Toward a Critical Ocean Studies for the Anthropocene

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Abstract  Recently, scholars have called for a “critical ocean studies” for the twenty-first century and have fathomed the oceanic depths in relationship to submarine immersions, multispecies others, feminist and Indigenous epistemologies, wet ontologies, and the acidification of an Anthropocene ocean. In this scholarly turn to the ocean, the concepts of fluidity, flow, routes, and mobility have been emphasized over other, less poetic terms such as blue water navies, mobile offshore bases, high-seas exclusion zones, sea lanes of communication (SLOCs), and maritime “choke points.” Yet this strategic military grammar is equally vital for a twenty-first-century critical ocean studies for the Anthropocene. Perhaps because it does not lend itself to an easy poetics, the militarization of the seas is overlooked and underrepresented in both scholarship and literature emerging from what is increasingly called the blue or oceanic humanities. This essay turns to the relationship between global climate change and the US military, particularly the Navy, and examines Indigenous challenges to the militarism of the Pacific in the poetry of Craig Santos Perez.

Keywords  blue humanities, Anthropocene, climate change, militarism, Pacific studies

While this special issue of ELN on “Hydro-criticism” was being written, the largest maritime exercise in history was taking place in the Pacific Ocean. Twenty-five thousand military personnel descended on the ocean area between the Hawaiian archipelago and Southern California to participate in “war games,” including nearly fifty naval ships, two hundred aircraft, and five submarines. The twenty-sixth biennial Rim of the Pacific (RIMPAC) exercise comprised the military forces of twenty-five predominantly Pacific Rim nations, with the notable exceptions of China and Russia.1 The theme of the five-week-long RIMPAC 2018 was “Capable, adaptive, partners”; its purpose, according to the US Navy, was to “demonstrate the inherent flexibility of maritime forces” in regard to everything from disaster relief to “sea control and complex warfighting.”2 Past war games had included exercises like sinking warships; this time the agenda listed amphibious operations, explosive ordnance disposal, mine clearance, and diving and salvage work, as well as the live firing of antiship and naval-strike missiles.3 While US imperial interests in the region have categorized the largest ocean on our planet as an
“American Lake,” military incursion by the People’s Republic of China into the Spratly and Paracel Islands has increased the Pentagon’s concern that the Pacific is rapidly becoming a “Chinese Lake” and incentivizing military buildup in the region.⁴

Recently, scholars have called for a “critical ocean studies” for the twenty-first century and have fathomed the oceanic depths in relationship to submarine immersions, multispecies others, feminist and Indigenous epistemologies, wet ontologies, and the acidification of an Anthropocene ocean.⁵ This is a welcome move after decades of scholarship that positioned the ocean as an anthropocentric and colonial “aqua nullius,” or a blank space across which a diasporic masculinity might be forged.⁶ In this new scholarship, an animated ocean has come into being as “wet matter” rather than inert backdrop.⁷ In this recent scholarly turn to the ocean, the concepts of fluidity, flow, routes, and mobility have been emphasized over other, less poetic terms such as blue water navies, mobile offshore bases, high-seas exclusion zones, sea lanes of communication (SLOCs), and maritime “choke points.” Yet this strategic military grammar is equally vital for a twenty-first-century critical ocean studies for the Anthropocene. Perhaps because it does not lend itself to an easy poetics, the militarization of the seas is overlooked and underrepresented in both scholarship and literature emerging from what is increasingly called the blue or oceanic humanities.

This is surprising, given that while the ocean may often be out of sight, the US Navy has long devoted its budgets to the visual reproduction of its military power at

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Figure 1. US Nuclear Test Swordfish, Operation Dominic, 1962.

