Introduction

Early in the morning on 1 November 1911, dozens of fishermen gather on a little hilltop, just outside of the coastal village of Same-ura. The sun has not yet reached the horizon, and the air is freezing cold. The men are all armed with improvised weapons – flensing knives, clubs, and spears – and reek of liquor. None of them has slept this night. When hundreds of more armed fishermen appear on the main path along the coast, the men on the hilltop descend as well. A few minutes later, the two groups merge, reaching together a group of factory buildings at the end of the pier: the Same-ura whaling station. In the past half year, whalers from western Japan had caught and slaughtered more than 180 whales at this station. Subsequently, several tons of coagulated blood and oil had spilled into the nearby ocean, killing the local wildlife. The fishermen are convinced that the poor sardine catches this year are directly related to the whaling activities.

As the angry crowd reaches the station, they are expected by a handful of police officers and employees of the factory. Some twenty fishermen try to negotiate with the defenders but to no avail. Angry shouts burst from the crowd: 'Kill them! Burn the station down!' As the fight begins, fire breaks out and with a giant blast the first of the roughly 300 whale oil barrels bursts. More and more barrels catch fire, their explosions like the rapid discharge of a machine gun. Rioters and employees alike struggle to escape from the flames. Two rioters catch fire; they try to escape the building, but their clothes are smeared with oil. Before they reach the safe embrace of the icy sea, they burn. As the smoke evaporates, seven policemen and fourteen factory workers have been severely injured. Meanwhile, the aggregated fishermen fall back to the town, besieging the residences of two fish fertiliser merchants who had collaborated with the whalers. Nearby, the local police station is also coming under assault, as well as other houses of whaling supporters. Finally, at eleven in the morning, the crowd disperses, leaving behind a scene of destruction.[1]

[1] Adapted after eyewitness reports, see Satō, *Kujira kaisha yakiuchi jiken*, 54–65.

In current popular and political discourse, Japan is often imagined by pro-and anti-whaling advocates alike as a 'whaling nation' that possesses a centuries-old homogenous 'whaling culture'.[2] However, as the destruction of the Same-ura whaling station near Hachinohe in 1911 demonstrates, the historical reality was more complicated: for centuries some regions in early modern Japan did not engage in whaling but were actively opposed to it, even resorting to violence when whales were killed. As we will discuss throughout this book, resistance against whaling was widespread among the Japanese fishermen, as they worshipped whales as the incarnation of Ebisu-sama, the god of the sea, and believed that it was more beneficial to live side-by-side with whales instead of hunting them.

Today, these forms of non-lethal human–whale relationships have been largely forgotten. It is not without irony, that the invented tradition of a homogenous Japanese whaling culture is nowhere more present than in the collective memory of the Northeast, the same place, where protests against whaling had been the fiercest only one hundred years ago.[3] When the Japanese government announced in December 2018 its plans to withdraw from the International Whaling Commission (IWC) and resume commercial whaling after a thirty-one-year hiatus, the news was taken up enthusiastically in Hachinohe. Kobayashi Makoto, Hachinohe's mayor, immediately envisioned his port city as the centre of commercial whaling in this new era. Kobayashi invoked the image of a long history of whaling and whale eating in the region: 'As far back as I can remember, Hachinohe has had a close relationship with whales, and there is even a local dish called whale soup, which is still made today.'[4] Regarding the historical widespread anti-whaling protests in his city, Kobayashi only vaguely alluded to certain 'incidents' in the past.

This book aims at uncovering this forgotten history of whales and coastal communities in northeast Japan. It is argued that human interactions with whales were much more diverse than the basic hunter–prey relationship that the current whaling historiography describes, as cetaceans played a pivotal role in proto-industrial fisheries. As locals knew from observations, the killing of whales caused environmental pollution as free-floating whale blood diminished the coastal ecosystem on which the fishing communities depended. However, with the advent of

[2] See, for example, Hirata, 'Beached Whales'; Ishii, *Kaitai shinsho 'hogei ronsō'*; Blok, 'Contesting Global Norms'; Morikawa, *Whaling in Japan*; Komatsu and Misaki, *The Truth behind the Whaling Dispute*.

[3] For a discussion on the 'invention of tradition', see Hobsbawm and Ranger, *The Invention of Tradition*; Morris-Suzuki, 'The Invention and Reinvention of "Japanese Culture"'.

