



BRILL

*Society & Animals* 20 (2012) 91-108

Society  
& Animals Journal of  
Human-Animal Studies  
brill.nl/soan

## From Blubber and Baleen to Buddha of the Deep: The Rise of the Metaphysical Whale

**Frank Zelko**

University of Vermont  
fzelko@uvm.edu

---

### Abstract

Human attitudes to various nonhuman animals have varied considerably across cultures and throughout time. While some of our responses are undoubtedly instinctive and universal—a visceral fear of large carnivores or the feeling of spontaneous warmth for creatures exhibiting high degrees of neoteny—it is clear that our attitude toward specific species is largely shaped by our innate anthropomorphism: that is, when we think about animals, we are also thinking about ourselves. There are few better examples of this than the shifting attitudes toward whales and dolphins throughout the 20th century, particularly among citizens of Western democracies. This article narrates the cultural history of this development and demonstrates how the current enchantment with whales and dolphins is primarily the result of two broad—and related—cultural developments: the modern entertainment complex, particularly cinema, television, and aquatic theme parks; and the 1960s counterculture, with its potent blend of holistic ecology, speculative neuroscience, and mysticism. The result was the creation of what we might think of as the “metaphysical whale,” a creature who has inspired the abolitionist stance toward whaling.

### Keywords

anthropomorphism, anti-whaling movement, environmentalism, Greenpeace, whales

In October 1954 *Time* magazine, with no apparent disapproval, described how a group of American soldiers enthusiastically slaughtered a pack of 100 killer whales off the coast of Iceland. The Icelandic government considered the whales—which *Time* described as “savage sea cannibals up to 30 ft. long and with teeth like bayonets”—a menace to the local fishing industry and appealed to the U.S. soldiers stationed at a lonely NATO airbase on the subarctic island for help. Seventy-nine bored GIs responded with enthusiasm, firing thousands of machine-gun rounds at the whales until “the sea was red with blood.” “It was all very tough on the whales,” the report concluded, “but very good for American-Icelandic relations” (“Iceland: Killing the Killers,” 1954).

Though this incident was particularly bloody, it was hardly unique. Throughout the 1950s, the U.S. Navy routinely used whales for target practice, pretending that they were Soviet submarines (Mowat, 1972). Meanwhile, the Norwegian whaling industry, hoping to tap into a potentially huge market, attempted to inculcate in Americans a taste for whale meat. Bemused housewives, however, were rarely tempted by Capt. Seth's Frozen Tenderloin Norwegian Whale Steak and similar cetacean delights (Shoemaker, 2005). Nor, however, were they outraged by the product. And as late as 1962, a major U.S. publishing company released a popular book, written by a former whaler, celebrating and romanticizing the exploits of whalers (Ash, 1962). But within little more than a decade, the Western public's attitude to whales would change completely. By the mid-1970s, as the first whale-watching tours began off the coast of Massachusetts, the idea of machine-gunning whales would have been seen by most Americans as nothing short of barbaric (Ellis, 1991). Instead of celebrating whaling, some Americans were now willing to climb into small boats and place themselves between a fleeing whale and a harpoon boat in hot pursuit. This kind of environmental activism met widespread approval and admiration. What explains this dramatic change in the way many people in Western democracies came to view whales and dolphins? To answer this question, we need to understand how whales were treated in the century prior to the save-the-whales movement of the 1970s, before examining the cultural changes that helped facilitate a new attitude toward cetaceans in the mid-20th century.

Whales have furnished humans with an astonishing variety of useful, and, one could argue, frivolous products: meat and fat for hungry populations; oil for burning lamps and lubricating machinery; bones and teeth for grinding into fertilizer or carving into works of art (scrimshaw); and baleen for the painful, constricting corsets that were popular among bourgeois European women in the 19th century. Until the 19th century, whaling did not, on the whole, endanger the world's whale population (with the exception of right whales, who were hunted to commercial extinction in the North Atlantic). In 1865, however, a Norwegian whaler, Svend Foyn, invented a device that suddenly, and radically, gave whale hunters an enormous advantage over their pelagic quarry. Foyn developed a barbed harpoon that could be fired from a shipboard cannon and which, on impact, would detonate an explosive charge inside the whale. The primitive and dangerous practice of hunting whales with hand-thrown spears was quickly replaced by the deadly, high-tech harpoon, completely shifting the odds in the whaler's favor. This technological development was complemented by the construction of faster ships, which made it easier to hunt the sleek and powerful rorquals (such as fin and blue whales) on

the high seas, and the invention of a device that allowed whalers to pump compressed air into whale carcasses (rorquals tended to sink when they died). From this point on, the life of the whaler, though hardly enviable, ceased to conform to the *Moby-Dick*-inspired image of a courageous duel with a monster from the deep. Whales, in short, no longer stood a chance against their human predators (Davis et al., 1997; Tønnessen & Johnsen, 1982).

The Norwegians continued to be at the forefront of whaling technology well into the 20th century. In the 1920s, they brought the assembly line to the high seas with the development of enormous factory ships. Giant stern slipways enabled whales to be dragged aboard where they could be flensed, boiled, rendered, and packed into barrels. While it had not been unusual for 19th-century whalers to spend months, or even years, at sea, their efficiency and productivity had been limited by the difficulty of processing large whales on the open ocean. The factory ships, with their fleet of nimble hunting vessels, allowed whalers to pursue the previously underexploited (from the whalers' perspective) Antarctic whale populations on a massive scale. By the 1930s, whaling was a multinational industry, fueled by U.S., British, and Scandinavian capital (Roman, 2006; Ellis, 1991; Tønnessen & Johnsen, 1982). It was also an excellent example of what the ecologist Garrett Hardin famously called a "tragedy of the commons" (Hardin, 1968). Whalers from Europe, Britain, Japan, the United States, Australia, and South Africa plied the oceans and hunted whales at will. Despite a massive increase in the number of whales taken, and a dramatic population collapse that was obvious to virtually everyone involved, it made little sense for any individual whaling firm or nation to curb its practices, since others would merely take a greater share for themselves.