Figure 2. The ships of the RIMPAC exercise, 2018.
sea, suggesting the mutual imbrication of technoscience and militarism. This includes the spectacular Cold War photography and films of nuclear weapons testing in the Marshall Islands (1946–62), which are widely available on YouTube. In figure 1 we see just one example of the visual display of a US naval vessel in direct relationship to the violent force of a nuclear weapon. Taken from Operation Dominic, where the US launched thirty-one nuclear weapons in the Pacific in the wake of the Bay of Pigs invasion, it shows the twenty-ton antisubmarine nuclear explosion named Swordfish, fired by the ship in the foreground, the USS Agerholm. In Paul Virilio’s terms, this is the way in which “observation and destruction . . . develop at the same pace . . . so that every surface immediately became war’s recording surface, its film.”8 As a mode of warfare, the US military’s visual reproduction of its destructive power over sea and airspace—the global commons—continues today in its social media blitz about RIMPAC exercises, including the show of force in figure 2, ample online videos, and its Twitter feed (see fig. 2 and #ShipsofRIMPAC).

Although marine biologists may point out that “every breath we take is linked to the sea” and that planet Earth is in fact “a marine habitat,”9 another kind of planetary metabolism is equally constitutive—American militarization of the oceans is foundational to maintaining the global energy supply that undergrads what some call the Capitalocene.10 Over 60 percent of the world’s oil supply is shipped by sea, and over 20 percent of the Pentagon’s budget goes to securing it.11 Securing the flow of oil has been a vital US naval strategy—not to say “mission”—since the 1970s.12 Some have warned that there is a “dangerous feedback loop between war and global warming” because the Pentagon, in protecting its energy interests through extensive maritime and overseas base networks, estimated at over seven thousand, is the world’s largest consumer of energy and the biggest institutional contributor to global carbon emissions.13 This seems shocking because carbon emissions are regularly tied to citizen consumption rather than to military expansion.

The US Navy and its associated air force emit some of the dirtiest bunker and jet fuels to secure the passage of maritime oil transportation; this energy in turn is consumed and emitted by the military in rates disproportionate to any nation.14 Not only is this fuel cycle common knowledge in military circles, but the Pentagon was exempted from all the major international climate accords and from domestic carbon emission legislation.15 It should concern Anthropocene scholars and those in the emergent field of the energy humanities that “militarism is the most oil exhaustive activity on the planet.”16

Transoceanic militarism—via sail, coal, steam, or nuclear-powered ships and submarines—has long been tied to global energy sources, masculinity, and state power. Hosted by the US Navy’s Pacific Fleet since 1971, RIMPAC’s oceanic war games have been a way to make visible what the nineteenth-century naval historian Alfred Thayer Mahan famously termed “the influence of sea power upon history.” While Captain Mahan recognized the sea as a commons, and even as “the common birthright of all people,” he spent his influential career advocating “the development of sea power,” for the United States, which was critical to its nineteenth-century expansion to an “insular empire” from Puerto Rico to the Philippines.17 Mahan’s political influence helped convince US leadership of the importance of sea and
wind currents in positioning Hawai‘i as a vital naval base and coal-refueling station as well as a bulwark against China. The 1898 annexations reflected the rise of American naval imperialism, where newly acquired colonies like Guam (Guåhan) were administered by the US Navy as if the island were a ship. A few years later islands and atolls like American Samoa were claimed as essential to fuel the US military and ruled by the Navy as coaling stations. From the (illegal) US annexation of Micronesia in 1947, creating the Trust Territory of the Pacific Islands, to the current US practice of claiming permanent military exclusion zones on the high seas to test weapons—nowhere has this sea power been more apparent than in the world’s largest ocean.

The Pacific Ocean as defined by geographers covers one-third of the world’s surface area (63 million square miles), but to the US military it extends all the way to the western coast of India, a nation that now participates in RIMPAC and represents the largest naval force in South Asia. Significantly, in the spring of 2018 the US military renamed its largest base, the Hawaiian-located Pacific Command, the “US Indo-Pacific Command” (USINDOPACOM) in recognition of its new maritime regime, which has expanded to 100 million square miles, or a stunning “fifty-two percent of the Earth’s surface.” This unprecedented naval territorialism was almost entirely overlooked in the press and has not yet factored into any scholarly discussions of the Anthropocene or oceanic humanities.

