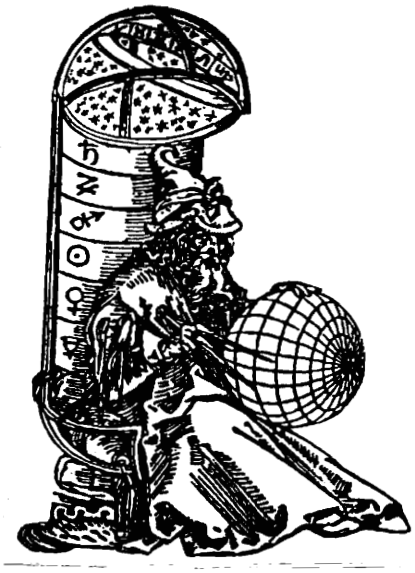
H. A. D. News



The Newsletter of the Historical Astronomy Division
of the American Astronomical Society

Number 54 November 2000

Folded Frontispiece from *A History of Astronomy* by Walter Bryant (London: Methuen & Co.) 1907

Commission 41 at the Manchester General Assembly of the IAU

Steven J. Dick (USNO)

The 24th General Assembly of the International Astronomical Union was held in Manchester, UK from 9-16 August, 2000. Commission 41 (History of Astronomy) held three sessions: a business meeting, Joint Discussion 6 on Applied Historical Astronomy, and a special session on "Inventory and Preservation of Astronomical Archives, Records and Artifacts."

At the business meeting on August 15 the following officers were installed for the 2000-2003 triennium:

President:	F. Richard Stephenson (UK)
Vice-President:	Alex Gurshtein (Russia)
Immediate Past President:	Steven Dick (USA)
Organizing Committee:	Wolfgang Dick (Germany)
	Rajesh Kochhar (India)
	Tsuko Nakamura (Japan)
	Il-Seong Nha (Korea)
	Wayne Orchiston (Australia)
	Woodruff T. Sullivan (USA)
	Brian Warner (S. Africa)

Friday, August 11 was devoted to JD 6 "Applied Historical Astronomy." More than 100 people in attendance heard wide-ranging papers on Babylonian observations (D. Brown), East Asian observations (F. R. Stephenson), Southern Hemisphere observations (W. Orchiston), Practical astronomy in Indo-Persian sources (S. M. R. Ansari), Early observations and modern ephemerides (E. M. Standish) Secular variation of planetary orbital elements (Y. B. Kolensik), Ancient eclipses and the Earth's rotation (L. V. Morrison), Earth orientation since AD 1600 (D. D. McCarthy), Creating modern cometary models using ancient Chinese data (D. K. Yeomans), Historical variability of the interplanetary complex (M. E. Bailey), Early telescopic sunspot records (D. V. Hoyt), Recorded long-period comet fluxes as an indicator of historic astronomical activity (D. W. Hughes), Scientific interpretation of historical auroral records (D. M. Willis), and Remnants of historical supernovae (D. A. Green). A final overview was given by W. T. Sullivan.

Poster papers included "Exiguus: The Father of the Christian Era" (M. Stavinschi), "History of Cometary Exploration at Kyiv

University" (K. I.Churyumov), "Akademische Sternkarten, Berlin 1830-59" (D. Jones), "History of Astronomy in Ukraine" (A. Korsun), and "Sunspot records: 1853 - 1996" (J. M. Brooke *et al.*)

One of the purposes of the session on the inventory and preservation of archives was to serve as input to the Working Group on Archives reactivated at this meeting, by gaining insight into what is being done in individual countries, where progress is being made thanks to individual and institutional efforts. At the same time, the session is part of an IUHPS initiative to encourage preservation and inventory of scientific archives in general. The session was chaired by S. Dick, and included Adriaan Blaauw (Netherlands) on the Inventory of IAU Archives, and the ESO Archives, Peter Hingley (UK) on the Royal Astronomical Society Library and Archives; George Wilkins (UK) on the Norman Lockyer Observatory Archives; Suzanne Débarbat (France) and Jean-Pierre Cressent (France) on 'Alidade' and the Iconographic Base for Astronomical Archives Preserved in France; Wolfgang Dick (Germany) on German Archives; Andreas Verdun (Switzerland) on the Status of the Euler Edition and Archives; Alexander Gurshtein (Russia) on Russian Archives; Brenda Corbin (USA) and Donna Coletti (USA) on Preservation and Digitization of Observatory Publications; W. Orchiston (Australia) on Inventory and Preservation of Archives in Australia and New Zealand, Il-Seong Nha (Korea) on The Nha Il-Seong Museum of Astronomy, and S. M. R. Ansari (India) on Archives in India. Prof. Hasegawa summarized T. Nakamura's paper on Astronomical Archives in Japan. Also emphasized was the importance of the International Catalog of Sources of the American Institute of Physics, Center for the History of Physics, accessed online at www.aip.org.

