The Great Melbourne Telescope Project

A Joint Venture by Museum Victoria, The Royal Botanic Gardens and the Astronomical Society of Victoria

5. The Great Melbourne Telescope House

In conjunction with the innovative design features of the Great Melbourne Telescope, the construction of the observatory building for the telescope is also of historic and engineering significance.



The GMT in the GMT house as it looked in 1885.

Initially the designer and builders of the GMT, Thomas and Howard Grubb of Ireland offered designs for a domed observatory building for the GMT. This was not adopted, instead a unique building was designed and built entirely as an Australian undertaking. At the time Robert Ellery was the superintendent of the existing Astronomical Observatory at Williamstown. With the growing importance and success of the Williamstown observatory, equipment and staff were shifted to a more substantial establishment on land excised from the Government House Reserve in the Melbourne Domain in 1863.

This subsequently became the "National Observatory".

To house the GMT, Ellery opted for a building with a gable roof that rolled on rails to allow the telescope to access the sky and to provide shelter at other times. The roof structure and mechanism was an innovative design by the Public Works Department and was constructed entirely using local resources.

The roof weighs some seven and a half tonnes and was at the time of its construction, the world's largest structure of its type. The roof features riveted wrought iron trusses without the usual horizontal tension member, allowing the roof to clear the telescope structure below. The GMT House appears to have been the first such building used at a professional observatory. It is the archetype of many more now in use by amateurs and professionals alike. It is also the predecessor of moving roof buildings used for other purposes such as indoor/outdoor sports fields. Its survival to the present with its movable roof still intact is a minor miracle. Most Melbournians are unaware that it is the ancestor of the large moving-roof sports stadiums not far away at Docklands and Melbourne Park. Restoration of the GMT House as a permanent home for a restored GMT, is dependant on technical and financial feasibility studies.



The GMT House as it appears today.

The Great Melbourne Telescope Project Information Fact Sheet

This fact sheet is one of a series providing information on the GMT historical background, technical details of the instrument and the efforts to reconstruct this magnificent telescope for use by the public.

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