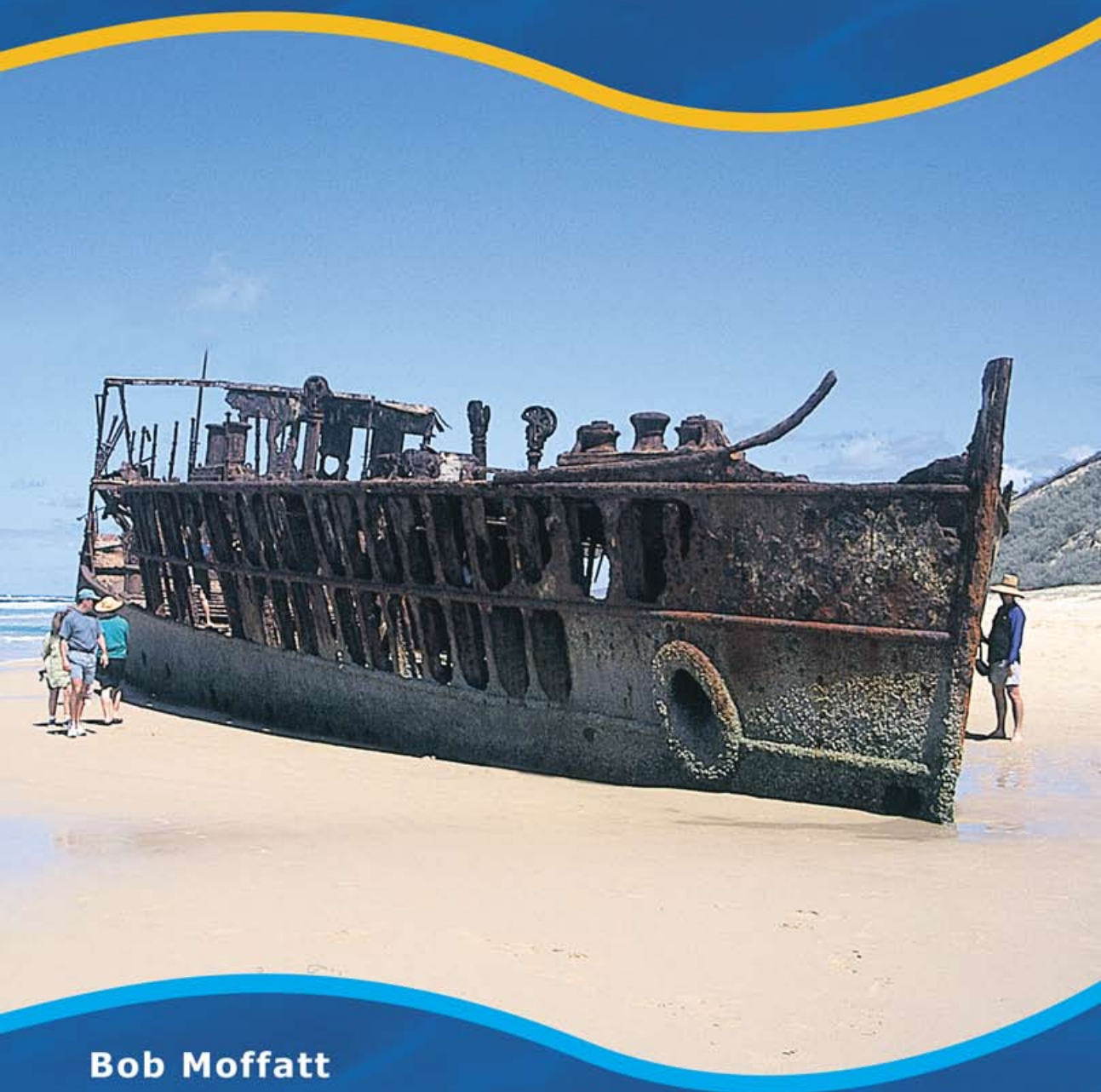




Marine Reader Series

Shipwrecks



Bob Moffatt

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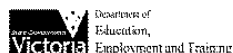
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Shipwrecks



Photo Pat Baker courtesy VMA Museum

Bob Moffatt
Graham Anderton

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What are shipwrecks?