The Commission passed two new resolutions: 1) recommending that the sites of previous transit of Venus expeditions be inventoried, marked and preserved, as well as instrumentation and documents associated with these expeditions and 2) recommending that concerted efforts be made to preserve the buildings and instruments associated with the observatories of the International Latitude Service and predecessor observatories, especially the associated geodetic monuments or pillars.

The Commission established the following four Working Groups: Archives, Astronomical Chronology, Historical Instruments, and Transits of Venus. Each has a chairperson and a clearly defined program of work for the next 3 years.

In other activities, the Commission sponsored IAU Colloquium 178 "Polar Motion: Historical and Scientific Problems," held in

Cagliari, Sardinia on September 27-30, 1999. The Proceedings, edited by S. Dick, D. McCarthy, and B. Luzum appeared as volume 208 of the Astronomical Society of the Pacific Conference series. In conjunction with the U. S. Naval Observatory, the Commission sponsored an around-the-world time ball drop on New Year's Eve to usher in the year 2000, involving 20 sites in 8 countries on 6 continents. The event will be repeated for the beginning of the new millennium on January 1, 2001.

The next General Assembly will be held in Sydney in 2003, followed by Prague in 2006. The Commission's Newsletters and notices of other activities are found at its web site, which may be accessed under "Commissions" from the IAU home page www.iau.org.

IAU Joint Discussion on Applied Historical Astronomy

Don Yeomans (NASA/JPL)

A Joint Discussion on Applied Historical Astronomy was held during the 24th meeting of the General Assembly of the International Astronomical Union in Manchester England (August 11, 2000). The following comments on this Joint Discussion do not reflect all the interesting papers given--only those for which the undersigned was able to take notes. After welcoming remarks by the moderators, F. Richard Stephenson and Steven Dick, the session began with a few papers on the available source material for ancient observations.

In his paper on Babylonian Observations, David Brown (Oxford University) noted that about 130,000 cuneiform clay tablets exist in the British Museum together with millions of fragments. Most of these records are from the period 651 to 60 BCE, when a centralized Assyrian control of Mesopotamia allowed the ruler to employ a large number of professional astrologers. While most of these tablets are predictive, some actual observations were recorded in the form of daily watchings. These were often subsequently recorded in annual diaries.

F. Richard Stephenson (University of Durham) spoke on East Asian Observations. The approximate date range for reliable Chinese astronomical data is from about 720 BCE to AD 1911. While astronomical records date back to about 1300 BCE, the first reliable solar eclipse record is in 720 BCE. It was not until the arrival of a stable government in about 200 BCE that detailed Chinese astronomical records survive. Richard noted that

astrological predictions were the ultimate goal for these detailed observations and that the existence of these observational records may well be the only useful result of astrology.

Beginning a series of talks on the use of historical data for defining modern solar-system models, Myles Standish (NASA/JPL) provided a lively talk on Early Observations and Modern Ephemerides. Myles noted that both Galileo in 1613 and Lalande in 1795 inadvertently recorded positional information for the yet-to-be discovered planet, Neptune. Unfortunately, both sets of observations probably contain accidental systematic biases and thus are not particularly helpful in defining the orbital motion of this planet beyond what can be achieved using more modern observations.

L. V. Morrison (Eastbourne, U. K.) and F. R. Stephenson, related how ancient solar-eclipse data have been used to track the history of the Earth's rotation. Using timed and untimed Babylonian and Chinese observations, it can be determined that the Earth's rotational period is increasing by 1.8 milliseconds/century. This amount has a contribution of 2.3 ms/cy due to tidal braking and a contribution of -0.5 ms/cy due to the re-distribution of mass upon the Earth's surface (*i. e.*, the Earth has become less oblate due to the melting of the polar caps).

Dennis McCarthy (U. S. Naval Observatory) also made use of Earth orientation observations since AD 1600. He pointed out that there is a secular effect in the Earth's polar motion due to the re-distribution of ground water, core-mantle interactions, and atmospheric effects.