The leading whale conservationist voice of the mid-20th century was Remington Kellogg, a whale biologist at the United States National Museum. In the late 1930s, Kellogg was largely responsible for getting the whaling nations to agree to a series of measures that would introduce a semblance of conservation to the industry, as well as setting up a regulatory procedure that would form the basis for post-WWII conservation efforts (Tønnessen & Johnsen, 1982). Just as important, perhaps, he also played a vital early role in educating people about whales. In a lengthy and lushly illustrated *National Geographic* article, he attempted to alert the world to the plight of the great whales and to create a sympathetic atmosphere among the general public. "Whales once roamed by the millions in the oceans of the world," he warned, "but today they may be heading toward the same fate that pursued the once-vast herds of American buffalo... The rapidity with which whales have been killed since 1900 is appalling" (1940, p. 35). Kellogg also worked hard to convince

*National Geographic's* editors to steer clear of hoary and sensational references to cetacean "monstrosity." Instead, he appealed to readers' innate anthropomorphism,<sup>1</sup> informing them that "many female whales seem almost human in their affection for, and defense of, their calves" (pp. 35, 40). The issue was viewed with pride by the editors of America's most influential and best-selling nature magazine and garnered a large readership (Schulten, 2001). Millions of people whose idea of whales had largely been shaped by *Moby-Dick* or pulp fiction that glorified whaling were suddenly exposed to a completely new image of whales as noble and endangered wildlife. Whales were our fellow mammals, Kellogg patiently explained, and his article appealed to the anticruelty sentiments characterizing the increasingly influential American Humane Society (Burnett, 2012).

Important as Kellogg's *National Geographic* piece was, it was merely the first salvo in a long-term battle to change people's attitude toward whaling. After the Second World War, the United States, the pioneering nation in 20th-century conservation, began to exert pressure on other whaling nations to agree upon a set of measures to regulate the whale hunt. In 1946, an International Whaling Convention was held in Washington DC that aimed, according to its organizers, to "conserve whale stocks and thus make possible the orderly development of the whaling industry" (Ellis, 1991, p. 388). This convention led directly to the formation of the International Whaling Commission, the body that to this day continues to be the sole regulator of whaling throughout the world (Epstein, 2008).

The next twenty years saw a dramatic shake-up in the composition of the major players in international whaling. The Japanese, whose factory fleet had been destroyed during the Second World War, were eager to develop a powerful and modern whaling industry. Suffering from a drastic shortage of food, and of meat in particular, the Japanese made a strong case for the immediate resumption of pelagic whaling. General Douglas MacArthur, the Supreme Allied Commander of the occupying forces, encouraged this tack. Whaling, in addition to supplying the Japanese population with much-needed protein and fat, would have the residual benefit of providing the American military with a high-quality lubricant for military equipment (Ellis, 1991). By the 1950s, Japan's massive investment in whaling enabled its fleets to scour the waters of the Pacific and the Antarctic in search of blue, fin, gray, sei, and humpback whales.

In addition to Japan, the other new postwar whaling power was the Soviet Union, whose cetologists came to see whales as the ultimate marine resource. Apart from being a cheap source of meat and fat, whales provided the Soviet people with medicine, leather, perfume, oil, fertilizer, and animal feed, par-

ticularly for their growing fur industry. Aided by massive state subsidies, Soviet and Japanese fleets killed hundreds of thousands of whales in the postwar era, with both nations developing a reputation for flouting IWC regulations and underreporting their catches (Roman, 2006).<sup>2</sup> The combined take of Japanese, Soviet, and Norwegian fleets, along with whales killed by renegade operations, such as those of the Greek shipping tycoon Aristotle Onassis, ensured that the world's whale population continued to plummet alarmingly (Tønnessen & Johnsen, 1982; Fraser, Jacobson, Ottaway, & Chester, 1977).

In an effort to prevent the extinction of several whale species, the IWC turned to science as an objective arbiter, hoping that all whaling nations would agree to abide by the recommendations of cetologists and population biologists. It soon became clear, however, that many scientists, particularly those from Japan and the Soviet Union, saw their job as justifying whatever number of whales their nations were able to catch. Accordingly, they developed the spurious notion that hunting whales actually benefited the whale population, since fewer whales meant more food for those remaining. As a result, they argued, these whales would grow faster and larger, breed earlier and more frequently, and would ultimately develop into a fitter and more productive population. The whales could draw little comfort from the fact that the IWC had replaced *laissez-faire* hunting with the econometric logic of scientific conservation, a form of natural resource management that relied on concepts such as maximum sustainable yield and carrying capacity. For example, the measuring device that whale scientists developed to allocate and keep track of whaling statistics was known as the Blue Whale Unit (BWU). Each BWU was equal to one blue whale, two fins, two and a half humpbacks, and so on. Since it was generally easier and more cost-effective to kill one blue whale, rather than six smaller ones, the BWU ensured that it was more efficient for whalers to concentrate their efforts on the largest, and most endangered, species and then work their way down the list as their numbers dwindled (Epstein, 2008; Ellis, 1991).

