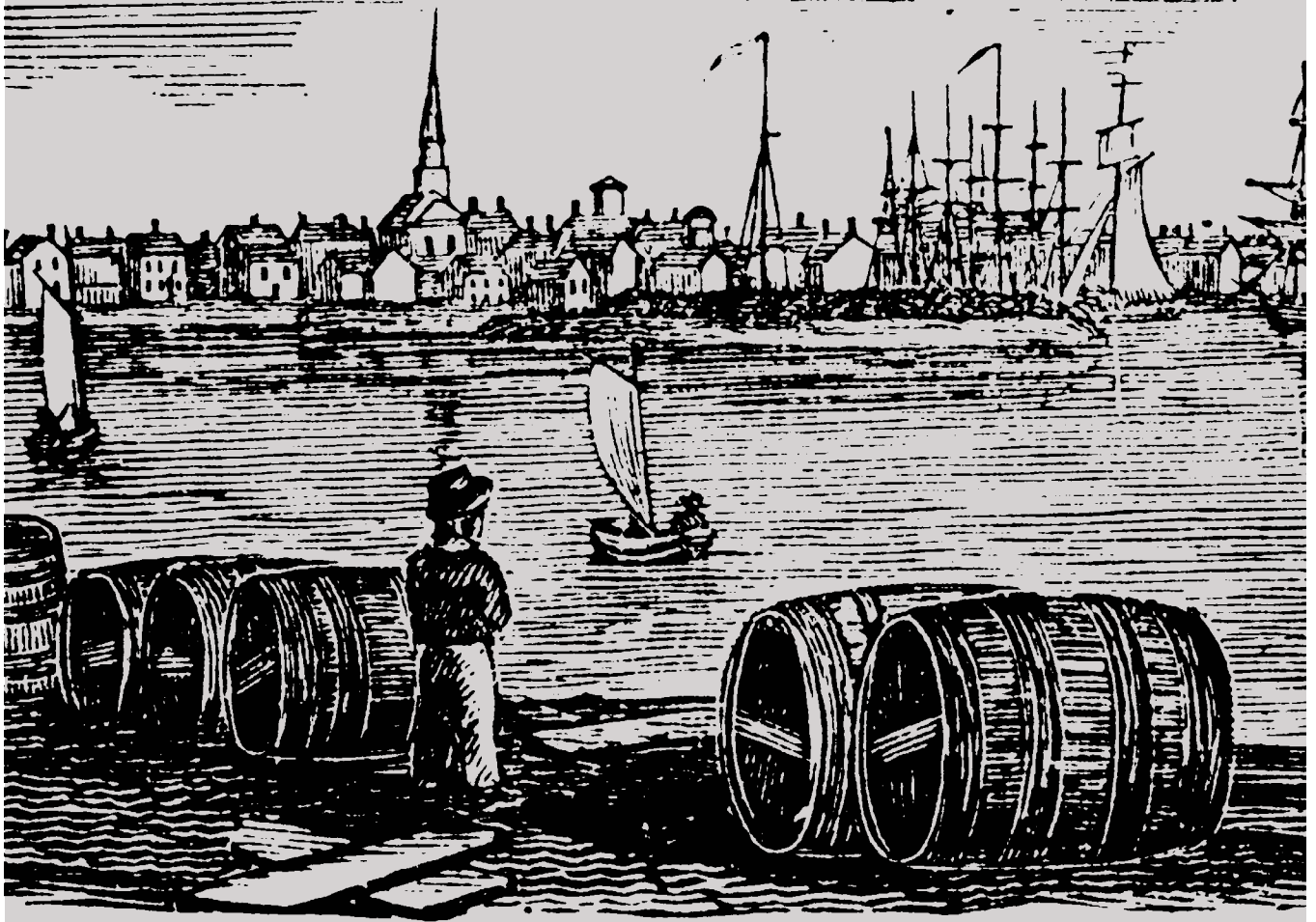


**Extend**  
the Classroom Experience

# A New Bedford **Voyage!**



NEW BEDFORD WHALING MUSEUM EDUCATION DEPARTMENT

# To the teacher:

This booklet is designed to take you and your students on a voyage back to a time when people thought whaling was a necessity and when the whaling port of New Bedford was known worldwide.

---

## **I: Introduction** **page 3**

How were whale products used?  
What were the advantages of whale oil?  
How did whaling get started in America?  
A view of the port of New Bedford

---

## **II: Preparing for the Voyage** **page 7**

How was the whaling voyage organized?  
Important papers

---

## **III: You're on Your Way** **page 10**

Meet the crew  
Where's your space?  
Captain's rules  
A day at sea  
A 24-hour schedule  
Time off  
Food for thought from the galley of a whaleship  
How do you catch a whale?  
Letters home  
Your voice and vision  
Where in the world?

---

## **IV: The End of the Voyage** **page 28**

How much did you earn?  
Modern whaling and conservation issues

---

## **V: Whaling Terms** **page 30**

---

## **VI: Learning More** **page 32**

---

### **NEW BEDFORD WHALING MUSEUM**

#### **Editor**

- Patricia Altschuller

#### **Research**

- Stuart Frank, Michael Dyer,  
Laura Pereira, William Wyatt

#### **ECHO Special Projects**

- Judy Chatfield

#### **Copy Editor**

- Clara Stites

#### **Illustrations**

- Gordon Grant

#### **Graphic Designer**

- John Cox - MediumStudio

#### **Special thanks to**

Katherine Gaudet and Viola Taylor, teachers at Friends Academy, North Dartmouth, MA, and to Judy Giusti, teacher at New Bedford Public Schools, for their contributions to this publication. Thanks also to all the many teachers who have assisted us in program development.

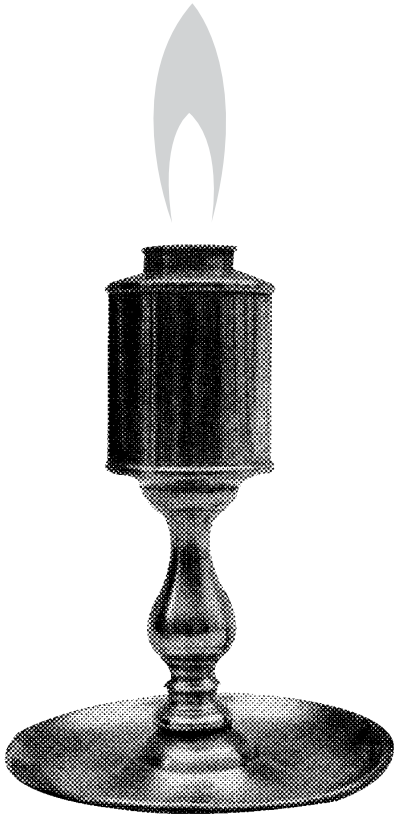
## Part I: Introduction

**Imagine life before electricity,** a time before a flick of the switch would turn on the lights. What would provide light after the sun set?

If you knew that oil from whales would give you light, would you go out to sea to catch these creatures? If you could earn money and see the world, or much of it, would you go whaling? For hundreds of years, the answer to these questions was a resounding "Yes."



## How were **whale products** used?



**P**eoples of the world have gone whaling for more than two thousand years. Over the centuries, processed blubber or fat from the whale provided oil that was put in small portable containers with a wick, thus creating a lamp. Whale meat was and still is eaten by people. The skeletal parts of whales were used for a variety of purposes. Vertebrae became seats. Ribs were used for boatbuilding, fence pickets, and supports for roofs. Baleen was valuable wherever a strong, pliable substance was required. Baleen, cut into thin strips, was made into jewelry, plumes to decorate knights' helmets, and practical items like sieves, nets and brushes. Shredded baleen was used to stuff upholstered furniture.

By the 19<sup>th</sup> century, whaling in New England provided whale oil and baleen that were sold throughout the world and used in many different ways. Oil from whales was used primarily for lighting, but also for heating and lubrication of machinery. Whale oil provided a base for soaps, waxes, polishes, varnishes, paint and preservatives. It was also used in the processing of textiles and rope. Baleen was used as stays for umbrellas, corsets, and collars; hoops for skirts; and as brushes, brooms, buggy whips, riding crops, and carriage springs.

## What were the **advantages** of whale oil?

**P**eople had several choices of lamp fuels. Oils from vegetable matter, such as olive oil, were smoky and did not burn brightly. Lard oil, processed from animal fat, and fish oil were also used but people found the smell objectionable. Naphtha (a mineral oil derived from coal tar) was not plentiful and was dangerously flammable. Camphene (refined turpentine) burned well and was comparatively inexpensive, but it too was highly flammable. Whale oil burned slowly and clearly. It gave the best and safest light.

Candles were made with natural waxes. The bayberry plant yielded a hard, scented wax. The candleberry myrtle was another source of wax. Beeswax was used if it could be found. Animal fat or tallow was the most plentiful wax, especially in rural areas. Tallow candles had a number of disadvantages: they gave off a poor smoky light, they bent in warm weather, and they generally dripped or burned too quickly.

Spermaceti, a waxy substance found in the sperm whale's head cavity, produced candles that were unrivalled. Although relatively expensive, the candles were long lasting and gave off a clear, virtually smokeless, bright light. The term "candlepower" used to describe light intensity originated with the measurement of the light given off by a spermaceti candle.

By the middle of the 19<sup>th</sup> century, gas was used as a light source. Most major American cities and numerous small towns had their own gas works. In 1853, New Bedford streets were lit by gas but gaslight was inconvenient for the home. The lamp fixture through which the gas line was run needed to be attached to a wall or ceiling, and therefore could not be set in a suitable spot on a desk or worktable.

The discovery of petroleum in 1859, in Titusville, Pennsylvania, was the beginning of the end of the use of whale oil as an illuminant. With the distillation of kerosene from petroleum, a fuel was available that burned efficiently and was inexpensive, reliable, and safe. Charles W. Morgan, a New Bedford whaling merchant, notes in his 1860 diary that sperm oil is selling for \$1.40 a gallon while kerosene is selling for 75 cents a gallon.

In 1879, Thomas Alva Edison created the first commercially practical incandescent lamp. He also developed a complete electrical distribution system for light and power. After that, reliable and inexpensive light was readily available.

**Think** about it

During one entire day, record every time you use electricity. Include things made specifically to give light, as well as those made not primarily for light (i.e., television, computer, microwave, etc.). Without electricity how would your life be different? What would you have to do without?

## How did **whaling** get started **in America?**



New Bedford rose in terraces of streets. Huge hills and mountains of casks on casks were piled upon her wharves, and side by side the world-wandering whaleships lay silent and safely moored at last; while from others came a sound of carpenters and coopers, with blended noises of fires and forges to melt the pitch, all betokening that new cruises were on the start; that one most perilous and long voyage ended, only begins a second; and second ended, only begins a third, and so on.

Herman Melville, *Moby-Dick*,  
Chapter 13

**D**uring the 16<sup>th</sup> and 17<sup>th</sup> centuries, the Norse, Basques, Dutch, and British sailed the North Atlantic in pursuit of whales to supply European markets. In America, native peoples living along the Atlantic seaboard occasionally obtained meat, oil and bone from whales that became stranded on shore.

In colonial days, settlers along America's northeast coast observed the spring and fall migrations of whales. Recognizing the potential riches to be made in whaling, they established shore stations with look-out towers along the coast from Long Island to Nantucket. When the whales were sighted, men went out in small boats to capture the migrating whales. As the demand for whale products grew, the whalers had to venture farther offshore to catch enough whales to satisfy the market.

