SAVE THE WHALES

Before the 1960s, the most familiar image of a whale was probably that of a sperm bull putting up a fight – the ultimate foe, vanquished with courage and skill – or perhaps a raft of dead whales, lined up like the war dead beside a catcher boat. A few people might have seen a stranded whale on the beach or in an exhibition. But in the 1960s artists, photographers and scientists at long last revealed the way that whales spent 90 per cent of their lives.

Filmmakers such as Jacques Cousteau were revealing marine life as it had never been seen before. Using scuba technology that he had helped to develop, Cousteau made the marine environment familiar to millions of people. Charmed by his accent, television viewers watched frenzied sharks and stealthy barracudas from the safety of their living rooms. As early as his first book in 1953 Cousteau helped to dispel fear of the oceans. 'The monsters we have met', he wrote in *The Silent World*, 'seem a thoroughly harmless lot'.[1]

Using snorkelling gear and an underwater camera, the freelance photographer James Hudnall explored the Hawaiian breeding grounds of the humpback in the 1970s. His photographs provided a whale's-eye view of these 30-tonne rorquals, which he described as 'gentle, clever, passive, and rational beings'.[2]

His adjectives stuck. Never mind that male humpbacks can be quite aggressive towards each other in the breeding grounds. Humpbacks were gentle and endangered, worthy of concern. David Hill wrote in *Audubon* in 1974:

> The whale crisis has never been more acute. Each year the cost of killing whales goes up while the number of animals goes down. The economic squeeze has pushed most of the whaling nations out of the business. Two countries with sizable whaling fleets, Japan and the Soviet Union, stubbornly hang on. An industry historically plagued by greedy mismanagement of the resource does not have to give thought to the future of the industry because there is no future. But two critical questions remain: Will whaling cease of its own accord before or after species become extinct? Will the great majority of nations that no longer hunt whales sit idly by and allow the animals to go extinct?[3]

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Whale. **Roman, Joe.** © 2006.
Extract from Chapter Nine: Save the Whales. (pp.153-166)

SAVE THE WHALES

In the 1950s, while most cetologists were working on flensing decks, a few whale biologists, equipped with hydrophones – underwater microphones – began to record the complex sounds created by whales. The acoustician William Schevill made the first underwater recordings of cetaceans in the wild, describing the calls of more than 30 marine mammal species – from sperm whales to baleen whales, dolphins and seals. So extensive was his knowledge of these underwater sounds that Schevill helped to defuse a tense moment between the US and the Soviet Union during the Cold War. Consistent low-frequency blips had been detected in the oceans, and the Americans suspected that the Soviets might be using these sounds to locate US submarines. Schevill and his colleague William Watkins found the source: fin whales produce trains of blips for about fifteen minutes followed by a two- or three-minute pause, when they surface to breathe.[4] These sounds may have been used for echolocation, but fin whales were not considered a national threat.

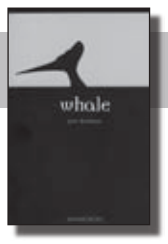
The growth in understanding of great whales followed studies of their smaller relatives. The neurologist John Lilly described work he had done in the late 1950s with captive dolphins on the Caribbean island of St Thomas:

> the feeling was that we were up against the edge of a vast uncharted region in which we were about to embark with a good deal of mistrust concerning the appropriateness of our own equipment . . . The feeling of weirdness came on us as the sounds of this small whale seemed more and more to be forming words in our own language.[5]

Lilly went on to describe his subjects in his book of 1967, *The Mind of the Dolphin*:

> I wish to tell of what we have learned of a group of uninhibited nudists who have never worn clothes . . . They have no fireplaces, nor furnaces, or any fire at all . . . They have big brains and . . . they think enough of us to save each of us when they find us in trouble.[6]

The whale historian Paul Forestell explained the attraction of this new view of cetaceans to the youth of the 1960s: 'Sexually liberated, antimaterialistic, antiwar, self-sufficient, intelligent, and altruistic. . . . Lilly's message is clear – sun, surf, and sex – with big brains, and no guilt. Could it get any better?'[7]



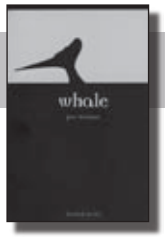
SAVE THE WHALES

Looking at the brains of baleen and sperm whales, you can see there is no doubt about capacity. The whale museum in Friday Harbor, Washington, has fin whale and human brains on display. The fin whale's brain looks like a plump turkey, whereas the human's might as well be an overcooked chicken. Cetacean brains are highly convoluted, like our own, but, unlike humans, whales have had a long time to get accustomed to their super-size grey matter. Cetaceans first evolved one-to-two-kilogram brains about 30 million years ago. We have had our 1.3 kilograms of neurons for a mere 100,000 years or so.

