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THE VOICE OF TASMANIA MERCURY

DARWIN DOWNUNDER

HMS Beagle, courtesy of National Maritime Museum, London.

RIGHT: Charles Darwin, courtesy of Dr Karen Marlowe.

Naturalist Charles Darwin made his mark in Tasmania 173 years ago

VOYAGE OF A LIFETIME

In 1831 a young man in England accepted the invitation of a lifetime – the chance to sail around the world. Charles Darwin sailed as honorary naturalist on board the ship HMS Beagle commanded by Captain Robert FitzRoy. The Beagle was only 27 metres long, had no engine and sailed in the roughest seas.

Darwin used every chance to get off the ship to inspect rocks, plants and animals and meet the local inhabitants. He was a careful observer and considered possible relationships between species as well as the origins of landforms and rocks. To celebrate the 200th anniversary of Darwin's birth a replica of the Beagle is being planned in Britain and will sail around the world.

VAN DIEMEN'S LAND

On February 5, 1836, the Beagle reached Hobart Town and anchored in Sullivans Cove. Darwin spent 12 days exploring and observing, making excursions to the Domain, Cornelian Bay, Bellerive, Lower Sandy Bay, Cascades/Waterworks, Mt Wellington, Ralphs Bay, Lenah Valley and New Norfolk. During these trips he observed and collected plants, animals, minerals, rocks and fossils.

Did you know?
During his voyage around the world Darwin kept an extensive diary which is now available online. What did Darwin notice when he sailed up the River Derwent in February 1836?

http://darwin-online.org.uk/content/frameset?itemID=EHBeagleDiary&viewtype=text&pageseq=1

Things to explore
■ Investigate the places the Beagle replica Beagle will visit.

www.thebeagleproject.com/voyages.html

Charles Darwin Cliff, courtesy of Dr David Leaman.

READING THE ROCKS

When Darwin wandered down the shoreline of the River Derwent past present day Sandy Bay he came upon a set of fragmental rocks and lavas – and recognised them as parts of an ancient volcano. It would be more than a century before this was confirmed. He was a man ahead of his time. From Blinking Billy Point he could see across the bay a small cliff now named Charles Darwin Cliff (above).

Things to explore
■ There are many active volcanoes worldwide. Can we predict volcanic eruptions?

www.learner.org/interactives/volcanoes/entry.html

BEETLE MAD

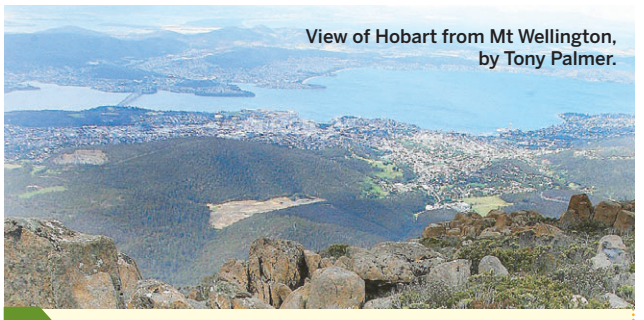
Darwin was fascinated by beetles from an early age and collected them widely on his trip around the world. Dung beetles in particular caught his imagination. In Hobart he was fascinated to observe that after only a few decades several Tasmanian native dung beetles – previously dependent on marsupial droppings – had adapted to cow dung as a food source. Male dung beetles have horns which they use to fight other males in competition for females. Darwin wondered about the diverse shapes in beetle horns and how these might help the survival of the fittest individuals.

Image courtesy of David McClenaghan and CSIRO.

Darwin also collected and described a common species of striped yellowish brown flatworm which lives under moist logs around Hobart. These primitive animals have amazing powers of regeneration. Darwin kept some alive in moss on board the Beagle at sea for nearly two months until they perished from dehydration. He experimented by cutting some in half and observed how both halves survived by regenerating the missing parts.

Things to explore
■ Why are dung beetles important in rural areas?

www.csiro.au/solutions/DungBeetles.html



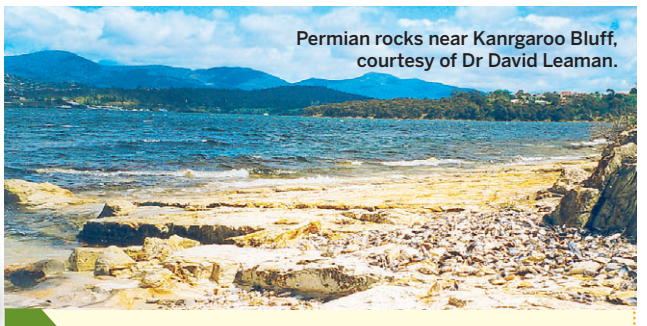
View of Hobart from Mt Wellington, by Tony Palmer.

