

## Serving science and society

William John Macdonnell arrived in Port Macquarie in March 1882 as manager of the local branch of the Bank of New South Wales. Macdonnell was a keen astronomer and spent many of his nights observing, mapping and writing about the stars and planets.

At the time, Port Macquarie was flourishing as wool, sheep and cattle were moved through its harbour and on to markets in Sydney and overseas. New stone buildings were constructed, a newspaper was established and, in 1887, the town's first municipal government was elected. Well-to-do residents worked to build a community as refined as those found in Sydney and Melbourne.

Macdonnell soon became a leading light in Port Macquarie society, active in the School of Arts, the Agricultural Association, the Pony Club and the Choral Society. He also became a local scientific authority, answering public enquiries about astronomy and using his astronomical instruments to provide a timekeeping service for the town.



**Port Macquarie from Church of England tower 1918**  
Mitchell Library  
State Library of New South Wales AT WORK AND PLAY - 04664

## The bank observatory

In 1882 Macdonnell built an observatory to house his astronomical instruments in the backyard of Port Macquarie's Bank of New South Wales. He purchased the Grubb Refractor Telescope, pictured opposite, a few years later, and built a new, bigger 'bank observatory' to accommodate it. He used this telescope in a range of short and long-term observing programs, mapping double stars and sunspots, and investigating the planets and the satellites of Jupiter.

Macdonnell published his findings in British and Australian scientific journals and went on to become an eminent Australian astronomer. He contributed to scientific understanding of the southern sky, actively promoted public interest in astronomy, and helped found the New South Wales branch of the British Astronomical Association.



**WJ Macdonnell standing outside the bank observatory with his refractor telescope 1880s**

Port Macquarie Historical Society



**Grubb refractor telescope 1883**  
National Museum of Australia

This telescope is a refracting type: it uses an objective – which comprises two lenses, each about six inches (15 centimetres) in diameter – to focus light to form a magnified image of a star or planet. It is equatorially mounted, meaning that its main axis is parallel to the Earth's axis of rotation, which enables it to be set to follow the stars as they appear to move across the sky. In the 1880s this type of telescope was a cutting-edge scientific instrument incorporating many innovative features. It was manufactured by Howard Grubb's Astronomical Instrument Works in Rathmines, Ireland, and

Macdonnell probably purchased it via Grubb's catalogue. He paid £250 (about \$30,000 today) plus, no doubt, shipping and handling costs to Australia.

Troubled by financial woes, Macdonnell was forced to sell his Grubb refractor telescope in 1895. It passed through a number of hands before it was purchased by EH Beattie, a Sydney architect and astronomer. Beattie used the telescope in an active observational program from 1906 to 1921. After he sold it, it was put into storage for most of the next 80 years. The telescope was purchased and conserved by the Museum in 2005.

**Port Macquarie Observatory 2010**  
photograph by Jason McCarthy  
National Museum of Australia

Since Macdonnell's time, astronomy has remained a popular activity for Port Macquarie residents. Port Macquarie Observatory, located in Rotary Park near Town Beach, was designed by Albert York, a local retired master builder and architect, to house a 5-inch telescope gifted by a local publican for viewing ships at sea. The observatory was funded through the Rotary Club, and was officially opened in 1965 by Government Astronomer Harley Wood, director of the Sydney Observatory. Today, members of the Port Macquarie Astronomical Association meet regularly to make observations and host viewing nights for the public.