Although there were bitter disagreements among IWC members, there is little doubt that, by the 1970s, the commission had been thoroughly inculcated with the doctrine of scientific conservation. Even the Japanese and Soviet whalers had accepted the need for restrictions and limits. Disputes, for the most part, revolved around numbers: what was the world's sperm whale population? How many could be hunted without causing irreparable damage to the species? Was a moratorium necessary in order to ensure a sustainable future harvest? Beyond the confines of the whaling industry and the IWC meeting rooms, however, whales were coming to represent far more than a mere marine resource. By the early 1970s, for many North Americans and Western Europeans

in particular, whales and dolphins were rapidly becoming cultural icons. As well as representing a unique form of intelligence, whales came to symbolize an idealized form of ecological harmony, particularly among those whose environmentalism was infused with countercultural mysticism. Such an outlook represented a dramatic shift away from the *Moby-Dick*-inspired image of whales as vicious leviathans of the deep.

The transformation in the way Americans and, given the broad influence of American popular culture, most Westerners viewed whales can be traced back to the late 1930s, when a group of scientists and entrepreneurs opened the Marine Studios (later Marineland) aquarium in St. Augustine, Florida. The aquarium's curator, Arthur McBride, perfectly represented its twin missions of conducting cetacean research and turning a profit. McBride was undoubtedly a talented scientist, being the first to deduce that dolphins use their acoustic senses for navigation. He was also a keen promoter who was not above compromising scientific rigor with sentimental anthropomorphism if he felt it would attract more people to the aquarium. In a 1940 article in *Natural History*, McBride introduced dolphins as our "most 'human' deep-sea relatives" whose "astonishing habits, observed at Florida's Marine Studios, reveal an appealing and playful water mammal who remembers his friends and shows a strong propensity for jealousy and grief" (McBride, 1940, p. 17). By strange coincidence, McBride's article was published in exactly the same month—January 1940—as Remington Kellogg's piece in *National Geographic*, which also—and equally understandably—strayed into anthropomorphism in its efforts to alert the public to the plight of the whales. In 1954, another Marineland was opened in Palos Verdes, California, and its success spurred the development of several mammoth Sea World theme parks throughout the country. The stars of these aquariums were the clever and playful bottle-nosed dolphins, whose tricks, vocalizations, and apparent delight in interacting with humans won the hearts of millions. In 1964, the Seattle Aquarium exhibited the world's first captive killer whale, an event that spawned a succession of articles in major magazines and newspapers, as well as a series of captive killer whale exhibits at the various Sea Worlds. Sea World was primarily run as a business, and devoted little time and few resources to scientific studies. Instead, it concentrated on training dolphins and whales to entertain the large number of people who poured through the theme parks' doors. Such performances did little to educate Americans about how cetaceans lived in the wild, but they undoubtedly contributed to a more positive view of dolphins and whales, which anti-whaling groups such as Project Jonah and Greenpeace would later exploit (Bryld & Lykke, 1999; Davis, 1997).<sup>3</sup>

The sentimental anthropomorphism inspired by Sea World was perpetuated throughout the postwar period by popular films, books, and songs. In 1946, Walt Disney released *The Whale Who Wanted to Sing at the Met*, a short, animated film starring one of America's most famous crooners, Nelson Eddy. Produced by the same people responsible for *Bambi*, the film did for marine mammals what *Bambi* did for their terrestrial counterparts (Burnett, 2012): it created a sympathetic view of a creature whose only goal was to please humans and live in peace and harmony with the rest of nature. The hugely popular 1963 movie *Flipper* and the subsequent television series of the same name, featured a tame dolphin as a clever and courageous pet—a kind of aquatic version of Lassie—who frequently saved the day whenever his human friends got themselves into deep water. In his fantasy novel, *The Day of the Dolphin* (which in 1973 was turned into a Hollywood film directed by Mike Nichols), French author Robert Merle (1969) created a scenario where dolphins were trained to speak with humans and to save the world from nuclear devastation. Such fanciful stories were directly inspired by the work of John Lilly (Burnett, 2012), whose cetacean research had led him to conclude that, eventually, humans would be able to communicate with whales and dolphins (Lilly, 1967, 1961).

Roger Payne, a scientist at Rockefeller University, supplied further evidence to bolster the theory that whales and dolphins had sophisticated communication systems similar to our own. Using a primitive hydrophone, Payne recorded the vocalizations of humpback whales near Bermuda. He and his colleague, Scott McVay, laboriously analyzed the tapes and concluded that the sounds were, in the truest sense, songs; discrete phrases repeated over and over and sometimes lasting for up to thirty minutes (Payne & McVay, 1971). In 1970 Payne and McVay produced a record, *Songs of the Humpback Whale*, which represented the perfect fusion of whale science, popular culture, and counter-cultural mysticism. It introduced millions of people to the animals' haunting calls and inspired numerous artists to record songs incorporating the wheezing, squealing cetacean "music" (Burnett, 2012).

Among the writers who sought to promote the idea that whales were a uniquely intelligent species, and one that was under threat from human exploitation, few were as articulate or as prolific as Scott McVay. An administrator at Princeton University, McVay had become fascinated with whales as a result of studying *Moby-Dick* in college. More important, a chance meeting with John Lilly led McVay to move his family in the early 1960s to Miami, where he worked as Lilly's assistant conducting research on dolphin communication. On returning to Princeton in the mid-1960s, he devoted nearly all his spare time to popularizing whales and alerting people to their plight. In a

1966 article in *Scientific American*, McVay outlined the history of the IWC and wrote a stinging critique of its practices, essentially accusing it of being a cozy club for whalers rather than a regulatory organization that was genuinely interested in whale conservation (McVay, 1966). McVay attended several IWC meetings as an observer, and his experiences only served to confirm his pessimistic view of the commission (Burnett, 2012; McVay, 1971).