TOP VIEW

Darwin made two attempts to climb Mt Wellington, the first via the Cascades and the nearby valley proving unsuccessful due to the thickness of the bush. It was a hot day on his second attempt via the valley now containing the Waterworks. He described the climb as "a severe day's work" but was particularly struck with the view to the west, commenting on the flat topped ranges. He was also impressed by the size of the tree ferns seen on the middle slopes.
Darwin wrote, "The day was splendidly clear and we enjoyed a most extensive view ... to the South the intricate outline of the broken land and water forming many bays was mapped with clearness before us." He looked closely at the bays and noted old shorelines marked by shell beds. One of these was 25m above present sea level.

Things to explore
■ Sea levels were measured in Tasmania at Port Arthur in 1841. For many years it was thought early data from this site had been lost, but it was recently discovered. When and where was this information found?

http://soer.justice.tas.gov.au/2003/casestudy/4/index.php



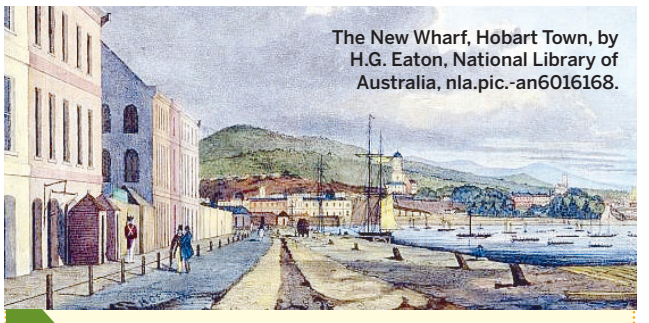
Permian rocks near Kanrgaroo Bluff, courtesy of Dr David Leaman.

BELLERIVE BLUFF

At Bellerive Darwin noticed layered rocks which contained rare fossil shells as well as pebbles of all sizes and rock types. He reflected on what he had seen near glaciers in Patagonia the previous year and concluded that the Tasmanian rocks must have been formed during an ice age. This was a remarkable and daring idea since the concept of ice ages was not generally accepted at the time.
The idea that polar conditions could be recorded in rocks found nowhere near the South or North Pole helped support the theory of continental drift (now called plate tectonics).

Things to explore
■ Find out more about ice ages and continental drift

www.abc.net.au/science/ozfossil/ageofreptiles/continental/default.htm



The New Wharf, Hobart Town, by H.G. Eaton, National Library of Australia, nla.pic.-an6016168.

HOBART TOWN

When Darwin sailed up the River Derwent he was not altogether impressed with what he saw of Hobart Town. However, when he went ashore the next morning and walked around, he had a more favourable view, noting the broad streets, good shops and English-style gardens.
He took a steam-powered ferry to Bellerive and admired the fact that the machinery of one of the two ferries had been made locally, in a colony which was only 33 years old.
On his excursions around Hobart he was twice accompanied by surveyor-general George Frankland. He was invited to dinner with the Frankland family at their home Secheron in Battery Point, which still stands.

Things to explore:
■ What did Darwin write in his diary about his evening at Secheron?
■ Why was it a special evening for Darwin?

http://darwin-online.org.uk/content/frameset?itemID=EHBeagleDiary&viewtype=text&pageseq=1
http://darwin-online.org.uk/biography.html

DARWIN: THE FUTURE

After Darwin's busy and productive stay in Hobart he sailed with the Beagle on Wednesday, February 17, 1836, taking with him many pleasant memories of his visit. After returning to England he wrote many books, including several which contained observations made during his Hobart visit. Darwin's work was to change our understanding of biology and geology. Later in his career Darwin wrote *On the Origin of Species*, which became one of the most important scientific texts ever published.
Darwin's publications are now available online at http://darwin-online.org.uk/

Did you know?
Charles Darwin exchanged letters with nearly 2000 people during his lifetime. These range from well known naturalists, thinkers and public figures, to men and women who would be unknown today were it not for the letters they exchanged with Darwin.

■ Read some of Darwin's letters:

www.darwinproject.ac.uk

An initiative of the Royal Society of Tasmania in partnership with the Mercury NIE
THE ROYAL SOCIETY OF TASMANIA 1843