





Beacons

of the capes

Though now both fully automated, the sister lighthouses at Cape Naturaliste and Cape Leeuwin in Western Australia's south-west are sources of enduring human interest, and major tourist attractions.

by Joanna Moore

The Leeuwin-Naturaliste National Park covers nearly 20,000 hectares and stretches along 120 kilometres of coastline between Cape Leeuwin and Cape Naturaliste, which is known for its dramatic cliffs, sheltered bays and punishing swells.

These dangerous ocean swells, which pound treacherous reefs, led to the construction of lighthouses at either end of the Leeuwin-Naturaliste ridge more than 100 years ago. Today, they still operate as navigational aids, and are also signposts of achievement for the many walkers who take up the Cape to Cape challenge—to walk the 135-kilometre track that traces its way from lighthouse to lighthouse (see 'Cape to Cape', *LANDSCOPE*, Summer 2001–02).

Cape Naturaliste and Cape Leeuwin are located 260 and 320 kilometres from Perth respectively. The region between them is a heavily frequented tourist destination, rich in natural, cultural and historic features—magnificent caves and beaches, tall karri forests, award-winning wineries and restaurants, and historic sites such as the two lighthouses.

Two oceans touch

When you stand, windswept, at the top of Cape Leeuwin Lighthouse near Augusta you will probably gaze seaward, maybe trying to work out exactly where the Indian and Southern oceans meet. The 39-metre-high lighthouse, which provides you with such a magnificent view, was constructed on the most south-westerly tip of the Australian coast in 1896. Since then, it has safely

guided many ships past the dangerous coastal point. Despite the lighthouse's presence, some 22 shipwrecks lie beneath the waters surrounding Cape Leeuwin. The *Perides*, for example, sank in 1910 when passing Cape Leeuwin, though this wreck is not as famous as another White Star Liner—the *Titanic*—that came to grief in the Atlantic at the beginning of last century.

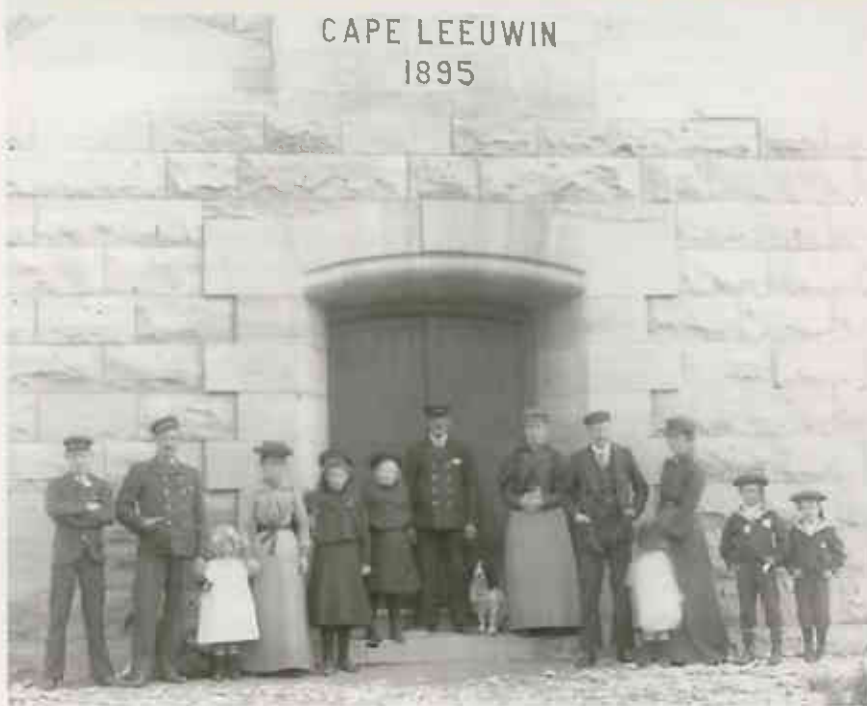
The Cape Naturaliste Lighthouse is the tallest lighthouse anywhere on the Australian mainland, and it still

