

H•A•D NEWS

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

Number 70 CS May 2007



Don Yeomans turns over the gavel to Sara Schechner

New HAD Officers Chosen

Since the last (February 2005) issue of *HAD News* there has been an election and a change in the one appointed office. The following are the campaign statements of the candidates nominated and elected to serve in 2007-08. Full contact information, pictures, and links to home pages of officers may be found at http://www.aas.org/had/officers.html.

Vice-Chair/Chair-Elect: Tom Hockey, University of Northern Iowa

I have been with HAD since the beginning. Mine. By coincidence and design, the very first session I attended, at my very first AAS meeting, was the inaugural paper session of the new Historical Astronomy Division. Since that start of my career in the history of astronomy, I have served on HAD committees and as your Secretary/Treasurer and HAD News editor for four years. I would be both proud and pleased to serve as your new Vice-Chairperson. As Vice-Chair, one of my principal jobs will be to continue our Division's tradition of commissioning and editing obituaries for the BAAS. Having just completed the *Biographical Encyclopedia of* Astronomers, I have had plenty of experience as an editor! Moreover, I look forward to working with my friend Sara Schechner and the other Committee members, during the next several years, as HAD (and I!) approach our thirtieth anniversary.

Committee Member: Jay Holberg, Univ. of Arizona

I am currently a Senior Research Scientist with the Lunar and Planetary Laboratory at the University of Arizona. I obtained my Ph.D. in physics from the University of California at Berkeley in 1974. Although I have worked in both planetary astronomy (with the Voyager Mission) and stellar astronomy, my current research interests are the study of white dwarf stars in the optical and near infrared bands, and in the ultraviolet from space. I finally joined HAD in 2004, after attending many of the AAS HAD sessions. Since joining I have given two HAD presentations. My main historical interests are the history of stellar astronomy, and in particular the star Sirius. [See review of *Sirius: Brightest Diamond in the Night Sky* elsewhere in this issue.]

Committee Member: Gene Milone, Univ. of Calgary

To me historical astronomy is a hobby. My biggest claim to any contribution in this area is as co-author with David H. Kelley of Exploring Ancient Skies, as massive as that work is. Basically, I consider historical astronomy to be an area to which many astronomers whose primary work lies in other areas of astronomy can contribute. I suppose I set an example as a person who can participate in throwing light on historical events and ideas with the use of modern tools and analyses, without spending most of her/his career on the subject. On the other hand, there are many other people who can do, and have done, just this, so I am hardly unique. I have a lot of interest in cultural astronomy, and in the effect of astronomically related Dave Kelley and I enjoyed working together on EAS. Perhaps such a perspective is useful for service in HAD.

Call for Papers

HAD invites members to contribute papers to two special sessions being organized for the January 2008 meeting in Austin:

The International Geophysical Year and the Dawn of Space-Based Astronomy Session organizer: Jay Holberg holberg@vega.lpl.arizona.edu

Astronomy at the Time of Jamestown and Its Role in the Exploration of America Session organizer: Sara Schechner

schechn@fas.harvard.edu

Please contact the organizers by July 30 if you would like to present a paper.

From the Chair

Sara J. Schechner

In my first greetings from the Chair's Corner, let me say how delighted I am to serve as your chairman for the next two years and to work with so able an Executive Committee—namely, Don Yeomans, Tom Hockey, Jay Holberg, Gene Milone, and Joe Tenn. Joe is our new Secretary-Treasurer, taking over from Ron Brashear. Let me formally thank Ron here for his service to HAD in the last six years.

Our division has been very active in the two years since our last newsletter. This issue will bring members up-to-date on our last election, the obituary project, the Doggett Prize, upcoming meetings, and other news. One project deserves special mention. This is HAD's initiative in the study of problems posed in the identification and preservation of historical astronomical sites, facilities, instruments, and archives. The impetus for the study was a request from the AAS Executive Office for advice on how best to respond to a UNESCO program initiative on astronomical site preservation. However, a more pressing matterwhether the Society should preserve the ApJ editorial correspondence from the Abt years-encouraged HAD to take a longer and wider view. A preservation study was conducted in some detail by Steve McCluskey and David DeVorkin, with inputs during a meeting at Notre Dame in 2005. Their work led to a white paper that was submitted to the AAS Executive Office in the spring of 2006, and it culminated in the creation of an AAS Working Group on the Preservation of Astronomical Heritage in January 2007. The Working Group is now constituted and already up and running with Steve McCluskey as its chairman. HAD members should all be proud that we did not simply wring our hands on the impending loss of historical materials or sites, but have taken active steps to see that our heritage is preserved in a thoughtful way that is sensitive to the needs of different constituencies.