In fact, this recent change in transoceanic hydro-politics has produced all kinds of material for cultural analysis, suggesting an interesting relationship between militarism and literary production (and consumption). The commander of the US Indo-Pacific Command, Admiral Phil Davidson, has recently posted a fascinating “professional development reading and movie list” on their website. The book list includes titles one would expect from a military command, such as those about war histories and strategies, with a particular focus on cyberwar. Condoleezza Rice’s (nonironically) titled book Democracy is on the reading list, which may not be surprising, but the appearance of the book Athena Rising: How and Why Men Should Mentor Women, certainly is. Female protagonists are central to a number of the novels, such as a women’s coming-of-age story by the Japanese author Mitsuyo Kakuta and Michael Ondaatje’s Anil’s Ghost, which excavates the legacies of state-sponsored violence in Sri Lanka and Argentina. The movie list also includes some titles of interest to humanities scholars, particularly to postcolonialists: Beats of No Nation, a film about child soldiers in Africa based on Uzodinma Iweala’s novel, and Lion, based on Saroo Brierly’s memoir of Indo-Pacific adoption. There is certainly rich material to consider here in the making of transoceanic naval literacy, and the intersection of hydro-criticism with military hydro-politics.

Like the expansion into the Pacific Islands in the nineteenth century, the US Navy’s inclusion of the Indian Ocean in its definition of the Pacific derives from strategies of energy security. There are five vital “sea lines of communication” (SLOCs) that connect both oceans through a lifeline of oil shipments from the Middle East: the Straits of Malacca, Hormuz, and Bab el-Mandeb, and the Suez and Panama Canals. According to the US Navy website, “RIMPAC is a unique training opportunity that helps participants foster and sustain the cooperative relationships
that are critical to ensuring the safety of sea lanes and security on the world’s oceans.” 23 Because the majority of oil exports are over water, US energy policy has become increasingly militarized and secured by the Navy, the largest oceanic force on the planet. Scholars such as Michael Klare have characterized the US military since the 2003 Iraq war “as a global oil protection service, guarding pipelines, refineries, and loading facilities in the Middle East and elsewhere.” 24 US Navy spokespeople readily admit that RIMPAC is an exercise in “power projection,” a political and military strategy to use the instruments of state power quickly and effectively in widely dispersed locations far from the territorial state. Others might use the term transoceanic empire, with the recognition that much of this (often nuclear) power is also submarine. Fluidity, mobility, adaptability, and flux—all terms associated with neoliberal globalization regimes as well as the oceanic or blue humanities—are also key words and strategies of twenty-first-century maritime militarism.

Postcolonial scholars recognize that Cold War politics reshaped academic funding channels, training and hiring, the formulation of departments (such as area studies), and even their vocabularies. Thus when the US annexed territories in Micronesia and put them in the hands of the Navy, it made academic funding available to anthropologists, including Margaret Mead, to study Pacific Islander cultures. 25 The rise of a twenty-first-century oceanic humanities would benefit from an interrogation of how it may participate in, mitigate, or challenge larger strategic interests, examining how our current geopolitics shape academic discourse, not to say funding. Simon Winchester, writing in the early 1990s at the inception of globalization studies, described what he called “Pacific Rising,” noting that this oceanic turn—following the logic of transnational capital—was “quite simply” about “power.” And that power was represented, celebrated, and contested in the rise of globalization studies, Asia-Pacific studies, and Indigenous Pacific studies, fields largely informed by new models, epistemologies, and ontologies of the sea. 26

While globalization studies of the late twentieth century emerged in relationship to the rise of transoceanic capital and its flows of “liquid modernity,” to borrow from Zygmunt Bauman, we might raise the question as to how twenty-first-century articulations of an oceanic humanities and a turn to “hydro-criticism” might be informed by larger geopolitical and geontological (or sea-ontological) shifts. 27 Since the Obama era the United States has made a “Pacific pivot” that includes transoceanic militarism as well as a trade treaty that, according to Robert Reich, entails “forty percent of the world economy.” 28 The Trans-Pacific Partnership (TPP)—critiqued as “NAFTA on steroids”—includes an attempt to solidify transnational energy and seabed mining interests over state environmental protections. 29 Of course, its key security agents are naval forces, particularly evident in the highly contested military “mega buildup” on Guåhan, one of the Navy’s many “lily pads” and refueling stations, which some American pilots refer to as “the world’s largest gas station.” 30 In a remarkable erasure of Indigenous presence, many militarized islands and atolls of US-occupied Micronesia have been referred to as “unsinkable aircraft carriers” since the World War II era. 31 This is how militarized “ocean-space” is transformed into a “force-field,” a term Philip E. Steinberg uses to describe the
merging of the “ideological value of sea power” with “the key role of a strong ‘blue-water’ fleet in troop mobility, naval warfare” in the quest toward the “domination of distant lands.”