Sometimes ships sink or run aground.

This ship has run aground.

It is stuck in shallow water and cannot move.

If the ship cannot be saved, it will become a shipwreck.

Eventually it will be destroyed by waves or rust or rot away.

Can you see the rust on the side of the hull?



Why do you think shipwrecks are sometimes called time capsules?



Where are shipwrecks found?

Some shipwrecks are found at the bottom of the sea, buried in sand. These wrecks are harder to find if they are in deep water. They can only be visited by divers using special equipment. Other shipwrecks are partly submerged and in shallow water close to land.



Why are shipwrecks hard to find in deep water? What is the name of a famous shipwreck in very deep water?



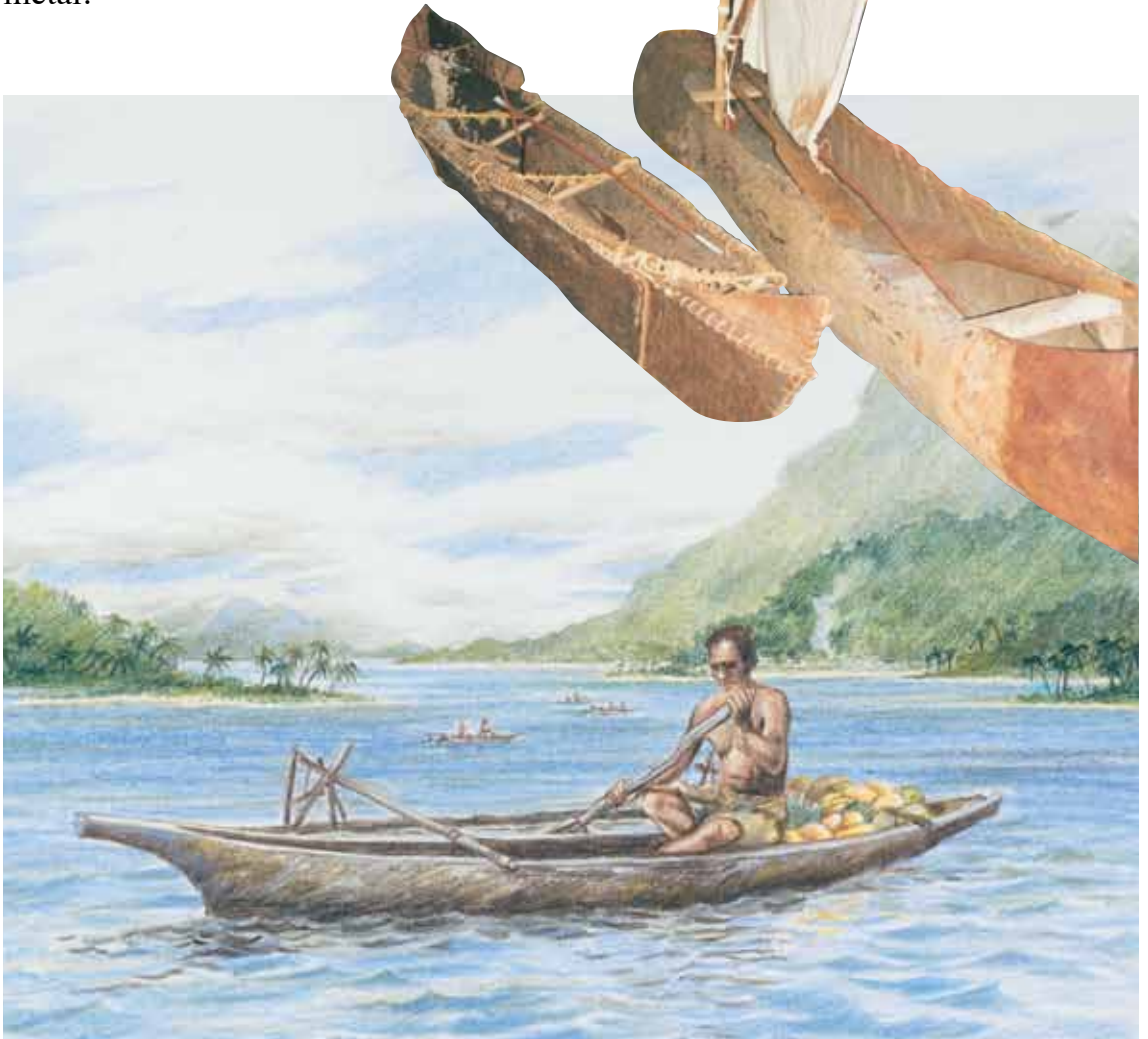
Unseen shipwrecks

Pacific Island and Aboriginal people's boats also became shipwrecks.