We had a fine meeting in Seattle last January with a special session of "Case Studies in How 20th Century Observatory Directors Got Chosen." Don Osterbrock was to give a paper at this meeting, but canceled at the last minute to take care of his ailing wife. His absence, however, did not keep him from being on top of HAD matters. I had correspondence with him right through the entire meeting. How surprised and saddened we all were to learn of his unexpected death just days later.

We are already looking ahead to our next meeting, which will be held in January 2008 in Austin, Texas. Two special sessions are planned. One will commemorate the 50th anniversary of the International Geophysical Year (which extended from July 1957 to December 1958) and the dawn of space-based astronomy. Coordinated observations by scientists from around the world were conducted on solar activity, the aurora, cosmic rays, geomagnetism, gravity, the ionosphere, meteorology, and rocketry, as

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well as on seismology, oceanography, and glaciology. With the Soviet launching of *Sputnik* and the American launching of *Explorer*, artificial satellites orbiting the earth made good the promise of future space-based platforms for astronomical and astrophysical research. I invite HAD members to consider contributing a paper to this special session, or helping to organize it.

Special sessions at HAD meetings have often focused on the recent history of the astronomical profession. As an early modern historian and museum curator, it is my plan as HAD Chair to encourage our members to look further back in time to other great moments in the history of astronomy. To this end, I am organizing a second special session that will recognize the 400th anniversary of the founding of Jamestown (the first permanent English settlement in North America) and the role of astronomy in the exploration and colonization of America. The navigators of European ships that sailed to America in the sixteenth century used new methods and instruments that were grounded in astronomy. John Dee, a mathematician and astronomer to Queen Elizabeth, prepared nautical charts and instructed crew members in cosmography before they set sail for North America in 1576 with Martin Frobisher or 1583 with Sir Humphrey Gilbert. Sir Walter Raleigh hired the Oxford astronomer, Thomas Harriot, to tutor his sea captains in London, and Harriot spent nine months at Roanoke on the outer banks of North Carolina in 1585-1586, where he established the first scientific laboratory in North America. Even Captain John Smith, the most colorful figure in the Jamestown story, was tutored in the astronomical methods of navigation and wrote seaman's manuals of his own. While exploring Virginia by canoe in December 1607, Captain John Smith was ambushed by Powhatan Indians. Most of us have heard John Smith's story of how Pocahontas saved his life. But even earlier in his captivity, the Powhatans spared Smith's life when they saw his pocket sundial. Its spinning compass needle, clear glass cover, and circular markings fascinated them. This lucky break confirmed Smith's belief that astronomical and mathematical instruments were vital to the survival of Jamestown. In Austin, I will give you the full story of "The Adventures of Captain John Smith, Pocahontas, and a Sundial." I invite others wishing to contribute papers on colonial astronomy and navigation to the session to contact me.

Ich bin HAD!

From the Vice Chair

Tom Hockey

Most HAD members know that the Division is charged with soliciting and editing the obituary-ofrecord for deceased AAS members. As your new vicechair, leading this effort has become my responsibility.

Traditionally, obituary authors are people who knew the individual about whom the obituary is written. Sometimes, though, time makes it difficult to find a suitable author from among such candidates. For this reason, we have no obituary in process for the following:

> Friedrich Gondolatsch (died 2003) Lyman F. Kells (died 2004) Timothy McCullough (died 2004) Albert G. Mowbray (died 2003) Bjarne Goodreau Nilsen (died 2006) James H. Trexler (died 2006)

In these cases, I turn to my fellow HAD members searching for volunteers. You are those with experience in seeking out the life details of historical persons. If a reader can help us out, I recommend a WWW search on the names above to find a compatible subject. The obituary you write will appear in the *Bulletin of the American Astronomical Society* under your name. I can provide guidelines and a generous lead time. Contact me at <u>hockey@uni.edu</u>.

From the Secretary-Treasurer Joe Tenn

One day in February I mentioned to my daughter that I am not very busy now that I have half-retired, and teach only 12 units per year instead of 12 per semester. "Are you bored?" she asked. "A little," I replied. The very next morning I received a message from HAD Chair Sara Schechner, asking me to fill the remaining two years of the term just vacated by Ron Brashear's resignation as HAD Secretary-Treasurer.