The discussions then shifted to cometary phenomena when the undersigned outlined his work on the efforts to use ancient Chinese comet and meteor shower observations to constrain the orbital and physical models for comets Halley, Swift-Tuttle, and Tempel-Tuttle. Yeomans (NASA/JPL) concluded that the nucleus of comet Halley was not tumbling with time and that, unlike the case for comet Halley, the nucleus of Swift-Tuttle is too massive to be affected by the rocket-like thrusting of the vaporizing ices of the nucleus. In addition, the Leonid meteor showers are most likely when the Earth runs through the dust that is positioned closely behind and outside the orbital track of comet Tempel-Tuttle.

Mark E. Bailey (Armagh Observatory) made a presentation on the Historical Variability of the

Interplanetary Complex. He noted that researchers should be vigilant for the discovery of data that would support the likely impacts of comets upon the Earth during the period of recorded history.

David W. Hughes (University of Sheffield) concluded from the historical records that the flux of comets entering the Solar System has been roughly constant for the last two millennia. In addition, he noted that out to 2.4 AU, the number of long period comets reaching perihelion within an interval, q + dq, is independent of the perihelion distance (q).

In a report of ongoing work, Douglas V. Hoyt and Kenneth Schatten (Raytheon Corp.) reported they had collected a data file of telescopic sunspot records over the past four centuries. An impressive 450,000 sunspot observations have been cataloged and used to improve the existing history of sunspot numbers versus time.

D. M. Willis (University of Warwick, U. K.) and F. R. Stephenson reported on their efforts to secure ancient auroral records. Auroral records are available from 193 BCE, and the authors concluded that while the oriental auroral records exhibit a clear 27-day recurrence tendency at particular periods of time, the auroral records do not always correlate with sunspot/magnetic records. In addition, some Korean records are a bit suspicious in that there appears to be an excess of auroral records for certain intervals and the preferred direction of red aurora seen in Korea is not in the North, as expected, but rather in the South.

David A. Green (Mullard Radio Astronomy Observatory, U. K.) drew attention to about ten supernova explosions within our Galaxy that have been recorded over the last two millennia. As well as those observed by Tycho Brahe in 1572 and the one observed by Johannes Kepler in 1604, there are several more records of guest stars chronicled earlier in China, Japan, or Korea. Once identified with observable supernova remnants, these historical records provide the start times for modern-day computer models that trace the expansion of the remnants with time.

Woodruff Sullivan (University of Washington) closed the session with a short overview noting the obvious synergism between the astronomy and the history-of-astronomy communities. He left the group with the plea that we should redouble our efforts to preserve the existing archives and begin to utilize the many untapped sources of material within this field.

Huntington Library Exhibition of Astronomical Works

Ronald Brashear (Smithsonian Institution)

The Huntington Library, Art Galleries, and Botanical Gardens in San Marino, California, is planning an exhibition of its astronomical collections, titled: "Star Struck: One Thousand Years of the Art and Science of Astronomy." The exhibition is scheduled to run from Dec. 1, 2000 to May 14, 2001. (The opening date may be subject to change, so please check first at www.huntington.org or call 626-405-2100). Using rare books, manuscripts, celestial globes, and accompanying graphic images, the exhibition will look at the ways astronomers have learned more about the Universe by developing and extending the theoretical models of the Universe and by producing ingenious devices to better observe the heavens, as well as take a closer look at the stars and planets themselves.

Some specific items will look more closely at key events and concepts in the history of astronomy: Copernicus's idea that the Earth travels around the Sun, that the planets might have an astrological effect on our lives, the idea that the Universe is expanding, the possibility of life elsewhere in the Universe, the invention of the telescope, and studying the heavens in "invisible" light. This exhibition will truly give us a greater appreciation of how we fit in with the rest of the Universe, how we came to realize this, and how much farther we have to go.

The exhibition, curated by Daniel Lewis, Huntington Library, and Ronald Brashear, Smithsonian Institution Libraries, will be on display in the newly renovated Mary Lou and George Boone Gallery. Some of the items on exhibit will include:

- ✓ Marcus Manilius's *Astronomicon* (1473-1474), an incomplete poem on astrology and astronomy, the first printed astronomical book.