By the middle of the 18<sup>th</sup> century, New England whalers were sailing as far as the Azores, Cape Verde, Brazil, and southwest Africa. From that time onward, the history of American whaling was one of continual expansion. When whales became scarce in one part of the sea, the whalers sailed to new grounds in the South Atlantic, Antarctic, Pacific, Indian and Arctic Oceans, and points between.

### A view of the port of **New Bedford**

**D**uring much of the 19<sup>th</sup> century, whaling was one of America's major industries, reaching to the farthest corners of the globe, and New Bedford, Massachusetts was that industry's most important port.

At the peak of New Bedford whaling in 1857, the city's harbor was home to 329 ships, more than half of the entire American whaling fleet. New Bedford launched more whale expeditions than all other American ports combined.

As New Bedford's whaling industry prospered, so did the many land-based trades that supported it. Builders of ships and whaleboats, blacksmiths, caulkers, coopers, carpenters, bakers, chandlers, riggers, rope makers, sail makers, oil refiners, insurers, merchants, bankers, grocers, shopkeepers and hundreds of other people depended upon whaling for their livelihood.

## How was the **whaling voyage** organized?

**S**hips setting out on long voyages had to be completely outfitted before they left port. The managing owner or agent of a whaleship oversaw this job. In Chapter 20 of *Moby-Dick*, Ishmael comments on the need for “three-years’ housekeeping upon the wide ocean, far from all grocers, costermongers, doctors, bakers and bankers.... of all ships, whaling vessels are the most exposed to accidents of all kinds...the destruction and loss of the very things upon which the success of the voyage most depends. Hence, the spare boats, spare spars, and spare lines and harpoons, and spare everything, almost, but a spare Captain and a duplicate ship.”

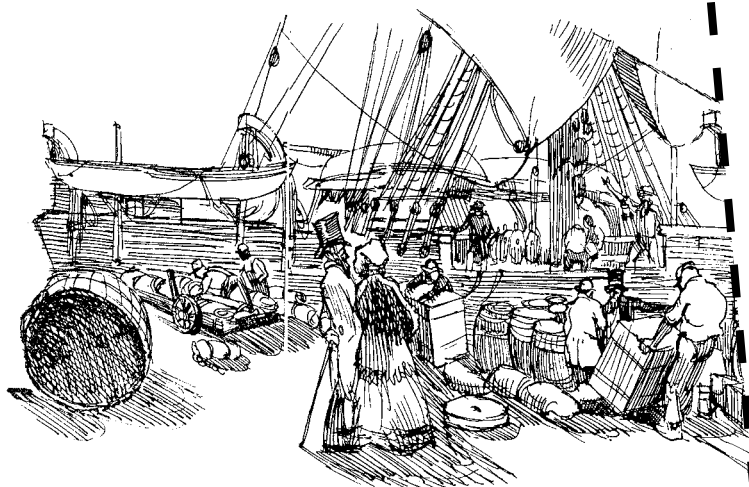
The agent of a whaleship was also responsible for signing on officers and crew for each voyage. Instead of receiving regular wages, whalers were paid an agreed-upon share of the profits of the voyage. This share was known as a “lay.” If the voyage turned out to be a financial failure, the lay system protected the ship owners from having to pay the crew. The captain, mates and harpooners usually received lays ranging from 1/8 to 1/120. Experienced seamen received about 1/175. Inexperienced green hands received much less, and some lays were as small as 1/250 to 1/350.

Before setting sail, crewmembers had to purchase all the supplies and clothing they would need for the voyage. A typical list of goods included one or two jackets, a waterproof oil suit, an assortment of heavy and light trousers, shirts, underwear, shoes and socks. A sea chest containing needles, extra buttons, a tin spoon and tin plate, a knife and belt, soap, a razor for shaving, blankets, a bedtick (a light mattress), and a pillow filled with hay would complete the seaman’s supply. Since most of the men shipping out on a whaleship did not have the money to pay for their supplies, the ship’s agent often covered the cost and subtracted it from the lay at the end of the voyage.

The life of a whaleman involved danger, hardship, discomfort, boredom and loneliness. Yet many men were attracted by what they imagined as the excitement and rewards of life at sea. Seeking jobs, they came to New Bedford from all over the world. They dreamed of wealth and great adventure, but all too often life aboard a whaleship was not what they expected.

**FACT:** Many trades and businesses were connected with the whaling industry. Some of them--baker, banker, boat builder--are easy to imagine. Others--agent, caulker, chandler, cooper, costermonger, rigger--are less familiar.

**ACTIVITY:** Choose one of the unusual-sounding jobs and find out what skills, products, or services it involved. Write a 10-word “help wanted” newspaper advertisement for your job. You may also want to design a sign or logo.



# Important papers:

Before a ship left homeport, various official documents were needed. Here are a few examples.

## Whalemen's shipping paper

**T**his document stated the specific conditions for a whaling voyage. Columns included the crewman's name and signature, his job aboard ship and his share of the voyage.

### Sign On!

There's room for one more. Sign your name at the bottom of the list and become a member of the *Lagoda's* crew.

*We the undersigned agree to sail on the whaleship Lagoda for a period not to exceed 5 years to the Pacific Ocean.*

Name	Duty	Home	Hgt.	Lay
Herman Bodfish	Master	New Bedford	5-9	1/15
Jacob Howland	First Mate	Dartmouth	5-8	1/30
Jeremiah Pease	Second Mate	New Bedford	5-11	1/45
Abraham Green	3rd Mate & Harpooneer	Acushnet	5-7	1/60
James Williams	Cooper / Shipkeeper	New Bedford	5-9	1/75
George Haley	Blacksmith	Fairhaven	5-11	1/90
Horatio Doney	Seaman	New Bedford	5-5	1/125
Abner Wilkes	Harpooneer	New Bedford	5-9	1/110
Joseph Kanaka	Harpooneer	Fiji	6-0	1/120
Hiram Wiggins	Harpooneer	New Bedford	5-11	1/115
William Kanaka	Harpooneer	Lahaina	5-11	1/115
Albert Gomes	Seaman	Cape Verde	5-10	1/175
Joaquim Souza	Seaman	Fayal, Azores	5-6	1/175
Henry Wilcox	Green Hand	Rutland, Vt	5-7	1/190
Dwight Jones	Seaman	Sag Harbor, NY	5-8	1/175
John Briggs	Seaman	New London, Ct	5-8	1/175
Eben Robinson	Green Hand	Fairhaven	5-7	1/190
James Avery	Seaman	Philadelphia, Pa	5-11	1/175
George Rotch	Seaman	Nantucket	5-8	1/175
Joseph Brown	Cook	New Bedford	5-5	1/150
Peace Hazard	Steward	Narragansett, RI	5-6	1/250
_____	<b>Green Hand</b>	_____	_____	<b>1/200</b>

**your name**

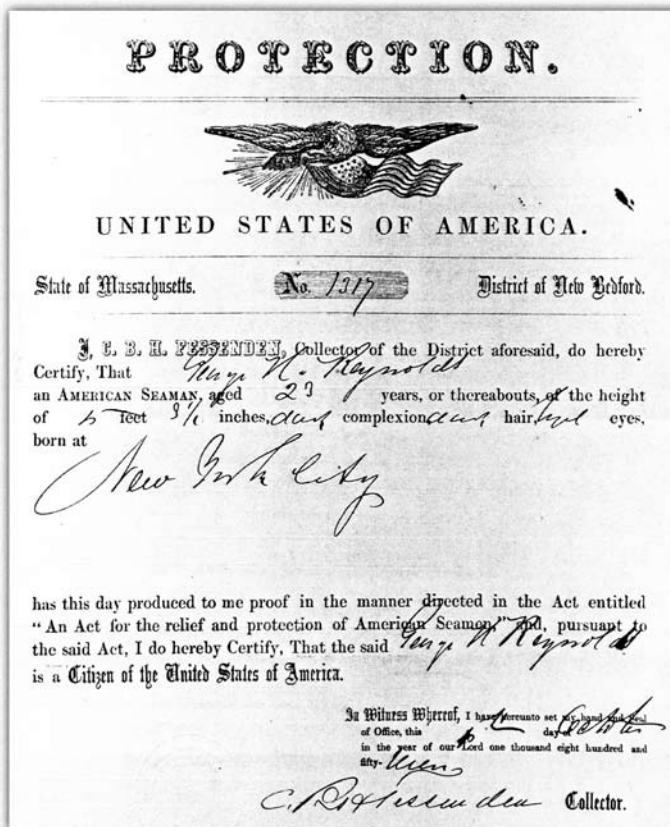
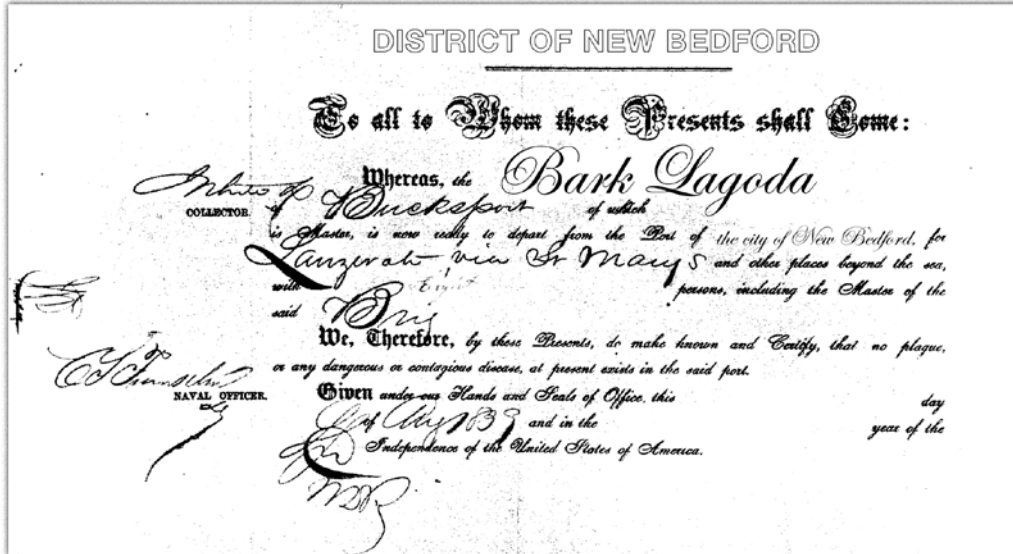
**I do solemnly, sincerely and truly affirm that the above list contains the names of the crew of the *Lagoda* together with their place of residence as far as I can ascertain.**

\_\_\_\_\_  
**Captain, the *Lagoda***



**Bill of Health**

**B**efore leaving a port, a Bill of Health was required for each ship. The document certified the status of contagious disease at the port during the time of the visit. A clean bill of health indicated that no plague or infectious diseases were known to exist. A suspect bill indicated rumors of disease, although it had not yet appeared, and a foul bill certified that the port of departure was infected at the time the ship sailed. A Bill of Health from the previous port was inspected on arrival to a port, and a new one was issued upon departure.



**Seamen's Protection Certificate**

**A**s proof of citizenship an American seaman carried this document. The certificate was obtained at the U. S. Custom House. It contained the person's name, birthplace, approximate age, height, skin color, eye and hair color, and other distinctive descriptive information, such as the location of scars and tattoos. The certificates were valuable as identification at foreign ports. They were similar to passports that travelers carry today.

## Meet **the crew.**

**T**he **captain** of a whaleship was a skillful mariner and had absolute authority over the ship, the men and the voyage. At sea, the captain's word was law. He navigated the seldom traveled and poorly charted seas. Using his experience at sea and his knowledge of ocean currents and whale migration routes, he anticipated where whales would be at certain times of the year.