[4] Hachinohe City, 'Kisha kaikenrei (26.6.2019)'; Hachinohe City, 'Kisha kaikenrei (21.5.2019)'.

industrial whaling in the early twentieth century, this centuries-long equilibrium between humans and cetaceans was destroyed over the span of a few years. In its stead, communities in northeastern Japan adapted elements from the western Japanese whaling cultures and invented a new whaling tradition, which has almost completely replaced older forms of human–whales interactions.

Living with the Gods of the Sea

In the historiography, the relationship between humans and whales is framed almost exclusively through the lens of the whaling (proto-) industry.[5] Only recently have marine environmental historians tried to expand this framework. Nancy Shoemaker coined the term 'living with whales' to describe the history between whales and Native Americans from New England. She argues that Native Americans had a holistic relationship with the animals as marine mammals were not only hunted for sustenance but featured prominently in their stories, spiritual beliefs, and political practices: 'Their long relationship with whales contributed to their survival as Native peoples, and it also explains why their history and identity as whaling people is so much in evidence today'.[6] Joshua Reid expanded on Shoemakers concept and argued that for many 'whale people' living in the Pacific world, whaling meant more than just the killing and commodification of whales. Whales were kin to humans and played important roles in the social life of whale people. Coastal communities often believed that whales let themselves be caught by human hunters. The sacrifice of the whales had to be repaid by performing the proper ritual preparation prior and to show respect towards the animals.[7] As Bathsheba Demuth argues on the example of whale people in the Bering Street, the whales would judge if the hunters had portrayed the necessary ceremonial care and moral worthiness before giving their meat and life to the humans: 'Without these preparations, the whales would tell each other that the humans were not ready, morally or practically.

[5] See, for example, Dolin, *Leviathan*; Burnett, *The Sounding of the Whale*; Tønnessen and Johnsen, *The History of Modern Whaling*; Ellis, *Men and Whales*; Newton, *A Savage History*. For more on the Japanese historiography of whaling, see Morita, *Kujira to hogei no bunkashi*; Iwasaki-Goodman, *Ningen to kankyō to bunka*; Nakazono, *Kujiratori no keifu*; Kalland and Moeran, *Japanese Whaling*.

[6] Shoemaker, *Living with Whales*. For a similar narrative regarding the relationship of the Makah people with whales, see Reid, *The Sea Is My Country*.

[7] Reid, 'Whale People and Pacific Worlds'. For case studies on whale cultures in the Pacific World, see Jones, 'A Whale of a Difference'; Brabyn, *An Analysis of the New Zealand Whale Stranding Record*; Turner, 'The Whale Decides'; Whitridge, 'The Prehistory of Inuit and Yupik Whale Use'; Stevens and Wanhalla, 'Māori Women in Southern New Zealand's Shore-Whaling World'.

Unwilling to die for the unworthy, they would keep to their own country.'[8] Thus, it was the decision of the whales – not of the humans – if a hunt was successful or not.

In this book, I introduce another category of 'whale people' that has so far largely been overlooked in the literature: Coastal communities that did consume whale meat from stranded whales, but at the same time not only refused to actively hunt whales themselves but also protected the animals against other would-be whalers. We can find examples of non-whaling whale people in pre-contact Polynesia, Australia, and Aotearoa (New Zealand).[9] Some Māori groups, for example, believed that stranded whales were 'gifts from the sea' that had been made by Tangaroa, the god of the ocean.[10] They interpreted whales as supernatural beings that protected travelling humans on boats and saved humans when they were in peril. Furthermore, the seasonal migration of whales helped humans orientate on the open sea as a form of biological navigation tool. Therefore, hunting a whale was seen as sacrilege and it was thought that those who did so would be punished by the gods.[11] These rules were not absolute, however, as even though whales were not actively pursued on the open sea, in some cases, for example when an injured whale was found in a bay, Māori hunters would sometimes 'assist' the animal in beaching on the shore.[12] Nevertheless, the co-existence of humans and whales was of great spiritual importance, which is why I would argue that the hunting of whales is not a necessary prerequisite to qualify as 'whale people', as coastal communities could develop a holistic relationship with whales based on ceremonial and moral care without regularly hunting them.