We might rightly turn the focus of hydro-criticism toward hydro-power, defined as energy, force, militarism, and empire. This raises the question as to the purpose of literary criticism in an era of expanding transoceanic militarism. Clearly it is no longer fashionable to publish literary anthologies celebrating the masculine heroic achievements of the Navy in verse, as it was for the British and Americans in the nineteenth and early twentieth centuries. But it should interest us that the largest military command on the planet is offering reading lists. As we turn to new sites of planetary expansion, flow, energy, and fluidity, we might ask, Where is the body of literature and scholarship responding to these global shifts in hydro-power? Where is the literary, artistic, and cultural critique of an aquatic territorialism of 52 percent of the Earth’s surface?

Amitav Ghosh raises similar questions in tracing the relationship between energy, petrocapitalism, narrative, and the Anthropocene. In *The Great Derangement* he builds on his earlier observation that, given the ways in which the world economy is undergirded by oil, it is peculiar that there have been so few “petrofiction” novels. Twenty-five years later he asks why, in an era of disastrous climate change, we see so few literary responses that take on its global scope. While he focuses exclusively (and problematically) on what he calls “literary fiction,” I believe Ghosh’s observations are relevant to calling attention to the lacuna in oceanic studies scholarship and literary production about US militarism more broadly. Ghosh concludes that the European novel—which I would add was developed at the advent of an industrialism fueled by the labor and resources of the colonies—conceals “the exceptional” to promote “regularity” and thus naturalize bourgeois life. This development narrowed the scale of what he terms “serious fiction” to an anthropocentric focus as well as a time scale that cannot account for the *longue durée.* Thus, when faced with catastrophic climate change or nonhuman agency, the European-derived novel has difficulty engaging the “uncanny intimacy of our relationship with the nonhuman.” He raises a provocatively maritime question: “Are the currents of global warming too wild to be navigated in the accustomed barques of narration?”

Of course, no other region on the planet has been so deeply engaged with oceanic and maritime metaphors as Indigenous Pacific studies, which has drawn extensively on the image of the voyaging canoe as a vessel of the people and metaphor for navigating the challenges of globalization and ongoing colonialism. Ghosh may have come to different conclusions if he had extended his analysis to Indigenous, feminist, and/or postcolonial fiction, which often challenge the human/nonhuman binary of western patriarchal thought and depict violence against non-European, nonnormative others as precisely that which prevents access to the “regularity” of bourgeois life. (In fact, his own novels might be considered as part of this postcolonial critique.) However, his analysis is particularly valuable for thinking about a history of silence and erasure when it comes to telling stories about the energies that undergird global capitalism—and, I would add, global militarism—in “the preserves of serious fiction.”
In the space I have remaining I want to turn to the Chamorro author Craig Santos Perez, who has written extensively about the voyaging-canoe metaphor in the wake of transoceanic militarism, and might be the only poet on the planet to turn to the RIMPAC exercises and inscribe their impact on both human and non-human ocean ecologies. While his medium is experimental poetry rather than the realist novel, his challenges to western binary thinking, the uniformity of traditional genre, and the separation of militarism from the transoceanic imaginary have much to say about decolonizing both genre and the broader Pacific, or Oceania.

