

# whale

JOE ROMAN

Animal series

---

Whale



---

## Animal

Series editor: Jonathan Burt

### *Already published*

<i>Crow</i>	<i>Bear</i>
Boria Sax	Robert E. Bieder
<i>Tortoise</i>	<i>Parrot</i>
Peter Young	Paul Carter
<i>Cockroach</i>	<i>Rat</i>
Marion Copeland	Jonathan Burt
<i>Ant</i>	<i>Snake</i>
Charlotte Sleigh	Drake Stutesman
<i>Dog</i>	<i>Falcon</i>
Susan McHugh	Helen Macdonald
<i>Oyster</i>	<i>Bee</i>
Rebecca Stott	Clare Preston

### *Forthcoming*

<i>Hare</i>	<i>Crocodile</i>
Simon Carnell	Richard Freeman
<i>Moose</i>	<i>Spider</i>
Kevin Jackson	Katja and Sergiusz Michalskj
<i>Fly</i>	<i>Duck</i>
Steven Connor	Victoria de Rijke
<i>Tiger</i>	<i>Salmon</i>
Susie Green	Peter Coates
<i>Fox</i>	<i>Wolf</i>
Martin Wallen	Garry Marvin

---

# Whale

Joe Roman



REAKTION BOOKS

---

*For Debora Greger*

Published by  
REAKTION BOOKS LTD  
33 Great Sutton Street  
London EC1V 0DX, UK  
[www.reaktionbooks.co.uk](http://www.reaktionbooks.co.uk)

First published 2006  
Copyright © Joe Roman 2006

All rights reserved

No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without the prior permission of the publishers.

Page references in the Photo Acknowledgements and  
Index match the printed edition of this book.

Printed and bound in Hong Kong

British Library Cataloguing in Publication Data

Roman, Joe  
Whale. – (Animal)  
1. Whales 2. Animals and civilization  
I. Title  
599.5

eISBN: 9781861895059

---

# Contents

[1 First Surfacing](#)

[2 The Invention of Whaling](#)

[3 The Royal Fish](#)

[4 Raising Whales](#)

[5 A Diving Mammal](#)

[6 Oil and Bone](#)

[7 Floating Factories](#)

[8 Exhaustion and Failure](#)

[9 Save the Whales](#)

[10 Eating the Whale](#)

[11 Flukes](#)

[Timeline](#)

[Appendix: \*The Greenland Whale Fishery\*](#)

[References](#)

[Bibliography](#)

[Associations](#)

[Websites](#)

[Acknowledgements](#)

[Photo Acknowledgements](#)

[Index](#)





---

# 1 First Surfacing

A column of mist splits the horizon, followed by a deep, unearthly sound, as if the ocean itself had come up for air. A bright glimmer flashes beneath the ghostly blows, as a sleek dark back sinks into the ripples. A v-shaped tail impales the surface, then disappears.

To someone standing on a coastal bluff or on the shifting shore, these spouts caused wonder, curiosity, even fear. The ocean was the realm of the sea monster, the great fish, or whale. In ancient Greek, the animal that created them was called *phallaina*. The origins of the word are obscure, perhaps from a root meaning blow or swell, or perhaps from *phallus* or *phallos*, for cork. (As the classicist William Wyatt noted, ‘scholars are embarrassed about the word’.) Its origin may be obscure, but *phallaina* has survived in Latin as *balaena* and is retained in Spanish, *ballena*, in French, *baleine*, and in our own *baleen*. In Old English, it was *hwæl*, a word of Scandinavian origins. Our modern *whale* aspires to retain the soft echo of a blow. But the beast was also known as *Cetus*, the great fish, *leviathan*, the monster of the deep.

The shore-bound observer might have caught a glimpse, a flipper rising above the surface like a dark black sail, but only the seafarer, making the ‘ocean paths’ his home, came face-to-face with the spouting beast. To an anonymous English poet of the ninth century AD, the sea belonged to this whale:

my heart leaps within me,  
my mind roams with the waves  
over the whale’s domain, it wanders far and wide  
across the face of the earth, returns again to me  
eager and unsatisfied; the solitary bird screams,  
irresistible, urges the heart to the whale’s way  
over the stretch of the seas.<sup>1</sup>

Viewed across the ocean, the whale’s exhalation, condensed into a visible column of mist, was usually the first indication of a whale’s presence. To some, this blow was a chimney. Early Arabian travellers saw minarets, or the sails of a distant ship.<sup>2</sup> If the spray was close enough, a colossal stench and a drizzle of briny mucous. The whale’s spout fostered fear in early sailors: Norwegians believed that whales could spout enough water to swamp a boat. Others feared that inhaling the moist air could cause dizziness and fainting fits, possibly death; just a few droplets from the whale’s toxic breath could raise a rash on human skin.<sup>3</sup>