Such largely non-violent relationships with whales were not reserved to so-called 'indigenous' communities, however, but could also be found among proto-industrial fishing communities on the Japanese Archipelago. While the older literature has focused on the economic and social impact of whaling in Japan, the recent historiography has taken up some more nuanced discussions of 'living with whales', by describing the cultural and religious aspects of the early modern whaling cultures in western Japan.[13] Kumi Kato and Mayumi Itoh assert that religious rituals of mourning killed whales were incremental in developing respect towards whales and an ethic of restraint among whalers that

[8] Demuth, *Floating Coast*, 21. [9] Jones, 'Running into Whales', 359.
[10] Cawthorn, *Meat Consumption from Stranded Whales and Marine Mammals in New Zealand*, 5–6.
[11] Gillespie, 'The Bi-cultural Relationship with Whales', 2–4.
[12] Rodgers, 'The Connection of Māori to Whales', 2–9.
[13] See Arch, *Bringing Whales Ashore*, 2018; Ambros, *Bones of Contention*; Kato, 'Prayers for the Whales'; Itoh, *The Japanese Culture of Mourning Whales*; Mori and Miyazaki, *Kujiratori no shakaishi*.

allowed for a sustainable relationship with the natural world.[14] In her 2018 book 'Bringing Whales Ashore', Jakobina Arch argues, however, that early modern whaling was not inherently more sustainable than industrial whaling, calculating that between 1600 and 1800 around two hundred thousand whales might have been harvested by the more than ninety whaling communities in the western part of the country, leading to a substantial drop in the whale stocks even before the first American whalers appeared in the Pacific in the 1820s.[15]

What these historiographical accounts of Japanese whaling culture have in common, however, is their regional focus on the whaling communities in western and central Japan.[16] Regions that did not actively hunt whales, such as communities at the Seto Inland Sea, the Hokuriku Coast, or the Sanriku Coast, are mentioned only in passing, if at all, despite communities in these regions having a wealth of religious and cultural practices regarding whales. Even when these practices are mentioned, authors usually pay little attention to regional differences in ceremonial whale worship. Itoh, for example, writes: 'The existence of similar monuments and services in different regions is actually a testament to the fact that fishing communities in various parts of Japan shared the same sentiments toward whales and mourned in similar ways the deaths of the whales they had caught.'[17] However, only a few pages later, Itoh acknowledges that the whale worship of non-whaling regions differed greatly from whaling communities: 'because of their belief in whales as the Ebisu God, fishermen in some communities feared that the gods of the sea would punish them if they killed whales, and therefore they did not hunt them'.[18] Similarly, Kato also writes 'that in some regions fishermen regarded whales as a guardian *ebisu* because whales were known to bring schools of fish (e.g., cod and herrings) into the bay, thus creating a prosperous catch'.[19]

As the example of the Ebisu worship in northern Japan shows, whale worship in early modern Japan was far from homogenous. While whaling communities based their rites around practices that should appease the angry souls of the hunted whales, fearing retribution in the form of a 'whale curse', non-whaling communities celebrated stranded whales as

[14] Kato, 'Prayers for the Whales', 287–8; Itoh, *The Japanese Culture of Mourning Whales*, 210–19.
[15] Arch, *Bringing Whales Ashore*, 2018, 9. For a discussion on whether religious practices lead to an sustainable relationship with nature, see Eisenstadt, 'The Japanese Attitude to Nature'; Bruun and Kalland, 'Images of Nature'; Berkes, *Sacred Ecology*.
[16] For historiographical accounts discussing indigenous Ainu whaling, see Wilson, 'Whaling at the Margins'; Iwasaki, 'Ainu minzoku kujira riyō bunka no ashiato wo tadoru'; Natori, *Funka-wan ainu no hogei*; Itabashi, *Kita no hogeiki*.
[17] Itoh, *The Japanese Culture of Mourning Whales*, 6.
[18] Itoh, *The Japanese Culture of Mourning Whales*, 17.
[19] Kato, 'Prayers for the Whales', 290.

incarnations of Ebisu and thanked them for bringing fish to the shore, while refraining from actively hunting whales.

Similar to other whale people in the Pacific world, these Japanese non-whaling communities also based their holistic relationship with whales – and in extension nature as a whole – on a moral framework that was reflected in their local ecological knowledge.[20] An enlightening point of departure to understand these moral values is Karl Jacoby concept of 'moral ecology'. First introduced in his 2001 book 'Crimes Against Nature' Jacoby extended E. P. Thompson's 'moral economy' framework by arguing that rural folk had often a different moral understanding of what constituted as ecological conservation than the elite.[21] Jacoby aimed to 'recreate the moral universe that shaped local transgressions of conservations laws, enabling us to glimpse the pattern of beliefs, practices, and traditions that governed how ordinary rural folk interacted with the environment'.[22] Since then the concept of moral ecology, as it was named by Jacoby, has been used in a number of environmental historical studies to describe the vernacular beliefs and customs of how the poor connected natural conservation with socio-economic norms in defiance to elite discourses. Ecologist Fikret Berkes makes a similar argument in his book 'Sacred Ecology', where he argues that many traditional knowledge systems did not differentiate between nature and culture but rather saw these two aspects as intertwined and imbued with sacredness. Ecological thinking is thus not necessarily restricted to scientific interpretations of the world but can also be found in the moral and ethnic knowledge systems of vernacular communities.[23]

