SEPTEMBER GENERAL MEETING REPORT

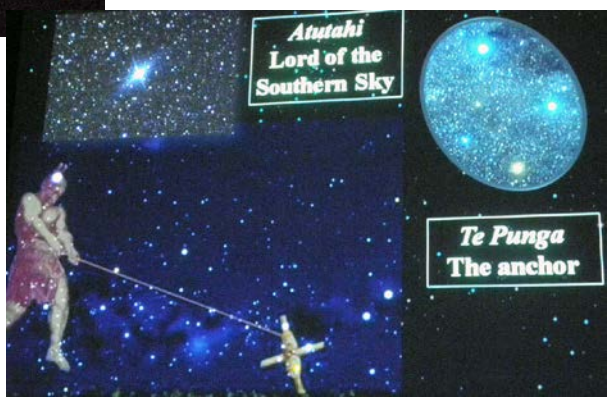
Paul Curnow, exchange speaker from the Astronomical Society South Australia and the Adelaide Planetarium, introduced us to the wonders of Maori Astronomy and the "Night Skies of New Zealand".

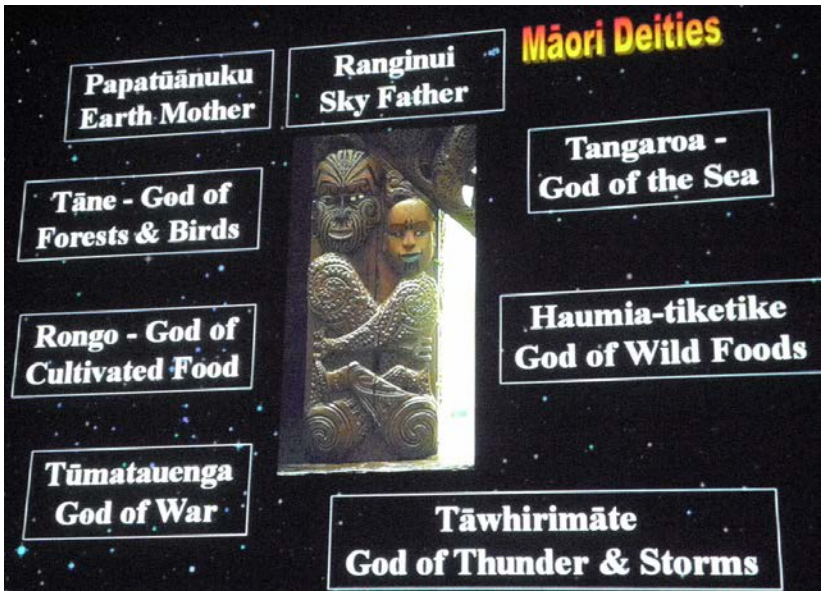
We well remember Paul from his previous visit in October 2008 when he spoke about Aboriginal Astronomy, the shadowy Emu in the Milky Way and our arbitrary definition of what constitutes a constellation in the sky (see CRUX Vol 27 No 1). Paul is an experienced lecturer and spoke freely and distinctly without a microphone on hand of a comprehensive slide show of his recent visit to New Zealand, the Maori Aotearoa "land of the long white cloud". The Maori were part of the Polynesian cultural colonisation that took place around the Pacific some 800 years ago. The necessary familiarity with the night sky to achieve this is still reflected in the Maori mythology and their names for the stars and constellations.

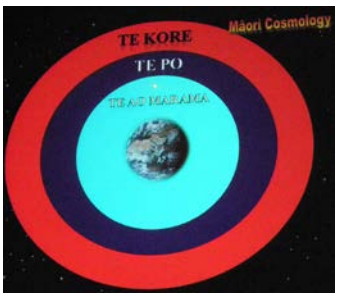
Human civilisations pre-dating written records seem to have had an uncanny ability to remember stories, songs and traditions over many generations. Better than we can today. We today base our reliance on the printed word almost exclusively and seem to have lost much of this long-term mental capacity. I wonder, in another thousand years will a similar fate awaits our capacity to deal with calculations, as more and more brainpower is taken over by the computer? Nature is a very thrifty manager, as we have seen in the example of returning cosmonauts. It discards any unused biological capacity, whether it is muscle, bone or grey matter.

Paul showed many slides on how the Maori still actively practise their ancient traditions in dances, song and body markings.

