overview. *Conservation and Society*, 4(3), 424–470.
- Canella, G. (2022). Democratizing documentary and interactive social media practices. In K. M. Ryan & D. Staton (Eds.), *Interactive documentary* (pp. 65–77). Routledge.
- Chang, K., Winter, K. B., & Lincoln, N. K. (2019). Hawai'i in focus: Navigating pathways in global biocultural leadership. *Sustainability*, 11(1), Article 283. <https://doi.org/10.3390/su11010283>
- Chouliaraki, L. (2013). *The ironic spectator: Solidarity in the age of post-humanitarianism*. Wiley.
- Chris, C. (2006). *Watching wildlife*. University of Minnesota Press.
- Cohen, M. (2022). *The underwater eye: How the movie camera opened the depths and unleashed new realms of fantasy*. Princeton University Press.
- Cole, T. (2012, March 21). The white-savior industrial complex. *The Atlantic*. <https://www.theatlantic.com/international/archive/2012/03/the-white-savior-industrial-complex/254843>
- Crylen, J. (2018). Living in a world without sun: Jacques Cousteau, homo aquaticus, and the dream of dwelling undersea. *Journal of Cinema and Media Studies*, 58(1), 1–23.
- Dauvergne, P. (2016). *Environmentalism of the rich*. MIT Press.
- Davis, H., & Todd, Z. (2017). On the importance of a date, or, decolonizing the Anthropocene. *ACME: An International Journal of Critical Geographies*, 16(4), 761–780. <https://doi.org/10.14288/acme.v16i4.1539>

- Dayan, D. (2024). Approaches and dilemmas in using documentary filmmaking to empower affected voices challenging mainstream narratives. In J. Morrison & S. Pederson (Eds.), *Silenced voices and the media: Who gets to speak?* (pp. 263–274). Springer.
- de Sousa Santos, B. (2015). *Epistemologies of the South: Justice against epistemicide*. Routledge.
- de Vos, A., & Schwartz, M. W. (2022). Confronting parachute science in conservation. *Conservation Science and Practice*, 4(5), Article e12681. <https://doi.org/10.1111/csp2.12681>
- DeLoughrey, E. (2019). Toward a critical ocean studies for the Anthropocene. *English Language Notes*, 57(1), 21–36. <https://doi.org/10.1215/00138282-7309655>
- Duncan, P. D. (2018). (Science) fiction: Genre hybridization in Jacques-Yves Cousteau and Louis Malle's *The Silent World* (1956). *Journal of Popular Film and Television*, 46(2), 108–117. <https://doi.org/10.1080/01956051.2018.1465886>
- Dunn, M. E., Mills, M., & Veríssimo, D. (2020). Evaluating the impact of the documentary series *Blue Planet II* on viewers' plastic consumption behaviors. *Conservation Science and Practice*, 2(10), Article e280. <https://doi.org/10.1111/csp2.280>
- Fairclough, N. (2017). CDA as dialectical reasoning. In J. Flowerdew & J. Richardson (Eds.), *The Routledge handbook of discourse studies* (pp. 13–25). Routledge.
- Fanon, F. (1970). *Black skin, white masks*. Paladin.
- FAO. (2024). *The state of world fisheries and aquaculture 2024: Blue transformation in action*.
- George, R. Y., & Wiebe, S. M. (2020). Fluid decolonial futures: Water as a life, ocean citizenship and seascape relationality. *New Political Science*, 42(4), 498–520. <https://doi.org/10.1080/07393148.2020.1842706>
- Gephart, J. A., Agrawal Bejarano, R., Gorospe, K., Godwin, A., Golden, C. D., Naylor, R. L., Nash, K. L., Pace, M. L., & Troell, M. (2024). Globalization of wild capture and farmed aquatic foods. *Nature Communications*, 15(1), Article 8026. <https://doi.org/10.1038/s41467-024-51965-8>
- Gibbs, M. C., Rotolo-Ross, R. S., Parker, L. M., Scanes, E., Gibbs, J., Ross, P. M., & Przeslawski, R. (2025). Indigenous ecological knowledge of marine and freshwater organisms and ecosystems on Sea Country: From past absences to future inclusion. *Marine and Freshwater Research*, 76(5), Article MF24247. <https://doi.org/10.1071/mf24247>
- Halpern, B. S., Frazier, M., O'Hara, C. C., Vargas-Fonseca, O. A., & Lombard, A. T. (2025). Cumulative impacts to global marine ecosystems projected to more than double by mid-century. *Science*, 389(6766), 1216–1219. <https://doi.org/10.1126/science.adv2906>
- Haraway, D. (1988). Situated knowledges: The science question in feminism and the privilege of partial perspective. *Feminist Studies*, 14(3), 575–599.
- Harding, S. (1993). Rethinking standpoint epistemology: What is “strong objectivity”? In L. Alcoff & E. Potter (Eds.), *Feminist epistemologies* (pp. 49–82). Routledge. <https://doi.org/10.4324/9780203760093>
- Hynes, S., Ankamah-Yeboah, I., O'Neill, S., Needham, K., Xuan, B. B., & Armstrong, C. (2021). The impact of nature documentaries on public environmental preferences and willingness to pay: Entropy balancing and the Blue Planet II effect. *Journal of Environmental Planning and Management*, 64(8), 1428–1456. <https://doi.org/10.1080/09640568.2020.1828840>
- Igoe, J., & Brockington, D. (2007). Neoliberal conservation: A brief introduction. *Conservation and Society*, 5(4), 432–449.
- Jacobs, L. A., Avery, C. B., Salonen, R., & Champagne, K. D. (2022). Unsettling marine conservation: Disrupting manifest destiny-based conservation practices through the operationalization of Indigenous value systems. *Parks Stewardship Forum*, 38(2). <https://doi.org/10.5070/p538257522>
- Jacobs, L. A., Fisk, J., Carlson, A. K., D'Antonio, A., Payan Hazelwood, S., Perry, E. E., Adams, M., Newman, R.,