Even Nearchus, the commander of Alexander the Great’s fleet, feared the wrath of these sea monsters. He ordered his crew to blow trumpets and beat drums as his ships passed the huge beasts. When the whales approached the ships, the frightened oarsmen were hardly able to row.<sup>4</sup> Arabian sailors were on the lookout for an enormous fish, reported to be more than 90 metres long, ‘the

beateth the ship with its tail, and sinketh it'.<sup>5</sup>

Pliny the Elder described how the largest animal in the Bay of Biscay 'raises itself up like an enormous pillar, towering above the sails of the vessels and spouting a flood of water'. When a whale appeared off the coast of Ostia during the reign of Claudius, the Roman emperor ordered its capture. The whale was said to have sunk a boat with its spouts, before they could kill it. One of the first whales known to have a name was Porphyrios, or purple. It annoyed the city of Constantinople for fifty years, despite all attempts by the Emperor Justinian to capture it. When the whale stranded, purportedly while chasing dolphins, it was killed. It measured 30 cubits, or 15 metres. After a whale stranded along the Tiber during the reign of Septimius Severus, a model was made of it for a winter beast show, and 50 bears were driven into its mouth. Despite these exhibits, great whales do not appear in Roman art. Yet their smaller relatives, the dolphins, widely admired for their charm and speed, appear in almost every marine scene. The poet Oppian recognized these human-size cetaceans as the most godlike of all creatures.<sup>6</sup>

Cetus, the sea monster or whale, appears early in the Bible, populating the seas on the fourth day: 'And God said, Let the waters bring forth abundantly the moving creature that hath life . . . And God created great whales and every living creature that moveth, which the waters brought forth abundantly after their kind' (Genesis 1, 20–21).

It was not until modern translations of the Bible, such as the King James version quoted from above, that whales were distinguished from other large sea animals. For much of recorded history there was little cosmological distinction between a sea monster, a cetacean or a great fish. Perhaps this is best exemplified in the Old Testament, where the whale appears in the form of leviathan. In the story of Job, God tells the persecuted man that He is beyond human measure.<sup>7</sup> Speaking from the whirlwind, God uses the leviathan as an example:

Canst thou draw out leviathan with an hook? or his tongue with a cord which thou lettest down? Canst thou put an hook into his nose? or bore his jaw through with a thorn? . . . Who can open the doors of his face? his teeth are terrible round about. His scales are his pride, shut up together as with a clove seal . . . and his eyes are like the eyelids of the morning. Out of his mouth go burning lamps, and sparks of fire leap out. Out of his nostrils goeth smoke, as out of a seething pot or cauldron... Upon earth there is not his like who is made without fear.

Like God, the leviathan cannot be measured by man, or even understood by him. Yet despite its serpentine, draconic traits, the leviathan would become a synonym for cetacean.

Whale ribs, mandibles and scapulae were mounted in churches throughout the Middle Ages, providing osteological evidence of the leviathan. These *hierozoika* – items from the natural world held sacred for their mention in the Gospels – helped to sanction the power of the Church and local feudal lords,<sup>8</sup> for according to the whaling historian Klaus Barthelmess, the owner of these items had the 'world in his hands'. Church vaults might harbour ostrich eggs or stuffed crocodiles, but as Spenser wrote in *The Fairie Queene*, there was nothing on land that could compare with the whale and the other monsters of the sea:

For all that here on earth we dreadfull hold  
Be but as bugs to fearen babes withall  
Compared to the creatures in the seas entrall<sup>9</sup>

By far, the Bible's most renowned whale is the 'great fish' that swallowed Jonah. When God sent him to Nineveh to save the city, Jonah tries to escape by sea, fleeing to the maritime country of

Tarshish. God sends a great wind over the ocean, and to prevent the loss of the ship, Jonah is cast into the sea. ‘Now the Lord had prepared a great fish to swallow up Jonah. And Jonah was in the belly of the fish three days and three nights’. From the deep, Jonah prays for forgiveness:

The waters compassed me about, even to the soul: the depth closed me round about, the weeds were wrapped about my head . . . When my soul fainted within me I remembered the Lord: and my prayer came in unto thee, into thine holy temple.

Jonah’s prayers were answered, and the fish vomited him out onto dry land. Following God’s word this time, Jonah proceeded to Nineveh to save that wicked city. In the mosque at Nineveh, a whalebone commemorates Jonah’s proclamation.



A 17th-century illustration of the story of Jonah, inscribed on the body of a whale.

The first edition of Martin Luther’s exegesis of the Book of Jonah. Luther’s translation of the Old Testament helped to establish the great fish as a whale.



In the Greek translation, Jonah is swallowed by Cetus, a sea monster, which could be a whale, shark, even an enormous cephalopod. By the New Testament, however, Jonah has spent ‘three days and three nights in the whale’s belly’.<sup>10</sup> According to Barthelmess, it was Martin Luther’s exegesis of 1526 identifying the great fish as a whale that standardized the interpretation.

Luther’s authority notwithstanding, religious scholars questioned the feasibility of whales for centuries. Could they swallow a person? ‘The gullet of the *right whale* would not admit a man’, the theologian Paul Haupt wrote in 1907, ‘but the *sperm whale* or *cachalot* has a gullet quite large enough to enable him to swallow a man.’<sup>11</sup> There was anecdotal evidence that a man could survive in the belly

of a shark or whale: some theologians cast the 'great fish' as a shark, using as support the tale of a sailor who fell overboard in the Mediterranean in 1758. A shark swallowed the sailor, and the captain fired on the monster, hitting it with cannon ball. The mariner was vomited out and rescued, having suffered little injury. In 1891 it was reported that a whale swallowed a man named James Bartley near the Falkland Islands. When the whale was captured the following day, Bartley was rescued by his fellow whalers, who restored him to consciousness. It took him three months to recover his reason.<sup>12</sup> Not surprisingly, marine historians refute the veracity of the story.