What is the broader historical context in which people such as Lilly and McVay came to hold their views? In the mid-20th century, numerous Western intellectuals had become disillusioned with what they perceived to be the dominance of a reductionist scientific worldview. Scientists, they argued, had become slaves to a capitalist order whose sole mission was to chop up the natural world and remake it into profitable consumer goods. Prominent scientists such as Aldo Leopold and Rachel Carson developed a trenchant critique of scientific reductionism, offering in its place a model of nature that emphasized interconnectedness and holism (Zelko, 2006; Worster, 1994). This brand of holistic ecology, which was not necessarily the kind favored by the majority of professional ecologists, nonetheless came to represent what one ecologist called a “subversive science” (Shepard & McKinley, 1969; Sears, 1964). The yearning for a greater sense of wholeness and for a reenchanting nature led writers such as Aldous Huxley, Alan Watts, and Gary Snyder to turn eastward, where they found satisfyingly holistic creeds such as Zen Buddhism and Tantric philosophy (Kripal, 2007; Roszak, 1968). Native American spiritualism proved similarly efficacious as a way of reenchanting nature (Albanese, 1991). The result was a potent form of countercultural environmentalism obsessed with holism and interconnectedness and open to various forms of mysticism (Zelko, 2006). By 1971, McVay was couching his anti-whaling arguments in language that reflected this evolving ecological worldview:

Our survival is curiously intertwined with that of the whale. Just as all human life is interconnected...so have we finally begun to perceive the connections between all living things. The form of our survival, indeed our survival itself, is affected as the variety and abundance of life is diminished. To leave the oceans, which girdle seven-tenths of the world, barren of whales is as unthinkable as taking all music away... leaving man to stumble on with only the dryness of his own mutterings to mark his way. (p. 72)

Such pronouncements, linking human survival with that of whales, became increasingly common throughout the late 1960s and early 1970s and were instrumental in casting whales as the great symbol of 1970s environmentalism. Folk legend Pete Seeger summed this view up perfectly in his ballad, “The Song of the World’s Last Whale”:



If we can save  
Our singers in the sea  
Perhaps there's a chance  
To save you and me.

By the late 1960s, scientists and writers such as Payne and McVay were depicting whales as paragons of ecological virtue: intelligent and sensitive creatures who had achieved a kind of sustainable ecological harmony that was eluding humans. This view was complemented by an increasing number of studies suggesting that whales had a form of multidimensional intelligence that humans had not yet begun to fathom. The man who did more than anyone to create this impression was John Lilly, a neuroscientist whose work with dolphins would lead him to plumb the depths of countercultural mysticism. His endeavors were frequently assisted by the various hallucinogens of the day, particularly LSD, which, ironically, was of as much interest to the U.S. military, who funded much of Lilly's cetacean research, as it was to countercultural intellectuals, albeit for rather different reasons. Lilly began his neuroscience career in the 1950s by conducting invasive cortical research on various mammals, including dolphins. This was not exactly neutral science. At the height of Cold War paranoia, the U.S. military was keen to explore the possibilities of manipulating the human brain. Thus, the military funded research into brainwashing (or "reprogramming," as it was then called), sleep deprivation, and "operant control" as part of its ongoing battle against the enemies of capitalism and democracy. Animals whose brains were most similar to humans were naturally seen as useful subjects for these experiments (presumably regardless of their political views), and Lilly's dolphin research was at the cutting edge of Cold War neuroscience. Ironically, though perhaps not surprisingly, much of Lilly's early research was conducted at the Florida Marine Studios (Burnett, 2010). So while one group of dolphins splashed about in the Studio's pools, delighting hundreds of thousands of visitors each year, their less fortunate conspecifics were in the lab having their skulls cracked and their brains probed by Lilly's electrodes, before succumbing to a mercifully swift death (dolphins cannot breathe when anesthetized). That is, until Lilly had his eureka moment. As one of his experimental subjects was expiring in the service of science, it emitted a series of wheezing noises that, to Lilly, sounded like human speech (Lilly, 1961).

While scientists knew that dolphins were quite clever, as far as nonhuman animals go, nobody had suggested that they possessed sophisticated intelligence, "language," or "consciousness." But after his epiphany, this is exactly the case that Lilly presented to a skeptical audience at the 1958 meeting of the American Psychiatric Association in San Francisco. Almost overnight, Lilly

abandoned scientific reductionism in favor of a holistic and at times mystical ecological worldview (Burnett, 2010). His popular books and numerous magazine articles publicized this new view of dolphins and, by extension, whales—a view that resonated particularly deeply among those who were coming to a similar worldview via Eastern religion, holistic ecology, and mind-expanding drugs (Lilly, 1967, 1961).<sup>4</sup>

As we have seen, Lilly's work inspired various popular stories about dolphin intelligence and the possibilities of interspecies communication. And while most scientists remained skeptical, some were more open-minded. In 1972, two Swedish scientists, Karl-Erik Fichtelius and Sverre Sjölander, published a book with the provocative title *Smarter than Man?* in which they systematically compared the human brain to those of whales and dolphins in an effort to draw some broad conclusions about their comparative intelligence. The dolphin's cerebral cortex, they found, is larger than ours, has twice the number of convolutions, and 10 to 40 percent more nerve cells. The section of the cortex devoted to motor skills was considerably larger in humans than in dolphins, but this difference merely meant that "the dolphin has more cortex left over for the higher mental processes than we do . . . The surprising conclusion of (our) comparison is that the dolphin brain *could* be superior to ours" (1972, pp. 36, 40). Also in 1972, the popular Canadian nature writer Farley Mowat published a story about a fin whale who became trapped in a tidal pond in Newfoundland. To locals from a nearby village, the whale afforded an opportunity for some entertainment and target practice, and over several days they sprayed her with hundreds of bullets. To Mowat, who was strongly influenced by Lilly's work, the villagers were torturing a being with an inner life as complex as their own, although by the end of the book he began to suspect that the inner lives of hardscrabble Newfoundlanders, a people he had previously championed, would not compare well to the whale's (Mowat, 1972).