Author of the multibook project from unincorporated territory (a reference to the political status of Guåhan), Perez is the winner of a PEN award and “imagines the blank page as an excerpted ocean, filled with vast currents, islands of voices, and profound depths.” Like other Indigenous poets from Oceania, a term Epeli Hau‘ofa famously suggested as more representative of the flows of the region than the “Pacific,” Perez has positioned his poetry as an oceanic vessel. His work has plumbed the depths of an oceanic imaginary, particularly visible in his epic 2016 World Oceans Day “eco-poem-film” Praise Song for Oceania, in which he engages the ocean as origin, breath, body, mother, and absorber of plastic waste. In framing not just the permeability between humans and the ocean but their mutual responsibility and accountability, the speaker begs forgiveness for

our territorial hands
& acidic breath / please
forgive our nuclear arms &
naval bodies

Drawing inspiration from a range of poets and scholars who’ve inscribed a trans-oceanic imaginary—including Hau‘ofa—Perez concludes in praise of “our most powerful metaphor . . . / our trans-oceanic/past, present & future/flowing through our blood.” This embodied ocean, represented in the video through the sounds of breath and a heartbeat, foregrounds mergers between the human and a planetary nonhuman other that are naturalized (as breath, mother) and are also violent (“our nuclear arms”).

Since the beginning of his from unincorporated territory series, ([hacha] in 2008), Perez has rendered visible a military that is too often “hidden in plain sight.” He has critiqued the history and depiction of Guåhan as a strategic naval base, as “USS Guam,” and has framed his poems as “provid(ing) a strategic position for ‘Guam’ to emerge” from colonial and military hegemony. As such, he draws extensively on Indigenous voyaging traditions to poetically contest and mitigate the US Navy, reshaping what Ghosh has called the “accustomed barques of narration.” The cover of from unincorporated territory [saina] (2010) juxtaposes a drawing of a Chamorro voyaging canoe, or sakman, above a photograph of the aircraft carrier USS Abraham Lincoln leading smaller naval ships in their patrol of the Indian Ocean in 2008 (fig. 3). Although the world ocean has been partitioned into discrete national and international territories via the United Nations Law of the Sea (UNCLoS), the US Navy considers each of its aircraft carriers “four and a half acres of sovereign and mobile American territory.” Of course, the USS Lincoln is
Figure 3. The cover of *from unincorporated territory [saina]*, 2010. Courtesy of the author.
the ship from which George W. Bush infamously declared, “Mission Accomplished,” in May 2003 after the ship launched “16,500 sorties from its deck, and fired 1.6 million pounds of ordnance from its guns” the previous month during Operation Iraqi Freedom. For complex reasons, Pacific Islanders continue to serve in disproportionate numbers in US military campaigns, lending nuance to the juxtaposition of these two maritime vessels of sovereignty in which Chamorro claims are tied to Indigenous sovereignty as well as US patriotism.

Perez’s four books of poetry engage US naval colonialism in Oceania, particularly in Guåhan, where the Navy occupies one-third of an island that is only thirty miles long. In his most recent book, *from unincorporated territory [lukao] (2017)*, he incorporates a number of “poemaps” that visualize military buildup and contamination in the region (fig. 4), as well as turning directly to the RIMPAC exercises of

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Figure 4. Poemap from *from unincorporated territory [lukao]*, 2017. Courtesy of the author.
2014. Thus Perez shifts the focus from the US Navy to the larger RIMPAC alliance of twenty-two nations, calling attention to the ways in which transnational militarism across the Indian and Pacific Oceans reflects a new era of hydro-politics. For example, the US military’s “Cooperative Strategy for 21st Century Seapower” emphasizes a closer relationship between agencies, such as between the Navy, Coast Guard, and Marine Corps, as well as international alliances that are also evident in the US Department of Defense’s “2014 Climate Change Adaptation Roadmap”; both call for a new era of HADR or Humanitarian Assistance/Disaster Relief operations because global warming is considered a threat multiplier.\(^{50}\) It is well known that the commander of the largest US naval base (USPACOM), Admiral Locklear, in 2013 declared climate change the biggest security threat to the nation.\(^{51}\) Since then US naval officers have argued for a “war plan orange for climate change,” which involves more HADR operations in other countries because “these overtures may increase US access and these nations’ receptiveness to hosting temporary basing or logistics hubs in support of future military operations.”\(^{52}\) Hence they call for larger RIMPAC activities, a 25 percent increase in ships sent to the Middle East, and by 2020 a 60 percent increase in ships and aircraft deployed to the new ocean known to the Pentagon as the “Indo-Asia-Pacific.”\(^{53}\) These are the military hydro-politics of the Anthropocene.