- Grayson, R., Gazing Wolf, J., Chestnut, T., Mitchell swālítub, T. A., Mitchell, K. J. R., Whitebear, L., Champagne, K., Avery, C. B., & Gonzales-Rogers, P. (2025). U.S. parks and protected area power structures: From historic policies to Indigenous futurities. *Earth Stewardship*, 2(3), Article e70016. <https://doi.org/10.1002/eas2.70016>
- Jasanoff, S. (2015). Future imperfect: Science, technology, and the imaginations of modernity. In S. Jasanoff & S. H. Kim (Eds.), *Dreamscapes of modernity: Sociotechnical imaginaries and the fabrication of power* (pp. 1–33). University of Chicago Press.
- Johnson, J. T., & Murton, B. (2007). Re/placing Native science: Indigenous voices in contemporary constructions of nature. *Geographical Research*, 45(2), 121–129. <https://doi.org/10.1111/j.1745-5871.2007.00442.x>
- Kelly, M. R., Kasinak, J.-M., McKinley, E., McLaughlin, C., Vaudrey, J. M. P., & Mattei, J. H. (2023). Conceptualizing the construct of ocean identity. *npj Ocean Sustainability*, 2, Article 17. <https://doi.org/10.1038/s44183-023-00025-7>
- Kimmerer, R. W. (2017, June 12). Speaking of nature. *Orion*. <https://orionmagazine.org/article/speaking-of-nature>
- Ladle, R. J., Correia, R. A., Do, Y., Joo, G.-J., Malhado, A. C. M., Proulx, R., Roberge, J.-M., & Jepson, P. (2016). Conservation culturomics. *Frontiers in Ecology and the Environment*, 14(5), 269–275. <https://doi.org/10.1002/fee.1260>
- Latulippe, N. (2025). Race, Indigenous knowledge, and a relational alternative in fisheries policy research. *Marine Policy*, 175, Article 106600. <https://doi.org/10.1016/j.marpol.2025.106600>
- Lawrence, M., Homer-Dixon, T., Janzwood, S., Rockstöm, J., Renn, O., & Donges, J. F. (2024). Global polycrisis: The causal mechanisms of crisis entanglement. *Global Sustainability*, 7, Article e6. <https://doi.org/10.1017/sus.2024.1>
- Leiserowitz, A. A. (2004). Day after tomorrow: Study of climate change risk perception. *Environment: Science and Policy for Sustainable Development*, 46(9), 22–39. <https://doi.org/10.1080/00139150409603663>
- Leonard, K., Buttigieg, P. L., Hudson, M., Paul, K., Pearlman, J., & Juniper, S. K. (2022). Two-eyed seeing: Embracing the power of Indigenous knowledge for a healthy and sustainable ocean. *PLoS Biology*, 20(10), Article e3001876. <https://doi.org/10.1371/journal.pbio.3001876>
- Li, T. M. (2010). Indigeneity, capitalism, and the management of dispossession. *Current Anthropology*, 51(3), 385–414. <https://doi.org/10.1086/651942>
- Lotz, A. D. (2022). *Netflix and streaming video: The business of subscriber-funded video on demand*. Wiley.
- Mamiya, C. J. (1992). Greetings from paradise: The representation of Hawaiian culture in postcards. *Journal of Communication Inquiry*, 16(2), 86–101. <https://doi.org/10.1177/019685999201600207>
- McCarthy, J., & Prudham, S. (2004). Neoliberal nature and the nature of neoliberalism. *Geoforum*, 35(3), 275–283. <https://doi.org/10.1016/j.geoforum.2003.07.003>
- McKinley, E., Burdon, D., & Shellock, R. J. (2022). The evolution of ocean literacy: A new framework for the United Nations Ocean Decade and beyond. *Marine Pollution Bulletin*, 186, Article 114467. <https://doi.org/10.1016/j.marpolbul.2022.114467>
- McMain, E. M., & Torres, J. (2023). Saviors, nurturers, or magically insane: A braided reading of white women characters in three ecological narratives. *Feminist Media Studies*, 23(4), 1643–1658. <https://doi.org/10.1080/14680777.2022.2041692>
- Michel, J.-B., Shen, Y. K., Aiden, A. P., Veres, A., Gray, M. K., The Google Books Team, Pickett, J. P., Hoiberg, D., Clancy, D., Norvig, P., Orwant, J., Pinker, S., Nowak, M. A., & Aiden, E. L. (2011). Quantitative analysis of culture using millions of digitized books. *Science*, 331(6014), 176–182. <https://doi.org/10.1126/science.1199644>

