

BACKGROUND

The South African Astronomical Observatory was formed in 1972 by the amalgamation of two older institutions, the Royal Observatory, Cape of Good Hope, of 1820 and the Republic Observatory, Johannesburg, of 1905. It is probably Africa's oldest scientific institution, if only by descent!

THE MUSEUM

The Museum preserves some of the instruments that were used during nearly two centuries by SAAO and its predecessors. It is situated in a dome of the former Royal Observatory.



The McClean dome and laboratory (1897). The dome was by Cooke of York.

THE MCCLEAN BUILDING

The Museum is housed in the McClean observatory, named after its donor, Frank McClean, a wealthy amateur astronomer. The building is interesting in itself and was designed by the famous architect, Herbert Baker.

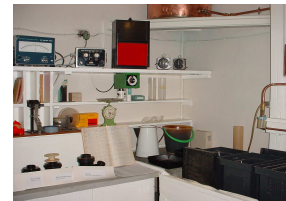
Its 24-inch (61cm) telescope was once the largest refractor in the Southern hemisphere. Its accessories included the latest in Victorian technology, such as a hydraulically-operated rising floor. The building also contains a darkroom and a laboratory.

PHOTOGRAPHY

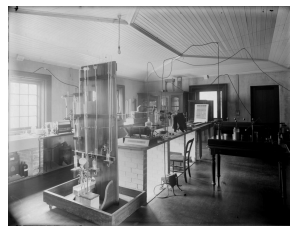
The main detectors, used by astronomers for about 100 years, were glass photographic plates. The darkroom was in service until the 1980s.

ASTROPHYSICS

The McClean telescope was designed to be used with a spectrometer for determining the compositions and velocities of the stars. In later years it was devoted to finding their distances by trigonometry, using the earth's orbit as a baseline.



The 24-inch McClean telescope (left) and darkroom (above). Photographs were taken on glass plates.



The astrophysical laboratory as it looked about 1900 (left) and as it looks today, in use as the SAAO Museum (right). Originally it was set up for spectroscopy of terrestrial materials to compare them with celestial ones.

THE EXHIBITS



A "Repeating Transit" by Dollond of London (1819). Used by the first HM Astronomer, Fearon Fallows, for determining star and planet positions before the main building was finished.

Pistol for time signalling. A flare fired by this pistol could be seen from Table Bay and used to set ships' chronometers.



Mirror (1810) made by Sir William Herschel of a copper-tin alloy. This formed part of a reflecting telescope.

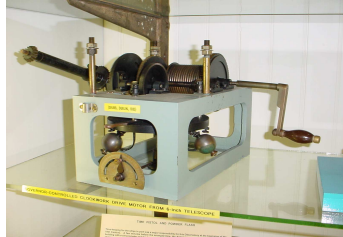
This 2½-inch lens, borrowed from Mr Allis, a photographer in Mowbray, was used to make the first photos (1882) of a comet that clearly showed the background stars.





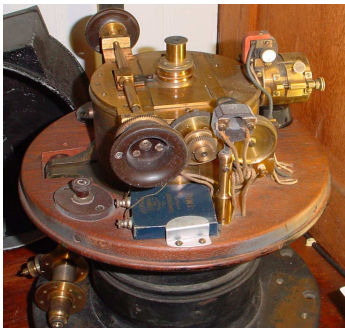
Lens used to produce the CPD, the world's first photographic sky survey.

Telescope drive motor by Grubb of Dublin who built several of the telescopes at the Royal Observatory.



Spiral slide rule used for astronomical calculations.

Early multi-hole punch, believed to have been designed by G.B. Airy, Astronomer Royal at Greenwich.

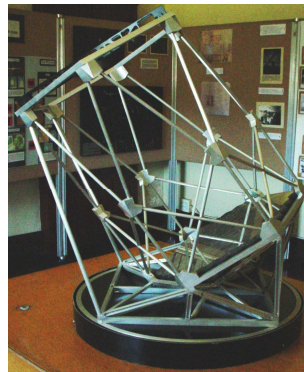


Eye end of the Airy Transit Circle (1855) which stood in the main building until 1950 and was used to measure the positions of stars and planets.

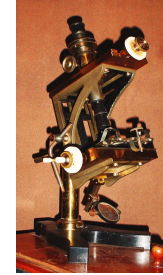


Zeiss blink comparator (ca 1905) used for comparing plates taken at different times to find objects that had moved or changed in brightness.

Model of the 74-inch (1.9m) Radcliffe telescope, now in Sutherland, made by Grubb Parsons of Newcastle, UK, in the early 1930s. The telescope was completed in 1948.



Model of the Southern African Large Telescope, made in 1999 at SAAO while the project was being promoted. SALT has the largest light-collecting area in the world under certain conditions.



ASTRONOMICAL MUSEUM OF THE SAAO



SAAO
South African
Astronomical Observatory