The **first mate** carried out the captain's orders and made sure that all the ship's rigging and gear was in working order. He also kept the logbook and navigated when necessary. The other mates supervised the seamen's work, stood watches, and were responsible for maintaining the crew's discipline and efficiency. During the pursuit of a whale, each mate or **boatheder** commanded a boat, directed the chase and lanced the whale.

The crew of some whaleships included a **ship-keeper**, who took charge of the ship while the whaleboats and most of the men were chasing a whale. If there was no shipkeeper, the blacksmith, the cooper, the carpenter or a few other men handled the ship.

The **cooper** assembled and repaired the casks used for storing whale oil. The **carpenter**, **blacksmith**, **cook** and **harpooners** (boatsteerers) did the jobs their names imply. The **steward** was the captain's personal servant. In addition, he waited on the officers' table during meals and took care of their provisions. Sometimes a **cabin boy** would also be aboard to assist the steward.

The rest of the crew were called **foremast hands** and were divided into **seamen** and **green hands**. Seamen were experienced sailors while green hands had never gone whaling. In fact, some green hands had not even set foot on a ship before. At first the green hands did simple, routine jobs, but they learned quickly and soon became part of one efficient crew.

**Getting the Job:** You are signing on for a whaling voyage. Tell the ship's agent about your skills and experience. Explain why you should be hired for a specific job. Create a one-act play in which you and a friend play the roles of agent and job seeker.

**Packing for the Voyage:** Imagine you are a whaleman preparing for a voyage that could last three or four years. You can take only those things that will fit into a sea chest. Use a Venn diagram to show (1) what things you would take on your voyage, (2) what you would take today, and (3) which of these items would have the same function now as in the nineteenth century.



The crew of a typical 19th century whaleship represented practically every race, nationality, type and temperament.

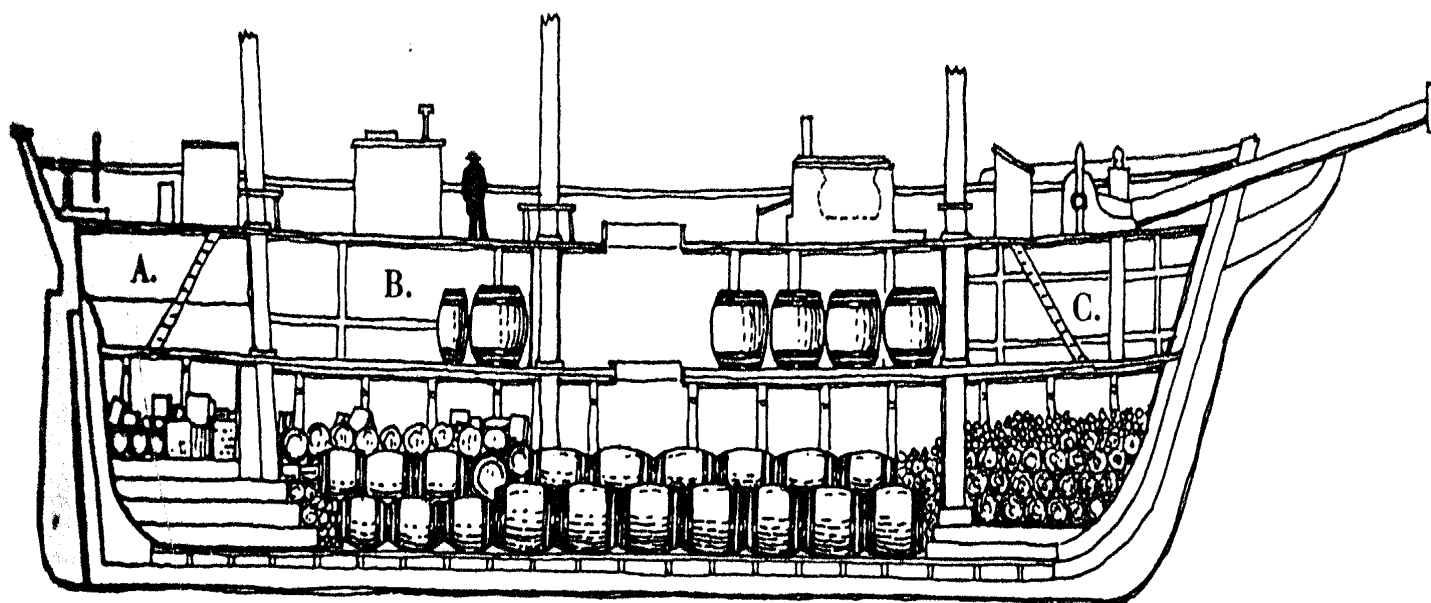
## Where's **your** space?

**T**he whaleship's crew slept, ate and spent most of their off duty time in the ship's forecastle called "fo'c'sle" **(C)**. It was home to 15 to 20 men for years at a time. It was a dark, cramped space lit only by a few oil lamps, the open grate on deck, and perhaps a few deck prisms. The fo'c'sle tended to be very wet, particularly in heavy seas when water washed up on deck and dripped down on the bunks. It was also a smelly place, where the odor of dirty and oily clothes mixed with the smell of stale food, tobacco and unwashed bodies.

The only personal space a crewman had was his bunk, and that measured two by six feet. If the crew was large, they often had to "hot bunk" – or share their bunk with a crewman on the other watch. The sea chest was a man's only private possession where he kept his clothes and personal items.

A whaleship's living quarters were arranged to preserve a strict separation by rank. The captain lived in his roomy cabin at the stern of the ship **(A)**. The officers or mates had smaller quarters nearby. Further forward, but still near the captain, was the steerage, usually containing eight bunks where the harpooneers, cook, carpenter, cooper and other craftsmen live **(B)**.

On deck, above the fo'c'sle, was the the fore deck where crewmembers, depending on the weather, spent their time when not working. The aft end of the ship was the domain ( realm ) of the captain and officers. Crew could go aft only with permission of the captain or officers.



## Captain's rules

Command came to Edward S. Davoll when he was 25 years old and sailed as captain of the *Cornelia* on a voyage of 22 months. Here are his orders to the crew.

"My men, you must be well aware that the object of this voyage is to get a cargo of oil. To do this, it becomes necessary that some system be established in order to effect our purpose, and it becomes my duty to lay it before you, which you will strictly observe and abide by through the voyage. Discipline is a thing that I must have on board at all times and in all places.

"Obey and respect each and every officer. Always give a respective answer to every call and order given, day or nights. Never fail to give an answer. Answer quick. Come quick. Go quick, and do as you are told and you'll find no trouble.

"I strictly forbid quarreling and fighting [and] skylarking from daylight til dark. No books to be read at any time except Sundays. No scrimshawing of any kind until I give orders to allow it. No loud and noisy conversation allowed from sunrise to dark. No singing or whistling at any time through the day. No sneaking into the forecandle under pretense of getting something when it is your watch on deck, because I know all about those things. No sleeping in your watches on deck, day or night. I shall give you plenty [of] watch below expressly for sleep, so that in case you are caught sleeping in your watch on deck you may expect to be kept on deck in your watch below as a 'cure all.'

"If any of you feel unable to stand your watch at any time, through sickness or inability, come at once and report yourself to me or whoever has charge of the deck, so that I may immediately know of it and give you relief. If you fail to do this and go off below without saying anything, you may

rest assured that I do not believe you to be sick, and shall have you out of them tricks before you play them 'fine.'

"Don't let yourselves be heard to grumble in any way. I and the officers can do all that. Grumblers and growlers won't go unpunished. Your place when on deck is forward of the tryworks where you are to remain at all times unless you have orders to come aft. Remember what I have said to you from now to the end of the voyage. I now dismiss you. Go Forward."



## A day at sea

**O**n the first full day at sea, the crew would be divided into two work shifts, or “watches.” The first and second mates each headed a watch. They took turns choosing crewmembers until everyone was assigned to the port watch or the starboard watch.

The ship sailed all day and all night, so it was important to have crew on duty, or watch, around the clock. There was a total of seven watches in each twenty-four hour period. Five of the watches lasted four hours. At the end of the afternoon, there were two “dogwatches” that lasted only two hours each. The dogwatches were a time for the crew to eat supper and relax a bit.

Because there was an uneven number of watches (seven), the crew’s work times changed within each 24-hour rotation of the watches.



Certain members of the crew did not have to stand watch. The cooper, carpenter, blacksmith, cook and steward usually worked during the day and slept throughout the night. The captain did whatever he pleased.

The rotation of watches was carefully scheduled, but the real business of the voyage was finding, catching and processing whales. When the ship was on the whaling grounds, boat crew watches were established instead of starboard and port watches. As there were four boats, a quarter of the crew instead of one half was kept on deck. The men were fresher and more alert as a result. Once a whale was sighted and the lookout cried, “There she blows,” everyone was immediately on duty. All hands lowered the whaleboats and pursued the whales and later took part in the difficult and greasy work of cutting up and processing the whales they had caught.

## A 24-hour **schedule**

If you were on starboard watch, this might be your schedule:

### **4 PM to 6 PM: ON DUTY**

This is your dogwatch, a time to eat and get the ship ready for the night.

### **6 PM to 8 PM: off duty**

Port Watch is on duty, so you can rest.

### **8 PM to midnight: ON DUTY**

Steer the ship, trim sails as needed, keep everything shipshape.

### **Midnight to 4 AM: off duty**

Now it's your turn to sleep in the bunk that you and your Port Watch counterpart share.

### **4 AM to 8 AM: ON DUTY**

You spend the dawn hours sailing the ship, preparing for the day, posting masthead lookouts, cleaning decks, checking all equipment, and eating breakfast (usually "salt horse," hard bread, coffee and molasses).

### **8 AM to noon: off duty**

You could sleep now, although it's the middle of the day. Perhaps you find a bit of wood or whalebone to carve (scrimshaw) or make intricate knot designs, or write a journal entry or a letter home.

### **Noon to 4 PM: ON DUTY**

Scrub decks. Take care of sails, lines, masts, yards. Make sure all the tools needed for whaling are ready for use. Three members of your watch climb to the mastheads and scan the sea for whales. Someone else takes the wheel.

### **4 PM to 6 PM: First dogwatch: off duty**

Recreation and relaxation - Eat an evening meal, talk, write letters, mend clothes, tell stories, sing, do scrimshaw or knot work.

### **6 PM to 8 PM: Second dogwatch: ON DUTY**

You prepare the ship for the night - shorten sails, call down the lookouts.

### **8 PM to midnight: off duty**

Sleep.

### **Midnight to 4 AM: ON DUTY**

You're on deck as the ship sails through the night-dark sea.

### **4 AM to 8 AM: off duty**

Back to your bunk.