In the case of fisheries, the problem of managing a constantly changing and unknown number of marine resources has early on been discussed by Arthur McEvoy's 'The Fisherman's Problem' and more recently by the literature about the 'shifting baseline syndrome'.[24] In Japanese marine environmental history, similar notions of a sustainable usage of coastal resources are discussed under the term '*satoumi*' (sea near the village).[25] Coastal communities often fought against the introduction of

[20] The term 'local ecological knowledge' or simply 'ecological knowledge' will be used to describe the believes, practices and common wisdoms that a community accumulated over generations in their interactions with the environment. See Lauer and Aswani, 'Indigenous Ecological Knowledge as Situated Practices'; McCarter and Gavin, 'In Situ Maintenance of Traditional Ecological Knowledge on Malekula Island, Vanuatu'; Ruddle and Davis, 'What Is "Ecological" in Local Ecological Knowledge?'.

[21] Thompson, 'The Moral Economy of the English Crowd in the Eighteenth Century'.

[22] Jacoby, *Crimes against Nature*, 246.

[23] Berkes, *Sacred Ecology*, 12.

[24] McEvoy, *The Fisherman's Problem*; Jackson, Alexander, and Sala, *Shifting Baselines*; Klein and Thurstan, 'Of Seascapes and People'.

[25] Cetinkaya, 'Challenges for the Maintenance of Traditional Knowledge in the Satoyama and Satoumi Ecosystems, Noto Peninsula, Japan'; Knight, 'The Discourse of "Encultured Nature" in Japan'; Yanagi, *Sato-Umi*.

industrial fishing methods, not because they were protecting their traditional way of life out of conservatism, but rather because they wanted to secure their access to marine resources and prevent the fish stocks from collapsing from overharvesting. The moral obligation to protect fish stocks was born out of a desire to secure the socio-economic future of the community, not due to their intrinsic value or even concern for the well-being of the animals.[26] This brings us to an interesting question, however: Why then did non-whaling communities come in conflict with whalers, when these groups did not compete for the same marine resource?

On a first glance, besides the occasionally stranded whale, non-whaling communities had little economic incentive to prevent whalers from hunting whales, as they themselves had specialised in the harvest of other marine resources. However, these communities had a more holistic approach towards their environment than only the flora and fauna directly tied to the production of sustenance and commodities. As I will argue in this book, in the worldview of the non-whaling communities, whales were an integral component of the coastal environment, as they were believed to be responsible for driving fish towards the shore. Killing whales on the open sea was seen as morally wrong, as it could not only mean poor fish catches, but also causing environmental pollution through whale blood pestering the ocean, destroying local flora and fauna on which the community depended. Morally correct behaviour extended, therefore, not only towards other humans inside and outside the community but also towards a responsible interaction with the environment, even to those parts that were not directly harvested. If the proper moral care was not portrayed, whales – as religious symbols of the personified nature – might punish the community, causing hardship for all involved.

Finally, the book's focus on the heterogeneity of coastal whale and fishing cultures in Japanese fishing villages highlights the importance of microhistory in the context of Japanese Studies.[27] As Nathan Hopson and Hidemichi Kawanishi have pointed in their respective studies, Japan's Northeast (*tōhoku*) regional culture has long been overlooked by the mainstream historiography and was often perceived as not particularly interesting or different from other regions.[28] However, since the 2011 tsunami, which destroyed large parts of the Northeast's coast, interest in the region has been

[26] Payne, 'Local Economic Stewards'; Judd, 'Grass-Roots Conservation in Eastern Coastal Maine'; Griffin and Robertson, 'Elvers and Salmon'.
[27] Dusinberre, *Hard Times in the Hometown*; Roberts, *Mercantilism in a Japanese Domain*.
[28] Hopson, *Ennobling Japan's Savage Northeast*; Kawanishi, *Tōhoku*.

rekindled in disaster science.[29] This book reassesses the importance of the region's history by discussing its place as one of the main producers of marine fertiliser products in the early modern period and how this is connected to anti-whaling protests in the region. Furthermore, it is demonstrated how events like the 2011 tsunami directly influenced the future of Japanese whaling practices.

