Whaling - The Real World of Moby Dick





This image of a female Sperm whale with her calf, off the coast of <u>Mauritius</u> (an Indian-Ocean island), was taken by Gabriel Barathieu. The younger whale has a "whalesucker" (*Remora australis*) attached to its body. License: <u>CC BY-SA 2.0</u>; online via Wikimedia Commons. Click on the image for a closer view.

It's 1712 and Captain Christopher Hussey is on a small whaling ship, scouring the North Atlantic for whales. When a strong wind develops, he is blown south of <u>Nantucket Island</u>.

Hussey is hunting whales to harvest their oil, but it's a <u>Right whale</u> (*Eubalaena glacialis*), not a <u>Sperm whale</u> (*Physeter macrocephalus*) which he seeks. Then, according to an 1835 account by <u>Obed Macy</u>, the Captain sees a pod of Sperm whales and is the first person to capture one of these enormous creatures:

The first Spermaceti whale taken by the Nantucket whaler was killed by Christopher Hussey. He was cruising near the shore for Right whales, and was blown off some distance from the land by a strong northerly wind, when he fell in with a school of that species of whales, and killed one and brought it home. At what date this adventure took place is not fully ascertained, but it is supposed to be not far from 1712. (Obed Macy, History of Nantucket (First Edition, published in Nantucket during 1835), at page 36.)

The only problem with this account ... historians aren't sure it's true.

It may be that Hussey was not the first person to capture a Sperm whale. However, or whenever, it first happened, American whalers began hunting Sperm whales in earnest sometime in the 18th century.

What made a sperm whale so valuable? Its extremely large head (as depicted in this photo by Franco Banfi).

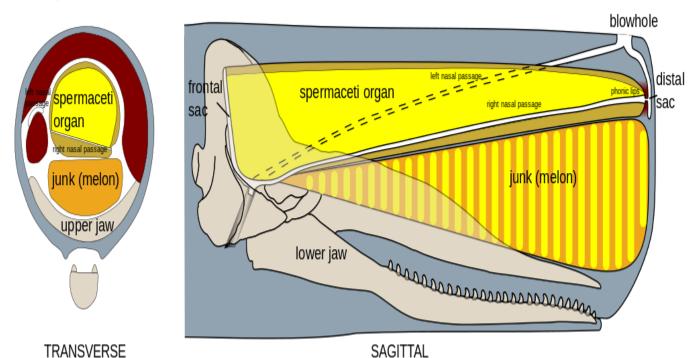


What was so special about the head of a Sperm whale? It's where much of the animal's oil is located.

The head of a Sperm whale is positively huge, stretching to roughly a third of its total body length. Inside its head, a Sperm whale has a large brain (believed to be the <u>largest in the animal kingdom</u>) and special organs which help to produce high-quality oil.

The "case" is the largest of those special organs. A very large container, the case is filled with an oily wax known as spermaceti (or case oil).

Just below the case, in a Sperm whale's head, is another chamber containing more high-grade spermaceti oil. Unbelievably, the oil and tissue in that chamber are called "junk!"

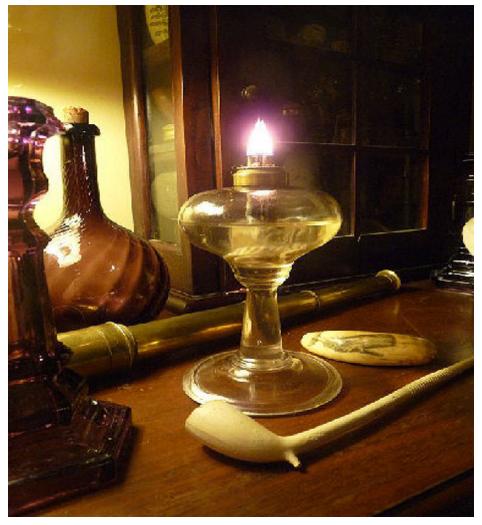


Like other whales, a Sperm whale has a blowhole. It's located in the top front of the whale's head, just left-of-center.

Long before the days of oil derricks, whalers targeted Sperm whales because of the enormous amounts of oil they could harvest. Beyond the oil in its head, a Sperm whale has oil-containing blubber.

To separate the oil from the blubber, workers would cut-up the blubber into large pieces, then boil-out the oil (in a process called "trying out") in large kettles (called try-works).

The largest Sperm whales had enough oil to fill about 100 barrels. As the whaling industry grew, the largest whaling ships could carry more than a thousand barrels.



