



# H-Environment

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**Jacobina K. Arch, *Bringing Whales Ashore: Oceans and the Environment of Early Modern Japan*. Seattle: University of Washington Press, 2018.  
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**Introduction by Kara Murphy Schlichting, Queens College CUNY**

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**J**acobina K. Arch's *Bringing Whales Ashore: Oceans and the Environment of Early Modern Japan* is an important contribution to the rapidly expanding field of marine environmental history. Shedding the long-engrained terrestrial predisposition of history, Arch offers fresh understanding of the economic, cultural, and social links whaling forged between Japan and the Pacific Ocean in the premodern era. In Arch's analysis the shore is less a barrier and more a place of connection with its own fascinating history. As historian John Gillis has argued, "Islands are different from all other lands in so far as they are defined by water...As waterlands, islands have not one, but several ecosystems. They are ecotonal, places where ecosystems intersect, overlap and exist in creative tension with one another."<sup>1</sup> While a margin between water and land, the shore was in no way marginal to Japanese history.

To open this roundtable, **Ryan Tucker Jones** situates Arch's work within the recent flourishing of ocean history and environmental histories of whales and whaling in particular. Jones celebrates Arch's contributions to Pacific Ocean history, Japanese History, and animal history. He underscores Arch's successful close attention to whales' lives, specifically her attention to different species of whales and her avoidance of charismatic generalizations. Chapter 1 of *Bringing Whales Ashore*, for example, focuses on whales themselves and the oceanic environments they traversed in the premodern era. **Noell Wilson** agrees with Jones that Arch has advanced the environmental history subfields of ocean history and animal history. Wilson commends Arch for bringing science-informed environmental history to investigate the agency of whales. With whales as historical protagonists, Arch shows that the history of the Japanese archipelago is a history of how industry, culture, and people traversed beaches and local marine environments. The later chapters of *Bringing Whales Ashore* follow whale products from the beach across Japan, to explore the role of whales in the nation's mercantile economy, consumption patterns, and culture and religion.

Wilson commends Arch for her making early modern history "so relevant and consequential for understanding the present day;" **Carmel Finley** similarly sees Arch's consideration of contemporary Japanese whaling as a central contribution of her book. As Arch makes clear, whaling was no more sustainable in nineteenth-century Japan than it was in the twentieth century. Arch finds little evidence of Japan's supposed 9,000-year unbroken whaling tradition in modern factory-ship whaling. Finley reflects on how myths of traditionally sustainable pre-modern whaling relate to current international debates on Japanese whaling and pro-whaling discourse. Finley focuses on how *Bringing Whales Ashore* asks the reader to consider what it means to call Japanese whaling sustainable in the past or present.

<sup>1</sup> John R. Gillis, "Not Continents in Miniature: Islands as Ecotones," *Island Studies Journal* 9, No. 1 (2014), 155.

In her reply, Arch further reflects on the contemporary implications that Finley and Wilson see in *Bringing Whales Ashore*. She writes on the challenge of balancing “presentist questions with historical realities” and addresses Finley’s comments on the evolution from Tokugawa whaling to Japan’s modern whaling problem. Historians can contribute to contemporary debates over Japan’s pro-whaling arguments, she says, by underscoring the lack of information on Tokugawa-era whaling in the popular, but ahistorical, narrative of Japanese whaling traditions. Arch also reiterates her dedication to Pacific history and Japan’s place in maritime histories of the human-ocean interface, and she reminds us of her intention to re-center maritime history in Japanese history. In *Bringing Whales Ashore*, Arch moves beyond the long-standing historical framing of Japan as a “closed” system in this era. While stasis or equilibrium might be “assumed for a sustainable closed system,” Arch shows that “movement, dynamism and fluidity” (17) far better capture Japanese whaling in Tokugawa Japan. “To understand what it meant for early modern Japan to be an archipelago both isolated from and tied to the Pacific,” Arch explains in her book’s introduction, environmental history must address “a combination of different environments, from the mountains to the plains, from the shore to the coastal currents, from local water to connections across the entire Pacific” (15). *Bringing Whales Ashore* does just this, making visible the connections between whales and people in an archipelagic and Pacific-linked society of both terrestrial and marine space.

Before turning to the first set of comments, I would like to pause here and thank all the roundtable participants for taking part. In addition, I would like to remind readers that as an open-access forum, *H-Environment Roundtable Reviews* is available to scholars and non-scholars alike, around the world, free of charge. Please circulate.

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**Comments by Ryan Tucker Jones, University of Oregon**

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One of the many strengths, and pleasures, of Jakobina Arch's *Bringing Whales to Shore*, is how many different fields the book contributes to. Her focus on whales and whaling reshapes our understanding of the histories of globalization, of the ocean, of Tokugawa Japan, and of current debates around Japanese whaling. The observation alone that early-modern Japanese history is incomprehensible without attention to the Pacific Ocean will open up vast new vistas of research in both Pacific and Japanese history. Her book is a reminder to many different fields that the ocean largely remains a huge historiographical blue frontier.