- ✓ Ptolemy's *Almagest* [manuscript] (1279). This work is one of the most important in the history of astronomy and represents the culmination of Greek astronomical thought. Its influence was remarkable and pervasive up to the time of Copernicus in the sixteenth century. This version is an illuminated manuscript produced in France in 1279.

- ✓ Nicolaus Copernicus's *De Revolutionibus* (1566) showing his revolutionary scheme with the Earth orbiting a central Sun.

This book was once owned by the astronomer Edwin Hubble.

- ✓ Albert Einstein's 1913 letter to George Ellery Hale in which he diagramed how the Sun's gravity would bend the light from stars behind it.

- ✓ Johann Bayer's *Uranometria* (1603), the influential illustrated star atlas that helped perpetuate the ancient constellations for modern astronomy.

- ✓ J. Blaeu's *Grooten Atlas*, vol. 1 (1664) is a superb atlas, brilliantly colored, which shows in great detail Tycho Brahe's famous observatory in Denmark with all its massive observing instruments.

- ✓ Francesco Bianchini's *Hesperi et phosphori* (1728) illustrates some of the incredible long-focus telescopes of the eighteenth century.

- ✓ Galileo's *Sidereus Nuncius* (1610), the first published views of the moon and stars as seen through the newly-invented telescope.

- ✓ Edwin Hubble's 1924 notes with a dramatic diagram showing how he used the light from variable stars to determine the distance to the nearby Andromeda Galaxy.

- ✓ Peter Apian's *Astronomicon Caesarium* (1540), without doubt the most spectacular book produced during the sixteenth-century. It is a large book dedicated to the Holy Roman Emperor, colored by hand, filled with the most ingenious rotating paper discs used by astronomers to determine the positions of the planets, phases of the Moon, and times of eclipses, along with a variety of calendrical and astrological information.

- ✓ and many more . . .

The Huntington is open Tuesday through Friday, noon to 4:30 p. m.; Saturday and Sunday 10:30 a. m. to 4:30 p. m. It is closed Mondays and most holidays. Admission is $8.50 adults, $8 seniors (65+), $6 students (ages 12-18 or with student I. D.), and free for children under 12. The group rate (10 or more) is $7. Members are admitted free. Admission is free to all visitors on the first Thursday of every month.

Fifth Biennial History of Astronomy Workshop

Call for Papers

Steven J. Dick

The Fifth Biennial History of Astronomy Workshop will be held July 5-8, 2001 at the University of Notre Dame. The workshop is sponsored by Notre Dame's Graduate Program in History and Philosophy of Science, Notre Dame's Reilly Center for Science, Technology, and Values, the History of Astronomy Special Interest Group of the History of Science Society, and the Historical Astronomy Division of the American Astronomical Society.

Steven Dick and Marc Rothenberg are program co-chairs. Persons wishing to present work in progress papers or poster papers should submit a title and abstract of approximately 200 words to one of the program co-chairs by Feb. 15, 2001, indicating preference for oral or poster presentation. Proposals will be accepted in a number of forms, but because the abstracts of papers accepted for the conference will appear on the conference website, we prefer electronic submissions. Write either Steven J. Dick, U. S. Naval Observatory, 3450 Massachusetts Ave. NW, Washington, D.C. 20392-5420, E-mail: dick.steve@usno.navy.mil, tel. 202-762-0379; or Marc Rothenberg, Joseph Henry Papers Project, Smithsonian Institution Archives, Washington, DC 20560-0429, E-mail: josephhenr@aol.com.

The local arrangements chair for the workshop is Matt Dowd, who can be reached at Graduate Program in History and Philosophy of Science, Univ. of Notre Dame, Notre Dame, IN 46556, or E-mail: Matthew.F.Dowd.11@nd.edu.

Persons wishing to register should contact: Astronomy, Center for Continuing Education, Univ. of Notre Dame, Notre Dame, IN 46556, E-mail: cce.cce.1@nd.edu. The registration fee of $75 includes the cost of the banquet. Housing is available in new air conditioned dormitories at $29 per night for a single, $23 per night for a double.

The conference will include a book exhibit and display tables. Participants are welcome to bring materials to display. Contact Matt Dowd with regard to how much space will be needed.

Regarding transportation, flights come to the South Bend from a number of major cities. Persons arriving *via* Chicago can take the United Limo Bus, which runs from the United Terminal at O'Hare Airport

directly to the Notre Dame campus. Round-trip fare is $57. For a schedule and reservations, call United Limo at (800)833-5555. For those driving, ample parking is available. A campus map and parking information will be sent in the CCE information packet.