Now I have plenty to do. My first action was to update and expand the HAD website at <u>http://www.aas.org/had/</u>. Please check it out. The list of meetings now includes links to the abstracts of all papers presented at all HAD meetings since the first one in 1981. The newsletter section now includes nearly all newsletters back to 1993. A big thanks to Peter Abrahams for scanning most of these and converting them with optical character recognition software. Does anyone have other issues in unbound form, so that they can be scanned? Please contact me if

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you are willing to either lend them out or scan them yourself.

Other additions to the website include photos of the officers, descriptions of the recipients of the LeRoy Doggett prize, a separate section for the bibliographies started by Ruth Freitag, and a small set of history of astronomy links. Comments on any aspects of the site are most welcome.

This is my first attempt at a newsletter, and I welcome your comments on it as well. In case anyone is wondering who I am, you will find more than you want to know at <u>http://phys-astro.sonoma.edu/people/faculty/tenn/.</u>

History at Summer AAS Meeting

Although not officially sponsored by HAD, there will be a history session at the 210th meeting of the AAS in Honolulu. Session 31, scheduled for 28 May 2007, is devoted to "Native Hawaiian Astronomy and Navigation."



Doggett Prize Committee at Work

In an effort to improve the international perspective of the Doggett Prize Committee, Michael Hoskin, the 2004 recipient, has been asked to join and he has graciously accepted. The Committee for 2007 consists of Don Yeomans (Chair), Sara Schechner, Joe Tenn (Sec.), Robert W. Smith, and Michael Hoskin. Nominations are in and the Committee is now considering the candidates for the 2008 Doggett Prize The criteria and selection process are outlined at: http://www.aas.org/had/doggett/.

Minutes of the HAD Business Meeting Seattle, 6 January 2007

Sara Schechner and Don Yeomans Executive Committee members present: Don Yeomans (Chair), Sara Schechner (Vice Chair), Tom Williams (Past Chair), Peter Abrahams. Absent: Ron Brashear (Secretary-Treasurer), Dan Green.

I.Approval of last year's minutesII.Treasurer's Report

HAD Chair Don Yeomans called the meeting to order. He noted that due to a last minute change in plans, the HAD Secretary-Treasurer could not attend the HAD business meeting. Therefore, the reading and approval of the minutes of last year's business meeting, as well as the treasurer's report, would have to be delayed. (We will publish the treasurer's report and that of the Audit Committee as a newsletter supplement.)

III. Committee Reports

Obituary Committee. Sara Schechner reported that twelve obituaries with photographs were published in the December issue of the *Bulletin of the American Astronomical Society* **38**, No. 4 (2006): 1274-1285.

Nominating Committee. This Committee, composed of Virginia Trimble, Woodruff Sullivan, and Tom Williams, made their recommendations in March 2006, and the new officers are announced elsewhere in this newsletter. Don Yeomans expressed thanks, on behalf of the HAD, to Peter Abrahams and Dan Green for their service on the HAD Committee for the 2005-2006 period. He also thanked members of the HAD Nominating Committee for their activities.

Doggett Prize Committee. Don Yeomans thanked Tom Williams for his work as the LeRoy E. Doggett Prize Committee Chair during the 2005-2006 interval and noted that as the outgoing HAD Chair, he (Yeomans) would become the new Doggett Prize Committee Chair for 2007- 2008. The 2007 members of the Doggett Prize committee are then Don Yeomans, Sara Schechner, Michael Hoskin, Robert Smith, and the HAD Secretary-Treasurer (who, as of February 2007, is Joe Tenn). The Doggett Prize Committee will deliberate and announce its decision by September 30, 2007 on the 2008 prize winner.

Preservation Committee. Steve McCluskey described the work of a HAD committee concerned with the preservation of astronomical materials and sites of historical importance. Largely through the efforts of Steve McCluskey and David DeVorkin, a white paper was prepared for consideration by the AAS Executive Office in 2006. This led to Steve being charged with drafting a proposal to the AAS Council on January 6, 2007 that a Working Group on the Preservation of

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Astronomical Heritage be established. The proposal outlined the Working Group's charge, its goals, and suggested personnel. The AAS Council agreed that this Working Group should be established and requested that the HAD nominate the first twelve members. The charge to this Working Group now appears upon the AAS website at http://members.aas.org/comms/wgpah.cfm.

IV. **Future Meetings**

Don Yeomans recommended that more joint divisional meetings be held given the success of the joint meeting of DPS and HAD in Cambridge. UK in 2006.

Topics for special sessions in Austin in January 2008 were solicited from the members present. Themes suggested included the 50th anniversaries of the IGY and Sputnik, the beginnings of space astronomy and the legacy of James Baker, and given the 400th anniversary of Jamestown, astronomy in colonial America. The Executive Committee will consider these proposals.