In my comments, however, I want to highlight just two aspects of Arch's arguments, both part of her welcome attempt to introduce historians to the ocean. First, *Bringing Whales to Shore* is one of the first books to seriously investigate the historicity of whales themselves, indeed one of the first works to grapple with animal history in a way that future environmental histories will have to emulate. Arch announces her ambitions in Chapter One, which carries the provocative subtitle of "A Whale's Eye View of Japan." While historians have often attempted to emulate the "bird's eye view" of large-scale historical developments, Arch is offering something far less conventional, and far less metaphorical. She is claiming that historians can know enough about whales' (even long-dead whales') behavior and perspective to meaningfully write their activities and intentions into human history. In fact, we can hardly hope to understand some human histories without accounting for the changing behaviors of whales.

Many historians will resist such a claim, on a number of well-rehearsed grounds, including the inaccessibility of animal lives – past or present – and a reluctance to grant culture to non-humans. Armed with an impressive combination of training in marine biology and archival rigor, though, Arch is as prepared as any historian to combat these arguments. She admits that the sketchy historical record will never allow a completely satisfactory reconstruction of Tokugawa whale lives, but demonstrates that a careful application of science to the archives reshapes our human stories.

Arch pays close attention the behaviors of different species of whales, details that help explain some of the important contours of Tokugawa whaling. The whales Japanese killed did not usually spend much time in local waters; instead, they were passing by en route either to breeding grounds further south or feeding grounds to the north. Thus, the whales' swimming speeds were of utmost importance to those hoping to catch them. The gray whale's 3 knots meant it was catchable; the humpback's 7.5 meant it usually was not. Those 4.5 knots made all the difference in which whales would be caught and which whales would be noticed, which would leave their traces in Japanese lives and economies, and in the archives. These are also precisely the kinds of details of animal lives that historians too often miss;

indeed, pro-whaling scholars often rightfully criticize anti-whalers for lumping together the most charismatic characteristics of different whale species into one “superwhale.”<sup>2</sup> Arch makes no such mistakes.

Arch also succeeds in evoking whales’ sensory worlds, thinking through the impact Japanese whalers may have had on whales’ behavior and migration patterns. Tokugawa Japan’s heavy nearshore boat traffic presented one new experience for whales. More traumatically, from the 1570s, coastal villages located near the currents that brought whales close to shore began intensive hunting. Many whales had few options when confronted with hunters on boats; mothers and calves, for example, simply had to stay near shore. Others, however, probably made the choice to avoid increasingly dangerous nearshore waters. Their shifting migration routes may have had as much to do with the decline in whale catches as overhunting did, though Arch does not feel the evidence is clear enough to privilege one explanation over the other (pp 29, 56 for example).

Despite the inevitable uncertainty presented by thin historical descriptions, whales’ intentionality clearly played some role in deciding the fates of early modern Japanese whaling towns. Whales’ actions made a difference in the early nineteenth-century as well, when American whalers descended upon them from across the ocean. Their numbers depleted, and the survivors rendered “wilde” (as whalers’ described whales whose behavior had changed), few were available for Japanese coastal whalers. This sent the industry into a shock that encouraged its adoption of modern, industrial whaling techniques. Whales’ unpredictability rendered Japanese whaling similarly erratic, encouraging whaling groups to move around in search of better locales. In Arch’s estimation, the changing behaviors of both whales and whalers also ultimately severed any real continuity in Japan’s whaling tradition. An unbroken tradition of whaling is today one of Japanese whalers’ principle arguments for the right to keep whaling. Thus, Arch’s examination of whale behavior is key to several of her important arguments.

*Bringing Whales Ashore* is not the only recent scholarship to pay close attention to whale historicity; indeed, it may be said to sit astride a minor floodtide of scholarly attention to the subject. New works by Jason Colby (*Orca: How We Came to Love the Ocean’s Greatest Predator*) Dagomar Degroot (“War of the Whales: Climate Change, Weather, and Arctic Conflict in the Early Seventeenth Century,” *Environment and History*), Bathsheba Demuth (*Floating Coasts: An Environmental History of the Bering Strait*) and myself (“A Whale of a Difference: Historical Right Whale Culture and the Making of the Tasman World,” *Environment and History*) have attempted to document and explain the significance of animal intentionality and changing historical animal cultures.<sup>3</sup> Whales are an appealing entry into this topic because

<sup>2</sup> See Arnke Kalland, *Unveiling the Whale: Discourses on Whales and Whaling* (New York: Berghahn, 2009).

<sup>3</sup> Dagomar Degroot, “War of the Whales: Climate Change, Weather, and Arctic Conflict in the Early Seventeenth Century,” *Environment and History* (forthcoming); Bathsheba Demuth, *Floating Coasts:*

they are large, socially sophisticated creatures, and because humans have documented their lives in unusual detail, often while in the process of capturing or killing them. These new whaling histories have used company catch records, modern science, and Indigenous ontology to claim that in some cases whales' cultural choices exercised real power over human societies.

Viewed in relation to some of these works, Arch's approach is fairly conservative. She is reluctant to transport contemporary – and even historical – knowledge of Eastern Grey whale behavior into her account of the Western Gray whales slaughtered in such great numbers by Japanese and American whalers. In fact, this slaughter is the reason we know so little about Eastern gray whales, since their numbers have failed to recover. Still, there is little evidence to suggest that the two stocks (they are the same species) differ in any substantial way; in fact, recent evidence suggests that the populations mix much more than previously thought. Furthermore, Arch does not follow her early-modern Japanese sources on what might have been a tempting avenue; the claim by some whalers and Buddhist priests that whales possessed consciousness and resembled humans in intentionality. In fact, she takes a highly skeptical stance towards such claims, insisting that they actually express a “desire to remake nature on human terms” (175), and not a recognition that whales and humans share important traits.

