

IAU TRANSITS OF VENUS WORKING GROUP: TRIENNIAL REPORT (2009-2011)

1 INTRODUCTION

The previous Transits of Venus Working Group report #6, covering the time mid-2006 to mid-2009, was published by the undersigned in the *Journal of Astronomical History and Heritage*, Volume 12, p. 254 (2009). The present report, #7, covering the time up to mid-2011, has been prepared for the Reports to be presented at the IAU General Assembly in Beijing in August 2012. It is expected that after a flurry of publications in 2012/2013, the activities in the field of Venus transits will drop dramatically, and it is planned to terminate the activities of the working group after the Beijing General Assembly.

As already observed in the previous report, activities between the transits of 2004 and 2012 were most of the time at a low level. At the time of the 2012 transit, symposia are planned in Tromsø (Norway) and in East Asia or Australia. There will also be a Historical Astronomy Division special meeting at the American Astronomical Society's Austin meeting on Sunday 8 January 2012.

2 PUBLICATIONS IN THE PAST TRIENNIUM

A list of publications that have appeared since 2009, with some older overlooked references, is given in Section 4. A web bibliography, mainly on the 17th to 19th century transits, with many links to original sources, is kept by R. van Gent (see Section 3).

3 WEB LINKS

Websites dedicated to historical Venus transits are:

Robert van Gent's *Transit of Venus Bibliography* is at:

<http://www.phys.uu.nl/~vgent/venus/venustransitbib.htm>

Another version of the 17th and 18th century transits is also available at:

<http://transitofvenus.nl/wp/past-transits/bibliography-1631-1639/>

and

<http://transitofvenus.nl/wp/past-transits/bibliography-1761-1769/>

Steven van Roode's *Historical Observations of the Transit of Venus* (with reports, photographs and engravings, coordinates, maps of sites of the 17th to 19th century observers, as well as photographs of commemorative plaques) is at:

<http://transitofvenus.nl/wp/past-transits/>

Other websites of interest are:

The French National Node of the VT-2004-2012 project at:

<http://www.imcce.fr/vt2004/en/index.html>

Chuck Bueter's page at:

<http://www.transitofvenus.org/>

Jay Pasachoff's page at:

<http://web.williams.edu/astronomy/eclipse/transits/ToV2012/index.htm>

4 REFERENCES

- Bucher, Gudrun 2011. *Die Spur des Abendsterns. Die abenteuerliche Erforschung des Venustransits*. Darmstadt, Wissenschaftliche Buchgesellschaft, 215 pp., ISBN 978-3534236336.
- Cottam, Stella, Orchiston, W., and Stephenson, F.R., 2011. The 1874 transit of Venus and the popularisation of astronomy in the USA as reflected in the *New York Times*. In Orchiston, W., Nakamura, T., and Strom, R. (eds.). *Highlighting the History of Astronomy in the Asia-Pacific Region*. New York, Springer. Pp. 225-241.
- Cottam, Stella, Orchiston, W., and Stephenson, F.R., 2011. The 1882 transit of Venus and the popularisation of astronomy through the pages of the *New York Times*. ICOA-7 Conference, Tokyo, September 2010; HAD, AAS Winter Meeting, Seattle, AAS Meeting #217, #146.07 = *Bulletin of the American Astronomical Society*, 43 (2011).
- Cottam, Stella, 2011. Solar Eclipses and Transits of Venus, 1874-1887, and their Role in the Popularisation of Astronomy in the USA. Ph.D. Thesis, Centre for Astronomy, James Cook University.
- Hedelt, P., Alonso, R., Brown, T., Collados Vera, M., Rauer, H., Schleicher, H., Schmidt, W., Schreier, F., and Titz, R., 2011. Venus transit 2004: Illustrating the capability of exoplanet transmission spectroscopy. *Astronomy & Astrophysics*, 533, A136, doi: 10.1051/0004-6361/201016237
- Herrmann, Dieter B., 2011. Haben die australischen Aborigines vor rund 3000 Jahren einen Venusdurchgang beobachtet? *Acta Historica Astronomiae*, 43, 351-354.
- Lomb, Nick, 2011. *Transit of Venus 1631 to the Present*. Sydney, New South Publishing, 228 pp., ISBN 978-1742232690.
- McKim, R.J., Blaxall, K., and Heath, A., 2009. Venus 2004: east and west elongations and solar transit. *Journal of the British Astronomical Association*, 117(2), 65-76.
- Metz, Don, 2009. William Wales and the 1769 transit of Venus: puzzle solving and the determination of the astronomical unit. *Science and Education*, 18(5), 581-592, doi: 10.1007/s11191-006-9073-3
- Pasachoff, Jay M., Schneider, Glenn, and Widemann, Thomas 2011. High-resolution satellite imaging of the 2004 transit of Venus and asymmetries in the Cytherean atmosphere. *Astronomical Journal*, 141(4), article id. 112 (2011), doi: 10.1088/0004-6256/141/4/112
- Popescu, Adrian Sabin, and Rusu, Mircea, 2007. Venus' transit 2004: observations and analysis of the black-drop effect. *Romanian Astronomical Journal*, 17(1), 77-86.
- Sterken, C., 2009. Venus 1882 and Jean-Charles Houzeau. *Astronomische Nachrichten*, 330(6), 582-585, doi: 10.1002/asna.200911221
- Vaquero, J.M., Trigo, R.M., Gallego, M.C., and Moreno-Corral, M.A., 2007. Two early sunspots observers: Teodoro de Almeida and José Antonio Alzate. *Solar Physics*, 240(1), 165-175, doi: 10.1007/s11207-006-0264-5

Any relevant information on past or future activities is gratefully acknowledged (please send emails to: hduerbec@vub.ac.be).

Hilmar W. Duerbeck (Chairman)