When whalers did get caught in the jaws of a toothed whale, they rarely escaped unscathed. The Nantucket captain Edmund Gardner recorded the aftermath of his run-in with a sperm whale in the Pacific in 1816:

When on board, [I] found one tooth had entered my head breaking in my skull, another had pierced my hand, another had entered the upper part of my right arm, the fourth had entered my right shoulder . . . my jaw and five teeth were broken, tongue cut through, my left hand was pierced with a tooth... Two days favorable I retained my senses.<sup>13</sup>

Such danger encouraged tall stories. In one whaler's yarn, Bully Sprague, a harpooner with the strength to dart an iron straight through a whale, was swallowed by Timor Tom, an old grizzled sperm whale. Sitting on the whale's liver, with his legs swinging 'York fashion', Sprague used the light of a jellyfish to read the writing on the whale's stomach: Jonah. BC. 1683. Cutting a plug to console himself, Sprague noticed that Timor Tom wasn't used to tobacco. He escaped by packing the stomach with the rolled leaves: 'The whale began heavin' an' squirmin' real awful, when, all at once, the stomach turned clean over with a flop like an earthquake, and I was shot out with about a cart-load of chewed squid that laid around the floor.'<sup>14</sup> The taller the tale, it was said, the better the chances of banishing sleep from the drowsy eyes of a late-night watch.

John Tabor's ride, an illustration of one of the many legends that arose from the whale fishery. From J. Ross Browne's *Etchings of a Whaling Cruise* (1846).



But why did God choose a whale? Haupt thought the giant sperm whale might have offered the fastest transport from Joppa, Jerusalem's seaport, to Alexandretta (now north-west Syria) en route to Nineveh.

A sperm-whale could easily swim from Joppa to Alexandretta in three days and three nights; the distance is only about 300 miles. The cachalot swims, as a rule, at a rate of from 3 to 7 miles an hour and just under the surface of the water. If a sperm-whale swam seven miles an hour, it might rest more than nine hours a day and still cover the distance from Joppa to Alexandretta in three days and three nights, i.e., 72 hours. If Jonah had traveled overland on horseback, it would have taken more than two weeks . . . The gait of the horse of Palestine is a brisk walk; they hardly ever trot.<sup>15</sup>

St Methodius, a ninth-century missionary, didn't take the story so literally nor, perhaps, so droll. He thought the whale signified time, 'which never stands still, but is always going on'. When Jonah

was swallowed by the whale, he surrendered to the all-concealing earth, to time – ‘his three days and as many nights in the whale’s belly’ were the past, the present and future.<sup>16</sup> After passing through time – or life – Jonah, like Christ in the New Testament, rose again. Beyond Earth, the past and the future are shed; there remains only the present and God.

The whale’s colossal size fostered legends. St Brendan, an Irish monk born in AD 484, founded numerous abbeys and monasteries in Ireland and travelled widely around the British Isles and along the coast of Brittany. According to eleventh-century texts, late in life Brendan resolved to undertake a voyage in search of Tir na nÓg, translated as the Land of Promise, the Enchanted Isles and, by some, the Garden of Eden. He and seventeen fellow monks sailed the seas in a traditional Irish coracle, a boat constructed of willow and tanned ox hides, allowing the winds and the currents – God’s will – to set their course.

Among his discoveries were the Isle of Fleas, the Isle of Mice and the Isle of Perpetual Day. The last island, along with reports of a huge crystal pillar in the midst of the sea, has been used as evidence that Brendan travelled far north and west of Ireland – with possible landfalls in Iceland and even North America. The whaling historian Stuart Frank, however, notes that most scholars ‘concede only that Brendan visited Iona and Scotland, perhaps also the west coasts of England, Wales and Brittany’.<sup>17</sup>

At sea on Easter Sunday, Brendan and his monks landed on a barren island to say mass. As he prayed at the altar, the monks lit a fire to cook breakfast, and the earth stirred beneath them. When they reached their boat, the island swam away. The deceptive island was an enormous whale, Jasconius, who laboured ‘night and day to put his tail in his mouth, but for greatness he may not’. The whale disappeared over the horizon, with the remnants of the fire still burning. The monks later recovered their cauldron, which had come ashore near the Paradise of Birds. There a speaking bird declared that Brendan and his fellow voyagers must revisit the same islands during their journey. Jasconius offered his back again, for the monks to celebrate mass, but from then on they ate their meals cold.

During St Brendan’s search for the Enchanted Isles, he and his fellow monks stopped at a barren island to say mass. After they lit a fire, the island, actually a whale, awoke – tossing the monks into the sea.



On the voyage, there were good whales like Jasconius and bad whales. When the men were attacked by a sea monster, a ‘terrible sea cat’ with ‘huge eyes and tusks rearing above the waves’, a whale comes to the rescue, dragging the sea cat beneath the sea.<sup>19</sup> On the western edge of their voyage, the monks were pursued by a ferocious cetacean, spouting foam and threatening to overwhelm the boat. Brendan’s prayers were answered in the form of a sea monster, which killed the whale after a long battle. Coming upon the dead whale the following day, the men cut into the carcass to provision the boat with meat.

Roman Catholic sailors, and probably many whalers, have long invoked Brendan before embarking

on a voyage:

---

Shall I abandon, O King of Mysteries, the soft comforts of home? Shall I turn my back on my native land, and my face towards the sea?...

Shall I leave the prints of my knees on the sandy beach, a record of my final prayer in my native land? Shall I then suffer every kind of wound that the sea can inflict?

Shall I take my tiny coracle across the wide, sparkling ocean? O King of the Glorious Heaven, shall I go of my own choice upon the sea?