Such caution likely reflects Arch's training in American-style biology, which tends to be more rigorously evidential and less ethological than its European counterpart. She does not, for example, explore the revolutionary new claims being made by whale scientists such as Hal Whitehead and Luke Rendell, who claim that cetaceans possess sophisticated cultures, which, like human cultures, have changed historically.<sup>4</sup> This is not to fault Arch's work; her Japanese sources do not appear rich and detailed enough to allow her to go very far in this direction.

But, *Bringing Whales Ashore* helps bring to the surface some of the key dilemmas facing those historians looking to reconstruct animal histories. Work such as Whitehead and Rendell's makes it clear that environmental histories that fail to account for changing animal cultures are insufficient. However, if we insist (rightly, in my view) that contemporary science must be historicized, how can we use contemporary science for history? In other words, the exceptional insights animal behaviorists have produced in the last half century may be completely invalid for animals that lived several centuries ago if, indeed, animals are historical creatures. As the field stands, there really are no reliable methodologies for working through this problem. The extent to which current science is applicable to the past is mostly a matter of individual judgment, as indeed are many methodological questions in

*An Environmental History of the Bering Strait* (W.W. Norton: New York, 2019); Ryan Tucker Jones, “A Whale of a Difference: Southern Right Whale Culture and the Tasman World's Living Terrain of Encounter,” *Environment and History* 25:2 (May, 2019): 185 – 213.

<sup>4</sup> Hal Whitehead and Luke Rendell, *The Cultural Lives of Whales and Dolphins* (Chicago: University of Chicago Press, 2014).

the field. Arch's book, at least, offers an exceptionally well-researched and well-informed example of how historians can approach this problem with rigor and caution. It certainly demonstrates that environmental historians have to give wrestle with animal historicity, despite the risks.

Arch's close attention to whales' lives opens up a second intriguing aspect of Japanese history – its deep connections with the larger Pacific Ocean. The fact that whales migrated far from the islands complicates the provocative claim, by Conrad Totman and others, that Early Modern Japan achieved a unique environmental self-sufficiency.<sup>5</sup> Whales and fish often fed thousands of miles away from the places Japanese caught them, offering, effectively, an underappreciated way for the island nation to expand its ecological footprint.

Historians of the Pacific, and especially the Pacific's ocean environment, should also take note of Arch's account of Japanese early-modern whaling. Japan plays little or no role in conventional histories of the seventeenth- and eighteenth-century Pacific (Matsuda, criticized in Arch's account, actually does this better than most), since its *sakoku* policy is supposed to have cut it off from the ocean, even though most historians now recognize that the nation was never really isolated.<sup>6</sup> *Bringing Whales to Shore* demonstrates that Japan possessed hidden undersea linkages to many parts of the Pacific; anywhere that its whales or commercial fish migrated were connected to Japan in very real ways, since their local ecosystems were shaped at least in part by Japanese fishing and whaling. These connections embraced littorals from the Bering Sea to southern China, but also followed migrating whales into the tropical Pacific Islands and migrating tuna all the way to North America. Arch's book, like several others in Japanese environmental history (the work of Bill Tsutsui, Nadine Heé, and Paul Kreitman in particular) has begun to reveal the true vastness of Pacific worlds in ways that will force its standard histories to be rewritten.<sup>7</sup>

In several places, *Bringing Whales to Shore* notes that, in killing whales, early modern Japanese whaling paradoxically made the creatures more alive for the humans inhabiting the archipelago. The book has accomplished a parallel feat for environmental historians, bringing the fuller complexity of whale lives into view (and at a smaller cost in dead whales). In doing so, Arch has opened up important new areas of inquiry into historical animal culture and ocean ecology, not just for

<sup>5</sup> Conrad Totman, *The Green Archipelago: Forestry in Preindustrial Japan* (Berkeley: University of California Press, 1989).

<sup>6</sup> Matt K. Matsuda, *Pacific Worlds: A History of Seas, Peoples and Cultures* (Cambridge: Cambridge University Press, 2012).

<sup>7</sup> Bill Tsutsui, "The Pelagic Empire: Reconsidering Japanese Expansion," in Ian Jared Miller et al, eds., *Japan at Nature's Edge: The Environmental Context of a Global Power* (Honolulu: University of Hawaii Press, 2013); Nadine Heé, "Tuna as an Economic Resource and Symbolic Capital in Japan's 'Imperialism of the Sea,'" in Rotem Kowner et al, eds., *Animals and Human Society in Asia: Historical, Cultural, and Ethical Perspectives* (Berlin: Springer nature, 2019); Paul Kreitman, "Feathers, Fertilizer and States of Nature: Uses of Albatrosses in the U.S. – Japan Borderlands," Unpublished Dissertation, Princeton University, 2015.

Japanese historians, but for those thinking about Pacific shores and indeed any ocean whose waters have been furrowed by the several species of curious, intelligent, and sometimes intelligible, whales.



