

AIRY TRANSIT CIRCLE (1855-1950)

In 1855, during Thomas Maclear's directorship, the Airy Transit Circle was installed in this room. It was a copy of a similar instrument at longitude zero at the Royal Greenwich Observatory.

The sidereal time a star crosses the meridian (the north-south line in the sky) gives its 'Right Ascension', similar to geographic longitude, and its distance upwards from the celestial equator gives its 'Declination', analogous to geographic latitude.

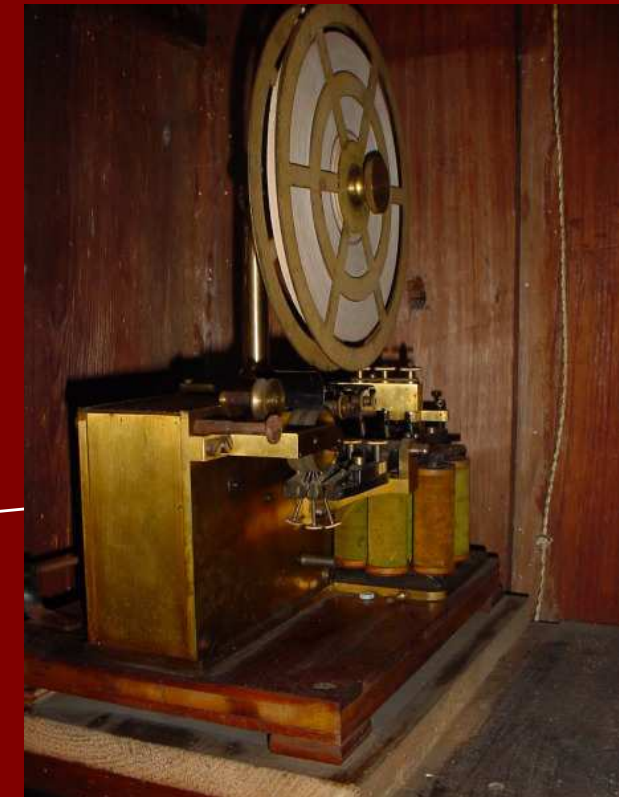
Before the Airy Transit Circle was installed, two separate instruments, a 'transit telescope' and a 'mural circle' had to be used to give the same information.

Some parts of the instrument may still be seen in the Astronomical Museum.



Photograph of this room around 1900. The eye end and main lens of the telescope are in the SAAO Museum.

A small plaque in the centre of the floor marks the spot from which all South African geographical positions used to be measured.



The chronograph shown above was used to record the time of a star's transit. The observer pressed a key to put a mark on a tape at the precise time that the star passed the meridian. Clock ticks were also recorded. This device can be seen today in the Photoheliograph dome.



The telescope looked out through 'chases' or doors (see photo at left) that ran from the back of the building (north) over the ceiling and down its front (south). The chases were later walled up.