So what are they doing down there with all those brain cells? Certainly the complexity helps in hearing and echolocation (although it should be pointed out that bats have exceptional hearing and echolocation abilities, and their brains weigh little more than a gram). Lilly's thoughts on the importance of communication and intelligence in marine mammals influenced many budding cetologists. But as he turned from neurobiologist to mystic, many of these biologists were embarrassed to admit their debt to him. The legacy of Lilly's work survives in our love for the playful, intelligent whale, from dolphin to humpback.

Dolphins, those sleek cetaceans with the permanent smile, were the pioneering goodwill ambassadors for great whales. The film *Flipper* of 1963 had its roots in ancient Greek and Roman stories of a friendship between a boy and a wild dolphin. Before Flipper, whales in the cinema were mostly targets ripe for the harpoon, or dumb brutes, such as Monstro, mastered by fire. With few exceptions, cetaceans are heroes in post-*Flipper* films such as *Free Willy*, *Star Trek* IV: *The Voyage Home* and *The Core*. They help to save us.

In the dark world of the ocean, whales depend on sound for orientation. Lacking an external ear, they detect sound waves via a fat pad between mandible and middle ear. Often feeding beneath the euphotic zone, the surface of the ocean where light is dense enough for photosynthesis, whales use sound to find prey, locate mates and navigate the sea.



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Sperm whales and most odontocetes echolocate – they emit sounds that enable them to detect distances and shapes. This ability is important for predators of the deep sea, where light is greatly reduced. Only 1 per cent of surface light travels to a depth of 100 metres; at 600 metres illumination equals that of starlight.[8] It is uncertain whether baleen whales, filter feeders, have this ability. The cetologist Peter Beamish has tested the ability of humpback whales to swim in the dark. He built a maze in a Newfoundland bay for a humpback rescued from a fishing net, then blindfolded the whale with rubber drain plungers. Before being set free, the humpback managed to navigate the maze.

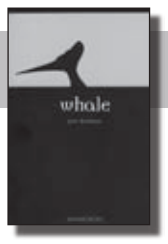
Poets love the idea that whales see the world through own vocalizations. The Australian poet Les Murray writes of the sperm whale:

> I sound my sight . . .
> With a sonic bolt from the fragrant
> chamber of my head, I burst the lives of some
> and slow, backwashing into my mouth. I lighten,
> breathe, and laze below again.[9]

To the American poet Amy Clampitt great whales

> . . . devise the ringing calculus
> of icebergs, compute the density of ships
> as pure experience of hearing . . . [10]

In the age of whaling, every hand on board would have been familiar with the sounds of blows. These deep exhalations, which could be frustrating in a fog when whales were obviously close but impossible to find. Some observers were puzzled by the flight response of distant whales to a harpooned one that they surely were unable to see. Occasionally, during periods of exceptional calm, whalemen might even hear the faint sounds of whales through the wooden hull of the ship.[11]



SAVE THE WHALES

In 1967 the biologist Roger Payne began to record and analyse the sounds of humpbacks off Bermuda. Working from hundreds of hours of tape recordings taken on the breeding ground, Payne and Scott McVay contended that the sounds they heard were more than just idle chatter. They described the sounds as notes 'uttered in succession . . . to form a recognizable sequence or pattern in time'; in other words, they were songs with discrete themes.[12] All the whales in a breeding group appeared to sing the same songs, over and over again.

The rhythms of humpbacks are similar to those of human music. Their songs last longer than our ballads but are shorter than most symphonies. Do they have an attention span like our own? Do they use similar techniques, repeating refrains that form rhymes, to remember songs? Payne and colleagues suggest that this is so. Our evolutionary path has been separated from whales for 60 million years. Perhaps we are latecomers to music, not the inventors of song.[13]

The humpback whale, coastal and slow-swimming, was familiar to whalers. To Scammon, the humpback had a 'roving disposition'.[14] Melville described it as 'the most gamesome and light-hearted of all the whales, making more gay foam and white water generally than any of them'.[15] It was this surface activity that made the humpback one of the first whales to catch the eye of whale watchers. Its scientific name, *Megaptera novaeangliae*, is derived from the Greek for 'big wing' – the humpback has exceptionally long flippers – and Latin for New England, the origin of the type specimen.[16] These mobile flippers make the humpback the most balletic of baleen whales. Naval engineers have shown that the scalloped leading edge of their appendages increases lift and decreases drag – a shape that could help in the design of aircraft and submarines.