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**Comments by Noell Wilson, University of Mississippi**


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In the age of the Anthropocene, environmental historians find their lay audiences expanding as human residents of planet Earth seek to understand the deep origins of climate change and contemporary ecological decay. However, not often does one find the work of an early modern historian, certainly ones whose work stretches back to the sixteenth century, so relevant and consequential for understanding the present day. Arch's important book, which explores the human-whale relationship in Tokugawa (1600-1868) era Japan, provides a compelling example of how critical environmental history can be for understanding the contemporary world. Japan's withdrawal from the International Whaling Commission (IWC) and resumption of commercial whaling in 2019 prompted widespread criticism, including calls for a boycott of the 2020 Tokyo Summer Olympics. These critiques reminded the general public of the continued centrality of whaling to Japan's cultural identity and global stature. In *Bringing Whales Ashore*, Arch provides a powerful argument for how the history of Tokugawa era shore whaling operations refutes the Japanese government's defense of current whaling policy as a continuation of longstanding custom. In corroborating this position, she also restores important agency to whale species as historical actors.

Arch is convincing in demonstrating the myriad ways that the practice and culture of Tokugawa era whaling (shore-based, net-gathered, land-processed, locale-specific) is categorically distinct from modern Japanese iterations (deep-ocean-harvested far from Japanese territory, processed on industrial scale ships). With this differentiation she undermines a dominant narrative, at least within Japan, of cultural continuity in Japanese whaling practice. At a moment when professional historians struggle to demonstrate the relevance of their work to society at large, this twenty-first century enagement is a welcome framing. As she explains of much prominent literature, both academic and popular, on Japanese whaling history: "By uncritically linking earlier whaling practices with modern factory ship whaling, as if current practices reflect a natural progression of technology but with similar cultural meanings as the earlier form of whaling, the reality of early modern whaling is reduced to a few images and talking points divorced from context and centered on the commonality of killing whales" (8). However, her conclusion does not definitively identify the point (perhaps the Meiji period writ large?), or category (perhaps from harvesting to territorial expansion?) of rupture (183-96). Claims of discontinuity between early modern and modern practice would be more compelling with a more detailed explanation of the rupture process. However, most readers will realize that analyzing the rupture is not the goal of her story, but rather documenting the society and conventions that predated it. In fact Arch's recent essay on territorial expansion and whaling in nineteenth century Japan partially addresses this "rupture era", and I am certain will be cited in reprints of the book under discussion.<sup>8</sup>

<sup>8</sup> Arch, "Nineteenth Century Japanese Whaling and Early Territorial Expansion in the Pacific," *New Histories of Pacific Whaling*, ed. Ryan Tucker Jones and Angela Wanhalla, *Rachel Carson Center*

One question that repeatedly came to mind in reading this fascinating study was how Japanese whaling shaped demographic history. Arch makes an interesting case for whaling as a driver of population mobility, as whaling experts migrated from one whaling town to the other, following seasonal and sometimes permanent changes in whales' migratory patterns. But a related question for me was if/how whale harvesting allowed populations in whaling areas to weather famine/poor harvests that otherwise killed large portions of surrounding populations without access to whale products. Did whaling provide an extra "resilience effect" for coastal populations, because of the additional protein and fat and/or because of the use of oil as pesticides to protect crops from insects or the crushed bones used as fertilizer? Or were "whaling villages" as susceptible to death during these disasters as fishing hamlets because of an equally small proportion of the population percentage in rice production<sup>9</sup> (particularly during crises when rice prices skyrocketed). Arch briefly addressed these questions in an important article on Wakayama which predates the book discussed here, but I had tucked away that mention hoping the book project might expand on the topic.<sup>10</sup> The omission of this discussion may be due primarily to lack of evidence, but particularly as big data projects allow historians to analyze population figures with new tools, it seems a subject ripe for excavation.

In plumbing the practices of Tokugawa era whaling, Arch provides a long awaited period-specific portrait of whaling culture that illustrates the vast differences between its function in early modern society and that of the twenty-first century. Given the presentist goals of her work, however, a notable oversight is the omission of indigenous Ainu whaling history in Ezo (Hokkaido), which helps justify the maintenance of two active whaling ports, Abashiri and Kushiro – both home to sizable Ainu populations, in Hokkaido today.<sup>11</sup> Curiously, the dominant Japanese narrative of whaling continuity leverages whaling by native peoples, long discriminated against by the Japanese state and society, to justify Japan's continued whaling. Ainu whaling culture primarily centered on collection of drift whales, passive rather than active whaling, making their links to 21st century practice even more tenuous than historical whaling customs in the main islands of the archipelago. The indigenous history of whaling in Hokkaido, before Japanese colonization, further dismantles the dominant cultural narrative that 21st century

*Perspectives*, 5/2019:

<http://www.environmentandsociety.org/perspectives/2019/5/article/nineteenth-century-japanese-whaling-and-early-territorial-expansion>

<sup>9</sup> Arne Kalland, *Fishing Villages in Tokugawa Japan* (Honolulu: University of Hawaii Press, 1995).

<sup>10</sup> Jakobina Arch, "From Meat to Machine Oil: The Nineteenth-Century Development of Whaling in Wakayama," Ian Jared Miller, Julai Adney Thomas, and Brett L. Walker, eds., *Japan at Nature's Edge: The Environmental Context of a Global Power* (Honolulu: University of Hawaii Press, 2013), pp. 39-55.

<sup>11</sup> Simon Denyer, "Japan still hunts whales, but now it is more profitable to watch them" *Washington Post*, December 20, 2019. <https://www.washingtonpost.com/world/2019/12/20/japan-still-hunts-whales-now-its-more-profitable-watch-them/?arc404=true> Accessed January 25 2020.