Perez’s RIMPAC poem weaves together the fluid intimacy between mother and newborn daughter alongside the larger-scale militarism of Oceania. The poem is titled “(first ocean),” and its epigraph reads “during the rim of the pacific military exercises, 2014.” It intersperses the Navy’s ecological damage to all oceanic creatures—human and otherwise—with his newborn daughter’s first immersion in the ocean. The use of parentheses in the poem’s title invokes a placental or bodily enclosure of the infant, perhaps reminding the reader—like the conclusion of “Praise Song for Oceania”—that “our briny blood” connects us to the sea and our first placental ocean.\(^{54}\)

The poem employs a second-person address (you) to his wife, highlighting familial intimacy. It traces out the baby’s first introductions to water by her mother in Hawai‘i, moving from being rinsed in the sink to taking a bath to becoming immersed in the sea. Each watery rinsing, bathing, and cleaning is juxtaposed to the repercussions of naval militarism: “pilot whales, deafened/by sonar” emerge “bloated and stranded/ashore.” The speaker wonders “what will the aircrafts, ships, soldiers,/ and weapons of 22 nations take from [us].” In response we learn of the loss of the child’s grandfather, whose ashes were “scattered in the pacific decades ago,” as well as the death of “schools of recently spawned fish” that lie in the tidelands, “lifeless.”\(^{55}\) In this way the child meets both the body of her grandfather and the necropolitics of US militarism. These are multispecies mergers, but they are primarily about the military violence that undergirds Anthropocene extinctions. It has been widely reported that whale strandings and other animal deaths increase during and after RIMPAC exercises.\(^{56}\) The poem concludes with a haunting question: “is Oceania memorial/or target, economic zone or monument/territory or mākua.”\(^{57}\) Mākua, the Hawaiian word for “parent,” also refers to the highly contested military reservation at Mākua Valley on O‘ahu, a place in Kanaka Maoli stories where humans originated, yet is where sacred Hawaiian sites and endangered
species have been regularly bombed by the US military since the 1920s. The poem calls attention to the ways in which the militarization of Oceania causes a rupture in the responsibilities of the mākua to the child, a rupture in the kuleana, or chain of responsibility, that connects all living beings and matter. The collection as a whole, by telescoping between the ordinary and the catastrophic, maternal intimacy and a militarized world ocean, brings together the very components that Ghosh notes are central to our understanding of the Anthropocene, yet so difficult to narrate in (western) prose. Perez demonstrates what Ghosh calls the “uncanny intimacy of our relationship with the nonhuman” and raises vital questions about intergenerational survival and responsibility.

The 2014 RIMPAC war games invoked by the poem led to the widespread devastation of marine wildlife and a 2015 ruling by a federal judge that the US Navy exercises, especially the use of explosives and sonar, were endangering millions of marine mammals. The Navy’s activities were harming over sixty populations of whales, dolphins, seals, and sea lions, and they “admitted that 2000 animals would be killed or permanently injured” by sonar or ship strike in the 2014 RIMPAC exercises. This includes such species as endangered blue, fin, and beaked whales; false killer whales; spinner dolphins; melon-headed whales; and endangered Hawaiian monk seals. The court determined that there was a “breathtaking assertion” by the US Navy that their oceanic exercises “allow for no limitation at all,” in terms of time, space, species, or depth, and that there was no justification for needing “continuous access to every single square mile of the Pacific.” Moreover, in a devastating—if not cleverly literary—ruling, Judge Susan Oki Mollway determined:

Searching the administrative record’s reams of pages for some explanation as to why the Navy’s activities were authorized by the National Marine Fisheries Service (“NMFS”), this court feels like the sailor in Samuel Taylor Coleridge’s “The Rime of the Ancient Mariner” who, trapped for days on a ship becalmed in the middle of the ocean, laments, “Water, water, every where, Nor any drop to drink.”

A critical ocean studies for the Anthropocene would bring together geopolitics with the literary and, like the poet Craig Santos Perez and federal judge Mollway, narrate them in ways that mutually inflect and inform each other. And hydro-criticism would be attentive to both hydro-politics and hydro-power. While the recent oceanic turn has produced scholarship that presses our understanding of the ontological and epistemological fluidity of our oceanic planet, a vigorous engagement with naval hydro-politics would help us better articulate and imagine a demilitarized future.