Helping to fuel the start of the Industrial Age, whale oil was a versatile product. Beyond an ingredient for cosmetics, it was used for:

- Heating
- Lighting (via whale lamps)
- Lubricating
- Candle-making
- Cleaning (via whale soap)

Because it could produce a smokeless flame, whale oil became a highly desirable commodity for Europeans and Americans who used it to fuel street lamps, lighthouses and public buildings. Whale oil fueled Canada's first street lights, for example, when Montreal installed them on November 23, 1815.

Hal Whitehead, an expert on the behavior of Sperm whales, is a biologist at Dalhousie University in Nova Scotia. He tells us why so many Sperm whales were killed during the eighteenth and nineteenth centuries:

Whaling was the oil industry of its day. Oil from the sperm whale quite literally lubricated the Industrial Revolution ... Old-time whaling had a dual identity. It was a way of getting stuff we needed, but it was also a wild, romantic chase. A lot of art was linked to the sperm whale.

Historians also tell us that by the mid-1800s, whalers were killing around 5,000 sperm whales every year. Legends say that the whales were getting sick of it, causing some of them to fight back against the whaling ships.



Remember *Moby Dick*? It turns out ... well ... that's <u>a story all to itself</u> (which Herman Melville didn't entirely make up)! As the famous author once said:

To produce a mighty book, you must choose a mighty theme. No great and enduring volume can ever be written on the flea, though many there be who have tried it. (Moby Dick, by Herman Melville, chapter 104, "The Fossil Whale." See the end of the third paragraph of that chapter.)

Melville's theme, for Moby Dick, was based on the real-life events of a whaling ship called the Essex, and a real-life albino Sperm whale called Mocha Dick.

Credits:

Images, depicted in the text, as follows:

Photographer Franco Banfi captured this pod of Sperm Whales swimming in the Caribbean Sea, off the coast of Dominica. He tells us how these enormous creatures communicate with each other: "What they do is vocalise their own clicks back and forth to one another. The clicks are interpreted by the whales, not as sound, but as three-dimensional moving images that unfold directly inside their head." Copyright, Franco Banfi, all rights reserved. Image provided here as fair use for education purposes and to acquaint new viewers with Banfi's work.

Image drawing, by Kurzon, depicting the sagittal and transverse cross-section of a Sperm whale's head, showing the location of animal's major oil-producing organs. Online via Wikimedia Commons; license <u>CC BY-SA</u> 3.0.

Image of a whale-oil lamp, online courtesy American Scientific Glassblowers Society.

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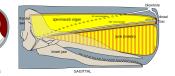
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Media Stream

Sperm Whale Head Drawing

The head of a Sperm whale is positively huge, stretching to roughly a third of its total body length. Inside its head, a Sperm whale has a large brain (believed to be the <u>largest in the animal kingdom</u>) and special organs which help to produce high-quality oil.

The "case" is the largest of those special organs. A very large container, the case is filled with an oily wax known as spermaceti (or case oil).



Just below the case, in a Sperm whale's head, is another chamber containing more high-grade spermaceti oil. The oil and tissue in that chamber are often referred to as "iunk."

This cutaway drawing helps us to better understand where the "case" is located inside a sperm whale's head.

Click on the image for a better view.

Image drawing, by Kurzon, depicting the <u>sagittal</u> and <u>transverse</u> cross-section of a Sperm whale's head, showing the location of the animal's major oil-producing organs. Online via Wikimedia Commons; license <u>CC BY-SA 3.0</u>.

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Whaling - Moby Dick Rises

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Whaling - Lamp

In the 19th century, people used oil extracted from whales for many different purposes. One of those purposes was to light lamps.

Because it could produce a smokeless flame, whale oil was highly desirable to fuel street lamps, lighthouses and public buildings. Whale oil, for example, fueled Canada's first street lights when Montreal installed them on November 23, 1815. This image depicts a whale-oil lamp. It is online courtesy of the American Scientific Glassblowers Society.

Image of a whale-oil lamp, online courtesy <u>American Scientific Glassblowers Society</u>.

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Whaling - Sperm Whale's Large Head

Sperm Whales have enormous heads which contain large amounts of "whale oil." Scientists believe this oil may help the whale's buoyancy.

This image depicts a pod of Sperm Whales as they are swimming in the Caribbean Sea, off the western coast of <u>Dominica</u>. Photographer Franco Banfi took the picture. He tells us how these enormous creatures communicate with each other: What they do is vocalise their own clicks back and forth to one another. The clicks are interpreted by the whales, not as sound, but as three-dimensional moving images that unfold directly inside their head.

Click on the image for a closer look at the whales, including their eyes and markings on their skin.

Image of sperm whales by photographer <u>Franco Banfi</u>. Copyright, Franco Banfi, all rights reserved. Image provided here as fair use for education purposes and to acquaint new viewers with Banfi's work.

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