- Militz, T. A., & Foale, S. (2017). The “Nemo Effect”: Perception and reality of *Finding Nemo*'s impact on marine aquarium fisheries. *Fish and Fisheries*, 18(3), 596–606. <https://doi.org/10.1111/faf.12202>
- Mitman, G. (2012). *Reel nature: America's romance with wildlife on film*. University of Washington Press.
- Moulton, A. A. (2024). Racializing nature: The place of race in environmental imaginaries and histories. In G. L. Simon & K. Kay (Eds.), *Doing political ecology* (pp. 238–257). Routledge.
- Mulrennan, M., & Scott, C. (2002). *Mare nullius*: Indigenous rights in saltwater environments. *Development and Change*, 31(3), 681–708. <https://doi.org/10.1111/1467-7660.00172>
- Nixon, R. (2011). *Slow violence and the environmentalism of the poor*. Harvard University Press.
- Nosal, A. P., Keenan, E. A., Hastings, P. A., & Gneezy, A. (2016). The effect of background music in shark documentaries on viewers' perceptions of sharks. *PLoS ONE*, 11(8), Article e0159279. <https://doi.org/10.1371/journal.pone.0159279>
- Ntona, M., & Schröder, M. (2020). Regulating oceanic imaginaries: The legal construction of space, identities, relations and epistemological hierarchies within marine spatial planning. *Maritime Studies*, 19(3), 241–254. <https://doi.org/10.1007/s40152-020-00163-5>
- Olazabal, M., Amorim-Maia, A. T., Alda-Vidal, C., & Goodwin, S. (2024). What is limiting how we imagine climate change adaptation? *Current Opinion in Environmental Sustainability*, 71, Article 101476. <https://doi.org/10.1016/j.cosust.2024.101476>
- Oliveira, K. A. R. (2014). *Ancestral places: Understanding kanaka geographies*. Oregon State University Press.
- Parker, H. N. (2011). Toward a definition of popular culture. *History and Theory*, 50(2), 147–170. <https://doi.org/10.1111/j.1468-2303.2011.00574.x>
- Plummer, D. (2018). *Displacement in place: The delegitimization of Indigenous sovereignty through media framing and erasure in environmental conflict* [Unpublished honors thesis]. University of Oregon.
- Plumwood, V. (2002). Decolonising relationships with nature. In W. Adams & M. Mulligan (Eds.), *Decolonising nature* (pp. 7–30). Taylor & Francis.
- Puniwai, N. (2020). *Pua ka wiliwili, nanahu ka manō*: Understanding sharks in Hawaiian culture. *Human Biology*, 92(1), 11–17. <https://doi.org/10.13110/humanbiology.92.1.03>
- Rangan, P. (2017). *Immediations: The humanitarian impulse in documentary*. Duke University Press.
- Ratté, S. (2019). (Un)seen seas: Technological mediation, oceanic imaginaries, and future depths. *Environment and Society*, 10(1), 141–157. <https://doi.org/10.3167/ares.2019.100109>
- Rust, S., Monani, S., & Cubitt, S. (2015). *Ecomedia: Key issues*. Routledge.
- Said, E. W. (1977). Orientalism. *The Georgia Review*, 31(1), 162–206.
- Shellock, R. J., Fullbrook, L., McKinley, E., Cvitanovic, C., Kelly, R., & Martin, V. (2024). The nature and use of ocean literacy in achieving sustainable ocean futures: A systematic map. *Ocean & Coastal Management*, 257, Article 107325. <https://doi.org/10.1016/j.ocecoaman.2024.107325>
- Shiffman, D. (2022). *Why sharks matter: A deep dive with the world's most misunderstood predator*. JHU Press.
- Skiveren, N., & Andersen, M. (2024). Conspiratorial storytelling and environmental crisis. *Green Letters*, 28(1/2), 31–47. <https://doi.org/10.1080/14688417.2024.2416252>
- Smith, L. T. (2022). *Decolonizing methodologies: Research and Indigenous peoples* (3rd ed.). Bloomsbury Academic.
- Spalding, A. K., Grorud-Colvert, K., Allison, E. H., Amon, D. J., Collin, R., de Vos, A., Friedlander, A. M., Johnson, S. M., Mayorga, J., Paris, C. B., Scott, C., Suman, D. O., Cisneros-Montemayor, A. M., Estradivari, Giron-Nava, A., Gurney, G. G., Harris, J. M., Hicks, C., Mangubhai, S., . . . Thurber, R. V. (2023). Engaging the tropical majority to make ocean governance and science more equitable and effective. *npj Ocean Sustainability*, 2, Article 8. <https://doi.org/10.1038/s44183-023-00015-9>