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Notes
1 Brazil was invited but withdrew, reducing the number to twenty-five. China was “disinvited” due to its territorial expansion in the South China Sea. See Maritime Executive, “RIMPAC 2018 Begins.”
2 Navy News Service, “U.S. Navy Announces.” On this “new ecosecurity imaginary,” see Robert P. Marzec’s compelling argument about how neoliberal concepts of adaptation are “where ecosystems meet the war machine” (Militarizing the Environment, 2).
4 Hayes, Zarsky, and Bello, American Lake. On China, see Forsythe, “Possible Radar”; and Prabhakar, Ho, and Bateman, Evolving Maritime Balance.
5 “Critical ocean studies” and “sea ontologies” are explored in DeLoughrey, “Submarine Futures.” This article is in conversation with important work by Steinberg and Peters, “Wet Ontologies”; Alaimo, Exposed; Helmreich, “Genders of Waves”; and Neimanis, Bodies of Water. See also Hesseler, Tidaletics.
6 This is a larger argument taken up in relation to the British maritime (and shipwreck) fiction as well as more recent black Atlantic discourse in my Routes and Roots.
7 See Bélanger and Sigler, “Wet Matter.”
8 Virilio, War and Cinema, 68.
9 NOAA biologist Nancy Foster quoted in Earle, Sea Change, xiv.
10 The term was first used by Andreas Malm and then further developed by Jason Moore and Donna Haraway. See Malm, Fossil Capital; Moore, Capitalism in the Web of Life; and Haraway, Staying with the Trouble.
11 Liska and Perrin, “Securing Foreign Oil.”
12 In his 1974 address to the Rotary Club of San Francisco. Secretary of the Navy J. William Middendorf III argued: “It is the mission of the US Navy to protect the sea lanes for the transport of these critical [energy] imports. And it is the mission of the US Navy to render a political and diplomatic presence in the world today in support of our national policy” (“World Sea Power,” 241).
13 Lawrence, “US Military Is a Major Contributor”; Hynes, “Military Assault on Global Climate”; Sanders, Green Zone. On the estimation of the number of US military bases (many of them top secret), see Johnson, Nemesis; and Lutz, Bases of Empire. While Lutz calculates at least 1,000 overseas bases, the US Department of Defense itself declares that it has “more than 7,000 bases, installations, and other facilities” (“2014 Climate Change Adaptation Roadmap,” foreword).
14 Sanders, Green Zone.
15 The Pentagon was given an exemption from reporting its carbon emissions at the Kyoto Convention on Climate Change. See Hynes, “Military Assault on Global Climate”; and Neslen, “Pentagon to Lose Emissions Exemption.”
16 Hynes, “Military Assault on Global Climate.”
17 Mahan, Influence of Sea Power, 42, 43. On the history, see Thompson, Imperial Archipelago.
18 See Adomeit, “Alfred and Theodore Go to Hawai’i [sic].” Mahalo to Anne Keala Kelly for this reference and for her kokua regarding the naval history of Hawai‘i.
19 US Navy rule of American Samoa from 1900 to 1951 catalyzed the Mau protests. See Chappell, “Forgotten Mau.” My thanks to my colleague Keith Camacho for his insights on US Navy rule in the Pacific Islands. On resistance to militarism in the Pacific, see Shigematsu and Camacho, Militarized Currents. Walden Bello’s article in that collection describes US presence in the Pacific as “a transnational garrison state that spans seven sovereign states and the vast expanse of Micronesia” (310) and points out that the US Navy was the main force behind the acquisition of Hawai‘i, Guam/Guahan, and the Philippines (315). On the Indigenous responses to American and Japanese militarism in the Marianas, see Camacho, Cultures of Commemoration; and Camacho, Sacred Men. For the Chamorro historical context, see Perez, from unincorporated territory [hacha], preface. On the weapons testing zones, see Van Dyke, “Military Exclusion and Warning Zones.”
22 “RIMPAC is the world’s largest international maritime exercise” (US Navy, “RIMPAC 2014”).
23 Klare, “Garrisoning the Global Gas Station.”
24 Terrell, Hunt, and Gosden, “Dimensions of Social Life.” This is discussed in DeLoughrey, Routes and Roots, 104–5.
25 Winchester, Pacific Rising, 27. Key texts that used the ocean as a trope for globalization include Connery, “Oceanic Feeling”; and Hau‘ofa, “Our Sea of Islands.” The edited collections that these essays appeared in—
Wilson and Dissanayake, *Global/Local*, and Wilson and Dirlik, *Asia/Pacific as Space of Cultural Production*—were critical to shifting US literary and cultural studies to the Pacific.