### **8 AM to noon: ON DUTY**

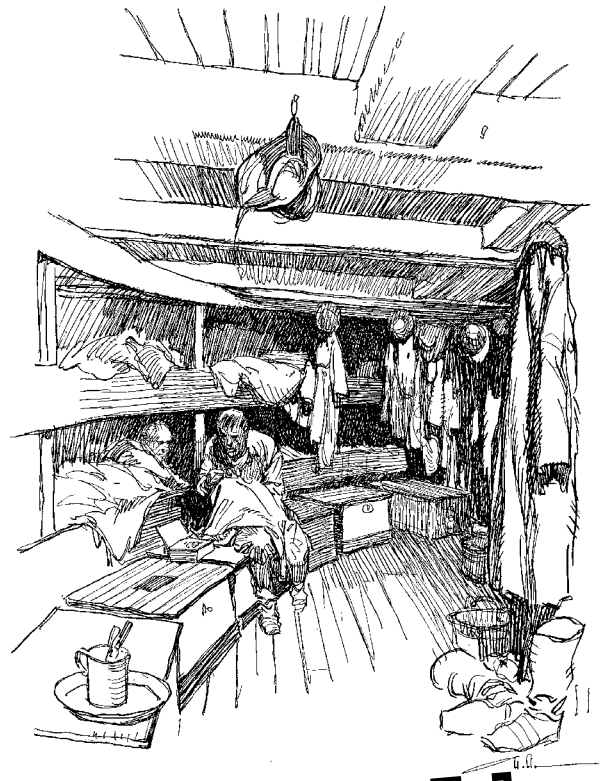
Again, you scrub the decks. Take care of sails, lines, masts, yards. Make sure all the tools needed for whaling are ready for use. Three members of your watch climb to the mastheads and scan the sea for whales. One of you takes the wheel.

### **Noon to 4 PM: off duty**

Now's your chance to take an afternoon nap or write a letter home (although it may not reach your family for years) before you have to start again at 4 PM with the early half of the dogwatch.

## Consider these

**ARE YOU TIRED?** Imagine spending three years or more at sea as an ordinary seaman. What is the longest number of uninterrupted hours you will be able to sleep if there are no whales to pursue or process, no storms, and no other excitement?



**ARE YOU BORED?** Imagine you've been on the ship for months, perhaps for years. Day after day there are no whales. There is no wind. The sails hang loose on the spars. What do you do to pass the hours?

**ARE YOU INJURED?** What happens if a seaman is injured or sick? Where does he rest? Who takes care of him? Who takes over his responsibilities while he is unable to work?



# Time Off

**D**uring either the dogwatch in the early evening or off-hours, the crew would gather together to talk, read, do scrimshaw, mend clothes, share stories and sing. Usually someone had a fiddle or accordion to help keep the melody. There are many versions of the song below. The forecandle (foc's'le) crew would make up verses as they sang along.

The musical score is written in 4/4 time with a key signature of one flat (B-flat). It consists of four staves of music. The lyrics are as follows:

1: 'Tis ad - ver - tised in Bos - ton, New York and Buf - fa - lo. Five  
 hun - dred brave Am - er - i - cans, a - whal - ing for to go sing - ing

**Refrain**

Blow ye winds in the morn - ing And blow ye winds, high O!  
 Clear a - way your run - ning gear and blow ye winds, high O!

## Blow, Ye Winds

'Tis advertised in Boston, New York, and Buffalo,  
 Five hundred brave Americans, a-whaling for  
 to go singing

**Refrain:**

Blow, ye winds in the morning And blow ye winds,  
 high-O! Clear a-way your running gear And blow ye  
 winds, high-O!

They send you to New Bedford, that famous whaling  
 port, And give you to some land-sharks to board and  
 fit you out singing

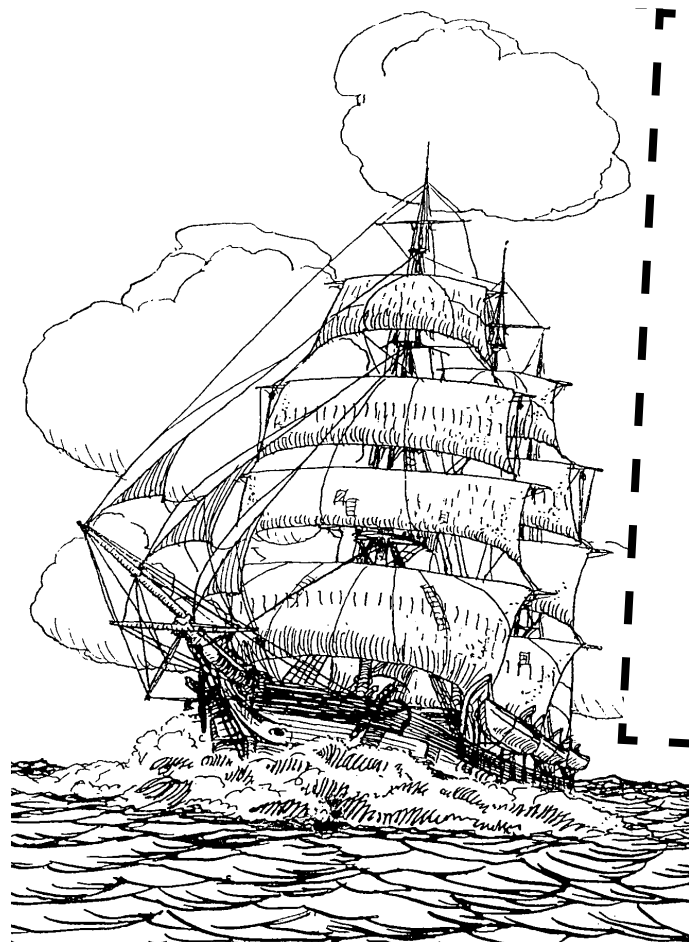
It's now we're out to sea, my boys, the wind comes on to  
 blow; One half the watch is sick on deck, the other  
 half below.

But as for the provisions, we don't get half enough;  
 A little piece of stinking beef and a blamed small bag  
 of duff.

Next comes the running rigging, which you're all sup-  
 posed to know; 'Tis "Lay aloft, you son-of-gun, or over-  
 board you go!"



# What do you **think**?

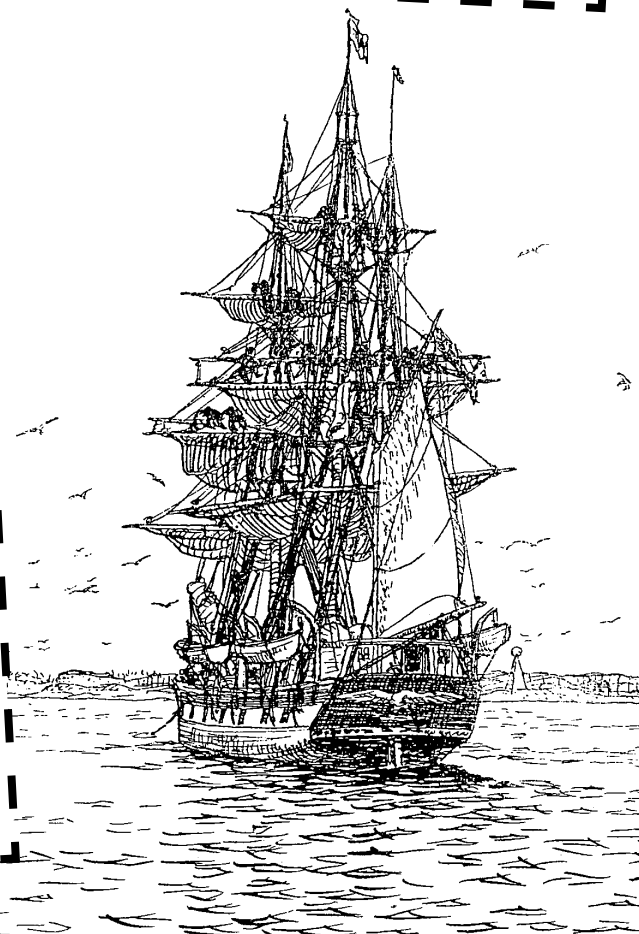


**FACT:** Crewmembers on a whaleship received no pay until the voyage was over, and then the amount received depended on the financial success of the voyage. Do you think this practice was fair or unfair?

**ACTIVITY:** Write a short paragraph in which you defend the lay system. Then switch sides of the argument and write another short paragraph attacking the lay system. To make this activity more fun, you might pretend you are an owner, agent or crewman and give his point of view, then have someone else reply.

**FACT:** After years of demand, the market for whale oil crashed. Ships came back from voyages and lay idle. Casks of unsold oil were stored on the docks in hopes the market would recover.

**ACTIVITY:** Imagine that it is 1870. Write a letter to your cousin/brother/sister/friend who has moved away (perhaps out West somewhere). Describe a recent visit to New Bedford's waterfront--what you saw and how you felt about the idle ships tied up there.



## Food for thought from **the galley** of a whaleship

**M**eals aboard a whaleship were not exactly nutritious, attractive or varied. Captain Davoll's orders to his cook were, "Waste nothing nor allow any provisions to go to waste. If you cook too much today, cook less tomorrow and vice versa."

Most ships carried live pigs, goats and chickens, all kept on deck in pens. Salt pork or beef was the daily diet. A dry biscuit, called hardtack, accompanied most meals. Fruits and vegetables rotted quickly; bread turned stale, hardened, and was attacked by bugs as the trip lengthened. Butter turned rancid. Molasses took the place of more expensive sugar. Fresh fish was sometimes caught and served, but the crew considered whale meat unappetizing and too tough to chew.

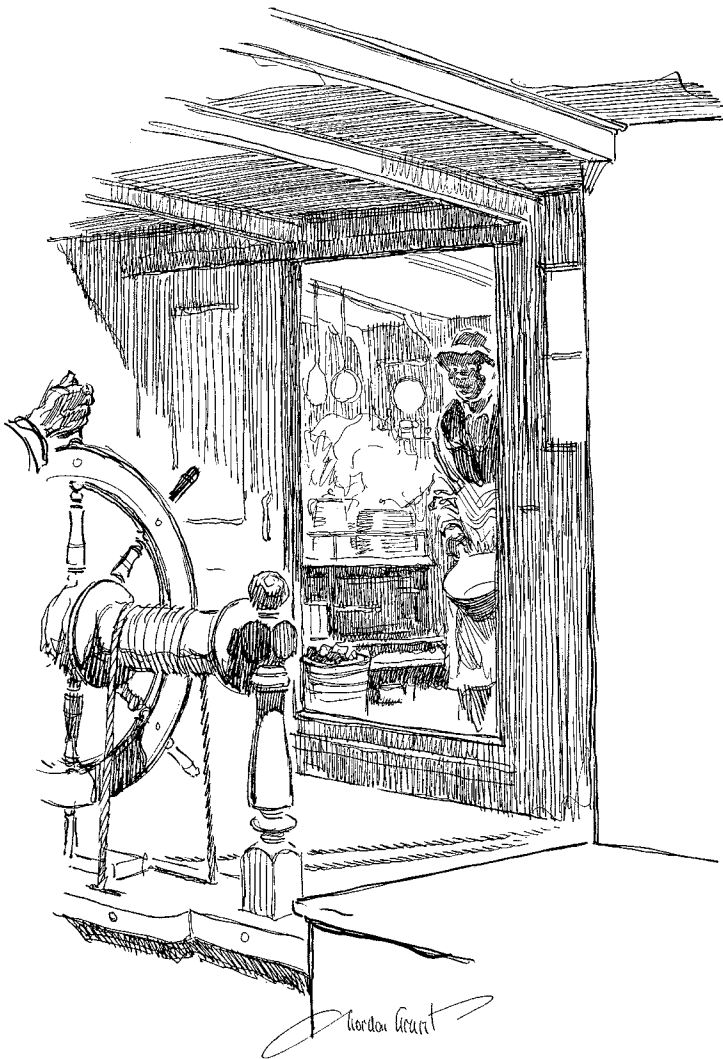
When possible, ships went into port for fresh food supplies including fruits, vegetables, meat and drinking water. Lemons, limes and oranges were particularly important for preventing a disease called scurvy. Scurvy

was caused by a salty diet that lacked the vitamin C contained in fresh vegetables and fruit. The symptoms of scurvy include spongy and bleeding gums, bleeding under the skin, and extreme weakness. One whaleship log recorded that one-half of her crew died of scurvy.