Paul Spong, a young New Zealander working with killer whales at the Vancouver Aquarium in the late 1960s, was another influential figure in the rise of this new construct we can usefully label the "metaphysical whale." Spong had recently earned his PhD in psychology at UCLA, where he had been deeply involved with the Southern California counterculture.<sup>5</sup> Nonetheless, in his work he retained, at least initially, the professional outlook that his scientific training had instilled in him, approaching his subjects much as other scientists approached lab rats. Like Lilly, Spong also had an epiphany. He was conducting a series of visual acuity tests with Skana, one of the aquarium's killer whales. One day, Skana, whose job was to choose the correct card from the two that Spong repeatedly put in front of her, chose the wrong card 99 times in a row. To Spong it was clear that Skana was bored with his experi-

ments and was deliberately choosing the wrong card as a sign of her displeasure (Weyler, 1986; Spong & White, 1969).

Spong rethought his approach. Throughout the months he had been working with her, Spong had grown to like Skana. Still, he feared her size and power and continued to maintain an objective distance between himself and his subject. Now he decided it was time to abandon the formal experiments and simply spend time with Skana, observing her, interacting with her, and getting to know her better. One day, as he was sitting at the edge of the whale pool with his feet dangling in the water, Skana approached him slowly, as she often did, before suddenly slashing her open mouth across his bare feet. Her four-inch teeth, which could easily have severed his feet like twigs from a branch, merely grazed his skin with a gentle caress. He immediately pulled his feet out, gasping in astonishment. In a short time, however, his curiosity overcame his fear, and he gingerly lowered his legs back into the water. Skana again raked her teeth across the tops and soles of his feet, and once more Spong instinctively jerked them out of the water. He repeated the procedure 11 times with the same result. Then, on the 12th, he became determined to restrain his urge to flinch. This time, Skana delicately clasped his motionless feet in her mouth, let them go, and swam away making what sounded like contented vocalizations. Spong left his feet in the water, but Skana did not approach them again. Bewildered and excited, he felt like he had become the subject of Skana's experiment. "I dropped my posture of remoteness, opened my mind, and personally engaged myself in Skana's learning. . . This whale was no big brained rat or mouse. She was more like a person: inquisitive, inventive, joyous, gentle, joking, patient, and, above all, unafraid and exquisitely self-controlled" (Spong, 1978, p. 7). Like Lilly, Spong became an advocate for whale and dolphin intelligence, insisting that it was as sophisticated and complex in its own way as human intelligence. He became active in the anti-whaling movement, joining Project Jonah, a San Francisco-based group backed by the Sierra Club. In perhaps his most important contribution to reshaping the image of whales in the mind of the Western public, Spong managed to convince a local environmental organization named Greenpeace to switch its attention from nuclear weapons to whales (Hunter, 1979).

The ultimate ode to the emerging cetacean construct was *Mind in the Waters*, a collection of articles, essays, and poems assembled by Joan McIntyre, the San Francisco-based artist and Friends of the Earth activist who had founded Project Jonah. The highly popular volume included a variety of works from scientists, policy experts, artists, and writers. Sterling Bunnell, a medical doctor who also taught evolutionary ecology at the California College of Arts and Crafts, echoed the work of Fichtelius and Sjölander, arguing that since humans

had evolved primarily to recognize and avoid danger, it was “difficult for us to understand intelligent and non-manipulative beings which are so well adapted to their habitat that the survival considerations of finding food and avoiding danger have been much less of a problem for them than they have been for us” (1974, pp. 57-58). Bunnell also offered some thought-provoking ideas about the difference between human and cetacean communication. The cetacean auditory system, he argued, is predominantly spatial, like human eyesight, and is designed to process much simultaneous information. Thus whales and dolphins could communicate a whole paragraph of information in one elaborate, instantaneous hieroglyph. Therefore, Bunnell reasoned, “for them to follow our pattern of speech might be almost as difficult as for us to study the individual picture frames in a movie being run at ordinary speed” (1974, pp. 57-58).

John Sutphen, a Connecticut physician with an interest in whales, argued that whales and dolphins probably had a far more sophisticated emotional intelligence than did humans. Since echolocation is three-dimensional, “one dolphin scanning another dolphin does not just receive an echo from the other’s skin but from the interior body as well” (Sutphen, 1974, p. 141). Therefore, apart from immediately recognizing if another animal was ill, cetaceans would also “be constantly aware of a considerable portion of each other’s emotional state” (p. 141). “What sort of candor,” Sutphen mused, “might exist between individuals where feelings are instantly and constantly bared? It would be irrelevant to hide, to lie, or to deny one’s feelings” (p. 142). Cetaceans, it seemed to Sutphen, were not only as intelligent as humans; their capacity for empathic communication meant that they were quite possibly morally superior (pp. 141-142). Sutphen’s analysis abandoned the conservative caution of much scientific discourse, even going so far as to suggest that whales and dolphins possessed a culture.