Hokkaido whaling continues a longstanding tradition of “Japanese” whaling.<sup>12</sup> Granted, Arch’s book analyzes only the sites of “active” whaling, and explores a period when Hokkaido was not yet considered sovereign territory. However, now that the Ainu are legally recognized as an indigenous group by the Japanese government, inserting their micro-history of Tokugawa era whaling would strengthen Arch’s claims of discontinuity.

Arch is part of a larger movement to reclaim the realm of “water column history” from the domain of oceanographic studies and interrogates this same space to explore the history of human/non-human animal interaction, a story which integrates her professional training in marine biology. This scientific knowledge includes not only awareness of migration behavior and feeding patterns, but also intimate familiarity with ocean currents and species specific mating/calving cycles. It allows Arch to return an agency to whales, including (convincing) speculation about their avoidance of particular areas of the Japanese coastline where they were harrassed by shore whaling groups, one of multiple insights which would be almost impossible to excavate for scholars without extended study in the natural sciences.<sup>13</sup> Given the dearth of historians with training in these science fields, Arch’s observations reveal the importance not only of crossdisciplinary training in PhD programs, but also the increasingly critical role of collaborations among natural scientists and humanities scholars as the global academy explores environmental questions.

As an environmental history of oceans, this book intersects with a growing and vibrant field of scholarship on Japan’s relationship with the Pacific. Early modern Japanese history may seem an atypical launchpad to attract attention to maritime history, but this study is not in fact a domestic story but rather an analysis of the North Pacific world stretching from the Arctic to Hawaii. For decades scholars struggled to apply a wide lens geographical framing to Japan’s past because of longstanding, dominant analytical paradigms, particularly that of *sakoku* (“closed country”), that emphasized early modern Japan’s isolation from cultural and diplomatic interaction beyond its terrestrial borders. Mariners, and fishermen, too,

<sup>12</sup> Ezochi became an official territory of the new Meiji state in 1869 when the name of “Ezo” was officially changed to Hokkaido. The question of whether Ainu history is Japanese history is a long debated topic, explored synthetically by David Howell in “Is ‘Ainu History’ Japanese History,” Mark J. Hudson, Ann-Elise Lewallen, Amrk K. Watson, eds. *Beyond Ainu Studies: Changing Academic and Public* (Honolulu: University of Hawaii Press, 2014), pp. 101-106. His ultimate answer is yes. For details of early modern Ainu whaling practice, see Noell Wilson, “Whaling at the Margins: Drift Whales, Ainu Laborers, and the Japanese State on the Nineteenth Century Okhotsk Coast”, *New Histories of Pacific Whaling*, ed. Ryan Tucker Jones and Angela Wanhalla, *Rachel Carson Center Perspectives*, 5/2019: <http://www.environmentandsociety.org/perspectives/2019/5/article/whaling-margins-drift-whales-ainu-laborers-and-japanese-state-nineteenth>

<sup>13</sup> This study accomplishes for Northwest Pacific, including the Sea of Japan and southern Okhotsk, what historian Ryan Tucker Jones did for the North Pacific. See Ryan Tucker Jones, “Running into Whales: The History of the North Pacific from below the Waves,” *American Historical Review*, Vol. 118, No. 2 (April 2013): 349-377 and Jones, *Empire of Extinction: Russians and the North Pacific’s Strange Beasts of the Sea, 1741-1867* (Oxford University Press, 2014).

were forbidden from travelling to foreign lands on pain of death in the Tokugawa period, the era at the core of this book, thus the maritime trades were not seen as fruitful topics for interrogating the archipelago's relationship with the larger Pacific. For multiple generations of Japan scholars, Japan's history ended at the waterline. However, identifying whales as a key historical protagonist of the Tokugawa era significantly expands the scope of geography relevant for the archipelago's history, reimagining the scales of analysis for this period of the Pacific past. One of the most recent additions to scholarship on Japan's historical relationship with the Pacific is Stefan Huebner's article "Tackling Climate Change, Air Pollution, and Ecosystem Destruction: How US-Japanese Ocean Industrialization and the Metabolist Movement's Global Legacy Shaped Environmental Thought (circa 1950s-Present)."<sup>14</sup> An intellectual history of how above- surface ocean platform technologies shaped ideas about humans' place in the Pacific, on first glance it may seem linked to Arch's work primarily in its latitudinal stretch from the North Pacific to Hawaii. However, it also speaks to the emerging importance of vertical space as a field of historical analysis, a focus evident in a recent panel (AHA session 260) "Air, Wind, and Sky: Histories of an Omnipresent and Invisible Force" at the January 2020 annual meeting of the American Historical Association.<sup>15</sup> Arch's research trajectory, too, is embracing this above- water space with new projects investigating the environmental history of Japanese cargo vessel transport and shipwrecks.

Arch's book is both template and clarion as humanities scholars in the contemporary US struggle to justify their relevance to society writ large.

<sup>14</sup> *Environmental History* 25 (2020):35-61.

<sup>15</sup> <https://aha.confex.com/aha/2020/webprogram/PROCOM.html>. Accessed January 17 2020.