The Age of the Cetosphere

Historising oceans is often challenging as we perceive them as vast unending bodies of water that are seemingly unchanging over the aeons.[30] However, while whales have become a rare sight today, not too long ago, the oceans were sprawling with millions of cetaceans, which dominated as megafauna all oceanic ecosystems. In the early modern world, humans and whales shared this planet together. In the Bering Strait people also spoke of the 'whale country' when talked about the open sea, while in northwestern Japan, whales were called 'the lords of the open sea' (*oki no tonosama*).[31] As I will argue here, the world's oceans were until recently the domain of the whales and not of humans. This book attempts to reconstruct some of the interwoven relationships between humans and whales, by 'diving beneath the waves' as propagated by Ryan Jones.[32] Examining the lifecycles of cetaceans and how they interact with their environment, including humans and other marine fauna, forces us to readjust our sense of scale and time, revealing that the history of commercial whaling is a mere 'blip' in the whale–human history.[33] This book will take, therefore, a *longue durée* perspective and will, whenever possible, also consider the possible agency of cetaceans as the lords of the open sea.

But how and to what degree did whales shape the oceans? A look at our own history might provide some answers. In recent years, we have become more aware that our collective actions as a species have profound

[29] See, for example, Kajiwara, *Surviving with Companion Animals in Japan Life after a Tsunami and Nuclear Disaster*; Starrs, *Japanese Cultural Nationalism*; Birmingham and McNeill, *Strong in the Rain Surviving Japan's Earthquake, Tsunami, and Fukushima Nuclear Disaster*.

[30] Due to the difficulties of reconstructing past marine ecosystems, the history of oceans are often described as 'black boxes', see Taylor, 'Knowing the Black Box'.

[31] Demuth, *Floating Coast*; Akimichi, *Kujira wa dare no mono ka*, 111.

[32] Jones, 'Running into Whales'.

[33] Jones and Wanhalla, 'Introduction'. No direct evidence of early whale hunting has survived the rising and falling of sea levels following the end of the last ice age; however, tacit evidence in the form of whale bones found in archaeological sites in Scandinavia, the North Pacific, and Japan suggests at least a passive use of whales as early as 9,000 years ago, see Savelle and Kishigami, 'Anthropological Research on Whaling', 2–4.

influence on the whole biosphere that will likely result in a changed global climate, the mass extinction of fauna and flora, and the degradations of countless marine and terrestrial ecosystems. As these changes will be traceable in geological sediments, many scientists believe that we have entered a new geological age, called the 'Anthropocene'.[34] Dipesh Chakrabarty has thus argued that the human species has transcended from a biological agent to a geological agent.[35] Historically speaking, however, the impact of humans on the biosphere has not been progressing uniformly. For example, in the past 50,000 years about half of the megafauna species have gone extinct in terrestrial ecosystems, most of them due to human influences, however, in the same time frame, only three marine megafauna species have been lost.[36] While humans have in the past millennia intentionally or unintentionally altered almost all terrestrial ecosystems on a fundamental level – making them part of a 'terrestrial anthroposphere' – oceanic environments have resisted these anthropogenic pressures much longer.[37] It is not, I would argue, until the advancement of American and European whaling in the nineteenth and eventually industrial fishing and whaling practices in the early twentieth century, that we can speak of a marine anthroposphere outside of coastal areas.

However, if oceans have remained largely unperturbed by human influence for so long, did other nonhumans exist that had similar ecological impacts on the marine ecosystem than humans have today? In this book, I argue that until the twentieth-century cetaceans, which comprise ninety species of whales, dolphins, and porpoises, collectively influenced the feedback loops of marine ecosystems in a similar manner as humans have on terrestrial ecosystems. It was them and not humans that shaped the nutritional composition of the oceans, enriched and devastated

[34] Crutzen, 'The "Anthropocene"'; Lewis and Maslin, *The Human Planet*. For critical asessments on the Anthropocene, see LeCain, 'Against the Anthropocene'; Latour, 'Agency at the Time of the Anthropocene'; Chakrabarty, 'Anthropocene Time'; Haraway, 'Anthropocene, Capitalocene, Plantationocene, Chthulucene'.

[35] Chakrabarty, 'The Climate of History'.

[36] These three species are the Caribbean monk seal who died out in 1952, the Japanese sealion (1970s), and the Steller's sea cow (1768), see Estes et al., 'Megafaunal Impacts on Structure and Function of Ocean Ecosystems', 85–6. For more on the possible impact of humans on defaunation, see Svenning, 'Future Megafaunas'; Malhi et al., 'Megafauna and Ecosystem Function from the Pleistocene to the Anthropocene'; Lorenzen et al., 'Species-Specific Responses of Late Quaternary Megafauna to Climate and Humans'; Alroy, 'A Multispecies Overkill Simulation of the End-Pleistocene Megafaunal Mass Extinction'.

