

W J Macdonnell's



W J Macdonnell outside his 'bank observatory' at Port Macquarie, around 1885
 Courtesy Port Macquarie Historical Museum

In 1609, Galileo Galilei turned one of his telescopes to the night sky, discovered the moons of Jupiter, confounded the belief that all planetary bodies circled the Earth and founded the modern discipline of observational astronomy. UNESCO has declared 2009 the International Year of Astronomy in celebration of the subsequent 400 years of scientific star-gazing.

To mark the International Year, the National Museum has installed in the Main Hall a significant telescope from the National Historical Collection. The telescope is a 6 inch Grubb refractor, meaning that it has an objective (comprised of two lenses) of around 6 inches (15 centimetres) diameter,

that it was manufactured by Thomas Grubb's Astronomical Instrument Works in Dublin, Ireland and that it is a refracting type, with the objective bending light entering the telescope so that it converges on a focal plane to produce a bright, clear and magnified image of the object under study.

The Museum's telescope was built in 1883, probably to the order (via catalogue) of amateur astronomer W J Macdonnell. Macdonnell purchased the telescope for £250, imported it to Port Macquarie, New South Wales, and installed it in a purpose-built observatory behind the Bank of New South Wales, where he worked as manager. Over the next decade, he used it for a range of observing programs,

Telescope



Interior of Macdonnell's Observatory, Port Macquarie.
Courtesy Port Macquarie Historical Museum

focusing on transit events, comets, sunspots, double stars and the features of the planets. Using this telescope and other instruments, Macdonnell became one of Australia's most respected amateur astronomers.

Macdonnell was forced to sell the refractor in the 1890s as a result of the financial crisis troubling the Australian colonies and it then passed through the hands of a number of amateur astronomers. The Sydney architect E H Beattie used it extensively from 1906, publishing many scientific papers based on his observations. By 1921, however, the telescope had been dismantled and placed in storage, where it remained for many of the next 85 years.



Museum conservation staff (from left) Ian Stewart and Colin Ogilvie and volunteer (and Friend) Hermann Wehner work on the telescope in the Museum's conservation lab.
Photo by Ainslie Greiner

The National Museum acquired the telescope in 2005 and has returned it to working condition, as it would have appeared in the late nineteenth century. Evidence of the telescope's history of use during its working life has been preserved, while original paint finishes have been restored and missing elements re-manufactured and installed.

Kirsten Wehner
Senior Curator
Gallery Development