Their mythology of the night sky reflects their seafaring past and their own version of cosmic creation. Cosmology consists

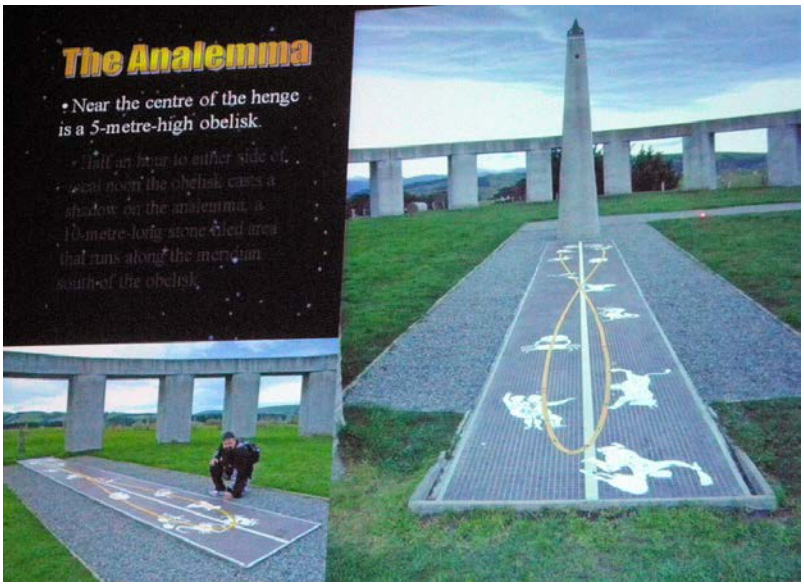






of a three-tiered structure with the Earth at the centre and different deities controlling the elements and human interaction with them. The night sky is dominated by the huge asterism *Atutahi* heaving an anchor *Te Punga* (the Southern Cross) from the sea. The Pleiades are called *Matariki* (little eyes) and for many tribes

the dawn rising of Matariki herald the beginning of the new year. The constellation Scorpio is seen as *Te Taura* (a fish-hook) and Gemini's Castor and Pollux are part of *Whaka-ahu*.



While in New Zealand, Paul visited Stonehenge Aotearoa, a full-scale working adaptation of the original prehistoric Stonehenge west of Amesbury in the English county of Wiltshire. Built on the same scale, Stonehenge Aotearoa is not a replica; it is a complete and working structure designed and built for its precise location in the Wairarapa region of New Zealand. Only a short distance from Wellington this awe-inspiring place allows visitors to explore past mysteries and learn how early

cultures used the Sun, Moon and stars for daily life and survival. Incorporating ancient Egyptian, Babylonian and Indus Valley astronomy, Polynesian navigation, and Celtic and Maori starlore, Stonehenge Aotearoa was built by members of the Phoenix Astronomical Society as a window into the past and at the same time a modern teaching tool. It took two years to build and was opened on Saturday 12 February 2005 by Nobel Laureate and old Mastertonian Professor Alan MacDiarmid. Works in progress include marker stones for the "Saros" cycle of the Moon, the "Pillars of Heaven" and the "Gates of the Gods", plus a Roman sundial and an orrery.

Paul showed slides of himself standing next to one of the six heel stones that mark the rise and set points of the sun at the midsummer and midwinter solstices, and the autumn and spring equinoxes. And again, near the 5-metre-high obelisk at the centre of the Henge that allows you to locate the south celestial pole - the point around which the entire heavens appears to revolve. Over the year at noon the shadow of the obelisk traces out an analemma on a 10-metre-long stone tiled area that runs along the meridian south of the obelisk.
He showed pictures of his visit to the Carter Observatory Wellington, where he was guest speaker, and of their historic equipment.

It was a privilege to be able to share in Paul's New Zealand excursion. Following question time the vote of appreciation was given Pat Larkin (Director Diurnal Section) to general acclaim. Perry Vlahos in his "Night Skies of Melbourne" talked about nebulae, double stars and their colours. Greg Walton then showed off his latest toy, the amazingly versatile "Polarie Tracker". As usual, tea and coffee together with a variety of nibblies and congenial mingling finished the evening about 10pm.

PS: Paul Curnow has been a lecturer at the Adelaide Planetarium since 1992 and was the recipient of the ASSA editor's award for 2000, and again in 2010. He is regarded as one of the leading authorities on Australian Aboriginal night sky knowledge, and runs a number of popular courses for the general public that focus on historical astronomy and ethno-astronomy. Paul appears regularly in the media and has authored over 40 articles on astronomy.

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