V. New Business

Sara Schechner represented HAD at a meeting of officers of the history divisions of various physics societies, which was convened by the AIP's Center for History of Physics in the spring of 2006. The officers shared information on their activities in the morning and met with the executive officers of the respective parent societies in the afternoon. The Historical Astronomy Division is the most active of all the history divisions, maintaining not only a website, newsletter, and bibliography, but also organizing regular meetings and taking responsibility for the obituaries of AAS members. The division representatives were most impressed by the HAD's initiative on the preservation of astronomical heritage.

Woody Sullivan suggested that the HAD dues be raised from \$8 to \$12-\$15 in order to fund more activities. Those present were amenable to this change. It was agreed that the Executive Committee would consider this after a review of HAD's financial situation.

Peter Abrahams offered to scan old HAD Newsletters, and put pdf versions on the HAD website. This was endorsed, and Peter was thanked for his efforts. Moreover, given the ease of sending and receiving electronic documents, the HAD officers announced that printed versions of the newsletter would no longer be routinely mailed to members.

Sara Schechner announced that she had received a notice from Michael Hoskins stating that HAD

members are offered a discount on subscriptions to the Journal for the History of Astronomy. (Details are included in this newsletter.)

VI. **Transfer of Division Chairship**

Don Yeomans then initiated the transfer of the HAD Chair by presenting Sara Schechner with the coveted "Ich bin HAD" plaque and the HAD gavel.

International Catalog of Sources is Bigger and Easier to Use

Joe Anderson

ICOS, the American Institute of Physics's online catalog of archival records, manuscripts, oral histories, and other original source materials in physics, astronomy, and allied fields, hit 10,000 items in 2006, with a strong selection of new collections in the history of astronomy. And the collections, which represent more than 500 repositories worldwide, can be searched on Google and other commercial search engines, as well as on the AIP website at

http://www.aip.org/history/icos.

The following is a list of some of the new astronomy collections that have been added to ICOS during the past year:

- Amateur Astronomers Assoc. of Pittsburgh, records (6.8 linear ft.), 1931-2002, U. of Pittsburgh.
- Astronomical Journal, records (5 linear ft.), 1896-1941, Dudley Observatory
- Astronomy Dept., records (16 linear ft.), 1899-1986, Swarthmore College
- Barnard, Edward E., notebooks (7 vols.), 1880-1916, U. of Chicago.
- Cunningham, Leland, papers (55 linear ft.), ca. 1916-70, UC Berkeley.
- Gold, Thomas, papers (28 boxes), 1944-2004, **Royal Society**
- Hawkins, Gerald S., papers (45 linear ft.), 1955-2003, Boston U.
- Kerr, Frank J., papers (39.5 linear ft.), 1945-2000, U. of Maryland
- Krauss, John D., oral history recording, 2002, Ohio State U.
- Ladd Observatory, records (27 linear ft.), 1875-1971, Brown U.
- Osborn, Wayne, papers (6.5 linear ft.) 1959-2006, Central Michigan U.

- Whipple, Fred, oral history recording, 2003, Harvard U.
- Wielebinski, Richard, papers (5 meters), 1969-2001, Archiv zur Geshichte der Max-Planck-Gesellschaft.

To learn more about these and many other collections, either go to the ICOS website and do a subject search on astronomy, or search individual names in the ICOS site, Google, etc. We add more than 100 new records to the catalog each year. For help in using ICOS, call the Library at (301) 209-3177 between 8:30 am and 5:00 pm Eastern Time, Monday-Friday, to talk with an Archivist/Librarian, or e-mail us at nbl@aip.org.



Donald E. Osterbrock, 1924–2007 Joe Tenn

Don Osterbrock was the fourth HAD Chair in 1987-89 and was awarded the third Leroy E. Doggett Prize for Historical Astronomy in 2002. He gave invited or contributed talks or presented poster papers at the great majority of HAD meetings since the founding of the Division.

Don had several careers. He earned his Ph.D. in theoretical astrophysics as a student of S. Chandrasek– har at the University of Chicago. His early papers on convective zones and radiative cores in red dwarf stars were widely cited.

But most of his career was as an observational astronomer with a strong theoretical bent. As a coauthor with William W. Morgan and Stewart Sharpless of "Some Features of Galactic Structure in the Neighborhood of the Sun," he gained what he always considered undeserved fame even before completing his Ph.D. Morgan's generous act in listing the two graduate students as coauthors was one of several events that caused Don to title his autobio– graphical article in the *Annual Reviews of Astronomy* & *Astrophysics* "A Fortunate Life in Astronomy." He went on to become a leading spectroscopist and observer of nebulae, galaxies, and quasars.