O Christ, will you help me on the wild waves?<sup>20</sup>

Fourteen centuries after his Atlantic voyage – when the cetaceans themselves required intervention – Brendan would become, by popular devotion, the patron saint of whales.

The island-size whale also appeared in *The Thousand and One Nights* during the seven voyages of Sinbad. On his first voyage, after squandering his parents' wealth and selling his household goods, Sinbad joined a company of merchants embarking upon the Persian Gulf en route to the East Indies. He recounted:

when the wind dropped suddenly, we found ourselves becalmed close to a small island like a green meadow, which only rose slightly above the surface of the water. Our sails were furled, and the captain gave permission to all who wished to land for a while and amuse themselves. I was among the number, but when after strolling about for some time we lighted a fire and sat down to enjoy the repast which we had brought with us, we were startled by a sudden and violent trembling of the island, which at the same moment those left upon the ship set up an outcry bidding us come on board for our lives, since what we had taken for an island was nothing but the back of a sleeping whale. Those who were nearest to the boat threw themselves into it, others sprang into the sea, but before I could save myself the whale plunged suddenly into the depths of the ocean, leaving me clinging to a piece of the wood which we had brought to make our fire.

During his first voyage, Sinbad also moored on a sleeping whale, which led to the loss of all his treasure.



Sinbad, as always, was not to be outdone, and he recovered the goods lost after he was jettisoned by the whale. Trading them for 'sandal and aloes wood, camphor, nutmegs, cloves, pepper and ginger', he returned to his family in Baghdad a wealthy man.

Was this whale-island a figure of convergent literary evolution, or were they two branches of the same story-telling tree from Islamic and European cultures? Cornelia Catlin Coulter traced the tale of landing on a fish to a section of the Talmud: 'we thought it was an island, descended, baked, and cooked upon it. When the back of the fish grew hot, it turned over, and had not the ship been so near

we would have been drowned.’ Coulter suggests that the story probably had its ultimate source in Indo-Persian folklore.<sup>21</sup>

To Brendan, Jasconius was a friendly whale, returning each year to offer his back to the monks, cetacean island on which to celebrate mass. In *The Thousand and One Nights* the whale is one of the obstacles between Sinbad and wealth, his ‘happy state’. Sinbad’s view would dominate most of the shared history between men and whales.

Leviathan may slumber ‘on the Norway foam’ through Milton’s *Paradise Lost*, where it ‘seems moving land’,<sup>22</sup> but it is the swallow, or Jonah, motif that has followed the whale from antiquity into the twenty-first century. The Middle Ages, according to Borges, attributed the composition of two books to the Holy Spirit: the first was the Bible, of course, the second the whole world, ‘whose creatures had locked up in them moral teachings’.<sup>23</sup> Bestiaries were compiled to explain the teachings. In Anglo-Saxon compilations, the whale might stand for the Devil, its maw becoming the gates of hell:

When hunger comes upon him at sea  
And the grim creature wishes to have food,  
Then the sea-guardian opens up his mouth,  
His gaping lips: a pleasant smell comes forth  
From his insides, and by it other kinds  
Of fishes of the sea become deceived  
And, swift in swimming, go where the sweet smell  
Emerges from him. Then they pass therein  
In an unwary crowd, till the wide jaw  
Is altogether filled; then suddenly  
He shuts the grisly jaws together round  
His booty; so it is for every man,  
He who most often thinks about his life  
Heedlessly in this transitory time,  
Lets himself be deceived by the sweet smell,  
The false desire...  
When the malicious one, skilful in sin,  
Has brought in those who used to call on him  
To that safe place, that whirlpool of hot fire,  
Loaded with guilt...  
Then he snaps shut the grisly jaws on them,  
Firmly together the strong doors of hell  
After their death; and those who come therein  
Have no return, escape, or parting ever,  
Just as the fish who swim upon the sea  
Can never turn away from the whale’s grasp.<sup>24</sup>

In an engraving after *The Last Judgement* of 1588 by Pieter Brueghel the Elder, the leviathan swallows the damned.



In the twentieth century the whale's grasp was more likely a test of bravery or ingenuity. In Rudyard Kipling's *Just So Stories for Little Children*, a whale swallows a shipwrecked mariner. 'person of infinite-resource-and-sagacity', the sailor uses his raft to construct a grate in the whale's throat, preventing the whale from consuming 'anything except very, very small fish; and that is the reason', Kipling explains, 'why whales nowadays never eat men or boys or little girls'.<sup>25</sup> Tell that to Walt Disney. In his *Pinocchio*, the puppet becomes a real boy by escaping from the belly of the evil whale Monstro.

The ultimate swallow motif, perhaps, is the leviathan of Thomas Hobbes. For Hobbes, leviathan is the 'mortal god', the commonwealth, with reward and punishment its nerves, 'wealth and riches' its strength, and 'sedition, sickness; and civil war, death'.<sup>26</sup> For George Orwell, we are all in the whale. 'Get inside the whale – or rather, admit you are inside the whale (for you *are*, of course). Give yourself over to the world-process.' For those who didn't fight it, Orwell noted, the whale's belly is an enviable place, 'a womb big enough for an adult. There you are, in the dark, cushioned space that exactly fits you, with yards of blubber between yourself and reality, able to keep up an attitude of the completest indifference, no matter *what* happens.'<sup>27</sup> Which is not to say it's easy – from George Büchner to Tom Waits, we find suffering in the commonwealth:



Cetus, the whale constellation, from Sidney Hall's hand-coloured etching for Jehoshaphat Aspin's *A Familiar Treatise on Astronomy* (1825).