### Sample **menu**

Duff was a dish, widely known at sea, made by boiling flour, lard and yeast in equal parts of fresh and salt water until the mixture hardened. Sometimes chopped salt pork was added. The crew looked forward to receiving duff and molasses at least once a week.

Salt horse was meat stored in large casks and so saturated with potassium nitrate (used to pickle meat) that it was inedible until soaked in water for days. The soaking was done in casks known as "harness casks" because the whalers insisted they contained an "old horse" that had been cut up, harness and all.

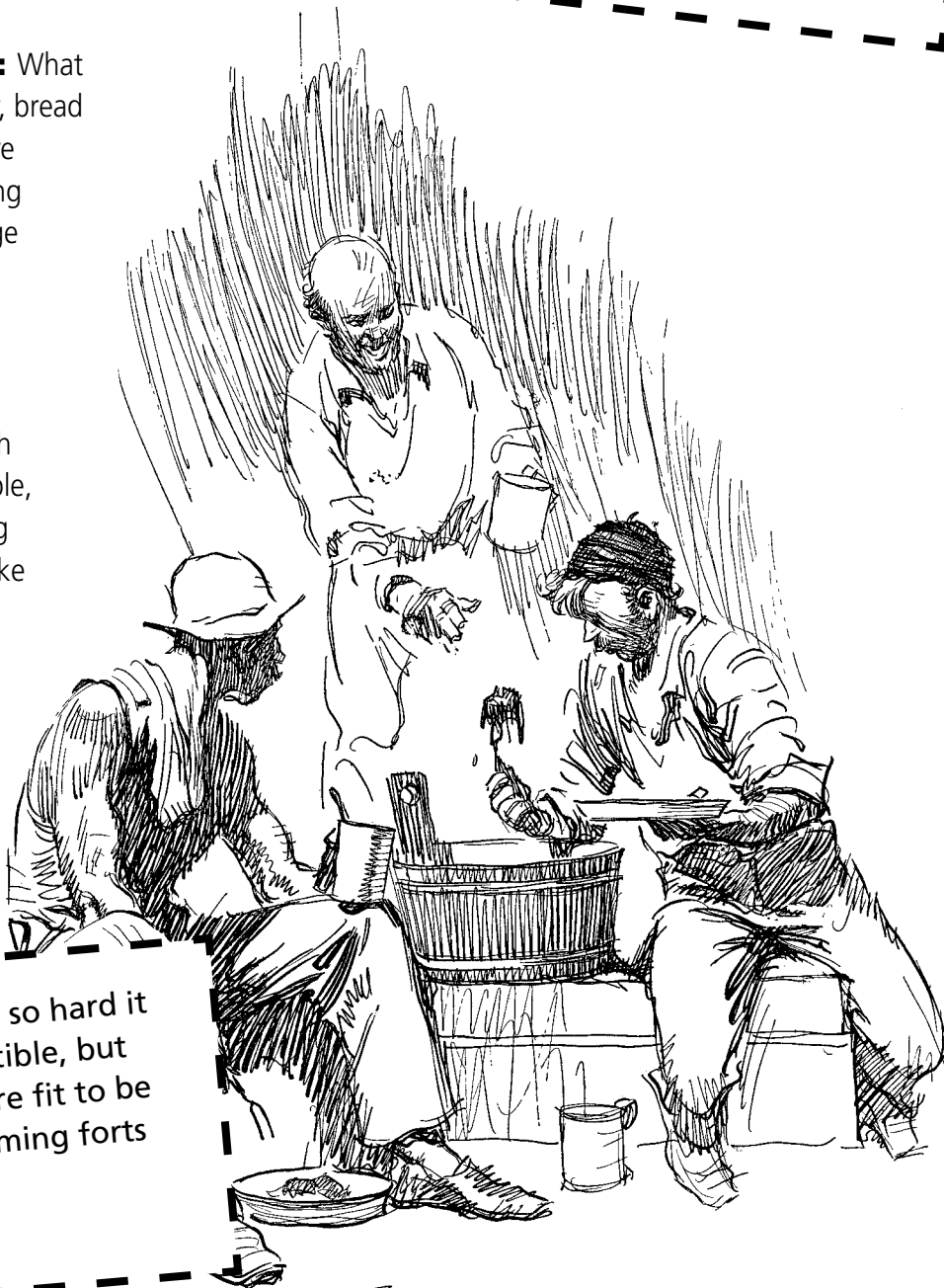


## Try this

**Changes for the Better:** The food whalemens ate was far different from what the average fisherman eats aboard a ship today. What might be some of the reasons for this change? What discoveries and inventions resulted in some of these changes? Create a Venn diagram comparing and contrasting the food of the whalemens to the food on board fishing ships today.

**Changes for the Worse:** What happens to vegetables, butter, bread and other foods when they are stored unrefrigerated for a long time? In a display case, arrange five or six items of food that might have been served on a whaleship (potatoes, turnips, dried beans, corn, apples and crackers). Label each item with name and starting date ("Apple, October 16"). Keep a daily log recording the changes that take place. What has happened after one week? two weeks? a month? Will any of these foods be edible after several months at sea?

"It was a common practice to soak the bread in hot tea or coffee in order to scald out the worms which were then skimmed off before drinking."  
*from a whaleman's journal*



"Duff sometimes was so hard it was not only indigestible, but unchewable and more fit to be used as shot for storming forts and towns."  
*from a whaleman's journal*

Gordon Grant

# How do you **catch a whale?**

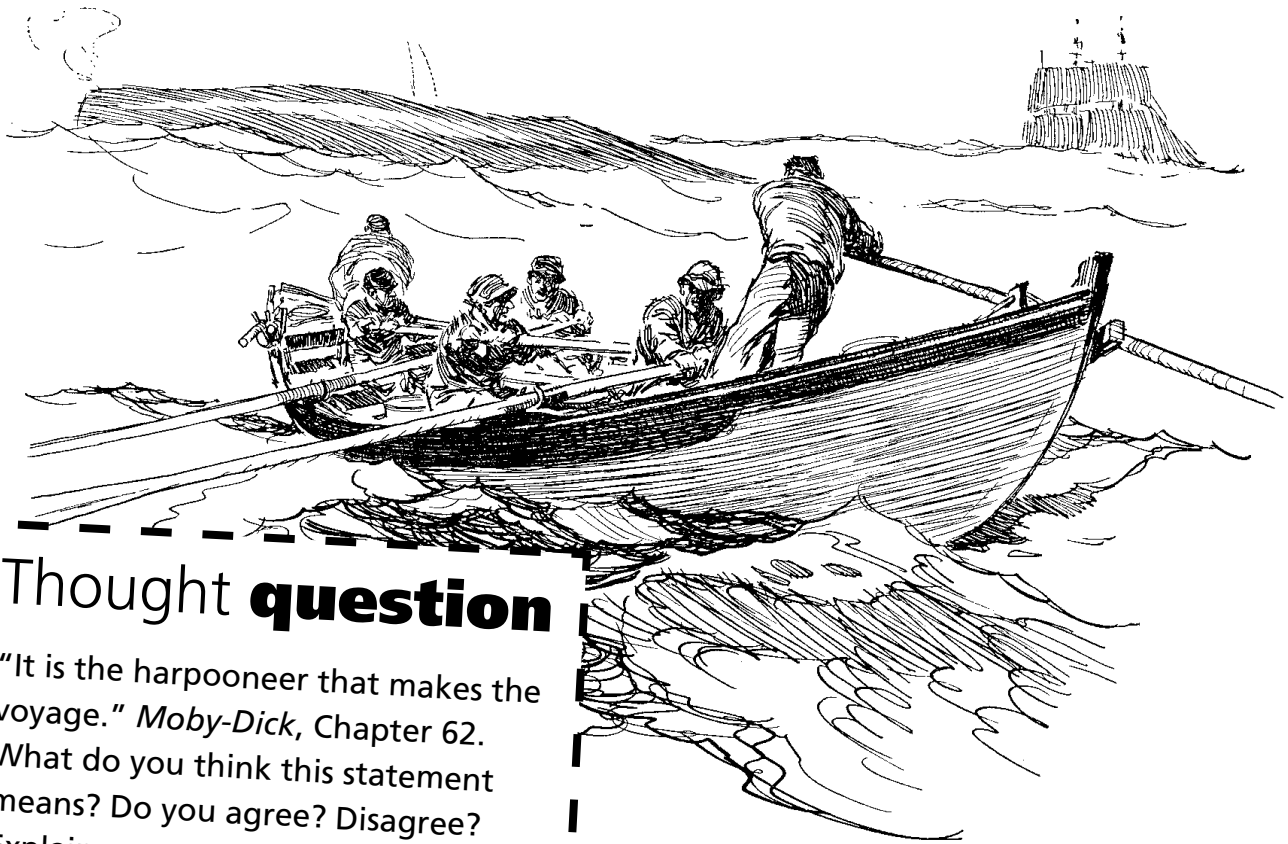
"I suppose you all know what you came a whaling for. If you don't, I'll tell you. You didn't come to play; no, you came for oil; you came to work. Now the sooner you get a cargo of oil, the sooner you'll get home."

- *The American Whaleman*, E. P. Hohman, page 117

The purpose of a whaling voyage was to locate, catch and process whales.

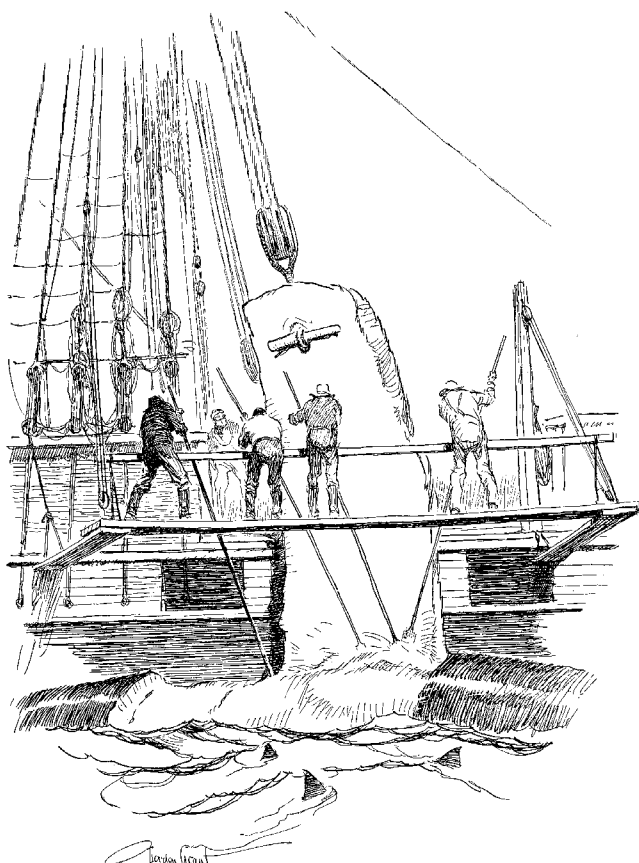
## **1. Capturing the Whale**

- The whale was sighted by a whaleman stationed at the masthead.
- Whaleboats with six men each were lowered from the ship to pursue the whale. When the whale was reached, a harpooneer darted his weapon forcefully into the whale. Usually the whale dove deep and took out many feet of the line attached to the harpoon.
- On surfacing to breathe, the whale would then swim rapidly, pulling the whaleboat behind; this was called a "Nantucket Sleigh-Ride." Eventually he tired and when the boat crew pulled in close, there was a chance to kill the whale with a lance.