[37] The term anthroposphere is here understood as an anthropogenically modified ecosystem in which humans function as the primary keystone species, see Worm and Paine, 'Humans as a Hyperkeystone Species'; Cottee-Jones and Whittaker, 'Perspective'; Baccini and Brunner, *Metabolism of the Anthroposphere*.

biodiversity in marine ecosystems, and influenced as biomass containers carbon and CO_2 concentrations on a large scale.[38] While it would go too far to describe cetaceans as geological agents, their impact on the early modern marine world was so profound that, as I argue, the oceans were until the rise of industrial whaling practices not part of the marine anthroposphere but rather of the 'cetosphere'.[39]

Today, the oceans have been depleted of cetaceans, and the cetosphere has – for the most part – ceased to exist. Currently, only 14 per cent of the former great whales' biomass remains in the oceans.[40] The decline and eventual destruction of the cetosphere to a less diversified marine anthroposphere did not happen overnight nor was it solely caused by industrial whaling but had been in the making for at least three centuries. American whaling in the middle of the nineteenth century alone caused the death of up to 10,000 whales per year.[41] Between 1900 and 1999, at least three million great whales lost their lives to industrial whaling, effectively emptying the ocean of cetaceans.[42] A low reproduction rate and many new anthropogenic pressures, such as oceanic pollution, climate change, entanglement in fishing gear, ship collisions, and ocean noise have stalled the recovery of many whale species after the end of industrial whaling in 1986.[43] We are yet to understand how the removal of 86 per cent of the great whale's biomass has affected oceanic life, including human communities living at the coast. However, there is little doubt that the sudden disappearance of the oceans' greatest mammals has had cascading effects on countless marine ecosystems.[44]

Even though we have only very recently begun to grasp the ecological impact whales had on the marine biosphere before industrial whaling destroyed the cetosphere, human coastal communities had for centuries relied on the presence of whales in their coastal waters. The most direct form of making use of whales, and the only one so far researched in detail, is of course the hunting and killing of whales. But there were also many more subtle ways of how humans profited from the cetosphere; some of which are reflected in the coastal communities' customs and culture. We

[38] Roman et al., 'Whales as Marine Ecosystem Engineers'. This will be explored in more detail in Chapter 1.

[39] My focus here on the cetosphere should not indicate that cetaceans were the only major non-human actors that influenced the ocean environment. One could also argue that certain species on the bottom of the trophic structure, for example cyanobacteria, had an even greater impact on the biosphere, see Mazard et al., 'Tiny Microbes with a Big Impact'.

[40] Springer et al., 'Sequential Megafaunal Collapse in the North Pacific Ocean', 12225.

[41] Townsend, 'The Distribution of Certain Whales as Shown by Logbook Records of American Whaleships'.

[42] Rocha, Clapham, and Ivashchenko, 'Emptying the Oceans'.

[43] Clapham, 'Managing Leviathan'.

[44] McCauley et al., 'Marine Defaunation'.

know of these customs because many fishing communities that had profited from cetosphere in a non-lethal way did not give it up without a fight. In the first decade of the twentieth century, the shared experiences of ecological and economic decline caused by industrial whaling led to protests in Russia, Iceland, Scotland, and Ireland, in many cases resulting in new regulations and bans on coastal whaling.[45] The most striking parallel to the 1911 Hachinohe uprising happened a few years earlier in Norway. On 1 June 1903, over 1,000 fishermen raided and destroyed a whaling station in the little fishing village of Mehamn (also Mehavn) in Finnmark, northern Norway. Similar to the fishermen in northeastern Japan, the coastal communities in Finnmark believed that baleen whales, such as fin and sei whales were responsible for stirring up small fish like capelin from the deep sea and bringing them close to the shore. Without the whales, capelin and their predator, the Atlantic cod (which the Norwegian fishermen wanted to catch), would no longer come close to the shore.[46]

These historical moments of conflicts are of great interest to historians, as during these times most of our historical sources are produced. Fishing communities had an interest in promoting their viewpoint to legitimatise their protests, while authorities tried to understand the root cause for the unrest to bring back social order. As we will see, the riots in Hachinohe turned out to be the last effort of the northeastern fishing communities to save the cetosphere. The eventual industrialisation of coastal fisheries, which was partly advanced by the new technologies developed for the whaling industry, led to fishing farther offshore, thus decreasing the fishermen's reliance on whales bringing fish closer to the coast. Over time, many of the non-lethal interactions between whales and humans have disappeared and have been forgotten. A close examination of historical sources can reconstruct some of this lost ecological knowledge. This book will explore how the Sanriku fishing communities perceived, lived with, profited from, and eventually helped to destroy the cetosphere. My usage of the concept cetosphere is, therefore, an attempt to historise the oceans by focusing on the ecological and cultural impacts of cetaceans to coastal fishing communities.