operates essentially as it did when it was designed and built 110 years ago. The identifying character of the Cape Leeuwin Lighthouse beam—one flash every seven-and-a-half seconds—is still important for those navigating their way from Perth to Albany or across the Indian Ocean. Though its illuminating apparatus and its designer, William T Douglass, came from England, the limestone from which the lighthouse was constructed was mined from nearby Quarry Bay. The tender for its construction was won by Australian company Davies and Wishart, whose contract also included one granite and two limestone cottages for the lighthouse keepers and the nearby waterwheel, at a total cost of £18,000.



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Main and inset Cape Leeuwin Lighthouse, Augusta.
 Photo – Alex Bond

Left A bullock cart with wood passing one of the three lighthouse keeper's cottages at Cape Leeuwin.
 Photo – courtesy of Very Much on Watch: The Percy Willmott Photos and the Willmott family



First of its kind

The Cape Leeuwin Lighthouse's magnification lens was originally turned by a clockwork mechanism. This mechanism operated by a counterweight that dropped through the centre pole of the tower and was rewound by the keeper every two hours. It seems unbelievable that this, or the tiny quarter-horsepower motor that has now replaced it, was enough to turn the nearly four-tonne lens. The lens floats on a 170-kilogram bath of mercury that virtually prevents all friction, heat and therefore wear on the rotating parts. It is an amazing and enduring design that was, in 1896, the first of its kind to be used in Australia.

The light that emanates from the Cape Leeuwin Lighthouse—latitude 33°22' south, longitude 115°08' east—

has a range of 26 nautical miles, which is about as far as one can see on a clear day from the top of the lighthouse. Partial automation occurred in 1982, when the kerosene burner was replaced with a 1000-watt halogen lamp running on mains electricity. In 1992—in comparatively recent times—the Cape Leeuwin Lighthouse became fully automated, enabling it to run without a keeper.

Leeuwin's first keeper, Percy Willmott, who served from 1896 to 1909, was a keen photographer. His hobby left us with insightful images of life at this time at the isolated post. His photograph collection and other historical information can be found in one of the former lighthouse keeper's cottages that has been converted into a visitor centre.

Top Cape Leeuwin Lighthouse. Photo – Bill Belson/Lochman Transparencies

Above left A photo of the Cape Leeuwin Lighthouse keepers and their families taken by its first keeper, Percy Willmott, in 1903.

Photo – courtesy of Very Much on Watch: The Percy Willmott Photos and the Willmott family

Above Cape Leeuwin Lighthouse at dusk. Photo – Alex Bond



Above left Part of the mechanism used to turn the Cape Leeuwin Lighthouse lens.
Photo – Bill Belson/Lochman Transparencies

Above A timber channel carried water from a spring to a wheel (now calcified) that operated as a hydraulic ram to supply water used in the construction of the Cape Leeuwin Lighthouse.
Photo – Alex Bond

Left Cape Naturaliste Lighthouse on the day of its opening on 21 April 1904.
Photo – courtesy of Cape Naturaliste Lighthouse



Cast in stone

The historic waterwheel, only a short drive away, was built just before the Cape Leeuwin Lighthouse, to supply the water needed for its construction. Once the work was completed, the wheel continued to provide water to the keepers and their families.

The water for the now 109-year-old wheel came from a limewater spring above sea level. The water drawn from the spring was carried by a timber channel, or flume, to the wheel, which it turned, operating as a hydraulic ram

pushing a supply of water towards the construction site. But as well as turning the wheel, the limewater, which is high in calcium carbonate, calcified the wheel and gradually prevented it from turning. It is now an ancient, petrified relic, a sign of times past and lifestyles long gone.

Even now, the lighthouse at Cape Leeuwin feels desolate and remote. So, for those living and working there at the beginning of the last century it would have been an isolating way of life. Even the keepers' cottages are surrounded on three sides by sea. The tour guides who work at the visitor centre marvel at the ever-changing mood of the place, and the accompanying winds that rarely seem to rest.