### **Thought question**

"It is the harpooneer that makes the voyage." *Moby-Dick*, Chapter 62.  
What do you think this statement means? Do you agree? Disagree? Explain.



## 2. Cutting In

- The men would row back to the ship dragging the whale behind the boat. Once the whale was made fast to the ship and the plank platform called the cutting-in stage was in place, the processing would begin. With sharp cutting spades the crew separated the whale's blubber from the body and brought it aboard.
- The blubber was then cut into smaller sections called "horse pieces" and again into smaller pieces called "bible leaves" because they were sliced nearly through in many places and resembled the leaves of a book.



## 3. Trying Out

- Aboard the whaleship there were two iron pots set in a brick foundation with a place for fire underneath. These tryworks received the "bible leaves." The heat of the fire soon melted the blubber into oil, which was then cooled and placed in casks.

When the ship returned to homeport, the oil was sent to a refinery for straining and bleaching in preparation for sale.

## Letters home

**L**etter writing was a way to “talk” directly to those at home. Experiences and adventures would be described. A letter would allow a person to complain about work, food or fellow crewmembers. Loneliness and love for those at home would be expressed.

If a crewmember did not know how to write, he usually found someone with schooling enough to put his thoughts on paper.

### “I dread a blubbering scene while in such weather”

Wm. A. Abbe sailed as a foremast hand on the bark *Atkins Adams*. The ship left Fairhaven on October 8, 1858, and returned on June 16, 1863. Here's what he wrote in his journal on July 17th, 1859:

*“I dread a blubbering scene while in such [rough] weather, indeed in any weather; To... put on clothes soaked in raw oil; to go on deck & work for eighteen hours among blubber, slipping & stumbling on the sloppy decks till you are covered from crown to [heel] with oil; eating with oily hands oily grub, drinking from oily pots till your mouth & lips have a nauseating oily taste; turning in for a few hours sleep--after wiping off your bare body with oakum to take off the thickest of the oil; & then to dream you are under piles of blubber that are heaping and falling upon you till you wake up with a suffocating sense of fear & agony only to hear the eternal clank of the cutting machine & the roar of the fire under try works, or the wind dismally howling through the rigging; to fall asleep only to dream again till you are called on deck to lean off the raw blubber, to handle the greasy pikes & gaffs or deck tubs... to be order[ed] about by boatsteerers & damned by the mates... to clean off the decks, rails & try works, scrubbing for hours with broom & sand & old canvas; ...to be weary, dirty, oily, sleepy, sick, disgusted with yourself & everybody & everything; to go through such a scene for a week at a time & have at length a brief respite, just long enough to clean your self and get a little sleep & recover from your fatigue, only to begin your nasty work afresh to go through such a scene I confess the very thought turns my stomach & dizzies my head. Yet I am not foolish enough to wish this valuable ship to lie idle. I hope she will do well, but leave her I must at the next port.”*

“...Oh: for a run in the woods...”

Sometimes, the captain's wife accompanied her husband on the voyage. In the following excerpts, Lucy Ann Crapo writes to her sister Ellen from the bark *Linda Stewart*, Pacific Ocean. She started writing the letter on May 24 and continued adding comments until June 1, 1878, when she apparently mailed the letter.

*“...oh: for a run in the woods of America... or a tramp over her green pastures, where I might inhale the fragrance of every leafy shrub, which is just budding into life again, then I should like to lie down on the green grass, and roll over a few times, just to get the salt off...then away to father's well to get a [drink] of cold water... I took from [a recent stopover in a port] beside quantities of cut flowers, a box of soil which here on my cabin floor flourishes. Everyday I plant and dig and sow and reap, and go through all the motions of a larger farm...*

*“I find a ready market for my crops with the hens and parrot... Were I had leave to go on deck to see an ocean of porpoises, having a grand frolic, jumping high out of the water, and plunging back so that it-is like a sea of foam. [The crew] have been trying to catch one, but they wouldn't stop to be caught....*

*“We got in yesterday and leave tonight. I haven't been ashore and don't care to... I had some lady visitors yesterday, fruit vendors, three, and though I had to talk with the steward for interpretation we got on quite well, and made a trade so I have a half bushel of fruit, oranges, limes, two coconuts, and some bananas. We get meager supply of anything here, everything we can get is very high, sweet potatoes \$1.00 per pound and other things in proportion.”*

## **"I am safe as yet..."**

Alfred Hall was born in Poughkeepsie, NY. He traveled to New York City, planning to purchase a ticket to California, but went instead on a four-year whaling voyage. At age 28, he sailed aboard the *Lagoda* of New Bedford on July 16, 1856. The vessel returned June 27, 1860. Alfred Hall was listed as a carpenter.

*"My Dear Mother: I suppose you have traced me as far as New Bedford and lost further clue of me but I am safe as yet but in a different situation from that which I expected to be. So dear Mother, I will give you an explanation....I came across some old acquaintances from New Haven. They came down to New York to go awhaling.... We went down to the shipping office on Saturday and the fellows I was with signed the papers. The agent told them they wanted a carpenter also. The thought struck me that I might go in that capacity. I told them I was a carpenter and wanted to ship. [He said] I was just the man he wanted so I signed the papers also and on Saturday night we took the steamer Metropolis for Fall River. We then [traveled] twenty miles to New Bedford which we reached on Sunday morning...They sent us to a boarding house for which we paid \$4.00 per week. We had good board. We stayed some three weeks before the ship was ready for us.... On the 16th of July the ship was ready to go to sea. I went to the ship owner's office and told them that I was the carpenter that was going on their ship [Lagoda]. Mr. J. [Bourne], the owner wanted to see if I could qualify so he told me to go to work and build a chest. If I could build a good chest he said I could do anything about a ship. I built to his satisfaction....I then signed the ship's articles to live in the steerage which is next to the cabin and also get[s] better food than the sailors before the mast, but we have to eat hard bread and salt junk....We are just in port [Maui], one of the islands. We are surrounded on all sides by islands. You will see by the heading that I wrote part of this letter at sea and the rest in port. We have taken but one sperm whale....We have good officers. They are very kind. I calculate to do as well this voyage as I would in California, if we have any kind of luck. Although this life is attended with some danger and hardship, I will be in no danger for I do not go in the boats. I am shipkeeper when the boats are off. My health [has] never been better than now. I am stronger and heavier. The old salt junk and hard bread goes first rate now. For a month or two when we first came out I was seasick. Everything aboard the ship I was disgusted with, but after getting around Cape Horn, I got my sea legs on and have seen Old Neptune as the sailors phrase it.... We will get our liberty in a day or two. We will lay here about one or two weeks to repair and paint ship and [replenish] our supply of water and then shape our course to the Ocod Sea.*

*"I must now close my letter.... This will let you know that I am safe and well. This ship will be in this port again in eight months from now, so if you write you must direct your letters to*

*Your affectionate son, A. Hall*

*Honolulu...*

*Wahoo, Sandwich I.*

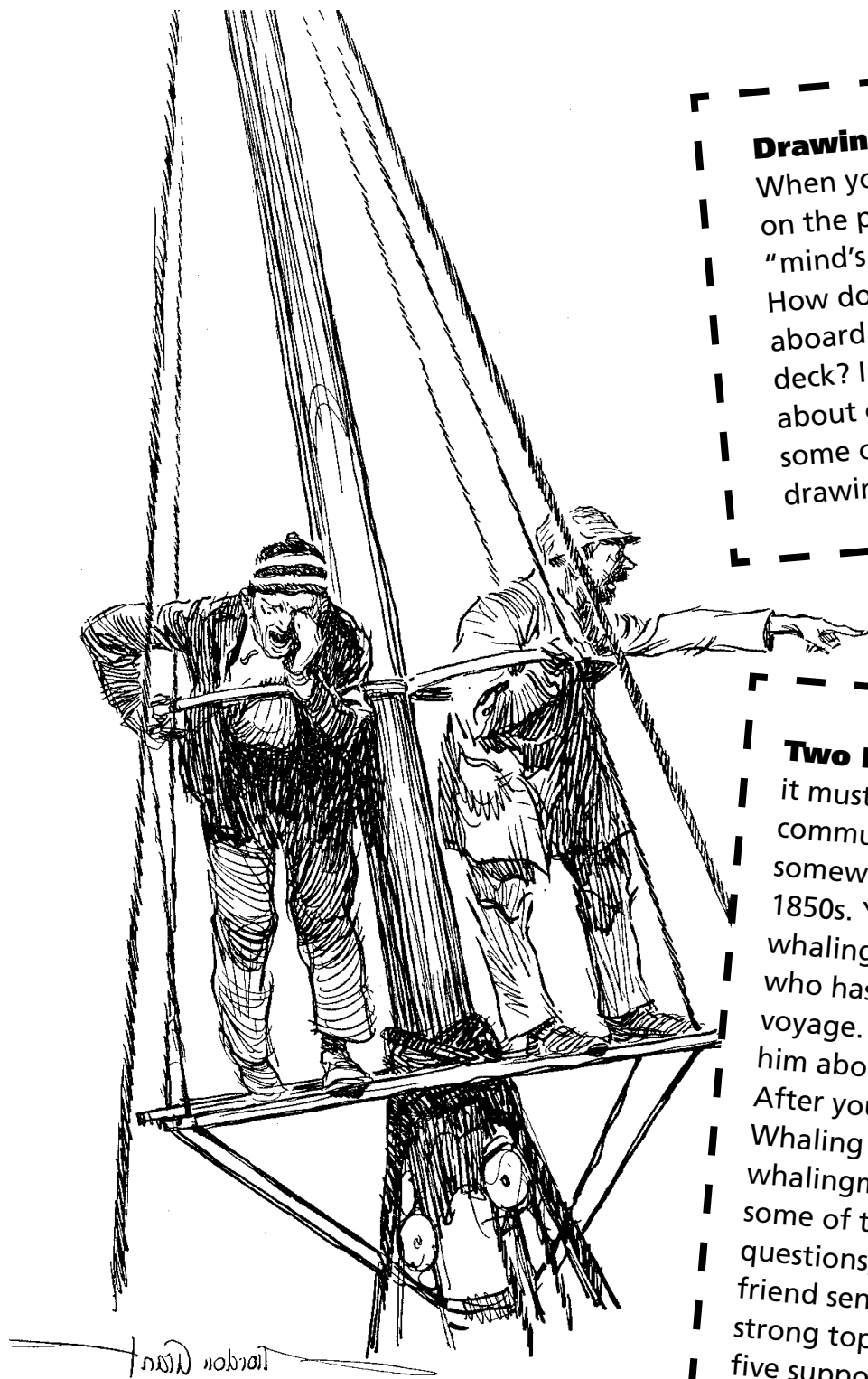
*Ship Lagoda*

*in care of Capt. John Willard*

*"P.S. Your letter in order to reach me will go to California, then in a packet to the I[s]land of Wahoo [Oahu], then Honolulu....You will pay postage to California and I will have to pay from there. Address c/o Ship Lagoda or it will not reach me."*