In a nutshell, the cetosphere concept explores how cetaceans impacted their environment and human coastal societies. We will discuss how humans perceived and embedded the benefits brought by the cetosphere in their social norms and customs. This allows us to look at more diverse

[45] Alvestad, 'Opposition to Whaling in Scotland and Ireland before WWI'; Tønnessen and Johnsen, *The History of Modern Whaling*, 78–82.

[46] Hjort, *Fiskeri og hvalfangst i det nordlige Norge*, 203. See also, Holm, 'Bringing Fish to the Shore'.

interactions between whales and humans than the basic hunter–prey relationship that traditional whaling history conveys. Even today, we are only scratching the surface of understanding all the subtle ways in which whales have influenced marine ecosystems and human culture prior to their human-caused near extinction. It is beyond the scope of this study to reconstruct all the ecological and cultural implications, but through the study of historical sources, we can at least analyse how *non*-whaling coastal communities in northeast Japan perceived and interpreted their interactions with the cetosphere. Finally, this book will also look at how the same coastal communities not only played a key part in bringing an end to the cetosphere but how they have adapted their socio-economic, cultural, and ecological environment to the new circumstances, emerging as the last remaining whaling communities in modern Japan.

Structure of the Book

The structure of the book follows a roughly chronological order, while each of the eight chapters deals with a different set of primary sources and research questions. *Part One: Living with Whales, 1600–1850*, discusses how fishing communities in northeastern Japan developed their vernacular non-whaling culture and resisted attempts from western Japan to become part of the whaling proto-industry. *Part Two: Destroying the Cetosphere, 1850–2019*, shows how the dissemination of industrial whaling led first to widespread anti-whaling protests in the Northeast before the region embraced the new technology and became the centre for a national 'whaling culture'.

We start this book with Chapter 1, 'The Whale Pilgrimage', which describes the yearly migration of thousands of whales along the Japanese coast – often imagined as a pilgrimage by Japanese observers – and the impact this had on Japanese coastal ecosystems. Humans in the Japanese archipelago made use of stranded whales early on, but it was not until the 1570s that some fishing communities in western Japan started to actively target whales. I argue that the dissemination of organised whaling was closely linked to the rise of the fish fertiliser proto-industry. To fulfil the demand for marine fertiliser, fishermen from the central Kii domain developed new fishing and whaling techniques. After overfishing their own coast, they began following the migration route of whales across the archipelago in search of new fishing grounds, disseminating fish and whaling techniques to other regions of Japan.

Chapter 2, 'The Beached God', discusses the economic and religious importance of beached whales in northeastern Japan. Making use of folktales regarding the god Ebisu and domanial records on whale

strandings, I argue that stranded whales had a considerable impact on the culture and economy of northeastern communities, which led to a different interpretation of whales than the communities in western Japan that engaged in active whaling. As I show in this chapter, the reason why a non-whaling culture developed in northeast Japan but not in western Japan is connected to how whales behave on their migration routes along the Japanese coast. The fishermen in the north had learned that having whales around benefitted them. This knowledge was transmitted in folktales and through material objects such as 'whale stones'.

Chapter 3, 'Bringing Sardines to the Shore', focuses on the earliest sources of anti-whaling protests in northeastern Japan in the late seventeenth century. It analyses a conflict between Kii whalers and local fishermen that occurred in 1677 and shows how whales and proto-industrial fishing were intertwined in the early modern period. The observation that whales would bring fish, such as sardines, closer to the shore played a key role here. Without whales, the local fishermen believed, fish would stay out in the open sea, and they could not catch them. While fishermen made use of stranded whales and even ate whale meat occasionally, they saw the active hunting of whales as a danger to the sardine and bonito proto-industries. Moreover, hunting whales also caused environmental pollution, threatening the fauna and flora near the coast, the economic foundation of the fishermen who relied on gathering seafood. It was in the interest of the locals to protect the community from outside threats such as whaling.

