

ASTRONOMICAL HERITAGES

ASTRONOMICAL ARCHIVES AND HISTORIC TRANSITS OF VENUS

ASTRONOMICAL HERITAGES

ASTRONOMICAL ARCHIVES AND HISTORIC TRANSITS OF VENUS

A SELECTION OF PAPERS
PREPARED BY WORKING GROUPS
Astronomical Archives
AND
Transits of Venus
OF COMMISSION 41
OF THE
INTERNATIONAL ASTRONOMICAL UNION

Edited by
CHRISTIAAN STERKEN
and
HILMAR W. DUERBECK
Vrije Universiteit Brussel, Belgium

Cover design based
on illustrations from
these Proceedings

The Journal of Astronomical Data
2004, Vol. 10, 7

Published by C. Sterken
Vrije Universiteit Brussel
csterken@vub.ac.be

©2004, The Authors

Reproduction is authorized provided
the source is acknowledged

TABLE OF CONTENTS

Preface	vii
Acronyms	viii

PART I: IAU ARCHIVES

Astronomical Archives in India	3
<i>S.M. Razaullah Ansari</i>	
Archives at the U.S. Naval Observatory – Recent Projects	13
<i>B.G. Corbin</i>	
The French Astronomical Archives Alidade Project	27
<i>S. Débarbat & L. Bobis</i>	
Documents Related to Astronomy in German Archives	31
<i>W.R. Dick</i>	
The Sound Archive of Archenhold Observatory – An Overview	41
<i>D.B. Herrmann</i>	
The Crawford Collection at the Royal Observatory Edinburgh	47
<i>K. Moran & M.T. Brück</i>	
The Japanese Astronomical Archives Project.	55
<i>T. Nakamura</i>	
An Introduction to the Astronomical Archives of Australia and New Zealand	67
<i>W. Orchiston</i>	
Highlighting the History of Nineteenth Century Australian Astronomy: The Tebbutt Collection in the Mitchell Library, Sydney	77
<i>W. Orchiston</i>	
The Lorenzoni-Tacchini Correspondence at Padova Observatory Archives – the “True” History of Italian Astronomy of the Second Half of the Nineteenth Century	105
<i>L. Pigatto, M. Salmaso & V. Zanini</i>	

Old Georgian Astronomical Manuscripts	121
<i>I. Simonia</i>	
Storing Astronomical Information on the Romanian Territory	135
<i>M. Stavinschi & V. Mioc</i>	
The Archives of the Norman Lockyer Observatory	153
<i>G.A. Wilkins</i>	

PART II: HISTORICAL VENUS TRANSITS

Maximilian Hell and the Northernmost Transit of Venus Expedition of 1769	165
<i>E. Botez</i>	
Austria's Contributions to the Observation of the 1874 Transit of Venus	175
<i>M. Kopper</i>	
A Remarkable Series of Plates of the 1882 Transit of Venus	211
<i>A. Misch & W. Sheehan</i>	
The Nineteenth Century Transits of Venus: An Australian and New Zealand Overview	219
<i>W. Orchiston</i>	
Jean-Charles Houzeau and the 1882 Belgian Transit Expeditions . . .	309
<i>C., Sterken, H.W. Duerbeck, J. Cuypers & H. Langenaken</i>	
Subject Index	331
Object Index	335
Name Index	337

PREFACE

The International Astronomical Union (IAU) was founded in 1919 to promote the science of astronomy through international cooperation. Its Commission 41 (*History of Astronomy*) was created at the 1948 General Assembly. Currently IAU Commission 41 has five active Working Groups (WGs): the *Astronomical Archives WG*, *Astronomical Chronology WG*, *Historical Instruments WG*, *Historical Radio Astronomy WG* and *Transits of Venus WG*. The aim of each Working Group is to foster the exchange of information and ideas between colleagues with similar research interests, and in some instances to organise collaborative research projects.

At the 1991 General Assembly in Buenos Aires a Resolution was adopted to establish a register of the whereabouts of all extant astronomical archives of historical interest. The Archives WG was established to further the objectives of this Resolution. Two archival Resolutions proposed by Commission 41 were adopted at the 1994 General Assembly in The Hague, and a further archival Resolution was adopted at the 1997 General Assembly in Kyoto. At the 2000 General Assembly in Manchester a half-day Special Session on *Inventory and Preservation of Astronomical Archives, Records and Artifacts* was organised, and a Resolution was adopted recommending that the sites of previous transit of Venus expeditions be inventoried, marked and preserved, as well as the instrumentation and documents associated with these expeditions. The Transits of Venus WG was not only called into existence to prepare a bibliography, but “to inventory, mark and preserve the sites of previous transit of Venus expeditions, as well as instrumentation and documents associated with these expeditions”.