Contentious waters

Well before the turn of the century, the necessity of a lighthouse further north at Cape Naturaliste was apparent, though disputes between the

Commonwealth and State governments over funding delayed construction. The first Cape Naturaliste 'lighthouse'—a barrel and lantern on top of a pole—was certainly not enough.

Had the £4800 required for the real lighthouse's construction been supplied earlier, some of the 12 shipwrecks that occurred before its completion along the small but treacherous coastal point may have been prevented. When the State-funded building began in 1903, limestone was quarried from nearby Bunker Bay, and carted by bullock wagon to the site.

Because of the height of the headland on which it sits—the 100-metre-high bluff overlooking Geographe Bay and the coastal towns of Dunsborough and Busselton—the Cape Naturaliste Lighthouse is not as tall as its big sister at Cape Leeuwin, and stands at only 20 metres.

The lens and its turntable, which weighed more than 12 tonnes, were shipped to Quindalup Bay from England. They were valued at £5500 in 1903, equivalent to about \$5 million today. In a similar system to that of the Cape Leeuwin Lighthouse, the nine-tonne, 4.6-metre-diameter prism crystal lens and turntable rest upon a pedestal filled with a mercury bath. The original mantle and magnification of Cape Naturaliste Lighthouse provided 755,000 candlepower (candela) that was upgraded in 1924 to 1.2 million candela, creating a warning light beam that, like Leeuwin, had a range of 26 nautical miles. Two flashes of this

Right Cape Naturaliste Lighthouse has become a popular tourist attraction.
Photo – Andrew Davoll/Lochman Transparencies

Below right Detail of the lens in Cape Naturaliste Lighthouse.
Photo – Jiri Lochman

light—emanating from latitude 33°32' south, longitude 115°02' east—are emitted every 10 seconds.

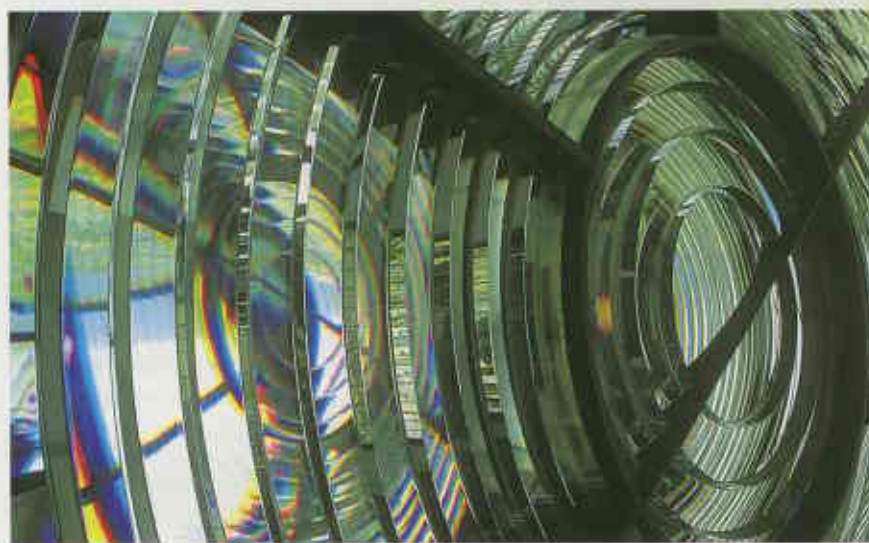
The light was fuelled with whale oil from 1904 to 1924, then by vapourised kerosene until mains electricity was connected in 1978. Burning kerosene fumes is dangerous over long periods of exposure, so the keepers each took a four-hour shift through the night, during which they maintained the kerosene pressure and rewound the 190-kilogram counterweight mechanism. Weather reports were sent to Perth by Morse code three times each day, the kerosene-residue-stained lens-glass had to be regularly cleaned and every four-gallon drum of kerosene had to be carried to the top of the tower. There was no paid annual leave or travel assistance. Often, the fortnightly delivery of supplies would bring the only visitor to the three families.