Chapter 4, 'Establishing Whaling in the North', discusses the failed attempt to introduce whaling in northeast Japan in the early nineteenth century. The frequent strandings of whales had piqued the interest of whale scholars, such as Ōtsuki Heisen and his cousin Ōtsuki Gentaku, who both promoted the establishment of proto-industrial whaling in the north. In their eyes, whaling would not only bring economic wealth to the northern domains, but whalers could also function as a part-time navy that could protect the Japanese border against intrusion from European powers such as Russia. Based on the works of these whale scholars, new attempts to introduce whaling in northeastern Japan were conducted in the early nineteenth century to combat the Tenpō famine (1833–1837). However, due to the increased whaling activities of the American pelagic and Japanese coastal whalers as well as the reduced abundance of zooplankton and small fish like sardines, whales were probably scarcer in northeastern Japan, making it almost impossible to conduct a profitable whaling venture at that time. It would not be until the 1870s, when both forms of whaling were subsiding, that whales returned to the coast in large numbers, and the cetosphere recovered slightly.

Chapter 5, 'The Whaling Empire', opens the second part of the book with a discussion of how industrial whaling was disseminated from Norway and Russia to the emerging Japanese Empire in the late nineteenth century. I argue that industrial whaling, invented by Norwegian whaler Svend Foyn in the 1860s, was taken up by Russian and Japanese whalers as a way to colonise the coastal waters and marine resources around the Korean Peninsula. Industrial whaling techniques allowed whalers to hunt even the largest whale species, such as blue and fin whales, which had a devastating effect on the feedback loops of the marine ecosystem. After the Japanese victory in the Russo–Japanese War of 1905, western Japanese whaling companies brought industrial whaling to the main islands. The chapter argues that the rise of industrial whaling altered the interaction between humans and cetaceans forever, leading to the swift destruction of the cetosphere. While industrial whaling was successfully disseminated in colonial Korea, Japanese fishermen were more resistant and began protesting the new methods even in regions that had long proto-industrial whaling histories. However, the fiercest protest against industrial whaling occurred in former non-whaling regions such as Hokkaido and the Northeast.

Chapter 6, 'The First Whaling Town', discusses the socio-economic changes the arrival of industrial whaling brought to the fishing community of Ayukawa in northeastern Japan in 1906. While fishermen were first critical of whaling in Ayukawa, they soon accepted the new industrial whaling practices, and the town became the central hub of coastal industrial whaling. I argue that the local elite played a crucial role in mitigating environmental pollution by buying up whale carcasses that had been thrown away and turning them into whale fertiliser. This not only reduced coastal pollution but also created job opportunities, leading to a mass influx of immigrants from other regions. Soon, the opposing fishermen in Ayukawa found themselves to be a minority in their own village, as the new immigrants had a keen interest in preserving industrial whaling.

Chapter 7, 'Burning Down the Whaling Station', analyses the violent conflict between industrial whalers and fishermen leading up to the Hachinohe uprising of 1911. Whalers, bureaucrats, and fishing scientists used fishery science to discredit the ecological knowledge of the local fishermen. In their accounts, allegedly objective scientific knowledge proved that whaling would not harm fishing and other aspects of the coastal ecosystem while the locals' counterarguments were ridiculed as religious superstitions. By reducing traditional knowledge systems to their religious aspects, the local knowledge of the fishermen was discredited. Unlike in Ayukawa, fishermen in Hachinohe showed stronger resistance, eventually leading to the destruction of the whaling station in

1911. However, the whaling company was able to reconcile with the local fishermen by offering them job opportunities in the whaling business. By 1912, all protests in northeast Japan ceased, and whaling towns, such as Ayukawa and Hachinohe, brought economic wealth to the region. I argue that the dwindling resistance of the population was closely connected to the decline of near-coastal fishing around 1900.

Finally, Chapter 8, 'Washing Away the Past', traces how northeastern Japan became the national centre of industrial whaling after the 1911 Same-ura Incident. With the example of Ayukawa, this chapter argues that industrial whaling was reinvented as a local culture in northeastern Japan with the organisation of whaling festivals, the erection of whaling monuments and the production of a feature film. Nowadays, people in northeastern Japan believe that whaling traditions are their own, and most do not know that their ancestors fought against the introduction of whaling for three hundred years. Thus, the knowledge of the cetosphere has disappeared almost entirely from the collective memory of the former 'non-whaling' communities. However, the excessive hunting of whales as well as the changing international landscape eventually brought an end to commercial whaling in 1987, leaving the 'whaling towns' of the Northeast without their main source of income. The situation was further complicated by the 2011 tsunami that destroyed large parts of Ayukawa and was seen by many as the end of whaling in Japan.