Starving in the belly  
Starving in the belly of a whale...  
Tell me who gives a good gaddamn  
You'll never get out alive<sup>28</sup>

The disappearance of the human into a monstrous belly – whether in the physical form of a cetacean or the metaphorical state – is an essential component of our vision of the whale.

Whale, cetus, leviathan or great fish – it is difficult to determine where sea monsters end and

whales begin; perhaps it is a fool's errand, since for much of recorded history there was no cosmological distinction between the two. European depictions of whales from the sixteenth century to the nineteenth form a cetacean hall of mirrors: many depictions were reflections of the past, unchecked by empirical observation. An occasional image, rendered accurately from a whale stranding, did enter the canon, but in medieval and early modern times people did not investigate the reason: they interpreted the meaning of stranding within the framework of God's plan for human salvation – a whale leaving its watery element was often interpreted as an evil omen, a sign of God's displeasure.<sup>29</sup>



Sebastian Münster's famous *Cosmographie Universelle*, helped to propagate the idea of the existence of sea monsters. At upper-left barrels are thrown overboard, believed to be a handy method of distracting monsters – in this case a spouting whale – from attacking the vessel.

Olaus Magnus's *Carta marina*, a large map of Scandinavia, is one of the earliest and finest depictions of sea life – illustrating the fine line between monsters and whales. Magnus, a Swedish archbishop and historian, was long considered an authority on Scandinavian history, and after his marine map was published in 1539 his images of whales appeared and reappeared for centuries. (One striking illustration, a spouting fish with claws, may have been the result of a mistranslation between Swedish and Latin, the cleric mistaking the word *fin* for claws. The mistake, if that's what it was, survived until the nineteenth century.)

The Swiss naturalist and physician Conrad Gesner borrowed heavily from Magnus in compiling his *Historiae animalium*, which he began in 1551, one of the earliest works of modern zoology. A groundbreaking biologist, Gesner was nevertheless an extremely credulous one. His compendium – intended to harbour everything known about every animal, including those observed, hinted at or simply imagined – reinforced a belief in mythical spouting monsters that would survive in illustrated histories for centuries.<sup>30</sup> Yet, in his second edition Gesner depicted one of the earliest known images of blubber being removed from a whale. Anchored to the shore, the whale with four right teats and a pair of spout stalks was probably not drawn from life.

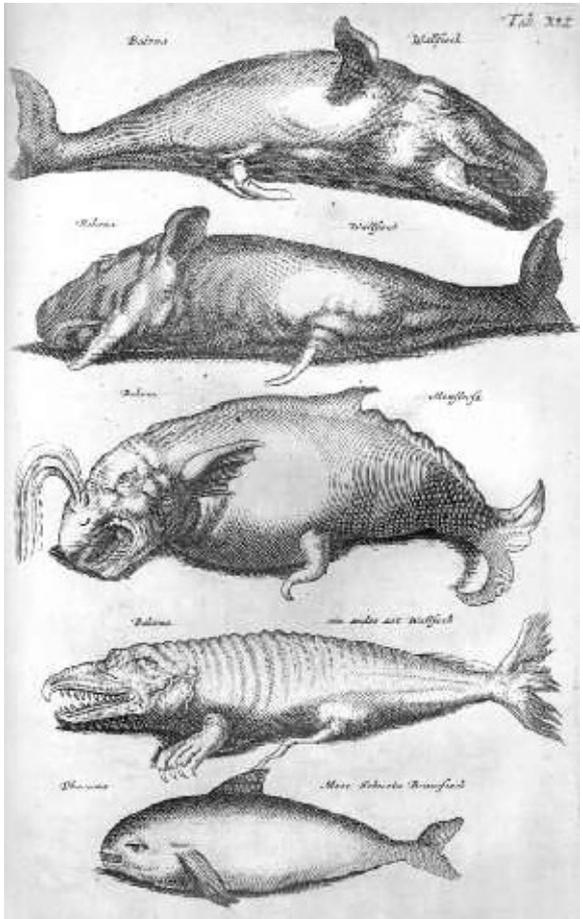
Conrad Gesner's *Historiae Animalium* (1551–8) is one of the earliest illustrated compendiums to include whales. Gesner was a great naturalist, though a credulous one. In addition to one of the earliest depictions of flensing, men are shown moored on a whale's back and using barrels and music to fend off an attack.



Ein in der Welt zu sehen ist, dass die Jäger des Walrus die Rücken und den Bauch des Walrus mit einem großen Schiff an einem Ort an dem sie ihn gefangen haben und die Jäger darauf sitzen und ihn mit Musik beschützen.



Die Jäger des Walrus schneiden die Rücken und den Bauch des Walrus ab, um das Fett zu gewinnen, welches sie zum Brennen von Lampen verwenden. Die Jäger sitzen auf dem Rücken des Walrus und beschützen ihn mit Musik.



Into the 17th century, images of stranded whales populated natural history books along with sea monsters such as the 'Montrosa' in the centre of this Dutch etching of 1660.

But even when a whale was at hand, and an artist could depict the animal in front of him, the stock image – the fishlike vertical dorsal tail, scaled fins and pointed teeth – was often used to advertise whale on exhibition. The whale was an icon, not an animal that could be observed. Frank notes 'Misshapen images and ill-informed descriptions of whales created an unfounded multiplicity of variant species that piled up one upon another, unchecked by empirical corroboration.'<sup>31</sup>

An image from a natural history of 1660 throws light – in clean-burning whale oil – on the seventeenth-century perception of whales, a combination of observation, speculation and derivation.

from medieval creatures. Two of the cetaceans are sperm whales, copied from images of stranding along the Dutch shore; one is a harbour porpoise; and *Balaena* and *Monstrosa* are sea monsters, under the influence of Magnus. Frequent depictions reinforced the belief in the existence of such creatures.