In his contribution to McIntyre’s volume, Scott McVay attempted to disabuse his readers of the “old square-rigged notions about whaling” that continued to “linger like a gauzy pink haze” and that “abound[ed] in contemporary writing” (p. 225). The romantic image of the whale hunter, he declared, “has begun to pall, for the whale has no more chance than a bull in the ring as it is scouted by helicopter, scanned by sonar, and run down by mechanized ships designed to travel three knots faster than a finback’s top speed (1974, p. 225). The renowned marine biologist Victor Scheffer, who was chairman of the presidentially appointed Marine Mammal Commission of the United States, urged the IWC to look beyond mere conservation measures and to consider whaling as an ethical issue. “The esthetic and educational values of whales alive,” he contended, “are greater than the values of [the products] which

might be derived from their carcasses” (p. 230). Like many other anti-whaling advocates of the era, Scheffer espoused a moral ecology that embraced the intrinsic worth of other forms of life. “Morality,” he argued, “extends beyond ordinary humaneness, or the prevention of pain and terror in the animal, to a consideration of the simple right of the animal to live and to carry on its ancestral bloodline” (p. 230). Even an unreconstructed traditional conservationist such as Lee Talbot, the senior scientist on the president’s Council of Environmental Quality and the scientific advisor to the U.S. delegation to the IWC, was willing to flirt with the rhetoric of holistic ecology in the service of whales. “The time is past,” he declared, “when we can equate conservation with maximum sustained yield, or when we can base management of a living resource simply on our economic ‘need’ for its products. We are slowly coming to the realization that maintenance of the health of the habitat is a prerequisite to the survival of a species” (p. 236).

Lilly and Spong also contributed to *Mind in the Waters*, but the most eloquent, although also the most romantic, pieces came from Joan McIntyre herself. With equal parts holistic ecology and New Age romanticism, McIntyre decried the Cartesian worldview that denied feelings, imagination, awareness, and consciousness to other creatures. “It seems that in our craze to justify our exploitation of all non-human life forms,” she proclaimed, echoing Rachel Carson, “we have stripped from them any attributes which could stay our hand” (p. 8). Try, she urged her readers, “to imagine the imagination of a whale, or the awareness of a dolphin. That we cannot make these leaps of vision is because we are bound to a cultural view which denies their possibility” (p. 8). According to McIntyre, the plight of the whales needed to be understood as part of a broader trend of human beings’ relationship with the natural world; indeed, it was this very bifurcation between nature and culture, and between the mind and the body, that lay at the root of the problem. In the water, the cradle of cetacean consciousness, the distinction between the mind and the body had been dissolved: “Without the alienating presence of objects and equipment, with only the naked body encasing the floating mind, the two, split by technological culture, are one again. The mind enters a different modality, where time, weight, and one’s self are experienced holistically” (p. 94). In the sea, she continued, “the world can be *thought* and *experienced* simultaneously—not broken down into categories that stand for experience rather than experience itself” (p. 94).

After reading McIntyre and the other contributors to *Mind in the Waters*, one is left with the image of whales and dolphins as exemplars of ecological virtue and holistic consciousness. These are creatures who are totally in tune with their environment and with each other; who possess advanced systems of

communication and construct “thoughts” from acoustically derived images; whose brains are larger than ours and have a greater degree of gray matter left over for the higher mental processes, rather than for simply manipulating objects. The future of the whales, McIntyre insisted, was inextricably bound up with our own: “[I]n saving them we can create a model of international action that can demonstrate a way to save ourselves and the rest of the earth we cherish” (1974b, p. 224).

This, clearly, was not the language of scientific conservation. The newly constructed “metaphysical whale,” a product of holistic popular ecology, a quasi-mystical and highly speculative neuroscience, and popular culture, rendered notions such as quotas and maximum sustained yield irrelevant—indeed, abhorrent. Preservation was the only viable course of action; the only way to save the whales was to abolish whaling, not merely to control and regulate it. For people such as McIntyre, the logic of scientific conservation could be as absurd and harmful as *laissez-faire* whaling. Take, for example, the ideas of Gifford Pinchot, a biologist and the son and namesake of the man commonly viewed as the father of American conservation. Pinchot felt that both world hunger and the extinction of the great whales could be prevented by simply turning whales into the cattle of the sea. His ambitious plan involved pumping deep-sea water into tropical lagoons in the Pacific Ocean. This would spur the growth of phytoplankton—great masses of aquatic algae—which would in turn be eaten by zooplankton such as krill. The most efficient way to convert this mass of stored energy into protein and fat for human consumption was to “farm” blue whales in the lagoons (Pinchot, 1966). In this way, the great whales, like the American bison before them, could be simultaneously saved and savored.

There is little doubt that Pinchot was genuinely concerned with the possibility of the blue whale’s extinction. Nevertheless, to those subscribing to the *Mind in the Waters* worldview, the idea of turning whales into semi-domesticated stock was possibly even worse than hunting them on the open sea. If ideas like the Blue Whale Unit and raising whales in lagoons for human consumption were the best that scientific conservation could offer, then clearly scientific conservation was grossly inadequate.