Their ships were made of wood and bamboo.

These materials rot away very quickly so all their remains have vanished.

The only shipwrecks we can find today are the remains of ships built of hardwood or metal.



*“These shipwrecks have never been seen.
Can you suggest why?”*



The problem of time

Many shipwrecks happened because sailors could not work out exactly where they were in the ocean. In the early days sailors calculated their position by measuring the angle of the sun and checking a clock. But their clocks were often wrong.

Accurate sea clocks were not invented until 1735. The photograph below shows the first accurate ship's clock ever made.

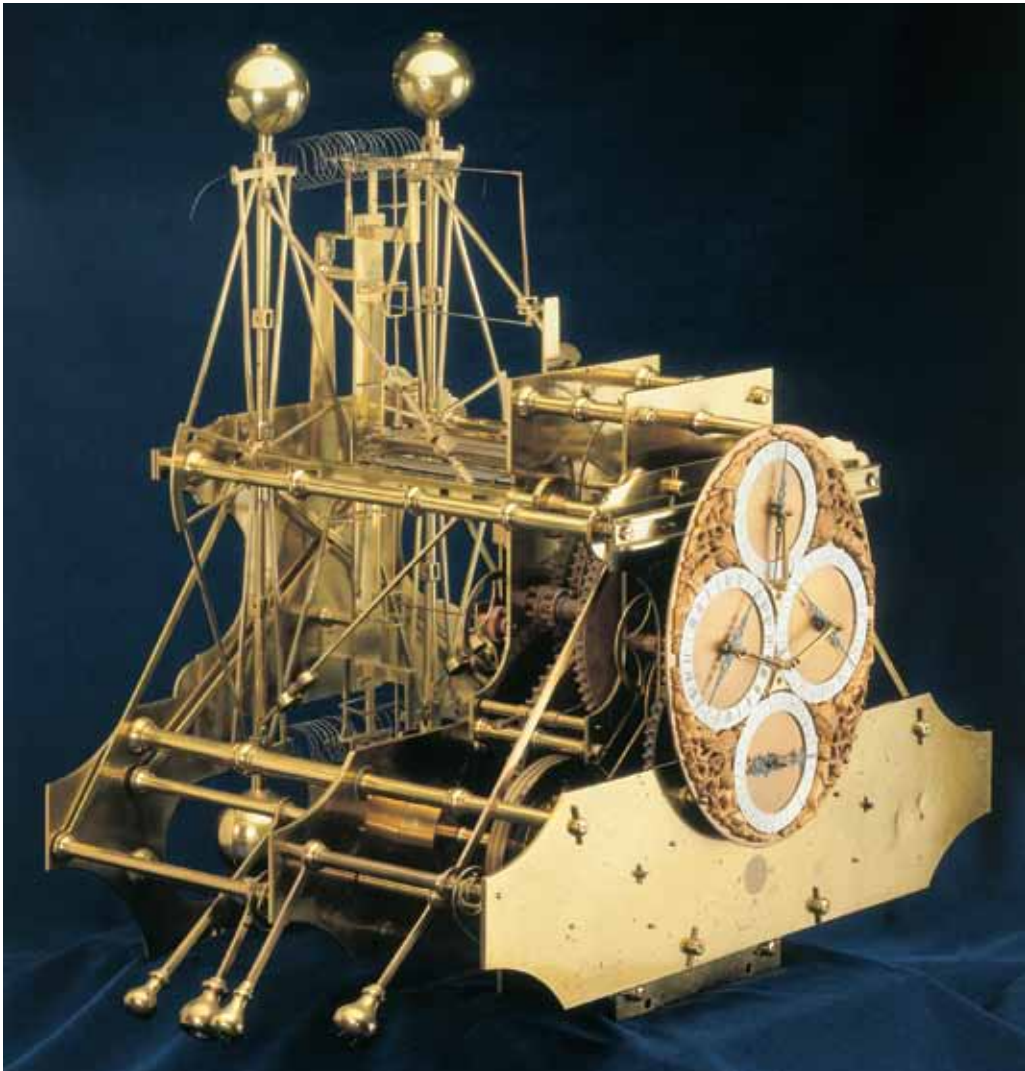
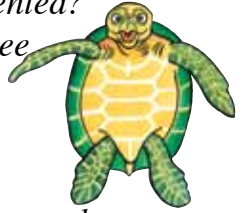
Today ships can be wrecked by storms or when their navigation equipment goes wrong.