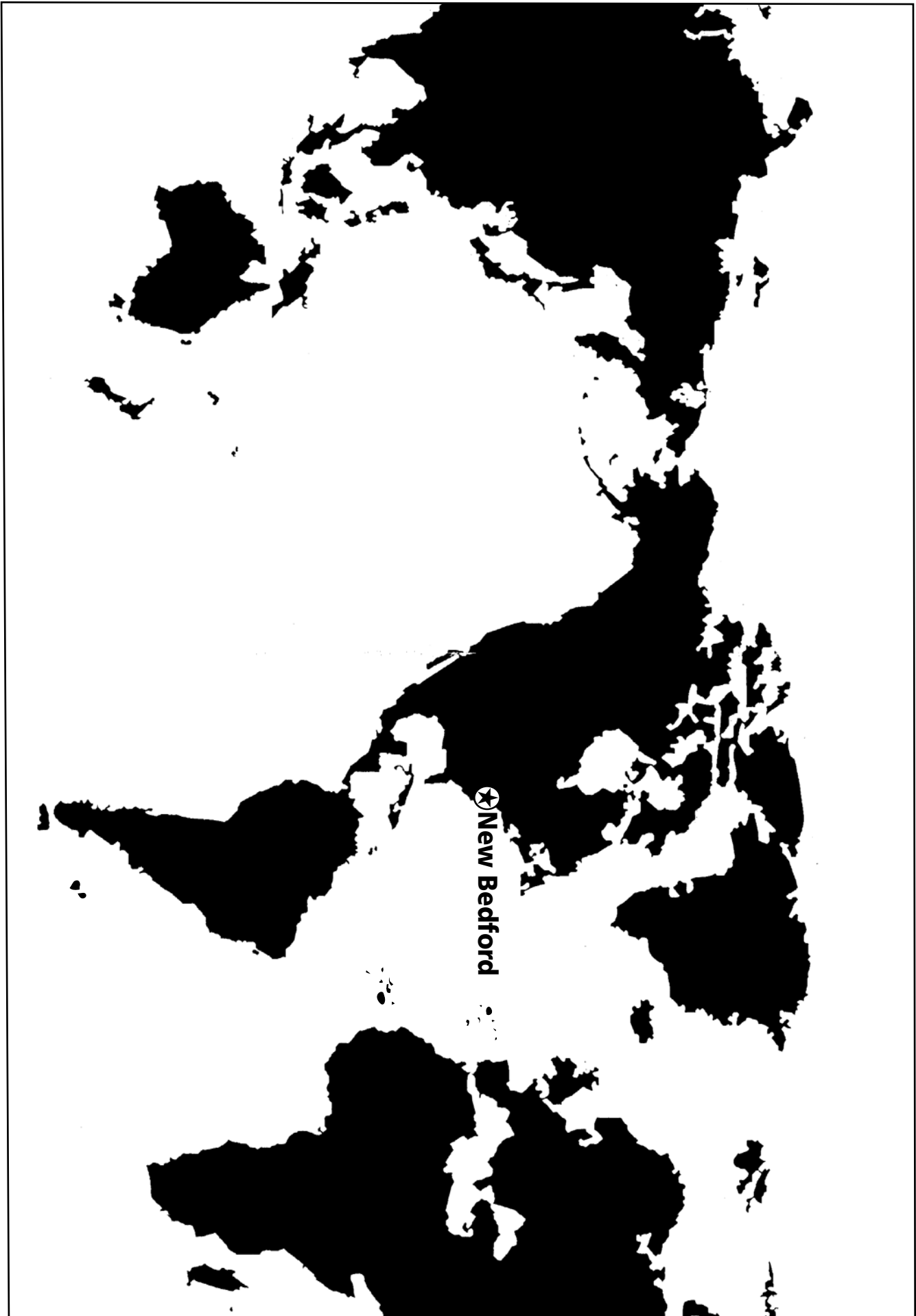
# Your **voice & vision**



## **Drawing What You See:**

When you read the three letters on the preceding pages, your "mind's eye" pictures the events. How do you imagine the scenes aboard ship? On deck? Below deck? In the whaleboats? What about coming into port? Show some of these images in a drawing of your own.

**Two Letters:** Imagine what it must have been like in your community (New Bedford or somewhere far from here) in the 1850s. Your dream is to go whaling, and you have a friend who has been on a whaling voyage. Write a letter asking him about life on a whaleship. After you visit the New Bedford Whaling Museum or its website [whalingmuseum.org](http://whalingmuseum.org) to learn some of the answers to your questions, write the letter your friend sends back to you. Use a strong topic sentence and at least five supporting facts.



## Where in the world?

**A**s a class project, map a whaling voyage. To do this, you will need an overhead projector, a map transparency of the world, and a large sheet of brown wrapping paper or plastic shower sheet. Project the map and trace its outline. Locate New Bedford and imagine sailing away on a voyage of three to four years. Where does your ship go, and what are some of the events that take place? Keep in mind the prevailing winds and ocean currents.

A typical whaling voyage did not go around the world. Searching for whales was a very inexact procedure. Whaling captains with charts of oceans and currents, navigational equipment, information from logs of other voyages, and knowledge gained from years of experience would make a guess where the whales might be at a specific time or season. Locations where whales were known to gather were called whaling grounds and were scattered throughout the oceans of the world. The captain would head for the South Atlantic, or Pacific, Arctic, or Indian, or any combination of whaling grounds hoping to be at the right place at the right time.

**Some of the ports and locations** that a whaling vessel from New Bedford might have visited are listed below. The captain of the ship would stop to purchase fresh fruits and vegetables and replenish water supplies. On occasion the ship might need repair and additional or replacement crewmen might be needed. Port stops were limited and brief because the business of the voyage was whaling.

Fayal, Azores  
Brava, Cape Verde  
Rio de Janeiro  
Santa Cruz, Patagonia  
Cape Horn, Chile  
Valparaiso, Chile

Lima, Peru  
Charles Island, Galapagos Is.  
Lahaina, Hawaii  
Ayan, Siberia  
Point Barrow, Alaska  
Nome, Alaska  
Nukuhiva, Marquesas Is.

Bay of Islands, New Zealand  
Zanzibar, Tanzania  
Mahe'Seychelles  
Ft. Dauphin, Madagascar  
Cape Town, South Africa  
James Town, St. Helena

### Keep a log:

Research and write a description of the ports visited. Draw or find pictures of these ports. Whenever the ship reaches a port, write down the name of the port and the date of the ship's visit. Add drawings or notations to show places at sea where the ship caught a whale, encountered a bad storm, lost a man overboard, or was becalmed for a long time, and so forth.

**Create a Board Game:** Based on what you have learned about a whaling voyage, make up a board game that several people or teams can play. Include such things as ports-of-call and oceans where the ship sails; favorable or bad weather; problems with the ship or the crew; places where whales are sighted; places where other whaleships are sighted. Use your imagination and create a game that is challenging and fun to play.

## How much did you earn?

**A**t the end of the voyage, the ship returned to homeport and the value of the cargo was carefully calculated and sold. From the total amount received from the sale of the oil and baleen, the ship's expenses were subtracted. The resulting sum was the net profit. A portion of this was given to the owners of the ship and then the lays of each member of the crew would be calculated. The usual division of the profits was that a third went to the owners, another third went for the expenses of outfitting and preparing the ship for its next voyage, and a third to the officers and crew.

In 1856 the whaleship *Lagoda* returned to homeport with a cargo of oil and baleen which sold for \$42,185.25. From this sum the expenses were deducted. Since the account books of the *Lagoda* have not survived, the typical division of the profits will be used to estimate expenses.

**One third of \$42,185.25 = \$14,061.75 for expenses**

**One third of \$42,185.25 = \$14,061.75 for the owners**

**One third of \$42,185.25 = \$14,061.75 for officers and crew.**

### Try the math

**Look at the Whaling Contract for the whaleship *Lagoda*. Jacob Howland, First Mate, signed on for a 1/30 lay. What would he have earned for the voyage?  
1/30 of \$14,061.75 = ..... round off to the nearest tenth.**

Jacob Howland would not receive any money until the agent and owners of the ship had sold the oil and other whale products and examined the ship's book of all the debts of each crewman. Deductions would be made for the cost of each man's initial outfit or equipment, plus interest charged on that debt from the day of sailing. Each man's share of the cost of providing a medicine chest would also be subtracted, as would his purchases of articles on credit from the slop chest and any other debts incurred during the voyage. Only then would Jacob Howland receive pay for the voyage.

Look at your name on the Whalemens' Shipping Paper. What did you sign on for? Did you purchase items on credit from the slop chest? What other expenses did you accumulate during the voyage? How much do you think you might earn for the entire voyage?

## Modern **whaling** and **conservation** issues

In the 1860s, Norwegians pioneered new methods of hunting and processing whales. Instead of sailing ships and oar powered whaleboats, the Norwegians introduced steam powered catcher boats equipped with cannons and heavy caliber harpoons that exploded on impact. These increased efficiency and more whales were caught.

In the 20th century, many technological innovations were developed, including stern slipways on factory ships for hauling entire carcasses aboard and spotter aircraft and radio communications to track migrating whales. Britain, Germany, the Netherlands, the Soviet Union, China, Korea, Argentina, and Japan followed Norway into factory ship whaling. Two ships partly owned in the United States were also sent whaling in Antarctica in the 1930s. This efficient technology and the failure of the whaling nations to follow protective quotas regulating the catch devastated several whale

species to the point of extinction. International treaties were negotiated. The International Whaling Commission (IWC) was established in 1949 with an expert scientific committee to track and keep a census of whale populations. Lack of enforcement authority and persistent international disputes, combined with over-whaling and under-reporting of the catch, weakened IWC effectiveness.

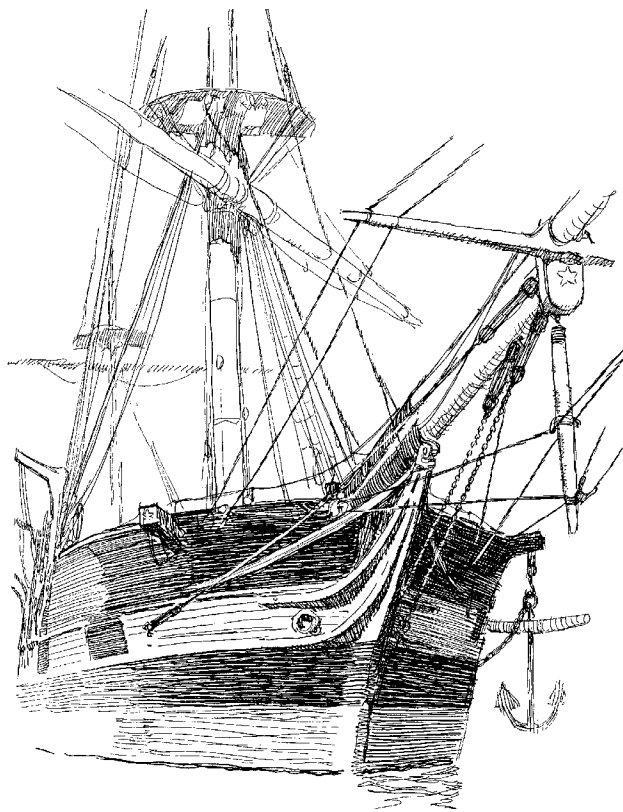
In 1972, the United Nations called for an end of whaling and the United States Congress passed an Endangered Species Act. Parts of the oceans of the world were declared whale sanctuaries. A general moratorium on commercial whaling with measures to protect whales from annihilation took effect in 1987. Nevertheless, some nations continue to whale without IWC sanction and some whale species remain endangered.

## What happens **next?**

### **Why do some nations and cultures continue to whale?**

Work in a team to log on to various Web sites, including [www.whalingmuseum.org](http://www.whalingmuseum.org) to find out about whaling in the 21st century.

