



# Royal Botanic Gardens Victoria

Melbourne Gardens

## The Astronomical buildings

### The Observatory

This main building was built in 1861–63. It initially comprised 12 rooms, with a further 10 rooms added between 1863 and 1902. These include the Astronomer's Office and Library, and Transit Rooms where telescopes were positioned underneath long thin apertures in the ceiling that opened to the sky for their use in tracking and tracing movements of stars and planets.

### The South Equatorial and Photoheliograph Houses

These two buildings were built in 1873 to observe the Transit of Venus in 1874. This significant astronomical event occurs twice a century, and generally six years apart. Scientists from around the globe worked collaboratively to record the hours that Venus moved across the Sun. The measurements were then used to determine the distance between the Earth and Sun and therefore the size of the galaxy.

### Magnet House

This building, positioned alongside the Serpentine Pathway, was built in 1877 and housed the instruments for measuring hourly changes in the Earth's magnetism. The building had to be constructed entirely without metal – no nails and no roofing iron – to ensure the records were accurate, and to avoid affecting the sensitive instruments. In 1910, when the new electric trams on St Kilda Road caused interference to magnetic readings, Magnet House closed, and the operation moved to Toolangi.

### The Astrograph House

This lone telescope house was built as part of an international project in 1889 to photograph and map the stars – an enormous task. Over seven years, the astronomers observed the position of 50,000 stars of a particular magnitude. The astrograph project was the biggest scientific project of the 18th century and originally involved 18 observatories around the world. Each had a section of the sky to look after, which included photographing the stars and then mapping and cataloguing them.

### Observatory House

The Astronomer's residence was completed in 1889. Robert Ellery lived in the house until his death in 1908. It was then leased to Joseph Baldwin, the chief assistant astronomer and later third Government Astronomer. It is now used to house the Royal Botanic Gardens education and finance departments.

### Collimating Marker

Astronomer Robert Ellery had this collimating mark erected on the south boundary in 1886 to keep track of some slight movements in the East Transit telescope. A long focus lens was placed in the south collimator inside the East Transit Room to view the collimating mark and detect any movement in the supports of the transit telescope itself. If the telescope was out of alignment, Victorian Standard Time would have changed, and the published results of star positions would have been wrong.