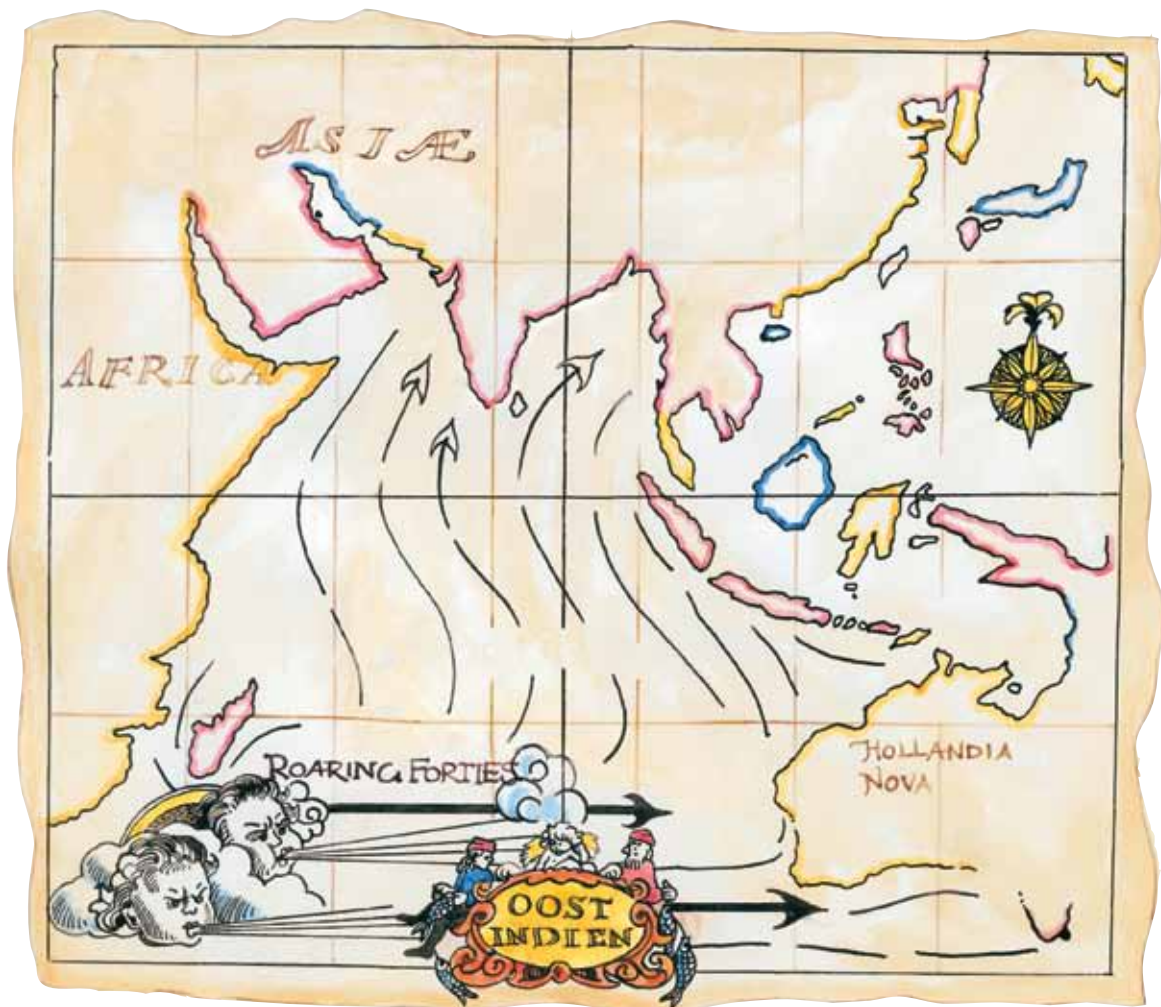
When was the first ship's clock invented?