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**Comments by Carmel Finley, Oregon State University**

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One of the most interesting weeks of my academic life was spent in Sorrento, Italy, attending a meeting of the International Whaling Commission. It was held in a cavernous pile of a hotel nestled into the hills overlooking the city, like something out of an early James Bond movie. Populated by large clusters of NGOs and a huge Japanese press corps, it was a quick immersion into the deep waters of the scientific controversy over whaling. I left with an armload of material from the Institute of Cetacean Research, including some of the drawings Jakobina Arch includes in *Bringing Whales Ashore: Ocean and the Environment of Early Modern Japan*. Had early whaling been sustainable? I had just read *The Blue Whale*, by George Small; published in 1971, it is an account of the ruthless development of industrial Japanese whaling after 1934.<sup>16</sup> How to reconcile these two sets of images? How could both be correct?

As Jakobina Arch makes clear, whaling was not sustainable in 19<sup>th</sup> century Japan any more than it was in the 20<sup>th</sup> century. She contends that linking the periods when villages captured passing whales to industrial high-seas whaling is too broad and too sweeping a generalization that is not borne by the historical record. That record may be spotty, but Arch has compiled a rich set of texts and images that show the complexities of whaling and its importance to Tokugawa society. It makes for a detailed study of how a resource from the semi-periphery moves through a core economy, and how it becomes part of culture during the Tokugawa period (1603-1860). This time of peace and expansion laid the foundation for the modern Japanese economy and its embrace of Western technology. With a growing population, Japan needed new food resources and the government turned to the country's deep knowledge of the seas.

The ocean off the Japanese islands is enormously productive, as cold and warm currents collide, causing upwelling that stimulates the entire food chain, providing rich feeding for whales as they migrated between their winter and summer feedings grounds. At first communities were dependent on whales coming close enough to shore for them to be trapped in nets and harvested. As American whalers took more whales in the Arctic, the numbers along the coast dwindled, forcing villagers to shift strategies and target different whale and dolphin populations. By the 1700s, there were signs that the slower swimmers, the right whales, sperm whales, humpbacks, and grays, were less abundant. The hunters moved from nets to harpoons to factory boats that would increasingly intersect the whales at sea. As the villagers grew more skilled, the passage grew more perilous for the whales.

Village whaling was far more extensive and organized than subsistence whaling by isolated indigenous groups. Entire villages and towns were involved in turning captured whales into parts that allowed whale products to spread throughout the economy, tying the mountains to the seas. People ate whale meat, burned the oil,

<sup>16</sup> George Small, *The Blue Whale*, (New York : Columbia University Press, 1971).

and used the bones for carving. Whale oil was an important insecticide, boosting rice yields in a country where taxes were paid in rice.

Stranded whales were figures of great interest, memorialized by scholars and artists. The Dutch anatomical texts introduced Western ideas about medicine and natural history, stimulating the production of anatomical drawings of great detail and complexity. The whaling companies published expensive texts explaining how whaling was done and its importance to the economy, illustrated with exquisite drawings. Over time, whales became entwined with a diverse set of economic, political and cultural considerations. Villages memorialized dead whales with bridges and sculptures. Traditional Buddhist rituals were carried out by the whalers to appease the deceased creature's spirit.

The relationship between whales and communities changed with the development of factory ships and pelagic whaling. While villagers may have shared in the traditional whale harvest, the factory fleets were dependent on cheap seasonal labor by peasants. Whale oil was also sold on the world market for hard currency, creating another layer of dependence between the government and the whales. Whales were a means to many ends.

Arch adds an important element to the story of the development of industrial fishing in the North Pacific (I argue whaling is a form of fishing), and both industries benefitted from government policies. An area that could have been explored in more depth is the extent of government subsidies for whaling and fishing during this period, including the development of the extensive network of marine stations and laboratories, not just Japan, but also in Korea and other satellite countries with large Japanese fisheries. The empire was among the first to do weather forecasting for its fleets, as well as more common policies encourage boatbuilding and processing facilities. As whaling moved offshore, it was increasingly important to Japan for foreign policy reasons, as territorial claims.

The web of knowledge about the North Pacific Ocean has been slow to form. Information is fragmented and must be mined from multiple disciplines and translated from various languages. The region is so vast, the distances so great, the cultures so different, it should be no surprise there are different interpretations over nature. The Japanese have always seen whales as fish, with no particular intelligence or charm, a resource to be harvested. In direct contrast to citizens of many Western countries, many Japanese people do not differentiate between the killing of marine mammals such as whales, seals, and dolphins, and the killing of domestic animals such as cows or sheep. This conflict has endured for more than four centuries and show no signs of abatement. Japan returned to commercial whaling in 2019. The Japanese see criticism of whaling as form of imperialism, a means of forcing Western values and influence upon their cultural practices and traditions. The Japanese view conservation of natural resources not as an end in itself, but as a means to promote sustainable resource development for future use.

Arch's story significantly deepens our understanding of the Japanese cultural attachment to whales and its whaling history. It is not the whales that are important, it is what the whales allow the nation to achieve. Japan's reliance on its deep knowledge of the sea would be demonstrated again after World War II. Its fishing and whaling empire was systematically dismantled but a decade later the Japanese were once again on the way to being one of the world's leading fishing nations. Deepening this web of scholarship on the North Pacific is a new monograph on the development of North Korean fisheries by Robert Winstanley-Chesters (available free for downloading from Springer Open, thanks to a series of generous grants).<sup>17</sup> Both accounts look to the traditional importance of fishing to coastal communities, as well as instruments of policy in the modern world.

Whales, like elephants and other charismatic megafauna, reveal deep conflicts over global nature and ideas of scientific truth. The pro-whaling discourse consistently denounces the opposition to whaling as being driven by emotion, rather than science. They argue the moratorium of the 1970s lacked any scientific basis.