To supply periodically updated information and a downloadable registration form, Matt Dowd has prepared a webpage for the workshop. The URL is given below.
http://www.nd.edu/~histast4/ndvinfo

The sixty-five historians of astronomy who attended the Fourth Biennial History of Astronomy Workshop, held at Notre Dame in July, 1999, praised the lively and informed sessions, the comfortable and informal atmosphere, and the reasonable room rates.

Asteroids Named for Astronomers and a Historic Telescope

[An IAU Press Release]

Several asteroid names very recently approved by the International Astronomical Union have been announced at this time specially to coincide with the IAU's General Assembly in Manchester.

Three honour former Presidents of the London-based Royal Astronomical Society: Sir Fred Hoyle, Professor Carole Jordan, and Sir Bernard Lovell. Their asteroids will be known as Hoyle, Carolejordan, and Bernardlovell.

Two have been inspired by the recent restoration by the 7th Earl of Rosse of the great reflecting telescope at Birr Castle in Ireland, completed by the 3rd Earl in 1845. One is to be called 'Leviathan' the popular nickname of the telescope, which was for 75 years the largest in the world. The other is 'Rosseven'--a contraction of 'Rosse Seven' for the present Seventh Earl.

Danish astronomer Dr. Johannes Andersen, who has served as General Secretary of the IAU from 1997 to 2000, has also been honoured with an asteroid to be called 'Johannes.'

. . .

Asteroids are named by their discoverers, and all six of these were discovered by Dr. Edward Bowell of the Lowell Observatory. Often, discoverers name asteroids for friends, colleagues, family members, places, famous people (poets, musicians, writers, *etc.*). Originally, asteroids were named after female deities, but the supply of

such names ran out in the 19th century.

Under the procedures of the IAU, discoverers submit names for asteroids to Dr. Brian G. Marsden, Director of the Minor Planet Center in Cambridge, Massachusetts. They are then passed on to the Small Bodies Names Committee of Division III of the IAU.

Asteroids are eligible for naming when they have been numbered. On discovery, asteroids are accorded a preliminary designation (*e. g.*, 1997 BF3). Then, when the asteroid's orbit has been sufficiently well determined that its position can be very accurately predicted for many decades, it can be numbered.

There are rules for the acceptability of names. They must not be too similar to existing names. They must not be obscene or objectionable; they must not pertain to politicians, religious leaders, or military leaders--unless long dead.

IAU Commission 20, which deals with the motions of asteroids and comets, along with their discovery, is always seeking suggestions for asteroid names. (Comets are named for their discoverers.) In particular, asteroid discoverers lose their right to name their discoveries when 10 years have passed from the date of numbering. There is usually a pool of asteroids ready to be named. Suggestions can be sent to the Minor Planet Center at mpc@cfa.harvard.edu.

Moons And Craters Named

[An IAU Press Release]

Characters from the Tempest, the late Carl Sagan, and the 18th century Astronomer Royal Nathaniel Bliss are among dozens of new names assigned to moons and features on moons and planets in the Solar System and approved today at the General Assembly of the International Astronomical Union (IAU) in Manchester. The IAU is the only body with international authority to name astronomical bodies and features on them. Names are confirmed every three years, at each General Assembly.

The Working Group for Planetary System Nomenclature (WGPSN, which includes the UK astronomer and broadcaster, Dr. Patrick Moore) examines every proposal. The committee selected the names after submissions from the discoverers, cartographers, and spaceflight engineers investigating new satellites, asteroids, and craters throughout the Solar System. Along with Earth-based observatories, space probes such as Galileo and Clementine have discovered a plethora of new moons, craters and other

features, all of which need names for the benefit of present-day astronomers and any future explorers.

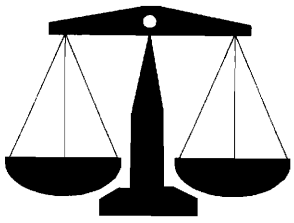
Shakespeare's play "The Tempest" had already been the inspiration for the names of some of the moons of Uranus discovered earlier, such as Ariel and Miranda. They will now be joined by Prospero, the magician master of the island in the play, Setebos who enslaves Ariel, and Stephano, the ship's butler. These names replace the less interesting temporary designations, S/1999 U3, U1 and U2, respectively. The names Caliban and Sycorax, provisionally given to two moons of Uranus discovered in 1997, were also formally confirmed.