You can see how this works at

http://

www.nmm.ac.uk





Early Australian shipwrecks

Until sailors had accurate clocks, they had no idea how far they had travelled when they sailed from Africa. Their ships were sometimes blown east by strong winds called the roaring forties. Some sailed right into the West Australian coastline and were wrecked.

Even when land is visible during the day, reefs offshore could easily damage a ship's hull.

The dangers of sailing through uncharted waters was even greater at night.

What is the difference between latitude and longitude?



After a shipwreck

Just after a ship is wrecked, items such as plates, knives and blankets fall to the floor.

Doors can break off and float away.

Heavy items such as cannons and motors sink to the bottom.

All food will rot or be eaten by marine life.

Sometimes sand washes into the ship and covers the loose items.

Sea water is very corrosive and will eat away at the wreck.

Over time, nearly all the ship will disappear.



What happens to items such as plates, knives and blankets after a ship has just been wrecked?

After a shipwreck



This ship has just sunk.



Some parts have broken off and sand is being washed in.



Marine life is living in the rotting wreck.



The only parts left are those buried in the sand.

Sunken treasure

Over 20 per cent of the gold that has ever been mined now lies on the bottom of the sea as sunken treasure. Silver coins, jugs, bottles and even clay pipes become valuable to treasure hunters and archaeologists, depending on how old these artifacts are.

Marine archaeologists are scientists who study shipwrecks. They dive underwater to recover this sunken treasure.

They can use big balloons to float heavy objects, such as cannons, up to the surface.



Photo Pat Baker courtesy WA Museum

Why are some wrecks declared marine conservation sites?



Photo Brian Richards courtesy WA Museum

The *Batavia*

In 1629, the *Batavia* sailed from the Netherlands for Java carrying 316 people.

The ship hit a reef off Western Australia.

Most of the crew and passengers scrambled ashore on an island.

The ship's captain took the only remaining small boat and sailed off to Java for help. While he was away, rebellious crew members murdered 125 crew and passengers and planned to capture the rescue ship.

The rescue ship arrived 65 days after the *Batavia* was wrecked.

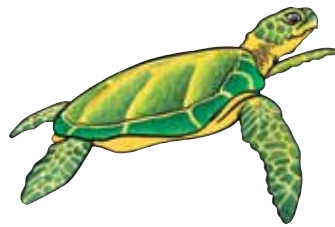
Most of the murderers were hanged on the island.



Photo Pat Baker courtesy WA Museum

Diving on the *Batavia*

What happened to the survivors of the Batavia after the ship's captain left?