These Proceedings contain a selection of presentations and research papers emanating from meetings of the *Astronomical Archives* and *Transits of Venus* Working Groups of Commission 41, and from presentations at the last three IAU General Assemblies. Some additional reports related to the topic of this book have also been added.

The first part of the book deals with archives, the second part with facts related to historical transits of Venus – although there is substantial overlap since some archive papers deal with Transits of Venus as well.

The compilation deals with many wonderful and even rare sources of information, such as official documents and reports, private letters, astronomical instruments and telescopes, national inventories, photographic plates, etc. A lot of documentation described in this book is available only on national level, and the combination of this material in one single volume looks like a cross-cultural study dealing with art and science, and almost can serve as a travel guide in time and space.

The Editors thank Dr. Wayne Orchiston for help and support in collecting the papers.

CHRISTIAAN STERKEN and HILMAR W. DUERBECK
EDITORS

ACRONYMS

AAHE	Astronomical Archives at Herstmonceaux Castle (England)
ADS	Astrophysics Data System
AG	Astronomische Gesellschaft
BAAS	British Association for the Advancement of Science
CDS	Centre de Données astronomiques Strasbourg
CSIRO	Commonwealth Scientific and Industrial Research Organisation
EAD	Encoded Archival Description
IAU	International Astronomical Union
IBS	Inventory Book for Survey
IIAB	Indian Institute of Astrophysics (Bangalore)
IUCAA	Inter University Centre for Astronomy and Astrophysics
KO	Kodaikanal Observatory (Kodaikanal)
MALVINE	Manuscripts and letters via Integrated Networks in Europe
MGAB	Maharashtra Govt. Archives (Bombay)
NAND	The National Archives (New Delhi)
NASA	National Aeronautics and Space Administration
NLO	Norman Lockyer Observatory
NSDAP	Nationalsozialistische Deutsche Arbeiterpartei
RAS	Royal Astronomical Society
RASL	Library of the Royal Astronomical Society (London)
RASNZ	Royal Astronomical Society of New Zealand
RSL	Library of the Royal Society (London)
UKATC	United Kingdom Astronomy Technology Centre
USNO	U.S. Naval Observatory

Part 1

ASTRONOMICAL ARCHIVES

... THAT THE UNION SUPPORTS THE INITIATIVES TAKEN BY THEM
[COMMISSIONS 41 AND 5]

1. TO ESTABLISH A REGISTER OF THE WHEREABOUTS OF ALL
EXTANT ASTRONOMICAL ARCHIVES OF HISTORICAL INTEREST;
2. TO IMPRESS ON OBSERVATORIES AND OTHER INSTITUTIONS
THEIR RESPONSIBILITY FOR THE PRESERVATION, CONSER-
VATION, AND WHERE POSSIBLE, CATALOGUING OF SUCH
ARCHIVES;
3. TO SEARCH FOR AN INSTITUTION THAT WILL ALLOCATE SPACE
AND FUNDS FOR MAINTAINING SUCH A REGISTER AND PUB-
LISHING IT.

IAU RESOLUTION (1991 GENERAL ASSEMBLY)

Part 2

HISTORICAL TRANSITS OF VENUS

RECOGNIZING THE HISTORICAL IMPORTANCE OF PREVIOUS TRANSITS OF VENUS AND THE NUMEROUS TRANSIT OF VENUS EXPEDITIONS MOUNTED BY VARIOUS COUNTRIES, AND NOTING THE RARITY OF THE UPCOMING TRANSITS IN 2004 AND 2012 COMMISSION 41 RECOMMENDS THAT THE SITES OF PREVIOUS TRANSIT OF VENUS EXPEDITIONS BE INVENTORIED, MARKED AND PRESERVED, AS WELL AS INSTRUMENTATION AND DOCUMENTS ASSOCIATED WITH THESE EXPEDITIONS.

IAU RESOLUTION (2000 GENERAL ASSEMBLY)