In 1996, the lighthouse on Cape Naturaliste became fully automated, losing its last keeper (the last lighthouse keeper in Western Australia).

Preserving history

All of the original stone structures of the Cape Naturaliste Lighthouse remain, a testimony to West Australian Engineer-in-Chief C S R Palmer's design and contractor Anderson's construction. Apart from the replacement of windows, the addition of safety measures and changes required to automate the lighthouse, all architectural aspects remain intact, and the lighthouse looks essentially the same as it did when it was first built. Even the interior fittings are in good condition, especially the dowelled teak blocks that form the lighthouse's steps, the only set of their kind in Australia.

One of the three keeper residences nearby, also built in 1903, has been



made into a shop and maritime museum that is well worth exploring, for the Cape Naturaliste Lighthouse has its share of shipwreck and ghost stories to discover.

In 1907, the *Carnarvon Castle* caught fire while at sea, forcing its crew

to abandon ship. The 14 passengers survived on lifeboats for 27 days until they reached Cape Naturaliste, where Patrick Baird, one of the lighthouse keepers, rescued and looked after them. You might also hear the story of the ghost of a young ship's apprentice who



Above Cape Naturaliste.
*Photo – Geoff Taylor/Lochman
 Transparencies*

was rescued from a shipwreck only to die soon after—some say he now haunts one of the keeper's cottages, unable to rest peacefully because of his traumatic passing.

Responsibility for both the Cape Leeuwin and Cape Naturaliste lighthouses was recently transferred back to the State government. They have been vested with the Department of Conservation and Land Management (CALM) as heritage sites because they lie within the Leeuwin-Naturaliste National Park. The Augusta-Margaret River and Cape Naturaliste Tourism associations lease the light stations and have authority from CALM and the Australian Maritime Safety Association (AMSA) to run tours. AMSA continues to maintain and operate the lighthouses.

Popular destination

Climbing the Cape Leeuwin and Naturaliste lighthouses are among

many recreational activities that draw more than a million visitors to the Leeuwin-Naturaliste National Park each year. Between the capes there are waters that offer fishing, diving, snorkelling, boating, swimming and surfing opportunities, beautiful beaches to walk along and caves and forests to explore (see 'The Capes Coast', *LANDSCOPE*, Summer 2002-03).

The fit and adventurous can walk the Cape to Cape Track from end to end, which usually takes five to eight days. It is challenging as a whole, with some difficult sections of extended beachwalking, but is dramatic and very rewarding. Many choose to walk short sections of the track, from a short stroll, to half a day or overnight. Walkers should watch for whales during their annual migratory period between late June and December. Last year, more than 900 whales were spotted from the balcony of the Cape Naturaliste Lighthouse, including occasional sightings of blue

Below left Stairwell at Cape Leeuwin Lighthouse.
*Photo – Bill Belson/Lochman
 Transparencies*

whales (see 'Not your typical whale tale', *LANDSCOPE*, Autumn 2005).

Though the track officially finishes at the waterwheel, 'end-to-enders' often walk on to touch Cape Leeuwin Lighthouse, and so complete the full journey, from lighthouse to lighthouse. Their experience of the region is vastly different to that of the old lighthouse keepers, but the landscape continues to provide an amazing backdrop to the human lives that come and go, merely flashing past, like transient lighthouse beams across an always-present ocean.



Discovering the lighthouses

Tours at Cape Naturaliste Lighthouse run half-hourly every day between 9.30 am and 4 pm, for \$8 per adult and \$4 per child, which includes entry to the maritime museum. For further information phone (08) 9755 3955.

The Cape Leeuwin Lighthouse precinct is open between 8.45 am and 5 pm, with tours running every half hour or 40 minutes. For further information phone Caveworks on (08) 9757 7411. Cost is \$10 per adult and \$5 per child.

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The full collection of Percy Willmott's photographs can be seen in *Very Much on Watch*, available at the Cape Leeuwin Lighthouse Visitor Centre.

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