- Spivak, G. C. (1994). Can the subaltern speak? In P. Williams & L. Chrisman (Eds.), *Colonial discourse and post-colonial theory: A reader* (pp. 171–219). Routledge. <https://doi.org/10.4324/9781315656496>
- Starosielski, N. (2012). Beyond fluidity: A cultural history of cinema under water. In S. Rust, S. Monani, & S. Cubitt (Eds.), *Ecocinema theory and practice* (pp. 149–168). Routledge.
- Steinberg, P., & Peters, K. (2015). Wet ontologies, fluid spaces: Giving depth to volume through oceanic thinking. *Environment and Planning D: Society and Space*, 33(2), 247–264. <https://doi.org/10.1068/d14148p>
- Todd, Z. (2016). An Indigenous feminist's take on the ontological turn: 'Ontology' is just another word for colonialism. *Journal of Historical Sociology*, 29(1), 4–22. <https://doi.org/10.1111/johs.12124>
- Torma, F. (2012). Probing the seven seas. Towards an oceanic and postcolonial concept of 'tropicality.' *Revue d'anthropologie des connaissances*, 6(3), 603–624. <https://doi.org/10.3917/rac.017.0135>
- Troumbis, A. Y., & Iosifidis, S. (2020). A decade of Google Trends-based conservation culturomics research: A critical evaluation of an evolving epistemology. *Biological Conservation*, 248, Article 108647. <https://doi.org/10.1016/j.biocon.2020.108647>
- Tuck, E., & Yang, K. W. (2012). Decolonization is not a metaphor. *Decolonization: Indigeneity, Education & Society*, 1(1), 1–40.
- Tynan, L. (2021). What is relationality? Indigenous knowledges, practices and responsibilities with kin. *cultural geographies*, 28(4), 597–610. <https://doi.org/10.1177/14744740211029287>
- Vickers, R. (2013). Mobile media, participation culture and the digital vernacular: 24-hours.in and the democratization of documentary. *Ubiquity: The Journal of Pervasive Media*, 2(1/2), 132–145. https://doi.org/10.1386/ubiq.2.1-2.132_1
- Villagomez, A., & Johnson, S. M. (2024). Disavowing the doctrine of discovery: Indigenous healing, decolonization, and implications for environmental justice in the Pacific Remote Islands Area. *Environmental Justice*, 18(4), 252–260. <https://doi.org/10.1089/env.2023.0048>
- Wang, R., & Li, Y. V. (2025). What are these stories for? A rhetorical ecofeminist revisit of the binary mazes in the ecological film series *Avatar*. *Environmental Communication*, 19(5), 904–916. <https://doi.org/10.1080/17524032.2025.2473482>
- Whyte, K. (2018). Settler colonialism, ecology, and environmental injustice. *Environment and Society*, 9(1), 125–144. <https://doi.org/10.3167/ares.2018.090109>

About the Authors



Steven Mana`oakamai Johnson is an assistant professor in the Ashley School of Global Development and the Environment at Cornell University. He is a geographer investigating the intersections of ocean conservation, climate change, and Indigenous knowledge. His work draws on collaborations with communities in Micronesia and Hawai'i.



Angelo O. Villagomez is a senior fellow at the Center for American Progress, where he advances ocean policy and climate solutions. Raised in the Mariana Islands, he brings a deep connection to island communities to his work, championing conservation strategies that blend cultural knowledge, public policy, and equitable environmental stewardship.



OCEAN AND SOCIETY
ISSN: 2976-0925

Ocean and Society is an innovative peer-reviewed open access journal focused on the societal interactions with marine and coastal environments.

As an interdisciplinary journal, Ocean and Society brings together relevant studies in the multiple areas of marine and maritime social sciences, promoting both theoretical and empirical studies whether these studies are done on a global, regional, or local level.

As an interdisciplinary journal, Ocean and Society brings together relevant studies in the multiple areas of marine and maritime social sciences, promoting both theoretical and empirical studies whether these studies are done on a global, regional, or local level.



cogitatio

www.cogitatiopress.com/oceanandsociety