Write an essay about current whaling issues including the following terms: endangered, sustainable development, cooperation and international plan.



---

# Glossary of **whaling terms**

**Agent:** The person who managed some of the shore-side affairs of a whaleship. He was usually a part owner of the ship.

**Aft:** In the direction of the stern, or back, of a ship.

**Baleen:** The long slabs of whalebone that hang from the upper jaw of a whale and serve as a strainer of plankton from the water. Baleen is made of the same material, "keratin," as fingernails, cows' horns, and hair.

**Barrel:** A barrel existed aboard a whaleship only as a unit of measurement for oil: 31 1/2 U.S. gallons. Oil was stored in casks. When whalers said they caught a whale that gave "50 barrels," that didn't mean they had 50 separate containers stored in the ship.

**Before the mast:** Ordinary seamen bunked in the part of the ship forward of the foremast (in the forecastle); hence they sailed "before the mast," a term differentiating seamen and officers.

**Blubber:** Thick, oily outer casing of the whale, which serves as protection and insulation against pressure and cold.

**Boatheader:** The man who steers the boat in going after the whale, and afterward kills it. Generally a mate, but sometimes an experienced whaleman with no ship duties save masthead and cutting stage.

**Boatsteerer:** Harpooner. The man who darts the iron (harpoon) into the whale.

**Bow:** The front of a ship or boat; opposite of stern.

**Bunk:** A sailor's bed.

**Cask:** A barrel-shaped container. Everything from whale oil to spare sails and food was stored in casks. Large casks held between five and fifteen barrels of oil.

**Costermonger:** A person who sells fruit, fish, or other goods from a cart, barrow, or stand in the streets.

**Davits:** The curved wooden arms that suspend a whaleboat overside.

**Fo'c'sle or Forecastle:** The area in the bow of a ship beneath the top deck where seamen slept, ate, and stored personal belongings.

**Foremast:** The mast at the front of the whaleship.

**Forward:** Opposite of aft; front section of ship

**Gam:** A visit between whaleships at sea.

**Go aloft:** To climb the ropes to the masthead.

**Green hand:** An inexperienced man or boy on his first whaling voyage.

**Grounds:** The areas in the sea where whales were known to be found.

**Hand:** Any worker, such as a seaman.

**Hardtack:** Thick square biscuit, made very hard in order to resist dampness and deterioration.

**Harpoon:** An iron or steel instrument with a barbed head for fastening to whales. It is mounted on a pole and is commonly called an "iron."

---

**Hold:** The space below deck to store equipment, supplies and cargo.

**Iron:** A harpoon.

**Lay:** The whaleman's share of the profits of a whaling voyage.

**Land shark:** Common name for a sailor's outfitter.

**Liberty:** Shore leave for sailors; time off-duty ashore.

**Lobscouse:** A stew of salt beef and hardtack. "Lob" was a slang word meaning to boil; "scouse" was a broth.

**Log:** A book in which the speed and position of the ship as well as events of importance were recorded daily.

**Lookout:** The men stationed in the hoops atop the masts to look for whales.

**Make a passage:** To sail from one area in the sea to another.

**Mast:** The long upright post of timber on the ship to support the sails.

**Masthead:** The area at the top of each mast where the lookout stood to watch for whales.

**Outfit:** The equipment for a whaling voyage, either a sailor's or a ship's. The whaleman's clothing and gear when coming aboard.

**Port:** The left side of a ship as you face forward. (see starboard)

**Recruits:** New men taken aboard a whaleship at a foreign port to make up for men lost to illness, disability, death or desertion.

**Salt horse:** The whaler's term for salt beef or pork.

**Scrimshaw:** The art of carving designs on whale teeth or bones.

**Sea chest:** A small, sturdy container in which a sailor's personal items were stored.

**Settle a voyage:** To pay the owners and crew at the end of a voyage.

**Shipping a crew:** Enlisting men aboard, signing them on for a voyage.

**Sign on:** To agree to a contract, employment, etc.

**Slop chest:** The ship's store, which sold clothes, knives, tobacco and other items. The captain, who shared its profits with the owners, usually managed the slop chest.

**Starboard:** The right side of the ship. Port is the left side. You can remember which is which by remembering that starboard is a longer word than port, just as right is a longer word than left.

**Stove:** When a ship, boat, or other object is badly smashed by a whale.

**Try:** To melt or separate. The whale oil was "tried out" from the blubber in "trypots." The "trypots" were set in the "tryworks."

**Voyage:** The entire whaling trip from homeport to homeport.

**Whalebone:** Baleen.

**Yard:** A long, round, tapering timber that supports and extends a square sail.

---

## If you want to **know more:**

Log on to the New Bedford  
Whaling Museum's Web site,  
[www.whalingmuseum.org](http://www.whalingmuseum.org).

### Readers will find the following books helpful for additional background information.

Ashley, Clifford W., *The Yankee Whaler*, Boston: Houghton Mifflin Co., 1926

Busch, Briton C., *Whaling Will Never Do For Me*, The University Press of Kentucky, 1994

Carwardine, Mark, *Whales Dolphins and Porpoises*, New York: Dorling Kindersley, 1995

Cohat, Yves & Collat, Anne, *Whales Giants, of the Seas and Oceans*, New York: H. N. Abrams, 2001

McKissack, P.C. & F. *Black Hands, White Sails*, New York: Scholastic, 1999

*Moby-Dick and the Tools of Whaling*, New Bedford, MA: Whaling Museum, 1983

Murphy, Jim, *Gone A-Whaling*, New York: Clarion Books, 1998

Philbrick, Nathaniel, *Revenge of the Whale*, New York: G. P. Putnam, 2002

*The Seafaring Life*, Cobblestone Magazine, April 1988

Wade, Larry, *Getting to Know the Whales*, Minnetonka, MN: Singing Rock Press, 1995

*Whaling In America*, Cobblestone Magazine, April 1984





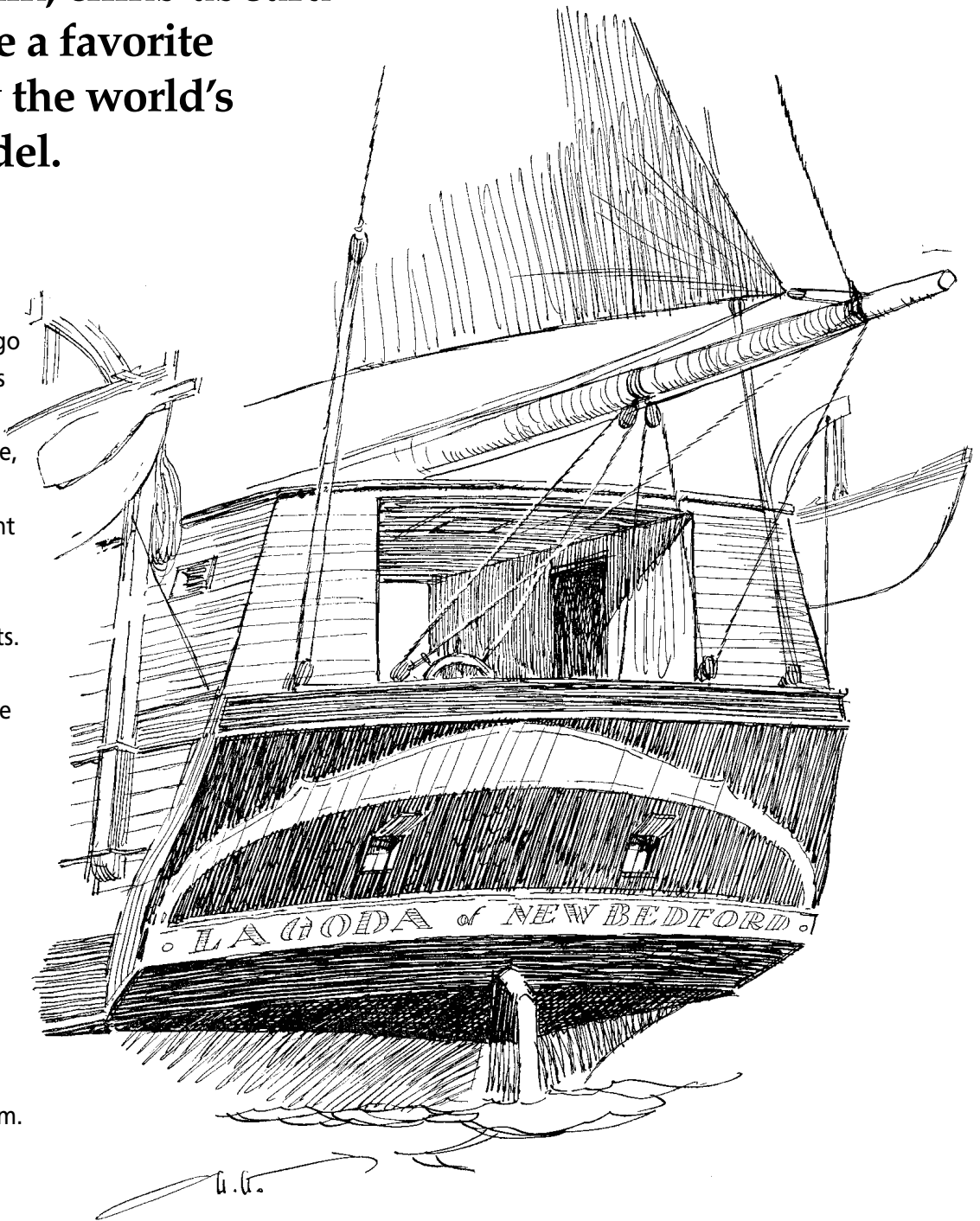


---

## When you visit the New Bedford Whaling Museum, climb aboard the *Lagoda*, once a favorite whaleship, now the world's largest ship model.

The original *Lagoda* was built in 1826 and spent her first fifteen years transporting cargo between Boston and the ports of California. In 1841, she was purchased by Jonathan Bourne, Jr., of New Bedford, who converted her from a merchant ship to a whaleship by adding the tryworks, special whaling gear, and whaleboats on davits. The *Lagoda* made twelve successful voyages and became Mr. Bourne's favorite ship.

In 1916, Emily Bourne wanted to create a memorial to her father Jonathan and to the whaling industry. To do this, she gave the money to create the half-scale model of the *Lagoda* and the building that houses it, now part of the New Bedford Whaling Museum.



---

THE EDUCATION DEPARTMENT OF THE MUSEUM USES THE *Lagoda* AS THE CENTERPIECE OF SCHOOL PROGRAMS. TOURS PROVIDE EXPERIENTIAL LEARNING WHICH CONNECTS THE MUSEUM'S RESOURCES WITH CURRICULUM FRAMEWORKS.

FOR MORE INFORMATION ABOUT SCHOOL PROGRAMS AND TEACHER RESOURCES, CALL 508 997-0046 EXT. 120 OR DIRECT DIAL 508 717-6820

WE LOOK FORWARD TO YOUR VISIT.

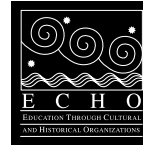
---

*Funding in Part by:*

**ECHO - Education through Cultural and Historical Organizations**

**The Jessie B. duPont Fund**

**Funded in part by the Florence Goulart Brower Educational Fund**



**NEW BEDFORD WHALING MUSEUM**

18 Johnny Cake Hill  
New Bedford  
Massachusetts 02740-6398  
[www.whalingmuseum.org](http://www.whalingmuseum.org)

Education Department  
508 997-0046, ext. 123  
FAX 508 997-0018