In 1970 Capitol Records and National Geographic released *Songs of the Humpback Whale*. Payne's recordings became a smash hit, fascinating listeners around the globe; humpbacks soon became known as 'opera stars of the deep'.[17] Thirty years later, as I listened to the songs on a reissued CD, the hair stood up on my neck. With the eerie attraction of wolf calls, the recordings have lost none of their haunting novelty. At the same time, the high-pitched squeals and moans evoked a vulnerability surprising in so large a creature. One Australian whaler declared that, had he heard those songs, he never would have 'fired a shot at a whale'.[18] The historian Barthelmess, on the other hand, recalled that he and the crew listened to Payne's recordings on the bridge of an Icelandic whaler while they were steaming out to the whaling grounds. 'It's a matter', he insisted, 'of culturization'.[19]

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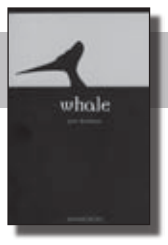
Humpbacks may be the pop stars of the ocean, but the loudest sounds produced by a living creature come from blue whales, which can communicate over a distance of 3,000 kilometres. Blue whales produce moans and gurgles four octaves below middle C, too low for human ears. Some scientists suggest that these calls enable them to echolocate, using the gullies and ridges on the ocean floor to navigate.

In the 1970s popular musicians such as Judy Collins and Paul Winter joined the chorus, recording with humpback accompaniment. The American composer George Crumb decided against mixing recordings with live music. In *Vox Balaena (Voice of the Whale)*, an electric flute, cello and piano create an evolutionary tale of the humpback. Beginning with a flutelike blow, Crumb used sounds based on seagull cries, whale songs and African chants to evoke the geologic past in five variations. The final movement, 'Sea-Nocturne (. . . for the end of time)', has an elegiac quality, dissolving into silence, or, as the musician Andrew Russo put it, 'the music dies down and evaporates into tomorrow'.[20]

In 1977 the songs of humpback whales were not only heard wheezing on turntables; the original songs of 1970 were compiled on a gold-coated phonograph record, along with greetings in 54 human languages, an elephant's trumpet and the roar of a rocket launch. It was attached to the side of the *Voyager 1* and *Voyager 2* spacecraft, in the event that they were intercepted by extra-terrestrial intelligence. They are now bound, according to Payne, on a billion-year journey to 'spread their message throughout the galaxy'.[21] En route, the probe would pass Sedna, a cold, ruddy planet discovered beyond Pluto in 2004 and named after the Arctic goddess.

For Payne, this galactic message accompanied a new awareness, an almost cosmological shift:

> When we have learned to accord the rest of life on earth equal rights, we can finally take our place in the court of intergalactic opinion and while holding our heads high claim: 'Yes, there is intelligent life on earth. And it is our species which demonstrates that the blind force of evolution is capable not just of self-destruction but of self-enlightenment.'[22]



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SAVE THE WHALES

In *Moby-Dick*, Judgement Day occurred aboard the *Pequod*. In Payne's book *Among Whales*, the judgement will occur in the court of inter-galactic opinion. The familiar religious forces are still at work. There is suffering (by the whales), epiphany (they're about to disappear) and redemption – we must save the whales from the harpoon and recognize that they have equal rights. This view challenges the whalers' perspective, in which whales and other animals do not have rights, a tradition that dates back at least to the Greek philosopher Porphyry, who noted that *nómos*, the law, does not extend beyond humans to the rest of nature.

In *Star Trek IV: The Voyage Home*, Judgement Day in the distant future does not go well at first. A black tube – described in one review as 'a colossal lipstick' – approaches Earth, ignoring all attempts by earthlings to make contact. After transmitting some unusual sounds, the tube creates a huge storm across the Earth's oceans, threatening all terrestrial life. Spock and Kirk decipher the tube's calls as those of the humpback whale, a species by then long extinct. So the crew travels back in time to 1986 to rescue two humpbacks who can answer the probe. Along the way, Kirk meets an attractive marine biologist and Spock swims with the whales (to ask their permission to take them forward in time). They assent not a moment too soon – foreign-speaking whalers, dressed in black, come barrelling down on the whales. The starship interferes in mid-harpoon.