An area that might have been explored at greater depth is the extent of government subsidies for whaling during this period, for the development of the extensive network of marine stations and laboratories throughout not just Japan, but also in Korea and other satellite countries with large Japanese fisheries. The empire was among the first to do weather forecasting for its fleets, as well as more common policies encourage boatbuilding and processing facilities. I'd like to know more about the early scientific papers on whaling; were accounts collected systematically from villages? Did any scientist or group specialize in whales? What other government assistance was given to help the transition to factory whaling? That last is beyond the scope of Arch's book. She has given us window into the Tokugawa period, and provided an answer on why I left the International Whaling Commission meeting in Sorrento with such a fine collection of documents.

<sup>17</sup> Robert Winstanley-Chesters, *Fish, Fishing and Community in North Korea and Neighbors* (Springer, 2020).

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**Response by Jakobina Arch, Whitman College**

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It's a pleasure to have this opportunity to contribute to a conversation about my book. I'd like to thank Kara Schlichting for the invitation and for facilitating the roundtable, and Ryan Jones, Noell Wilson, and Carmel Finley for their thoughtful comments. It's exciting to see what readers are picking up from my work, especially when it's in the form of such positive comments from colleagues who are doing influential work on questions about histories of the ocean, the Pacific, and whales and fisheries more broadly. You have all helped make sending a first book out in to the world a rewarding experience for me, and I greatly appreciate it.

Japan has had a somewhat awkward place in Pacific history thus far, especially for the Tokugawa period that is the focus of my work. Because of this, I'm happy to see that Jones and Wilson both think my research is helping to open up a conversation about how to understand Japan's place in the wider Pacific. The connections between Pacific circulations of whales (and the nutrients they embodied) and the more local aspects of the Japanese archipelago represent a major expansion of the territory we should be considering when writing environmental histories of Japan. I have to admit I was uncertain I could convince other historians how essential this connection is, particularly when the contact point we're examining remains close to shore. It helps that in the past few years, there have been an increasing number of scholars working on Japan's oceanic history, so the idea is landing on a more receptive audience than the one that seemed to exist when I started the project. One of my hopes for *Bringing Whales Ashore* was to spark discussion about the importance of Japan's maritime spaces both for Japanese history and for broader histories of the Pacific, so it's great to see that working for at least some of my readers.

That said, I intended for the book to be just as much about whales as it is an example of how those whales connected Tokugawa Japan to circulations and systems of the Pacific Ocean. Jones' comments about the effectiveness of my science-informed environmental history are heartening, as interdisciplinarity makes for stronger environmental histories, but only when done well, and it can be a difficult balance to strike. I could not have written this book without a very scientifically-informed understanding of whale culture and adaptive behavior, even though some of that understanding did make me wary of extrapolating too much from current understandings of whales to how they may have behaved under quite different conditions in the past.

While it's possible, as Jones suggests, that my science-trained skepticism may have made it more difficult to wholly agree with early modern understandings of whale consciousness, my experience working with Hal Whitehead led me to see how much more there still is to discover about whale cultures today, and therefore how far from understanding them within the very different context of a much more populous Pacific Ocean we must be. I certainly do think that such scientific work is



valuable, and it is mostly the paucity of historical data which held me back from making more sweeping claims about whales in the past, not a disagreement with cetologists' findings or with the descriptions of whales from the Tokugawa period. If I can inspire more historians to take the findings of scientists into account in trying to understand our interactions with the living world, perhaps it will become easier for all of us to release some of our skepticism about historical observations of that world as well.

As for Wilson's note about writing history linked to present issues, I am pleased that this framing worked. It took me a while to become comfortable with the idea of directly connecting present-day issues with my historical research, and I'm sure there are ways in which I could have taken this further. There are certainly more directions in which work on Japanese whaling could expand, depending on how thoroughly one wishes to trace the trajectory from Tokugawa whaling to the modern whaling problem. I was less concerned in this book with laying out the entirety of the evolution of the Japanese relationship between whales and humans, and more concerned with contributing to a conversation that did not seem to have much information on the Tokugawa stages of that relationship, despite present-day emphasis on tradition from the pro-whaling side in Japan.

Wilson's other question about the point of rupture or continuity between Tokugawa whaling and today I think emerges from this same issue of trying to balance presentist questions with historical realities. For me, the point of rupture between Tokugawa whaling and modern whaling in Japan is difficult to pinpoint. This is in part because it was a gradual shift, which took place at different rates and in different forms throughout the older whaling areas and into newer ones. From some perspectives, there is more continuity, and from other perspectives there is rupture, and which of these seems more prominent depends a lot on the questions being asked. Technological development provides perhaps the most definite and visible shift, but even dramatically changing technologies resulted in a more stepping-stone move offshore than a full leap to the open ocean, with shore stations still supporting offshore whaling for decades before the shift to entirely pelagic factory ships. Therefore, I ended up choosing limits that were most interesting to me for the period and geographic area covered for the historical background of the modern issue, and by no means do I assume that this is a comprehensive history of everything influencing the modern whaling issue in Japan. The Ainu were beyond the scope of my initial focus, but I would be thrilled to see their contributions filled in further, just as I am pleased to note some of the new work being done by scholars such as Fynn Holm on the areas in Tōhoku which became much more important in the context of twentieth-century Japanese whaling.<sup>18</sup>