From the mid-1970s, no group did more than Greenpeace to publicize the plight of the whales. Their daring direct action campaigns and canny media tactics brought the bloody world of modern industrialized whaling into living rooms throughout the world. From the beginning, Greenpeace activists made it clear that they had no interest in quotas or maximum sustained yield; the whale they were saving was the metaphysical whale—a sublime, mystical, ecologically harmonious and super-intelligent aquatic being representing a

supreme form of power and intelligence rooted in a oneness with nature, a state that humans, in their dangerous and pathetic struggles to conquer the natural world, could never achieve. As Robert Hunter, Greenpeace's leader during the early years of the anti-whaling campaign, put it:

Could it be that there were serene superbeings in the sea who had mastered nature by becoming one with the tides and the temperatures long before man had even learned to scramble for the shelter of the caves, but who had not foreseen the coming of small vicious monsters from the land whose only response to the natural world was to hack at it, smash it, cut it down, blow its heart away? Had the whales enjoyed a Golden Age lasting millions of years, before their domain was finally invaded by a dangerous parasite whose advance could not be checked by any adaptive process short of growing limbs and fashioning weapons? What, indeed, could a nation of armless Buddhas do against the equivalent of carnivorous Nazis equipped with seagoing tanks and Krupp cannons? (1979, p. 131)

This sort of language clearly bears the mark of John Lilly. It represents, albeit in an extreme form, a version of the metaphysical whale that came to dominate the Western attitude toward whales and dolphins. Recent popular films, such as *Free Willy*, as well as the whale-watching industry, have by and large perpetuated this image (Lawrence, Phillips, & Hardy, 1999). One can only imagine the outrage that would greet a group of American soldiers who tried to do what their grandfathers did in Iceland in 1954.<sup>6</sup> And Japanese whaling continues to provoke widespread opposition among both the general public and governments throughout the Western world, with a few exceptions, such as Iceland and Norway, which continue to hunt whales in defiance of global public opinion.

The story is a striking example of just how quickly—and profoundly—human attitudes toward a particular species can change. Unfortunately, however, this account does not offer much direct hope to such despised creatures as New Zealand possums (Potts, 2009), or, for that matter, the victims of our industrial meat complex. In one sense, at least, cetaceans were luckier: their large and complex brains and apparently sophisticated communicative abilities were “discovered” at a moment in time when Western countries no longer relied on whales as an important resource. If Pinchot's plan to raise whales in lagoons had been enacted on a large scale and cetacean flesh had become a regular part of the Western diet, it is difficult to imagine that Lilly's message and Greenpeace's campaigns would have resonated to the extent that they did. And popular culture on its own can only achieve so much; after all, there have been plenty of Hollywood pigs, but this has done little to promote a “save the pigs” movement. Ironically, the “save the whales” movement, with its emphasis

on cetaceans' putatively unique intelligence, may have hindered other animal welfare or animal rights campaigns. For those concerned with improving the lives of animals, this may be the most salutary lesson of this historical narrative: our anthropomorphism is a tricky and culturally contingent trait. What appeals to it in one time and place might not appeal to it in another.

## Notes

1. Throughout this essay I use the term *anthropomorphism* not in its traditional pejorative sense—the lazy and unscientific attribution of human traits to other animals—but as a universal human psychological trait, albeit one shaped and conditioned by specific cultural circumstances. For an elaboration of this idea, see Daston and Mitman (2005).

2. In the Soviet case, at least, this has been confirmed by post-Soviet era research (Yablokov, 1997).

3. Burnett (2012) convincingly argues that dolphins (and I would add, killer whales) became, in the public mind, stand-ins for cetaceans as a whole.

4. In his fascinating and meticulously researched history of whale science, Burnett (2012) demonstrates how cetacean research was inextricably entwined with Cold War bioscience. Lilly's funding came from various branches of the U.S. military, which saw all sorts of potentially useful military applications in his research.

5. The Brain Research Institute at UCLA, with which Lilly, Spong, and other prominent whale researchers were associated, is an excellent example of the close links between Cold War bioscience and cetacean research. Burnett (2012) explores the story in more detail.

6. Ironically, the U.S. navy is conducting acoustic tests that are almost certainly killing numerous whales, albeit unintentionally. Nevertheless, the U.S. Supreme Court recently ruled that the tests could continue, arguing that the needs of the military trump the lives of whales. The metaphysical whale may be powerful, but it is no match for the U.S. military or a conservative court (Keim, 2008).

## References

- Albanese, C. L. (1990). *Nature religion in America: From the Algonkian Indians to the new age*. Chicago: University of Chicago Press.
- Ash, C. (1962). *Whaler's Eye*. New York: Macmillan.
- Bryld, M., & Lykke, N. (1999). *Cosmodolphins: Feminist cultural studies of technology, animals and the sacred*. Zed Books: London.
- Bunnell, S. (1974). The evolution of cetacean intelligence. In J. McIntyre (Ed.), *Mind in the waters: A book to celebrate the consciousness of whales and dolphins* (pp. 52-59). New York & San Francisco: Charles Scribner's Sons & Sierra Club Books.
- Burnett, D. G. (2010, May/June). A mind in the water: The dolphin as our beast of burden. *Orion*. Retrieved on August 6, 2010, from: <http://www.orionmagazine.org/index.php/articles/article/5503>.
- (2012). *The sounding of the whale: Science and cetaceans in the twentieth century*. Chicago: University of Chicago Press.
- Daston, L., & Mitman, G. (Eds.). (2005). *Thinking with animals: New perspectives on anthropomorphism*. New York: Columbia University Press.



