

Resources

The *Endurance*



Books

Kimmel, Elizabeth Cody. **Ice Story: Shackleton's Last Expedition.** New York, NY: Clarion Books, 1999. This picture book follows the series of disasters that constitute an adventure that, by all accounts, no one should have survived.

Shackleton, Ernest. **South: A Memoir of the Endurance Voyage.** New York, NY: Carroll & Graf, 1998. Shackleton's own account of his odyssey. As he himself wrote, it provides "records of unflinching determination, supreme loyalty, and generous self-sacrifice on the part of my men."

Worsley, Frank A. **Shackleton's Boat Journey.** New York, NY: W. W. Norton & Company, 1998. Written by Captain Frank Worsley of the *H.M.S. Endurance*, this book reveals Shackleton to be both luckless and lucky, as well as supremely cool and courageous throughout the entire journey.

Web Sites

Shackleton's Antarctic Adventure

www.shackletonsantarcticadventure.com

Visit the companion Web site for the giant-screen film *Shackleton's Antarctic Adventure* to find e-mail postcards, a downloadable version of the 24-page *Shackleton's Antarctic Adventure Teacher's Guide*, and more.

Shackleton's Antarctic Odyssey

www.pbs.org/nova/shackleton/

Find more information about Shackleton's expedition, including sounds and interactive activities, on this NOVA/PBS Online Adventure Web site that documents the two filming expeditions in the Antarctic for the *Shackleton's Antarctic Adventure* giant-screen film.

Sir Ernest Henry Shackleton

indigo.ie/~jshack/ernest.html

Links to information about the explorer, including books, video and film, upcoming exhibitions, and related Web sites.

Credits

Shackleton's Antarctic Adventure Family Activity Guide is produced by the Educational Print and Outreach Department of the WGBH Educational Foundation. *Shackleton's Antarctic Adventure* is a co-production of White Mountain Films and NOVA/WGBH Boston, presented by Morgan Stanley.

All quotes drawn from **South: A Memoir of the Endurance Voyage**, by Ernest Shackleton, New York, NY: Carroll & Graf, 1998.

Giant-Screen Theater Partners

The following museums with giant-screen theaters are partners in *Shackleton's Antarctic Adventure*.

American Museum of Natural History, New York, NY

Museum of Science, Boston, MA

Cincinnati Museum Center, Cincinnati, OH

San Diego Natural History Museum, San Diego, CA

Houston Museum of Natural Science, Houston, TX

The Science Place, Dallas, TX

The Tech Museum of Innovation, San Jose, CA



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SHACKLETON'S ANTARCTIC ADVENTURE

The greatest survival story of all time.

Family Activity Guide
to accompany the giant-screen film

Who Was Sir Ernest Shackleton?



Scott Polar Research Institute

Sir Ernest Shackleton

Born in 1874 in County Kildare, Ireland, Ernest Shackleton signed up with the British Merchant Navy when he was 16 years old. Ten years later, he joined the National Antarctic Expedition under British Captain Robert Falcon Scott. This became the first of four polar adventures Shackleton would undertake.

The 1901 to 1904 Scott expedition aboard the ship *Discovery* came within a record-breaking 400 miles of the South Pole but was ultimately unsuccessful in reaching its destination.

Shackleton returned to England, married, and tried to establish a name for himself in journalism, business, and politics.