27 Bauman’s liquid metaphors for globalization (in *Liquid Modernity*) are discussed in DeLoughrey, *Routes and Roots*, 225–26; and in Helmreich, *Sounding the Limits of Life*, 102. Elizabeth A. Povinelli has coined the term *geontologies* (in *Geontologies*), which I have developed into *sea ontologies* (in “Submarine Futures”). On wet ontologies, see Steinberg and Peters, “Wet Ontologies.”

28 Reich, “Trans-Pacific Partnership.”


31 See Norris, “Air Assault on Japan,” 86.


33 Ghosh, “Petrofiction.” In *The Great Derangement* Ghosh argues that “if certain literary forms are unable to negotiate these torrents [of climate change chaos], then they will have failed—and their failures will have to be counted as an aspect of the broader imaginative and cultural failure that lies at the heart of the climate crisis” (8).


38 Hau’o’a, *We Are the Ocean*, Jolly, “Imagining Oceania”, Clifford, *Routes*, Diaz and Kauanui have argued that the “Pacific is on the move,” in terms of tectonics, human migration, and a growing field of scholarship, in *Native Pacific Cultural Studies,* 317; I have built on these works in *Routes and Roots*, which argues for a “transoceanic imaginary” (37). On the oceanic turn and its lack of engagement with Indigenous Pacific studies, see Somerville, “Where Oceans Come From.”

39 Ghosh, *Great Derangement*, 11. I have in mind the Māori author Keri Hulme, whose poetry-fiction collection *Stonefish* imagines multiple scales for the Anthropocene. This is discussed in my “Submarine Futures” and expanded in *Allegories of the Anthropocene*.

40 Lantern Review Blog, “Page Transformed.”

41 Hau’o’a, *We Are the Ocean*. The oceanic vessel metaphor in Pacific and black Atlantic literature is explored in greater depth in *Routes and Roots*.

42 Perez and Chong, *Praise Song for Oceania*. See also Perez, “Chanting Waters.”

43 Hau’o’a argues that “the sea is our pathway to each other and to everyone else, the sea is our endless saga, the sea is our most powerful metaphor, the ocean is in us” (*We Are the Ocean*, 58).

44 Ferguson and Turnbull, *Oh, Say, Can You See*, xiii.


46 Sanders, *Green Zone*, 60.

47 See the essays collected in Bascara, Camacho, and DeLoughrey, “Gender and Sexual Politics of Pacific Island Militarisation.”

48 See Camacho and Monnig, “Uncomfortable Fatigues,” 158.


50 Bender, “Chief of US Pacific forces.”

51 McGeehan, *War Orange for Climate Change.* On how the US military is using climate change to incentivize expansion, see Marzec, *Militarizing the Environment*.


54 Perez, “[first ocean],” in *from unincorporated territory [faka],* 17.


56 Perez, “[first ocean],” 17.

57 Fergusson, *Whales Beware.*

58 Activist groups such as Mālama Māku and EarthJustice have brought the military to court to halt the bombing, at least for the time being. On the militarism of Hawai’i and Māku in particular, see Anne Keala Kelly’s powerful film *Noho Haua: The Wrongful Occupation of Hawai’i*. See also Carter, “‘Let’s Bomb This!’” *Earthjustice*, “Court Rules Navy Training in Pacific Violates Laws.”

59 Natural Resources Defense Council, “Navy Agrees to Limit Underwater Assaults on Whales and Dolphins.”


Works Cited