- Davis, L. E., Gallman, R. E., & Gleiter, K. (1997). *In pursuit of Leviathan: Technology, institutions, productivity, and profits in American whaling, 1816-1906*. Chicago: University of Chicago Press.
- Davis, S. G. (1997). *Spectacular nature: Corporate culture and the Sea World experience*. Berkeley: University of California Press.
- Ellis, R. (1991). *Men and whales*. New York: Alfred A. Knopf.
- Epstein, C. (2008). *The power of words in international relations: Birth of an anti-whaling discourse*. Cambridge, MA: The MIT Press.
- Fichtelius, K., & Sjölander, S. (1972). *Smarter than man? Intelligence in whales, dolphins, and humans*. New York: Pantheon.
- Fraser, N., Jacobson, P., Ottaway, M., & Chester, L. (1977). *Aristotle Onassis*. London: Weidenfeld & Nicholson.
- Hardin, G. (1968). The tragedy of the commons. *Science*, 162, 1243-1248.
- Hunter, R. (1979). *Warriors of the rainbow: A chronicle of the Greenpeace movement*. New York: Holt, Rinehart and Winston.
- Iceland: Killing the Killers. (1954, October 4). *Time*. Retrieved Aug. 6, 2010, from <http://www.time.com/time/magazine/article/0,9171,857557,00.html>
- Keim, B. (2008, November 12). Supreme Court: National security trumps whales, environmental law. *Wired*. Retrieved Aug. 7, 2010, from: <http://www.wired.com/wiredscience/2008/11/supreme-court-n/>
- Kellogg, R. (1940). Whales, giants of the sea. *National Geographic*, 77(1), 35-90.
- Kripal, J. J. (2007). *Esalen: America and the religion of no religion*. Chicago: University of Chicago Press.
- Lawrence, T. B., Phillips, N., & Hardy, C. (1999). Watching whale watching: Exploring the discursive foundations of collaborative relationships. *Journal of Applied Behavioral Science*, 35(4), 479-502.
- Lilly, J. (1961). *Man and dolphin*. New York: Doubleday.
- (1967). *The mind of the dolphin*. New York: Doubleday.
- McBride, A. (1940). Meet Mister Porpoise. *Natural History*, 45, 16-29.
- McIntyre, J. (1974a). An invitation. In J. McIntyre (Ed.), *Mind in the waters: A book to celebrate the consciousness of whales and dolphins*. New York & San Francisco: Charles Scribner's Sons & Sierra Club Books.
- (1974b). Mind play. In J. McIntyre (Ed.), *Mind in the waters: A book to celebrate the consciousness of whales and dolphins*. New York & San Francisco: Charles Scribner's Sons & Sierra Club Books.
- McVay, S. (1966). Last of the great whales. *Scientific American*, 215(2), 13-21.
- (1971). Can Leviathan long endure so wide a chase? *Natural History*, 80(1), 36-40.
- (1974). One strand in the rope of concern. In J. McIntyre (Ed.), *Mind in the waters: A book to celebrate the consciousness of whales and dolphins* (pp. 225-229). New York & San Francisco: Charles Scribner's Sons & Sierra Club Books.
- Merle, R. (1969). *The day of the dolphin*. New York: Simon & Schuster.
- Mowat, F. (1972). *A whale for the killing*. London: Heinemann.
- Payne, R. S., & McVay, S. (1971). Songs of the humpback whales. *Science*, 173(3997), 585-597.
- Pinchot, G. (1966). Whale culture. *Perspectives in Biology and Medicine*, 10(1), 33-43.
- Potts, A. (2009). Kiwis against possums: A critical analysis of anti-possum rhetoric in Aotearoa New Zealand. *Society & Animals*, 17(1), 1-20.
- Roman, J. (2006). *Whale*. London: Reaktion Books.
- Roszak, T. (1968). *The making of a counter culture: Reflections on the technocratic society and its youthful opposition*. Berkeley: University of California Press.

- Scheffer, V. (1974). The case for a world moratorium on whaling. In J. McIntyre (Ed.), *Mind in the waters: A book to celebrate the consciousness of whales and dolphins* (229-231). New York & San Francisco: Charles Scribner's Sons & Sierra Club Books.
- Schulten, S. (2001). *The geographical imagination in America, 1880-1950*. Chicago: University of Chicago Press.
- Sears, P. (1964). Ecology—A subversive subject. *Bioscience*, 14(17), 11-13.
- Shepard, P., & McKinley, D. (Eds.). (1969). *The subversive science: Essays toward an ecology of man*. New York: Houghton Mifflin.
- Shoemaker, N. (2005). Whale meat in American history. *Environmental History*, 10(2), 269-294.
- Spong, P. (1978). Introduction. In Hunter, R., & Weyler, R. *To save a whale: The voyages of Greenpeace*. San Francisco: Chronicle Books.
- Spong, P., & White, D. (1969). *Cetacean research at the Vancouver Public Aquarium, 1967-1969*. Technical Report #2: UBC Division of Neurological Sciences, Cetacean Research Laboratory.
- Sutphen, J. (1974). Body state communication among cetaceans. In J. McIntyre (Ed.), *Mind in the waters: A book to celebrate the consciousness of whales and dolphins* (pp. 141-142). New York & San Francisco: Charles Scribner's Sons & Sierra Club Books.
- Talbot, L. (1974). The great whales and the International Whaling Commission. In J. McIntyre (Ed.), *Mind in the waters: A book to celebrate the consciousness of whales and dolphins* (pp. 232-236). New York & San Francisco: Charles Scribner's Sons & Sierra Club Books.
- Tønnessen, J. N., & Johnsen, A. O. (1982). *The history of modern whaling*. London: C. Hurst & Company.
- Weyler, R. (1986). *Song of the whale*. Garden City, NY: Anchor Press/Doubleday.
- Worster, D. (1994). *Nature's economy: A history of ecological ideas* (2nd ed.). New York: Cambridge University Press.
- Yablokov, A. V. (1997). On the Soviet whaling falsification, 1947-1972. *Whales Alive!* 6(4). Retrieved January 7, 2011, from: <http://www.csiwhalesalive.org/csi97403.html>.
- Zelko, F. (2006). Challenging modernity: The origins of postwar environmental protest in the United States. In C. Mauch, N. Stoltzfus, & D. R. Weiner (Eds.), *Shades of green: Environmental activism around the globe*. Lanham, MD: Rowman & Littlefield.