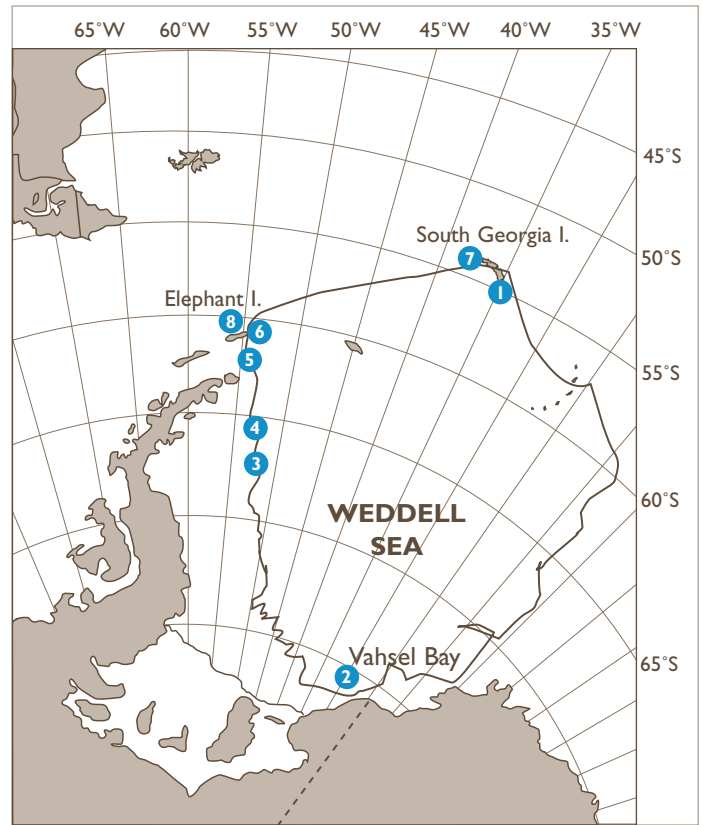
By 1908, however, Shackleton was again drawn to the Antarctic. Deciding to attempt the South Pole trek himself, he raised the funds for his own expedition on the *Nimrod*. But the *Nimrod*'s quest for the Pole failed, too. His crew got within about 100 miles of the Pole—farther south than anyone had gone before—when Shackleton was forced to turn back because of the party's ill health and dwindling supplies. Three years later, Norwegian explorer Roald Amundsen was the first to reach the Pole.

In his third venture to the Antarctic, Shackleton set out to gain Britain the honor of having first crossed the full continent. Twenty-seven men served as crew members of the British Imperial Trans-Antarctic Expedition, sailing aboard the *Endurance*. While Shackleton and his crew failed to make the first crossing, their expedition became a larger-than-life testament to heroism and human endurance. All 28 men survived almost two years in the barren, frigid Antarctic when their ship was caught in pack ice and eventually crushed.

The crew officially dispersed in October 1916, with most of the men returning to England to serve in World War I.

In 1921, Shackleton led his final journey to the Antarctic on the ship *Quest*. Shortly after the start of the expedition—on January 5, 1922—Shackleton died of a heart attack; he was 47 years old. He is buried at Grytviken, the South Georgia Island whaling station that played a pivotal role in his *Endurance* expedition's infamous tale of survival.

Shackleton's Endurance Journey



Expedition Highlights

1. November 5, 1914

Sir Ernest Shackleton and his 27-man crew arrive at Grytviken, South Georgia, 10 days after they departed Buenos Aires, Argentina. On December 5, the crew heads out for Coats Land, Antarctica.

2. January 18, 1915

The *Endurance* becomes trapped in pack ice.

3. November 21, 1915

Crushed by pack ice, the *Endurance* sinks into the Weddell Sea.

4. December 29, 1915

The crew erects Patience Camp on an ice floe.

5. April 9, 1916

The crew goes to sea in three lifeboats.

6. April 16, 1916

The lifeboats land on uninhabited Elephant Island. Eight days later, Shackleton and five others set out in the *James Caird* lifeboat for inhabited South Georgia Island, 800 miles away.

7. May 10, 1916

The men reach South Georgia's west coast. Nine days later, Shackleton and two others set out to cross the island's uncharted interior.

After 36 hours of hiking without a break, the men reach Stromness whaling station.

8. August 30, 1916

Twenty-two months after the expedition set out from Buenos Aires, Argentina, Shackleton rescues the 22 men remaining on Elephant Island. Everyone survives.

Ice Everywhere

“The area of dangerous pressure, as regards a ship, does not seem to extend for more than a quarter of a mile from the [ice]berg. Here there are cracks and constant slight movement, which becomes exciting to the traveller when he feels a piece of ice gradually up-ending beneath his feet. Close to the berg the pressure makes all sorts of quaint noises. We heard tapping as from a hammer, grunts, groans and squeaks, electric trains running, birds singing, kettles boiling noisily, and an occasional swish as a large piece of ice, released from pressure, suddenly jumped or turned over.”

—Frank Worsley, writing on March 11, 1915, about an iceberg the crew encountered and named Rampart Berg



Paul Marotta/WGBH

Antarctic tabular iceberg

Antarctica is home to about 90 percent of the world's glacial ice. Indeed, it was ice that proved the downfall for the *Endurance*, first preventing its efforts to reach Antarctica and later crushing the ship itself, leaving 28 men stranded.

The ice that Shackleton and his crew encountered is known as *pack ice*, which is solid or broken up ocean ice. Crew members also saw many icebergs on their journey, which are primarily made up of fresh water. The icebergs in Antarctica are tabular in shape and can be very large—even five miles long!