As Europe emerged from the Middle Ages, what was a whale? No matter how grotesque or fanciful the monster, it was the spout – the briny white exhalation – that often signified a cetacean. Like the whale itself, this breath could be perceived on a geographical scale. According to Borges, the German astronomer Johann Kepler debated with the English mystic Robert Fludd over which of them had first conceived of the notion of the earth as a living monster, ‘whose whalelike breathing, changing with sleep and wakefulness, produces the ebb and flow of the sea’.<sup>33</sup> It was along this shifting edge of the ocean that humans first encountered whales.

---

## 2 The Invention of Whaling

A whale, disoriented, sick or wounded, perhaps just old, can find itself in shallow waters. Its final understanding of the burden of gravity ashore is also its last. In the ocean, some whales are positively buoyant, floating to the surface when at rest; others remain neutral, able to dive and surface with ease. But no cetacean can survive long on land, where its enormous body collapses on the rocks or sand. As the tide goes out, a hill of meat rises on the water's edge, a black flipper pointing to the sky.

The first humans to eat whale were probably scavengers removing the blubber, meat and perhaps baleen from stranded whales. If they were lucky, there was enough meat to supply an entire village or even to trade with nearby tribes.

This taste for whale drew hunters to the sea in search of fresh cetacean, and the hunting of whales arose independently throughout the globe. In antiquity, sperm whales were hunted in the Indian Ocean from the shores of Zanzibar; right whales were killed along their breeding grounds off the coast of Florida; bow-heads were chased on the Arctic shores of Siberia; fin whales, humpbacks and grey whales were killed with poison darts in the North Pacific.<sup>1</sup> The earliest depictions of whaling are Neolithic petroglyphs. A sandstone wall in southern Korea, which may date back to 6000 BC, bears an image of a boatload of men tethered to a whale. Whale carvings from 2000 BC have been found in the rock of Rødødy, an island off the northern Norwegian coast.

One of the earliest images of whaling, a Neolithic wall drawing at Bangu-Dae, South Korea, depicts a whale harpooned by a boatload of men.



Although early techniques of capturing whales included barbed darts and setting traps in bays, it was the development of the harpoon that enabled humans to exploit these large aquatic animals. The oldest of these barbed spears date back 40,000 years to East Africa, where they were used to hunt the hippopotamus.<sup>2</sup> Unlike an arrow or dart, the harpoon head is designed to remain within the wound, enabling the quarry to be tethered by a line, essential to hunting animals in the three dimensions of the ocean. A whale's reaction to an attack on the surface was often to sound, or dive. A barb with a high retention factor – sometimes with a movable head – permitted the harpoon to hold fast to a sounding whale.<sup>3</sup> It was an especially attractive weapon because it required little manpower at the other end of the line – a float, a wooden drogue or even the boat of the hunters could be used to tire the whale and track it until death.

In the ice-rimmed north, it was the bowhead whale, *Balaena mysticetus*, with an insulating layer

blubber 50 centimetres thick and a head big enough to burst through solid ice, that provided sustenance for early whaling cultures. The blue whale may be the largest animal on the planet, but the bowhead has the biggest mouth – with 3-metre baleen plates and a tongue 5 metres long and 3 metres wide. Despite the enormous gulp, it feeds mostly on copepods; a thousand of these minute crustaceans can fit on a teaspoon.

Bowheads are among the longest-lived animals: Naluataliq, a white-tailed bowhead, has been sighted off Baffin Island for more than a hundred years. In 1995 a crew of Iñupiat whalers from Wainwright, Alaska, found two stone harpoon blades in the blubber of a whale they were butchering. Stone points had not been used for more than a century – not since commercial whalers brought metal tools to the Arctic and traded them to the natives. Bowheads are also among the slowest to reach adulthood: females do not reach sexual maturity until their late teens or mid-twenties (by that age a typical Inuit woman might be nursing her third child).<sup>4</sup> Early hunters targeted these immature animals. Ninety-seven per cent of the bowheads uncovered in the bone middens of Somerset Island, now part of Nunavut in the Canadian Arctic, were sub-adults less than 10 metres long. The small skulls and mandibles of bowhead calves are often found in Alaskan ruins. Yet if a young bowhead made it to adulthood, it could easily outlive the whaler who had tried to kill it as a calf – and then bury his son and his grandson as well.



In the North Pacific, early harpoon points were often fashioned from bone.

To the hunters in the Arctic, all sea mammals came from the south, where the souls of whales they killed would return to be reborn.<sup>5</sup> The current understanding of bowhead whale migrations reflects this ancient belief: bowheads travel south in winter, never straying far from the marginal ice zone. Calves are born during this spring migration, while the whales are moving through a long corridor in the polar ice – along stress cracks, polynyas (areas of the ocean that remain open through winter) and shore leads – into the Beaufort or Chukchi Seas.