Reconstruction of the *Batavia* in Holland

The *Pandora*

In 1791, HMS *Pandora* was sailing back to England with captured mutineers from HMS *Bounty*. The ship struck the Great Barrier Reef in North Queensland and sank.

The wreck was found in 1977. Marine archaeologists have recovered many valuable artifacts, including the ship surgeon's watch.

This watch and other items from the *Pandora* are now in the Museum of Tropical Queensland, Townsville.



The surgeon's watch



The HMS *Pandora* just before she was wrecked



Photo Pat Baker courtesy WA Museum

Salvage methods

Marine archaeologists study shipwrecks and the items found in them. Saving artefacts from wrecks is called salvage. Finding items in sand-covered wrecks can be difficult. Suction pumps can be used to remove sand and uncover them.

The archaeologists must be careful not to disturb too much sand or other material because it will clog the uplift suction pipe.

Can you see the coins in the bag in the photograph above?

Undersea treasure

Sometimes marine archaeologists find something very old and valuable.

The jug in this photograph was recovered completely intact. It is over 300 years old.

Scientists have found traces of the materials that were stored in it.

What do you think would have been carried in the large pot in the photograph below?



Photo Jeremy Green courtesy WA Museum



Preserving undersea treasure

A metal cannon left underwater will absorb the salts of the sea. After it is removed from the sea, it must be treated, with special chemicals. If it isn't treated, the salts in the metal will react with the air and it will break apart.

A ship's bell is an exciting find for an undersea explorer.

The cannon in the photograph below was not treated when it left the water and has reacted with the air to create craters in the metal.



Photo Pat Baker courtesy WA Museum



Why has this cannon become so pitted?



Photo Graham Anderton



Maritime museums

Items collected from shipwrecks are often preserved in maritime museums.

A visit to a maritime museum takes our minds back in time. We can imagine what life was like on ships long ago.

Maritime conservation

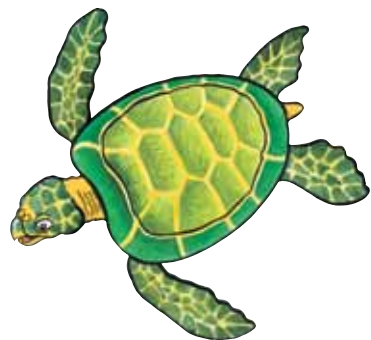
Scientists who work in maritime conservation find ways to preserve our past. Some shipwrecks are protected. Divers who visit these undersea shipwrecks must not destroy any items or take them away.

The jar in the photograph opposite is over 200 years old and is perfectly preserved.



Glossary

archaeologist	person who studies the remains left behind from past people
artefact	things made or changed by people
corrosive	able to rust metals
hull	the part of the boat that sits in the water
longitude	imaginary lines down the globe to help find a ship's position at sea
maritime	belonging to the sea
mast	tall vertical pole on a ship
museum	place where important items are stored and displayed
navigation	finding the position you are at on the Earth
reef	rock, sand or coral that forms a wall or block in the sea
rot	decay caused by bacteria
rust	chemical change of metal that makes the metal into a new substance
surgeon	doctor who operates on people
treasure	something of value that has been lost or hidden



A National Marine Education Program



Level 1

- Book 1 : Everyone Likes the Sea
- Book 2 : Sea Creatures
- Book 3 : At the Beach

Level 2

- Book 4 : Fun by the Sea
- Book 5 : Working at Sea
- Book 6 : Be Safe at the Beach

Level 3

- Book 7 : Tourists and the Sea
- Book 8 : All Kinds of Boats
- Book 9 : Rock Pool Life
- Book 10 : Creatures of the Deep
- Book 11 : Shipwrecks
- Book 12 : Our Day on a Research Boat

Level 4

- Book 13 : Let's Go Sailing
- Book 14 : Food from the Sea
- Book 15 : Classification and Survival
- Book 16 : Sea Creatures at Risk
- Book 17 : Better Boating Behaviour
- Book 18 : Don't Mess with the Sea



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