In the asteroid belt, Eugenia's recently discovered satellite is named Petit-Prince after the son of Eugenie, the empress of Napoleon III. Craters on the dark asteroid Mathilde are named after coal basins around the world.

Nathaniel Bliss, the 4th Astronomer Royal, who died after just 18 months in his post at the Royal Observatory in Greenwich, will give his name to a lunar ring between the lunar crater Plato and Mt. Piton. Bliss, who served from 1762-1764, was until now the only Astronomer Royal without the honour of a named body or feature.

The late Carl Sagan, who is remembered for his contributions to planetary research and as one of the most successful popularisers of astronomy, will be honoured with a 95-km-wide crater near the equator on the planet Mars.

Features on the near-Earth asteroid Eros, currently being observed by the orbiting NEAR-Shoemaker spacecraft, are to be named after great lovers in history and literature. They include Cupid, Lolita, and Don Quixote. Galileo, the first astronomer to use a telescope, probably would not have approved. In the 17th century he refused to accept the proposed names of Jupiter's largest satellites as they commemorated the illicit lovers of Jupiter in classical mythology.



From the Secretary

The HAD will tour the Zinner Collection (at San Diego State University) during January's HAD meeting. (See *HAD News* #53 for details.) If you wish to join us, see the notice in December's *AAS Newsletter* or contact the HAD Secretary. There will be a slight fee for "lunch and such."

The following HAD Members had their last copy of *HAD News* returned by the post office because their address was no longer valid. Does anybody have the current address for:

Martin Burgdorf?
Nicholas Contopoulos?
Lorenzo Sepulveda?
Richard Wilds?

Thomas Hockey (address on the cover)
Phone: 319-273-2065
FAX: 319-273-7124
I: hockey@uni.edu

Clearance

Extra copies of *HAD News* #45 are available. Topics include the Palomar Observatory Silver Anniversary, the *Astronomical Journal* Sesquicentennial, and a Ruth Freitag Bibliography. Contact the Secretary.

Upcoming Meetings

[Source = Working Group for the History of Astronomy in the *Astronomische Gesellschaft* (Wolfgang Dick, Secretary)]

July 5-8, Notre Dame, Indiana, USA
The Fifth Biennial History of Astronomy Workshop
Contacts: Steven Dick, dick.steve@usno.navy.mil, and Marc Rothenberg, josephhenr@aol.com
URL: http://www.nd.edu/~histast4/
See also the announcement in *ENHA* 42, Item 3.

July 8-14, Mexico City, Mexico
XXIst International Congress of History of Science
Theme: Science and Cultural Diversity
If you are interested in receiving the Call for Papers and other information on the congress, please contact: Prof. Juan Jose Saldana, Chairman of the Organizing Committee, of the XXIst ICHS, Apartado postal 21-873, 04000 Mexico D. F., Mexico, e-mail: xxiichs@servidor.unam.mx
URL: http://www.cilea.it/history/DHS/mexico.htm

August 19-25, Nanyang, China
The Fourth International Conference on Oriental Astronomy (ICOA)
Contacts: Conference Secretariat, Chinese Institute for Zhang Heng of Nanyang,

Administration Building of People's Congress, People North Road, 473000, P.R. China, Tel. 0086-377-3311552, Fax 0086-377-3311302 For further information, see the announcement in *ENHA* 40, Item 3.

August 19-31, Hanoi, Vietnam
History of Geomagnetics, Solar-Terrestial Physics and Space Physics and Related Disciplines
Half-day session during the IAGA-IASPEI Joint Scientific Assembly. The topics are the development of solar-terrestrial physics, space physics and related disciplines during the last decades. It welcomes papers/posters as biographical notes, research programs, and international cooperation, including all aspects of the problems of a general history of geosciences and its related disciplines (physics, astronomy, geography, meteorology).
Contact: Dr. Wilfried Schroeder, Hechelstrasse 8, D-28777, Bremen, Germany
URL (for the Assembly): http://www.IAGAandIASPEI.org.vn/

Recent Discussion "Threads" on the History of Astronomy Discussion Group (HASTRO-L)

- 1900 Total Solar eclipse
- Alphabet Linked to Lunar Phases?
- Horizon Dip
- *Iliad* as Astronomical Allegory?
- Pulsars and "Little Green Men"
- Lascaux Sky Map?
- Halley's Comet in 1301
- Friedrich Ginzel
- Catastrophic Encounters with Comets
- Old Almanacs
- *Musica Ficta*
- Herschell's Deep Sky Objects

2001-2003 Candidates

[from *HAD News* #53]

Vice-Chair (Vote for One) The Vice-Chair assumes the office of Chair, at the end of the present Chair's term.