At the heart of the Inuit relationship with whales, seals and walruses was Sedna, the goddess of marine mammals and the sea. (The use of the term ‘Inuit’ or ‘Eskimo’ for the native peoples of Chukotka, northern Alaska, Canada and Greenland continues to be debated. I have followed the style of the Arctic specialists in the *Encyclopedia of Marine Mammals* and use Inuit to describe the cultures.) Known by many names – Nuliajuk, the poor wife; Arna kapfaluk, the big woman; and Takanapak saluk, the terrible one down there – Sedna was a primal force of nature throughout the Arctic. In one version of her story, recorded on Baffin Island in 1888, Sedna is raised by her father on a solitary shore. Beautiful and proud, she turns down all the Inuit youths who come to court her. One day a seabird entices her to accompany him to the land of the birds: ‘My fellows, the fulmars, sha

bring you all your heart may desire; their feathers shall clothe you, your lamp will always be filled with oil, your pot with meat.’

Sedna consents, but after a long hard journey she finds that she was deceived. Her new home covered in draughty fish skins, and her bed is rough walrus hide. She regrets her earlier refusals of the Inuit youths and calls on her father: ‘O come and take me back home. Aja.’ After a year has passed the father comes to visit Sedna.

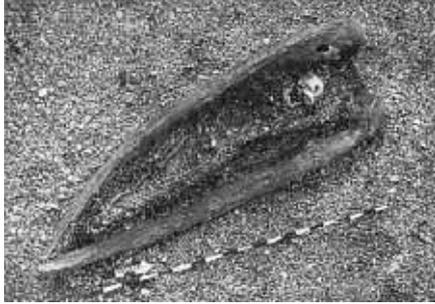
His daughter greeted him joyfully and besought him to take her home. The father hearing of the outrages wrought upon his daughter determined upon revenge. He killed the fulmar, took Sedna in his boat, and they quickly left the country which had brought so much sorrow to Sedna. When the other fulmars came home and found their companion dead and his wife gone, they all flew away in search of the fugitives. They were very sad over the death of their poor murdered comrade and continue to mourn and cry until this day.

Having flown a short distance they discerned the boat and stirred up a heavy storm. The sea rose in immense waves and threatened the pair with destruction. In this mortal peril the father determined to offer Sedna to the birds and flung her overboard. She clung to the edge of the boat with a death grip. The cruel father then took a knife and cut off the first joints of her fingers. Falling into the sea they were transformed into whales, the nails turning into whalebone. Sedna holding onto the boat more tightly, the second finger joints fell under the sharp knife and swam away as seals; when the father cut off the stumps they became ground seals. Meantime the storm subsided, for the fulmars thought Sedna was drowned. The father then allowed her to come into the boat again. But from that time she cherished a deadly hatred against him and swore bitter revenge. After they got ashore, she called her dogs and let them gnaw off the feet and hands of her father while he was asleep. Upon this he cursed himself, his daughter, and the dogs which had maimed him; whereupon the earth opened and swallowed the hut, the father, the daughter, and the dogs.<sup>6</sup>

Understandably, Sedna was feared and revered, and in times of need, shamans would visit her, combing her long hair to appease her. When the Danish explorer Knud Rasmussen asked an Inuit if he really believed in Nuliajuk, or Sedna, the hunter responded: ‘We don’t believe, we only fear. And most of all we fear Nuliajuk.’<sup>7</sup>

A whale-bone house on Somerset Island, Nunavut. Around AD 800, the Thule people expanded the hunt for bow-heads into open water. They consumed the blubber and meat and lived within the whale, in houses constructed of ribs and mandibles.





The grave of an Inuit whaler, framed by whale mandibles on St Lawrence Island, Canada, about AD 850.

Archaeological evidence indicates that whaling cultures arose about 2,000 years ago along the Bering and Chukchi seas. The Birnik culture had begun hunting whales by AD 400, but it was the Thule culture, which arose in north Alaska about AD 800, that expanded the hunt for bowheads into open water. Eating blubber and living within the whale – they used ribs and mandibles for building huts – the Thule became the dominant culture in the Arctic, dispersing into the Bering Sea and east Greenland as they followed the bowhead migration route.

On a cetacean diet, societies grew in size and became more aggressive. With whaling came warfare – the discipline and structure of the whaling crew provided a framework in which inter-societal warfare could thrive.<sup>8</sup> The whaler-warriors, emboldened in their armour of walrus ivory and sealskin, rose in status. Although the Old Bering Sea cultures generally did not bother with burials, Thule whalers were interred in whalebone graves: whale mandibles and scapulae were used to frame the corpse, perhaps to protect the whaler on his journey after death, a funereal swallow motif.

The Thule whale hunt permanently changed the north. Many of the culture's rituals and hunting techniques continued in the Arctic and the Pacific Northwest for a thousand years. And the ecological effects of the hunt are still being discovered. In 2004 the Canadian geologist Marianne Douglas and her colleagues found evidence that the nutrient-rich by-products of the whale hunt had leached into a freshwater pond near an 800-year-old settlement. Not only did the bowhead hunt affect these ponds 1,000 years ago, but algal blooms are still evident today, 400 years after the settlement was abandoned.<sup>9</sup>

Whalers depended on local resources, or trade, to make their tools. In the Pacific Northwest, the harpoon head, often made of elk horn, was bound to the shaft with sea-lion sinew. Whalers glued mussel-shell blades into the barbs with spruce gum.<sup>10</sup> In the Arctic, where trees were rare, harpoon shafts were fashioned from driftwood or traded up the coast. The bladders of narwhals, walrus and seals were used as floats to the harpoon. Sometimes entire seals, skinned through the mouth with all orifices and wounds sewn shut, were used as drogues. Inflated through a bone tube, each seal float created a drag of about 100 kilograms, exhausting the whale and reducing its chance of escape.