Don's third career was as a teacher and mentor. After postdoctoral research at Princeton University he taught for five years at Caltech, fifteen at the University of Wisconsin, and from 1973 at the University of California, Santa Cruz. Although he formally retired and ceased teaching classes on 31 December 1992, he was walking across the UCSC campus to meet a student when he suffered his fatal heart attack on 11 January 2007. His 1974 *Astrophysics of Gaseous Nebulae* (AGN), and its 1989 revi– sion and expansion, *Astrophysics of Gaseous Nebulae and Active Galactic Nuclei* (AGN)², were widely used as graduate textbooks and reference works, and he worked with coauthor Gary Ferland to bring out a second edition of the latter when he was 81.

The more than twenty students who earned their Ph.D.'s under Don Osterbrock included such leaders of late twentieth century astrophysics as John Mathis, George Abell, C. Robert O'Dell, Eugene Capriotti, Robert Williams, Joseph Miller, Daniel Weedman, Holland Ford, Mark Phillips, and Sylvain Veilleux.

Don was also a noted administrator. His 1973 move from Wisconsin to California was to assume the directorship of the Lick Observatory, a post he held for eight years. He served as President of the American Astronomical Society from 1988 to 1990.

I think of history of astronomy as Don's fifth "career," although he called it his hobby. As he said in his Doggett lecture, "All of us are interested in our roots. Generally this interest is latent in youth, and grows with age. Until I reached fifty I thought that history of science was a refuge for old scientists whose creative juices had dried up! Now of course I know that I was wrong!"

He started out in the 1970s exploring the history of his new home, the Lick Observatory. He wrote a biography of its second director, the supremely talented but short-lived James E. Keeler, and followed it with articles about what he called the California-Wisconsin axis in American astronomy.

Gradually taking American astronomy in the bigtelescope era to be his field, he wrote centennial histories of the Yerkes and Lick observatories (the latter with John R. Gustafson and W.J. Shiloh Unruh), an acount of the stormy relationship between Mt. Wilson Observatory founder George E. Hale and cantankerous optician George W. Ritchey, and an acclaimed biography of Walter Baade, whom he had known during their five years together in Pasadena. In between were all those articles and HAD talks, and a great deal of encouragement to others engaged in the history of astronomy, especially those who came from a science background. He stated his views in the subtitle of his Doggett lecture, "History is Too Important to Be Left to the Historians." I know that he was enormously helpful to me during the six years I chaired the Astronomical Society of the Pacific History Committee and organized history sessions at the annual ASP meetings, including special sessions on the occasions of the centennials of Lowell and Yerkes Observatories.

I cannot conclude without also lauding Irene Osterbrock. She accompanied him to nearly all the meetings and shared his interest in history of astronomy. Irene helped to keep the Mary Lea Shane Archives of the Lick Observatory going after its eponymous founder died, and Don credited her with much help in his writings, especially on the history of Yerkes Observatory, where she was working when she first met Don, then a grad student, around 1950.

More information and links to more complete obituaries may be found at <u>http://phys-astro.sonoma.edu/brucemedalists/osterbrock/</u>.

Some Recent Books by HAD members

W. Brueggenthies and Wolfgang R. Dick have recently published their *Biographischer Index der Astronomie/Biographical Index of Astronomy* as Volume 26 of the Acta Historica Astronomiae series (Verlag Harri Deutsch, 2005, ISBN 978-3-8171-1769-7). This tome lists, for more than 16,000 astronomers and astronomy-related persons, biographical data and sources.

Jeffrey Crelinsten has published *Einstein's Jury: The Race to Test Relativity* (Princeton Univ. Press, 2006, ISBN 978-0691123101), an account of the eclipse-chasing astronomers who tested the general theory of relativity in the first three decades of the twentieth century.

André Heck has edited *The Multinational History* of *Strasbourg Astronomical Observatory* (Springer, Astrophysics and Space Science Library, 2005, ISBN 978-1402036439). The history of this sometimes French, sometimes German observatory opened in 1881 includes a good deal of fundamental astronomy, including the birth of the Stellar Data Center and the Hipparcos satellite project.

Alan Hirshfield has a new book entitled *The Electric Life of Michael Faraday* (Walker & Co., 2006, ISBN 978-0802714701). This is an extension of his Templeton Foundation prize essay on Faraday, who while born into poverty, arose to become a very gifted experimentalist. His invention of the electric motor and generator helped to usher in our current technological society.