Alan Fiala: "My 40 years in professional astronomy have been spent at three institutions of historical significance in astronomy: Goodsell Observatory (Carleton College), Yale University, and the U. S. Naval Observatory in Washington. In June, I retired from a 38-year career at USNO, having been for the last four years Chief of the Nautical Almanac Office as

successor to LeRoy Doggett. I plan to continue research on the solar radius that depends on analysis of historical observations taken at solar eclipses, and I also have interests in the history of almanacs, navigation, and positional astronomy.

"In the last decade I have served as the Vice-Chair, Chair, and past-Chair of the DDA; served a three-year term on the Brouwer Prize Committee; and was local host of one annual meeting. I have served in an executive leadership capacity in several other civic and social organizations, and, if elected, will contribute my experience and time to the HAD."

Tom Williams: After enjoying the benefits of membership for over fifteen years, Tom Williams feels it is about time he gave something back to the organization by serving HAD in some capacity, and has agreed to be nominated for the position Vice Chairman. His special interest is the history of amateur astronomy, a topic on which he recently successfully defended a dissertation at Rice University. He is also interested in the history of astronomical institutions, particularly observatories and organizations.

Williams writes: "Obituary notices for deceased members are published in the *Bulletin of the AAS* and play an important part of our organization's institutional memory. The AAS Council delegated the responsibility to prepare these notices to HAD. As a HAD member I have participated in this important service to the AAS. I feel that I can make a contribution as the HAD Vice Chairman, by supervising the preparation of such obituary notices as may be required. As an independent scholar and otherwise retired individual, I will have the time and resources to ensure that this important task is carried out effectively for the AAS while participating in the other HAD leadership activities as required."

Secretary/Treasurer (Vote for One)* The S/T is a four-year term.

*This is an appointed office. Your vote will serve as a referendum on the Committee's appointment.

Ronald Brashear is the Curator of Rare Books in the Smithsonian Institution's Dibner Library of the History of Science & Technology. Prior to this, he was Curator of History of Science, Technology, and Medicine, and Institutional Archivist at the

Huntington Library in San Marino, California, from 1988 to 1998 where he oversaw the Edwin Hubble Papers and the Archives of the Observatories of the Carnegie Institution of Washington. In graduate school he was a research assistant at The Johns Hopkins University and served briefly on the Space Telescope History Project at the National Air and Space Museum. Ron received his B.A. and M.S. from the University of Louisville and spent four years at Hopkins studying for his Ph.D. in the history of science.

Recent publications include "The Astrophysical Journal: A New Journal for a New Science" *ApJ* 455 (1995): 403-411, and Ron has contributed encyclopedia entries for *History of Astronomy* (1997), *Instruments of Science* (1998), and *American National Biography* (1999). He is currently co-curator for an exhibition, "A Millennium of Stargazing: One Thousand Years of the Art and Science of Astronomy," opening in November 2000 at the Huntington Library.

"I've worked for many years now with newsletters, mail merges, and mailing lists in both Microsoft Word and WordPerfect, so I feel pretty comfortable with that. Plus I usually get laser printed mailing labels if I have to print them. When I was at the Huntington, we contracted with a private company to do the mailings. We provided the newsletters and an Excel file with the mailing list and they did the rest. I don't know if we could do something like this maybe? It's usually worth the expense (usually a very reasonable expense) not to tie ourselves up with the details of mailings. And I might be able to get the Libraries to host a web site where we can put up an electronic version of the newsletter if we're interested in doing that."

Committee (Vote for Two)
Committee members may be Division Affiliates.

Brenda Corbin, librarian at the U. S. Naval Observatory, has held this position since 1973. Her objectives have always been to maintain and enhance the library's collection, keeping it as one of the most complete astronomical libraries in the world. One of her prime interests is the preservation of 19th and early 20th century publications from observatories around the world. In 1979, she began noting the importance of this series of publications and its preservation. After many years this project has come to fruition as Harvard University is now microfilming the series thanks to the collaboration of Wolbach librarian Donna

Coletti. There are plans to digitize the microfilm so that full texts of these volumes will be available via the Astrophysics Data System (ADS).