In Disney's *Finding Nemo*, of 2003, the fish, the turtles, and even Jacques, the cleaner shrimp, speak English. But the whale – who swallows Marlin, the clownfish in search of his son Nemo – speaks only whale. Fortunately for Marlin, so does his sidekick, Dory. After her first attempt at communication fails, she tries a different dialect – humpback. The friendly leviathan gives the pair a lift to Sydney Harbour in his baleen-curtained mouth. We have come a long way from Monstro: the humpback poses small threat to the tiny passengers, permitting them to escape through his spout.

Since the 1960s books and films on whales have shifted away from the whaler's point of view, which had previously been ubiquitous. Christopher Ash's book of 1962 on whales and the fleets that pursued them was called *The Whaler's Eye*. Ash wrote of the whale: 'it is a beautiful creature when disporting itself at its leisure, and wonderful to see when running for its life'.[25] He was not joking. At the end of the decade, the biologist Victor Scheffer traced the imaginary journey of a sperm whale with her calf in *The Year of the Whale*. His book helped to weaken the already fading whaling lobby in the US.

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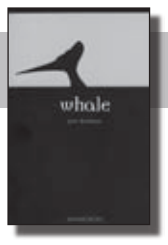
> With a sense of urgency I write about another kind of whale, before whales are remembered only from fading photographs and flickering videotapes. I write about sperm whales . . . Moving through a dim, dark, cool, watery world of its own, the whale is timeless and ancient; part of our common heritage and yet remote, awful, prowling the ocean floor a half-mile down, under the guidance of powers and senses we are only beginning to grasp.[24]

The whale-centred narrative was launched.

One of the first books to rouse the public was Farley Mowat's *A Whale for the Killing*, published in 1972, which emphasized the clash between traditional views and new sensitivities. Of the Norwegian whaling industry, still operating in Canada at the time, Mowat wrote: 'the stench of mega-death spread like a miasma . . . The Norwegian whaling industry had become a modern Moloch whose appetite was insatiable – and unrelenting.' His account of a fin whale trapped in a bay in Newfoundland condemned the cruelty imposed on the whale by locals determined to kill it for sport along with the entire IWC, 'a cynical device to divert the attention from the truth'. Mowat described the 'rending sense of loss' he felt after the captive whale was shot and tormented by locals: 'It was dark, and there was none to know that I was weeping . . . weeping not just for the whale that died, but because the fragile link between her race and mine was severed.'[25]

In 1975 a few activists, hardened by daring efforts to stop the testing of nuclear bombs in the Pacific, determined to disrupt the link between factory whalers and their prey. In small and manoeuvrable Zodiacs, the Canadian Paul Watson and colleagues took on the world's only whaling superpower – the Soviet Union – and its 230-metre floating factory, towering ten storeys above the tiny inflatables. In the first encounter, Watson climbed atop a small sperm whale killed by the Soviets to be photographed, thus exposing to the world their non-compliance with international regulations. But Greenpeace was not interested in compliance: its goal was to stop all commercial whaling.



SAVE THE WHALES

In subsequent battles, Greenpeace activists placed themselves between sperm whales and harpoons, attempting not only to bear witness but also to create a living shield. The Soviets, at times, fired directly over their heads. But more effective than the direct challenge was the use of mass media to convey their message. The Greenpeace president Robert Hunter wrote:

> With the single act of filming ourselves in front of the harpoons, we had entered the mass consciousness of modern America – something that none of the previous expeditions had achieved. It was Walter Cronkite himself who introduced our footage to the mass TV audience, footage that was then run on every single television channel in the US and Canada, spilling over into Europe and even Japan.[26]

Greenpeace and other organizations later took on Australia (successful; whaling was suspended in 1978) and Japan (so far unsuccessful), helping to make the whale a symbol of environmental activism. The whale, as David Day wrote in *The Whale War* (1987), was

> at the heart of a guerilla war of resistance that has spread all over the world, it is the symbol of the ecology movement and emblematic of all species on the planet . . . If this amazing animal, the largest ever to exist on the planet, cannot be saved from the ruthless exploitation of a handful of men, what chance of survival have other species?[27]

The environmental movement rallied around certain flagship species, or charismatic megafauna, including lions, elephants and panda bears. Whales became the ambassadors of the oceans. Payne noted:

> As the largest animal, including the biggest dinosaur, that has ever lived on earth you could afford to be gentle, to view life without fear, to play in the dark, to sleep soundly anywhere, whenever and however long you liked, and to greet the world in peace – even to view with bemused curiosity something as weird as a human scuba diver as it bubbles away, encased in all that bizarre gear. It is this sense of tranquility – of life without urgency, power without aggression – that has won my heart to whales.[28]