Sirius: Brightest Diamond in the Night Sky (Springer Praxis Books/Popular Astronomy, 2007, ISBN: 978-0387489414) by new HAD Committee member Jay B. Holberg is reviewed elsewhere in this issue.

Brenda Corbin noted that she was reading (her husband) Tom's copy of the March-April 2006 issue of *Harvard Magazine* and came across the article, "Telltale Apparatus," which features Harvard's collection of historical scientific instruments where Sara Schechner (HAD Chair) is Curator. The article may be found at <u>http://www.harvardmagazine.com/online/030639.html</u>. As Brenda notes, it is a great article about an incredible collection. Be sure to look at the wonderful images in the PDF file.



Notre Dame VIII Will Focus on History of Telescope Matthew Dowd

Every two years, an international body of historians of astronomy gathers at the University of Notre Dame for a workshop in which they can enjoy scholarly discussion on a broad range of topics. Each year's event takes on its own character as different groups bring their expertise to bear on topics from many periods of history. The workshops are known both for the high level of scholarship and for the casual and intimate setting of the weekend.

The Eighth Biennial History of Astronomy Workshop will meet from July 25 to July 29, 2007. The principal focus of the workshop will be the history of telescopes, although a wide range of instruments and other topics will be discussed in more than twentyfive papers and presentations. The theme this year will surely benefit from the presence of the invited speaker, Albert Van Helden, professor of science and astronomy at the Institute for the History and Foundations of Science of the University of Utrecht.

This year's workshop will also include a daytrip to the Adler Planetarium and Astronomy Museum in Chicago. This trip will include behind-the-scenes tours and viewing of materials not currently on display, as well as some time to explore the museum.

More information about the workshop can be found at the website <u>http://www.nd.edu/~histast/</u>, which includes links to information from previous workshops, including programs with abstracts, pictures, and some papers.



Oldest known image of a telescope, AIP

More Meetings Scheduled to Celebrate 400 Years of Telescopes

Peter Abrahams

In 1608, Hans Lippershey filed a patent application in Holland for a telescope. The application was denied on the basis of prior art, but remains the earliest unambiguous evidence for the telescope. The year 2008 will mark the 400th anniversary of the historical telescope, and will be noted by the following conferences and exhibits in addition to the 2007 Notre Dame Workshop described above:

Conferences

23 September 2008 (starting date.) The Scientific and Cultural Prehistory of the Telescope. Location: Gent or Antwerp. Sven Dupré, organizer.

25-27 September 2008. A World Change: The Origin and Development of the Telescope, 1550-1650. Location: Middelburg, The Netherlands. Albert Van Helden, organizer.

September 2008. Planned meeting of the Antique Telescope Society, The Netherlands.

Exhibits

September 2008 - March 2009. Exhibit of telescopes, Museum Boerhaave, Leiden, The Netherlands.

September - November 2008. Exhibit of telescopes, Zeeuws Museum, Middelburg, The Netherlands.



Book Review

Brad Schaefer Sirius: Brightest Diamond in the Night Sky (Springer Praxis Books / Popular Astronomy)

This book is wonderful, being an authoritative and connected history of Sirius as seen throughout the ages. This is a history book for us, not a science treatise.

Holberg is a traditional stellar astrophysicist from the University of Arizona who specializes in observing white dwarfs with space instruments. Glancing down an ADS search on him, I find a long and highly technical publication list, with observations with HST, FUSE, IUE, EUVE, Voyager, and ground based telescopes; many of which are aimed at Sirius itself. So I was rather surprised when it turns out that his whole book on Sirius is about the history of Sirius. I had earlier read one chapter on history, but I had not imagined that the whole book would be on history.

Sirius is at the center of many fun stories, and Holberg puts them forward with engaging prose. Many of the stories are closely interconnected; so we have a continuum from the discovery of Sirius' motion, to the discovery of its binary motion, to the problem of the invisible star, to its discovery by the Clarks, to the reports of this star from the Dogon tribe in Africa, to the problem of the Pup Star's faintness, to the discovery of the idea of white dwarfs including the full Chandrasekhar-Eddington dispute, to tests of General Relativity. Holberg also gives good details about Sirius from Egyptian, Greek/Roman, and American Indian cultures. At the other "end" of history, Holberg's last chapter tells about all the great new results coming from modern spacecraft missions over the last 30 years, and then even extends to tell us the inevitable history of Sirius over the next many billions of years.