Brenda enjoys assisting historians of astronomy in finding "hidden" resources via careful bibliographic sleuthing. She has published papers on various astronomy library topics, and history of astronomy papers relating to Simon Newcomb and Etienne Trouvelot.

Thomas Hockey studied planetary astronomy (under Professor Reta Beebe) and the History of Science (under Professor William Eamon) at New Mexico State University. He undertook his first project in the history of astronomy at NMSU: an oral-history videotape with Clyde Tombaugh. Hockey is presently Professor of Astronomy at the University of Northern Iowa, where he teaches astronomy and the history & philosophy of science. This summer he is a Faculty Associate at Arizona State University West, teaching archeoastronomy.

The focus of Hockey's historical research has been the development of the modern idea of "planet," specifically how paradigms from stellar/solar astrophysics, and from the geosciences, resulted in the archetypes of the "terrestrial" and "jovian" planets. He hopes to extend this study to include evolution of the planet-concept in light of historical searches for planets orbiting other stars.

Since 1997, Hockey has been Secretary/Treasurer of the HAD. In this capacity he administers the paperwork associated with the modest growth of the Division. One accomplishment he considers to be important is returning the redesigned *HAD News*, which he edits, to a regular, quarterly publication cycle.

Hockey has served on the HAD committee that selected the first two recipients of the LeRoy Doggett Prize. As HAD Treasurer, he saw to it that the principal donated to the Doggett Prize fund was not spent. (Prize expenses were budgeted out of general operating accounts.) Thus, the fund can continue to grow through further donations and interest accumulation.

As an elected member of the HAD Committee, Hockey would like to improve interaction between the HAD and the DPS, in order to advance the history of solar-system science. As for other future plans, he intends to present, at an appropriate upcoming meeting, his fieldwork on astronomical motifs in Easter Island rock art.

Karl Hufbauer (Ph.D., U. C. Berkeley, 1970; Prof. emeritus, U. C. Irvine, 1999-; Adj. Prof., U. of Washington, 2000).

"My research in the history of astronomy has focused on the ways in which astronomers and physicists have cooperated/competed in the astrophysical arena. This was a major theme in my *Exploring the Sun: Solar Science since Galileo* (1991) and in archivally-based articles on the stellar-energy problem, Edlen's solution of the coronal-line problem, Lyot's development of the coronagraph, and the genesis of the Ulysses mission. I am currently working on a monograph on the stellar-energy problem from 1900 to 1940."

Marc Rothenberg, Editor of the Joseph Henry Papers at the Smithsonian Institution Archives is a charter member of HAD. A former undergraduate astronomy major at Villanova University who switched to history of science, his dissertation at Bryn Mawr College focused on the education of 19th-century American astronomers.

Rothenberg has researched 19th-century American history, studied the history of science and scientific institutions, and has contributed numerous studies of the American professional and amateur astronomical communities. He was a chapter contributor to the AAS *Centennial History*, a contributor to the 150th anniversary issue of the *AJ*, and is widely known for his leadership in the Notre Dame workshops and as editor of various Garland series bibliographies and encyclopedias in the history of science. He has been associated with the Henry Papers Project since 1975 and has been Editor since 1985.

Rothenberg is the Treasurer and member of the Executive Committee of the History of Science Society. He also help establish the Special Interest Group in the History of Astronomy for the History of Science Society. Among his current projects is a study of Henry's research on solar surface temperature in the 1840s.

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Contributors: The submission deadline for issue #55 is January 5, 2001.

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BALLOT: 2001-2003 Officers

All HAD members, Full and Affiliate, are eligible to vote. Consult *HAD News*, issue #54, for statements written by the candidates. Please mail this ballot to the Secretary (Department of Earth Science, UNI, Cedar Falls, IA 50614 USA), postmarked or Faxed (319-273-7124) by the December Solstice (12/21/00). The poll will close after that date. Results will be announced at January's Annual Business Meeting in San Diego.

Vice-Chair (Vote for One)

Alan Fiala ☐

Tom Williams ☐

Secretary/Treasurer (Vote for One)*

Ronald Brashear ☐

Committee (Vote for Two)

Brenda Corbin ☐

Thomas Hockey ☐

Karl Hufbauer ☐

Marc Rothenberg ☐

* Note: The results of this election are non-binding upon the Committee.