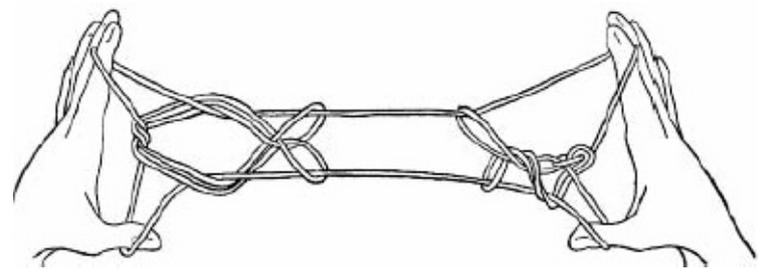
Approaching a bowhead, the captain assessed the temper of the whale. In Nunavut, the blowholes of docile whales lay flat on the sea's surface, whereas the holes of aggressive whales rose to a point. These whales were deemed too dangerous to approach. Sleeping whales were also avoided – the thrashing of their flukes when they awoke could injure the hunters. If a whale's blow sounded like the crack of breaking ice, it was considered a warning to the crew, who would abandon the chase.<sup>11</sup>

Around the Bering Strait, whale was an essential form of sustenance. The skin, often eaten raw as *maqtaq*, was rich in vitamin C, hard to come by during long northern winters. The meat provided protein. Whale and seal oil were also consumed throughout the region. Captain George Vancouver wrote in his journal in August 1793, while visiting the Tlingit of the Pacific Northwest:

The chiefs remained on board the greater part of the forenoon, and became very sociable . . . Bread and molasses were the greatest treat we could give these people; the chiefs ate heartily of it, and distributed some amongst their particular friends in the canoes alongside. In return for this delicious

repast, they took much pains to recommend to us some of their whale oil, which stunk most intolerably. This was brought into the cabin in a bladder, out of which a spoonful was very carefully poured by the chief, who extolled its superior qualities, and gave us to understand that, as a delicacy, it was quite equal to our treacle; and it was not without much difficulty, that I was able to excuse myself from partaking of their nauseous meal, which they seemed to relish in the highest degree; and I finished it with a large glass of rum, a luxury to which they seemed by no means strangers.<sup>12</sup>

After the whale was killed, the community was suddenly rich. ‘Wealth beget leisure’, Stefani Paine notes, ‘and the time to create and refine harpoon heads of various configuration and materials, some for whales, some for seals, and gadgets of all kinds – swivels for line, plugs for floats, snow pickets, combs and goggles.’<sup>13</sup> The long baleen strips were fashioned into toboggans, and jawbones and whale ribs were used as runners for sleds.<sup>14</sup> Houses were built of whale bones; in Siberia, ribs formed arches above a stone wall, the long heavy jawbones sustaining the weight of the structure. Walrus hides were laid over the bones and lashed to the whale vertebrae.<sup>15</sup> The Inuit could spend the winter riding on whales.



Eskimo string figures were used to capture the sun before it disappeared for the winter. This figure represents a stranded whale and a hungry fox. When the thumb and index fingers are moved, the fox is chased away.

The earliest kayaks, *baidarkas* in Russian, had whale-bone frames covered in sealskin. For modern kayakers used to a rigid hull, the give in the skin might seem unsettling at first. Joseph Lubisch described the flexibility of hunting from a ‘living’ vessel:

I think it enlightening to try and crawl inside the mind and soul of an early master baidarka builder. How did he see and feel his task? All builders, sooner or later, generate a model – an ideal or visualization – of what they are striving for in order to help with the work. Dyson commented that ‘the baidarka, of driftwood, whalebone, and sea lion skin, was entirely a creature of the sea’. . . Taking whales, sea lions, sea dogs, sea horses, and sea otters as his examples, he sought to emulate their characteristics in the floating craft. These living creatures in a living sea pointed towards a living vessel. A living vessel that breathed air in and out of the gap between the paddler and skin as its ribs worked the troughs and peaks of the sea. A living vessel whose skin caressed the shape of the waves.

The hunt for bowheads and grey whales changed societies throughout the Arctic and North Pacific. With a steady supply of food, permanent villages were established and flourished.<sup>17</sup> Cooperation in the hunt gave an advantage to larger groups. And whalers, skilled in the techniques of hunting and imitative magic required to attract whales, were revered, part of an elite hierarchy in many groups. A network of trade flourished among the settlements.

- [\*\*read Welcome to the Jungle: Everything You Wanted to Know about Bipolar But Were Too Freaked Out to Ask\*\*](#)
- [\*read online Fix-It and Forget-It Christmas Cookbook: 600 Slow Cooker Holiday Recipes\*](#)
- [\*\*click Perfect \(Pretty Little Liars, Book 3\)\*\*](#)
- [\*download online Fidel pdf, azw \(kindle\), epub\*](#)
- [\*read The Lure of Technocracy online\*](#)
  
- <http://studystrategically.com/freebooks/Welcome-to-the-Jungle--Everything-You-Wanted-to-Know-about-Bipolar-But-Were-Too-Freaked-Out-to-Ask.pdf>
- <http://interactmg.com/ebooks/Feminism-and-Men.pdf>
- <http://creativebeard.ru/freebooks/Review-of-Medical-Microbiology-and-Immunology--12th-Edition-.pdf>
- <http://nautickim.es/books/Fidel.pdf>
- <http://nautickim.es/books/The-Lure-of-Technocracy.pdf>