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I am highly impressed by the original new research reported in this book. Often, I was just reading through a familiar story and coming across a completely new item or aspect (with reference to the archive that he pulled the news from). This is most fun and impressive concerning the infamous Dogon-Sirius "mystery," where I found a very deep discussion filled with details that could only come from central Africa and the deepest archives of unpublished work. Wow, finally I see a refreshingly thoughtful and informative analysis. Later, when reading the acknowledgements (I never read them first when at the front of a book), I found that he had tracked down many of the original people who were there at the time and had gotten access to old unpublished notes from the central figures! He also tells of some of his own work in remotest central Africa.

I could imagine that this book would be good for constructing an astro-history course around. The story of Sirius epitomizes much of astro-history, and the book does a good job of filling in a lot of overview plus detail to keep the story coherently/connectedly going from 2276 BC until 10 billion years from now. But mainly, for people like us, it is a great story with a lot of new information.

Editor's note: The above unsolicited review was originally posted on the History of Astronomy Discussion Group, <u>HASTRO-L</u>.



HAD Members Offered Discount Subscriptions to JHA

The Journal for the History of Astronomy is offering subscriptions at a discount to HAD members. The normal private subscription rate is \$88 per

year for the quarterly journal, but HAD members may

subscribe for \$70. This price includes postage (accelerated bulk mail flown across the Atlantic, thence by surface). Dollar checks made payable to Science History Publications Ltd may be sent to

Science History Publications Ltd 16 Rutherford Road Cambridge CB2 8HH UK

Alternatively, credit card details (all major cards including Amex) may be faxed to +44-1638-605465. Mention of HAD membership will secure your discount. The journal's website is at <u>http://www.shpltd.co.uk/jha.html</u>.



The Journal of Astronomical History and Heritage *Wayne Orchiston*

In 2005 James Cook University in Townsville, Australia took over the *Journal of Astronomical History and Heritage* (JAH²), which immediately underwent a "make-over." It now features a new colorful cover design and a revised internal layout (complete with color images), and in 2007 the number of annual issues rose from two to three. However, the content did not change appreciably (there is still a wide range of papers, plus IAU Reports and book reviews), except that a decision was made to regularly publish papers on the history of radio astronomy. Towards this end, all four 2005 and 2006 issues were designated "Slee Celebration" numbers in recognition of Dr Bruce Slee's 60-year contribution to astrophysics.

When it comes to the Editorial Board there have been some changes. We gained the services of Associate Professor Graeme White (JCU) and Dr Hilmar Duerbeck (Germany), and Hilmar serves an

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invaluable role as Deputy Editor. On the debit side of the ledger we mourned the passing of John Perdrix (founding co-editor of the journal) and Professor Don Osterbrock, and we also said farewell to Professor Ben Gascoigne when his term on the Board came to an end.

Further information on the journal, including the Guide to Authors may be found at <u>http://www.jcu.edu.au/school/mathphys/astronom</u> <u>y/jah2/index.shtml</u> [You may have to copy and paste

this into your browser.] Wayne Orchiston is editor of the JAH² and History Coordinator of the Centre for Astronomy at James

Cook University, which offers external graduate degrees in astronomy.

Preservation of Astronomical Materials and Records

In response to the AAS Executive Committee's request for a proposal concerning the issue of preserving historic astronomical sites, facilities, equipment and archives, the HAD has issued a report and transmitted it to the AAS President. This report, with six recommendations (see below), was written largely by Steve McCluskey and David DeVorkin based upon inputs from various sources, including a workshop held at the University of Notre Dame in June 2005. If the necessary support is available, the HAD recommends the following types of activities:

i. That the AAS encourage and support the creation, printing and distribution of a simple two-color tri-fold brochure that identifies the importance of preservation, the types of objects, locales, buildings, and records that warrant preservation, and national resources that can be consulted for advice on how best to preserve these objects and entities. Examples are available on the AIP website <u>http://www.aip.org/history/source.htm</u>

ii. That the AAS add a lecture resource category to the Harlow Shapley Visiting Lectureship program that identifies experts who can visit a locale, lecture on its history, and advise on preservation of records, instruments and properties.

iii. That the AAS entertain a finite research project by a suitable scholar to survey professional astronomical observatories asking for information on preservation efforts, or for reasons why preservation has not been achieved. This work would potentially inform the argument from observatory directors and members of the Antique Telescope Society that keeping an instrument active is the best way to preserve it. This study would help astronomers better appreciate the various forms of preservation in the following categories:

- -- individual and institutional papers
- -- scientific instruments (telescopes, reduction instruments, support equipment)
- -- observatory buildings
- -- observatory sites

iv. That the AAS coordinate and support a plenary discussion, at an upcoming AAS meeting, of environmental, economic, and political issues related to site preservation, both prehistoric sites and modern sites. This activity could complement informative sessions on light pollution under the cognizance of the International Dark Sky Association, and the preservation of dark sky sites and horizons, and the preservation of instrumentation and documentation, under the cognizance of a standing committee consisting of HAD members nominated by the HAD Executive Committee, and representatives of the AAS Observatory Council and Executive Office.

v. That some formal locus of preservation activity be established within AAS. The HAD may be a suitable point at which to initiate such an activity, which would include staying in touch with similar interests in the IAU Commissions 41 and 50, the ATS, the Historical Sites Committee of the American Physical Society, and other like minded bodies. But it should be understood that it will take the form of an AAS Working Group, with endorsement by the AAS Council. Specifically, the membership of such a working group should include interested observatory administrators as well as working astronomers, historians, and perhaps representatives of archival, curatorial, architectural, and other interested professional disciplines. Many of the activities outlined above might best be developed for AAS within such a working group, as well as the following: to act as point of contact to field inquiries from local, regional and international groups, including both professional astronomers (like the IAU and RAS) and cultural bodies, such as UNESCO. It is suggested that this Working Group be constituted primarily to consider preservation issues brought before it on a case by case basis. Although its deliberations will be officially advisory, it will also be empowered to act on behalf of the AAS to seek out possible sources of funding for preservation, from local and national sources, public and private.

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Revenue 2006 vi. That among the first issues to be examined by an Individual Dues 1.904.00 AAS Working Group on preservation will be the fate of the ApJ papers, the best uses of the Yerkes Contributions 621.00 828.00 Interest Observatory after divestiture by the University of Distr. Market Value 812.00 Chicago, and the possibility of following the example TOTAL REVENUE 4.165.00 of the APS Historical Sites Committee in establishing a AAS Register of Historic Astronomical Sites, as well Expenses 2006 as the execution of activities i through iv. Supplies 441.59 Mailing Charges 11.02 **Treasurer's Report** Foreign Travel 623.15 Service Charges 68.97 Inter-unit Services 225.00 **Combined HAD Accounts** TOTAL EXPENSES 1,369.73 (excluding Doggett Prize Fund) Balance 12/31/03 Net Change 2006 +\$2,795.27 \$13,096.00 Balance 12/31/06 \$21,444.15 Revenue 2004 **Doggett Prize Fund** Individual Dues 1,846.00 Balance 12/31/03 \$24,700.00 Contributions 6,793.00 Interest 575.00 Revenue 2004 Distr. Market Value 213.00 Contributions 5,525.00 TOTAL REVENUE 9,427.00 Interest 974.00 Distr. Market Value 360.00 Expenses 2004 TOTAL REVENUE 6,859.00 Printing 689.16 Mailing Costs 538.97 Expenses 2004 **Domestic Travel** 733.07 Foreign Travel 1200.00 Mtg. Receptions 246.64 TOTAL EXPENSES 1,200.00 Mtg. A/V 542.00 Net Change 2004 +\$5,659.00 Service Charges 317.71 Balance 12/31/04 \$30,359.00 Inter-unit Services 235.00 TOTAL EXPENSES 3,302.55 Revenue 2005 Contributions 325.00 Net Change 2004 +\$6,124.45 1,210.00 Interest Balance 12/31/04 \$19,220.45 <u>-471.0</u>0 Distr. Market Value TOTAL REVENUE 1,064.00 Revenue 2005 Individual Dues 1,972.00 Expenses 2005 Contributions 275.00 Prize Awards 1,000.00 Interest 826.00 TOTAL EXPENSES 1,000.00 Distr. Market Value -322.00TOTAL REVENUE 2,751.00 Net Change 2005 +\$64.00 Balance 12/31/05 \$30,423.00 Expenses 2005 Revenue 2006 Printing 287.64 Contributions 350.00 297.69 Mailing Costs Interest 1,251.00 **Telecommunications** 53.82 Foreign Travel 1,379.67 Distr. Market Value 1,226.00 **TOTAL REVENUE** 2,827.00 Mtg. Receptions 983.15 Service Charges 80.60 Expenses 2006 Inter-unit Services 240.00 Contracted personnel 345.00 TOTAL EXPENSES 3,322.57 TOTAL EXPENSES 345.00 Net Change 2005 <u>-\$571.57</u> Net Change 2006 +\$2482.00 Balance 12/31/05 \$18,648.88 Balance 12/31/06 \$32,905.00

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Historical Astronomy Division of the American Astronomical Society

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