Would you like to make your own miniature iceberg? First, fill an ice tray with water and freeze it. Then, place three or four of the ice cubes in a bowl of water. What happens? How much of the ice is above water? How much is below? What does that tell you about the icebergs in Antarctica?

What's to Eat?

“Later there was a really splendid dinner, consisting of turtle-soup, whitebait, jugged hare, Christmas pudding, mince-pies, dates, figs, and crystallized fruits, with rum and stout as drinks.”

—Shackleton, recalling the December 25, 1914, dinner on board the *Endurance*

At the start of their expedition, Shackleton and his crew members had plenty of varied foods to eat. Near the end of the journey, when 22 of the men were stranded on Elephant Island, food was scarce. As Shackleton notes in his memoir, “At breakfast each had a piece of seal or half a penguin breast. Luncheon consisted of one biscuit on three days a week, nut-food on Thursday, bits of blubber ... on two days a week, and nothing on the remaining day. On this day breakfast consisted of a half-strength sledging ration.”

Conversations often turned to food. Shackleton recounts how the men would take turns stating what food they would like to eat if they could have anything they wanted. Some of the responses included scrambled eggs on hot buttered toast, large dumplings, or suet pudding.

Each night one recipe was read from a cookbook they had salvaged. “This would be discussed very seriously,” Shackleton wrote, “and alterations and improvements suggested, and then they would turn into their [sleeping] bags to dream of wonderful meals that they could never reach.”



Imagine that you are going on a trip to a very cold place, like the Antarctic. What food would you take with you? How would you make choices based on weight, nutrition, variety, and how quickly it would spoil? What favorite food would you make sure to bring along as a treat?

Today Is Tomorrow's Past

"It's a hard, rough, jolly life, this marching and camping; no washing of self or dishes, no undressing, no changing of clothes. We have our food anyhow ... sleeping almost on the bare snow and working as hard as the human physique is capable of doing on a minimum of food."

—A crew member recording what it was like to leave the tedious life of the crew's first camp, Ocean Camp, and begin a march toward open water

If Shackleton and some of his crew members hadn't kept journals, no one would know details like these:

"There are no spoons, etc., to wash, for we each keep our own spoon and pocket-knife in our pockets. We just lick them as clean as possible and replace them in our pockets after each meal. Our spoons are one of our indispensable possessions here."

"The moon's rays are wonderfully strong, making midnight seem as light as an ordinary overcast midday in temperate climes."

"Fried slices of blubber seem to our taste to resemble crisp bacon."

"As fuel is so scarce we have had to resort to melting ice for drinking-water in tins against our bodies..."



What would you tell someone in the future about your day today? Think about what has happened to you today and then write a description of it. Where have you been? What did you eat? How did you feel? Were you hot? Cold? The more details you include, the more your reader will be able to know just what your day was like.

How Big?

"The tale of the next sixteen days is one of supreme strife amid heaving waters. The sub-Antarctic Ocean lived up to its evil winter reputation. ... We took two-hourly spells at the tiller. The men who were not on watch crawled into the sodden sleeping-bags and tried to forget their troubles for a period; but there was no comfort in the boat. The bags and cases seemed to be alive in the unfailing knack of presenting their most uncomfortable angles to our rest-seeking bodies."

—Shackleton, describing in his memoirs the first of a 17-day journey in the *James Caird* lifeboat, bound for South Georgia Island

Six adult men traveled 800 miles in a 23-foot lifeboat to reach South Georgia Island. And they had to sleep and crawl around on almost one ton of rocks and gravel that they had placed in the boat's bottom to keep the lifeboat from tipping over.

In addition, the men also had to share their space with the food they would need to survive and the equipment they needed to make the journey.



Just how big was the *James Caird*? To find out, you can map out the dimensions of the *Caird* replica used in *Shackleton's Antarctic Adventure*, which are based on present-day measurements of the original *Caird*, which resides at Dulwich College, Shackleton's old school in South London, England. First, get some string, a measuring tape, some adhesive tape, and some scissors. Next, measure out the dimensions below with your string, and tape the string down. To get an idea of how deep the boat was in the middle, you can cut a piece of string the correct size and hold it up. How would you feel in a boat that size with five of your friends?

The *James Caird**

length: 23.0 feet

width: 7.0 feet

depth: 2.5 feet

* Measurements are rounded off.



Kelly Tyler/WGBH

The *James Caird* replica