<sup>18</sup> Fynn Jürgen Holm, "Living with the Gods of the Sea: Anti-Whaling Movements in Northeast Japan, 1600-1912," Dissertation, University of Zurich, 2020.  
[https://www.researchgate.net/publication/339135869\\_Living\\_with\\_the\\_Gods\\_of\\_the\\_Sea\\_Anti-Whaling\\_Movements\\_in\\_Northeast\\_Japan\\_1600-1912](https://www.researchgate.net/publication/339135869_Living_with_the_Gods_of_the_Sea_Anti-Whaling_Movements_in_Northeast_Japan_1600-1912)

Similarly, I love Wilson's demographic question, and I also would be very interested to see if there was a resilience effect of some kind that might have operated in tension with the problem of unreliable catches and frequent bankruptcies with calls for outside support. This might be a productive question to ask about fisheries history in general in this period, as I agree with Finley that whaling history is fisheries history. Although I did not focus on finding data that would directly answer this question, it does seem like the effects of inputs from whaling would be exaggerated in comparison to those from other fisheries relying on smaller organisms, so if demographic impacts could be seen in whaling villages, that might lead us to greater understanding of the value of other fisheries and their diversification in comparison to agricultural inputs.

Perhaps such questions can be best answered by considering them in Finley's larger picture of the expansion of multiple specialized fisheries, and the importance of such industries in supporting the growth of the later Japanese empire. However, because the change to more industrial whaling came not just with a technological shift but also with major governmental, social, and cultural shifts into the Meiji era, I felt this was too much of a different topic from considering how relationships with whales were embedded in the Tokugawa context to fit within one book. Some of the work on the more industrial form of whaling that would fit well with other industrial fisheries has been done, but not as yet linked directly to those fisheries.<sup>19</sup> There are certainly more questions to answer in that area, about not just whaling but all Japanese fisheries.

From the responses of all three reviewers I am pleased to see that my work has offered major questions for further research just as much as it has answered questions about Japan's historical relationships with whales. My current project is turning more towards a human-ocean interface unmediated by contact through third party organisms, as I am now working on understanding the role of the ocean in Tokugawa Japan by researching coastal shipping and sailors' adaptations to nearshore waters. Thus, I hope that *Bringing Whales Ashore* will encourage other scholars to take up any of the questions my reviewers have raised. One of my favorite things about working in environmental history is the sheer variety of perspectives that are in conversation with each other within the field. From reading the responses to my book, it's clear to me that our work can only be enriched by many people asking the questions obvious to them but perhaps not to others, and then seeing how we all can pitch in to answer them.

<sup>19</sup> For example, Hiroyuki Watanabe, *Japan's Whaling: The Politics of Culture in Historical Perspective*. Translated by Hugh Clarke (Melbourne: Trans Pacific Press, 2009) and Jun Morikawa, *Whaling in Japan: Power, Politics and Diplomacy* (New York: Columbia University Press, 2009).

## About the Contributors

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**Jakobina Arch** teaches environmental, East Asian, and Japanese history at Whitman College. Along with the book discussed here, she has published an award-winning article on postwar whaling in *Environmental History*, as well as chapters related to Japan's whaling in *Japan at Nature's Edge: The Environmental Context of a Global Power* (U Hawaii Press, 2014) and Tokugawa-period uses of whales in *New Perspectives on the History of Life Sciences and Agriculture* (Springer, 2015).

**Carmel Finley** is a historian of science with a focus on the development of fisheries and fisheries science. She is the author of *All the Fish in the Sea: Maximum Sustained Yield and the Failure of Fisheries Management*, and *All the Boats on the Ocean: How Government Subsidies Led to Global Overfishing*. Her new work is called *How Science Failed Fish*. A former newspaper reporter, she lives in Corvallis.

**Ryan Tucker Jones** is the Ann Swindells Chair in the Department of History at the University of Oregon. He is author of *Empire of Extinction: Russians and the Strange Beasts of the Sea, 1742 – 1867* (Oxford UP, 2014), as well as a new book on Soviet whaling forthcoming with University of Chicago Press. His interests include the environmental history of the Pacific Ocean as well as historical animal cultures.

**Kara Murphy Schlichting** is an Assistant Professor of History at Queens College, City University of New York. Her work in late-19th and 20th-century American History sits at the intersection of urban, environmental, and political history. Her book *New York Recentered: Building the Metropolis from the Shore* (University of Chicago Press, 2019) is part of the press's History of Urban America series.

**Dr. Noell Wilson** is an historian of maritime Japan and the North Pacific. Her first book, *Defensive Positions: The Politics of Maritime Security in Tokugawa Japan* (Harvard University Asia Center, 2015) examined the influence of coastal defense on early modern state formation in Japan and received the 2018 book prize from the Southeast Conference of the Association for Asian Studies. Author of articles on the Nagasaki defense system, Ainu drift whale practice and Japanese sailor-apprentice programs aboard Western whalers, Dr. Wilson's current research explores the role of US whalers in integrating mid-nineteenth century Japan into an emergent North Pacific commercial and cultural web. Recipient of numerous awards including the Fulbright (twice), Wilson teaches in the Department of History and at the Croft Institute of International Studies at the University of Mississippi, USA. When not working on her current book project about American whalers in the 19<sup>th</sup> century North Pacific, Wilson can be found sailing or cycling.

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