



## The Transit of Venus: The quest to find the true distance of the Sun

by David Sellers

Magavelda Press, 2001. ISBN 0-9541013-0-8. Pp 222, £12.95 (pbk).

A light shower of books already heralds the sunny transits of Venus in 2004 and 2012. Recent offerings are *June 8, 2004: Venus in Transit* by Maor, and *Transit: When planets cross the Sun* by Maunder & Moore (both reviewed in JBAA, Vol.10, No.2, April 2000). The former is a nice collection of Venus transits that is culled largely from secondary sources, while the latter bids to become the general transit guide for the British amateur's bookshelf.

Writing in a popular style, Sellers' intent is to tell the story of the five historical transits of Venus in their proper overall context. The author makes it plain that the transits were part of a quest, clues in solving an age-old problem, that of finding the true distance of the Earth from the Sun; and thence all distances within the solar system and beyond. This work has great appeal in the depth of its story telling and in the general accuracy and quality of the text that is supported by over eighty diagrams, maps and illustrations. It is the result of the author's research into many primary historical sources and such credentials lift the book in sheer quality and interest above other popular accounts of transits that I have read lately.

The first chapter time-transport the reader to Ireland on 1882 December 6, the epoch of the last Venus transit, to share in the anxious excitement suffered by one astronomer who wavered over the whims of the weather on that distant day. (So also will you, dear reader, if you observe in Britain on the next occasion!) After the dramatic opening, the next four chapters settle down to an interesting and well crafted history that summarises development from the earliest times of the quest to find the Sun's distance. Thereafter comes the fascinating tale of the historical transits. The author describes the methods involved, introduces the principal characters and recounts the logistics of the expeditions.

The most famous voyage is of course Captain Cook's Tahiti expedition. It seems HM Bark 'Endeavour' was propelled around the world on that occasion by three thousand gallons of wine, taken aboard at Madeira. Reading between the lines of Cook's quoted journal, that circumstance might have fuelled the demise of the accompanying astronomer, Green by name (and, latterly on the voyage, possibly by appearance too). Other costs in human life are also totted up in the pages of the narrative.

Virtually all other accounts that I have read gloss over the methodology of Venus tran-

sits. Sellers goes into more detail and his explanations are clear. In that vein the author includes as an appendix, the seminal 1716 essay of Edmond Halley, exhorting future astronomers to observe the 1761 and 1769 transits: this is possibly the first time in 200 years that the full English translation from the Latin text has appeared in print.

The story does not merely close with the last pair of Venus transits in 1874 and 1882. Instead, the quest for a precise value of the Sun's distance is followed up to date, via the ultimate abandonment of the classic parallax method (after its culmination with asteroid 433 Eros) and its superceding by post-war radar techniques. The author also includes standard maps and prospects for the next pair of transits in 2004 and 2012.

The author is a Chartered Civil Engineer and a water engineer by profession. He is a



member of the BAA, an active member of the Leeds Astronomical Society and his interests lie in the history of science and technology. His last book was all about the history of sewerage.

Many a book is a labour of love, but memorable ones are the products of passion. David Sellers captures the allure that must have been felt by the Sun distance-seekers of old, who were passionately seduced by Venus on their quest. At £12.95 *The Transit of Venus* fulfils its

purpose at a very reasonable price.

### Robert Steele

Robert Steele is a civil servant by profession and presently directs the BAA Mercury and Venus Section for its members.