

20 Local Treasures

On display in Knox
Historical Society's Ambleside Museum.

The Human Powered Vehicle

An awesome piece of Australian transport history finds a resting place in Ferntree Gully

An unusual Ferntree Gully resident is a sleek, awesome-looking Human-Powered Vehicle (HPV) at 'Ambleside' museum, at 3 Olivebank Road (open Sundays, 1pm – 4pm). The vehicle held the Australian land speed record for 25 years. How did it come to be in the Gully?

The story goes back to 1983, with a young aerospace engineering student from Bayswater, Lachlan Thompson. As part of his doctorate at RMIT, Lachlan decided to design and build a vehicle to take the world human-powered speed record, first recognised in California in 1978.

Lachlan worked on several designs, and tested models in RMIT's wind tunnel. The final design was a rocket-like speed machine over 3.8 metres long, but barely wide enough for a pilot in a recumbent position. The two main wheels were in line, two tiny outrigger wheels providing balance.

The record attempt acquired a major sponsor, General Motors Holden, and a pilot. Steele Bishop from Western Australia was then world pursuit champion. GMH opened their vehicle proving ground at Lang Lang in Gippsland for the event; the attempt was made at dawn to provide still air conditions.

Finally, on 28 March 1984, everything was ready. Steele Bishop squeezed into the tiny cockpit: it had no ventilation, limited forward vision, steering, or brakes.

Following a banked, perfectly circular track 5 km round, Bishop wound the vehicle up towards the world record, then set at 94.4 k/mh.

But the HPV was in trouble. The track surface was coarse, restricting speed. Worse, the track

camber forced the right hand outrigger wheel upwards, and into contact with the teardrop-shaped fibreglass wheel fairing. Friction generates heat: the HPV was on fire.

Steele Bishop took a full 5 km circuit of the track to power the machine down and return to the pit area. The HPV was officially timed at 79.84 k/mh, a new Australian record. The outrigger wheel was changed and the fairing removed, but the wind was also rising; despite an attempt on the world sprint record later in the day, the land speed record attempt had failed.

The Lachlan Thompson HPV was never raced again. For some years it gathered dust in a suburban garage, with a brief appearance at an aviation museum near Wangaratta in the late 1990s.

The heritage of the HPV, however, was awesome. Lachlan Thompson, using experience gathered during the record attempt, went on to design a revolutionary ultra lightweight track racing bicycle that powered riders such as Kathy Watt to Olympic gold, and indeed held every significant world track cycling record for the rest of the 20th century.

In 2005, the HPV, never built to last, was starting to disintegrate in its garage, dusty and battered. But another piece of gee-whiz technology, the internet, came to the HPV's rescue.

An article written by a member of Knox Historical Society on the 1984 record attempt appeared on the web. This resulted in the HPV being donated by Lachlan Thompson to the society for restoration and preservation, in August 2005.

KHS called in a Ferntree Gully motorcycle engineer, Clive Carter, an expert in fibreglass fairings. Clive devoted every spare hour over a full



Steele Bishop (in cockpit) consults with Lachlan Thompson after failed record attempt

nine months in a meticulous, painstaking restoration of the HPV to its former glory.

A piece of Australian transport history was formally handed back to Knox Historical Society in May 2006, thus returning the vehicle to the City of Knox where the HPV was conceived and created. Lachlan Thompson, now a professor of aerospace engineering at RMIT, was present for the event.

The speed record set by the Lachlan Thompson HPV stood for a full 25 years, finally broken in April 2009, appropriately at Lang Lang. Today, Lachlan Thompson's unique speed machine enjoys a quiet retirement at 'Ambleside' museum, its place in history secure.

Ray Peace, Knox Historical Society



Only surviving photo of Lachlan Thompson's HPV under construction, December 1983



The HPV on display at Ambleside museum