



# H·A·D NEWS

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

Number 69      ❧      February 2005

## HAD Meeting in Cambridge, UK September 4–8, 2005

## THE CHAIR'S CORNER DON YEOMANS

**T**he Historical Astronomy Division (HAD) of the American Astronomical Society will meet Sept. 4 to Sept. 8, 2005 (Sun.–Thurs.), at the University of Cambridge, in England. This will be a joint meeting with the Division of Planetary Sciences (DPS) of the AAS. The HAD program will include nine 90-minute sessions of papers. Four plenary sessions with the DPS will open with invited presentations of a historical nature. A Sunday evening reception will open the meeting; HAD papers will be on Monday, Tuesday, and Wednesday; with the joint conference dinner on Wednesday; and on Thursday a final plenary session will be followed by tours of Cambridge sites relevant to our meeting.

The deadline for advance registration, reservation of accommodation, and submission of abstracts, is 1 July 2005. However, it is essential for planning the HAD sessions that speakers inform the papers committee of their proposals at an early date. AAS members will submit their abstracts directly to the AAS website by 1 July (in addition to informing the committee); HAD speakers who are not AAS members will have their abstracts submitted by the papers committee. As of this announcement, the registration forms are not available.

### **Call for papers:**

Proposals for presentations to the sessions are invited. A brief abstract, including duration and media needs, can be emailed to Peter Abrahams at [had2005@europa.com](mailto:had2005@europa.com). Papers will be limited to the subject of the history of astronomy, including the application of historical data to current studies. Papers can be as long as 30 minutes in length, including set up and questions, but we encourage those whose topics can be expressed in less time, to request the appropriate duration. A papers committee, composed of HAD officers, will review proposals for appro-

**A**s I glance at the “ich bin HAD” plaque and the menacing HAD gavel on my windowsill, I have a daily reminder that this year will be a remarkable one for our membership. As well as a very successful meeting in San Diego in early January we will have an extraordinary joint meeting in early September with the Division of Planetary Sciences in Cambridge, England, and each of four daily planetary science plenary sessions there will begin with a HAD sponsored introductory talk. As well as HAD contributed sessions on a variety of historical topics including cosmology, radio astronomy, and planetary science, we’ll have an enormous audience for our invited talks by Albert van Helden on Cassini and Huygens, by Peter Schultz on the impact history of the moon, by Richard McKim on the history of Martian dust storms and by Michael Hoskin on the comets of Caroline Herschel.

Speaking of comets, it seems odd that our current Chair, Vice-Chair, and one of two Committee members all did their PhD work on comets. I assure you that this cabal of cometary colleagues will not direct future HAD meetings toward a cometary focus—well perhaps just a bit....

Peter Abrahams, an incoming HAD Committee member, is doing a fine job of organizing the Cambridge meeting with considerable help from Tom Williams, our ex-Chair (and new Chair of the Doggett Prize Committee). I’ll be counting upon Tom to continue to provide the valuable service he has so unselfishly given over the past two years. Dan Green, our second incoming Committee member, is preparing a list of historical tours and visits that can be undertaken in and around the Cambridge area. We are lucky to have Peter, Dan and Tom on board the HAD ship as we get ready to sail off to Cambridge in

## Minutes of the HAD Business Meeting

Monday, January 10, 2005  
Pacific Salon I  
Town & Country Hotel, San Diego, CA

The meeting was called to order by the HAD Chair, Tom Williams, at 1:02 PM.

The Minutes of the HAD meeting of 2004 (Atlanta) were approved as published in the February 2004 *HAD News*.

The HAD Secretary-Treasurer, Ron Brashear, gave the HAD Financial Report. The following figures are accurate up to the balances for Dec. 31, 2003. As the books had not yet closed for 2004, only a partial report has been made up of the accounts to Sep. 30, 2004. Please note that no investment income or gain on investments have been included in any of the 2004 figures.

HAD AAS-Held Funds & HAD Cash Account:

**Balance 12/31/02** **\$6,330.00**

### 2003 Revenue

Dues	\$1,858.00
Contributions	\$5,329.00
Investment Income	\$367.00
Gain on Investments	\$416.00
<b>Total Revenue</b>	<b>\$7,970.00</b>

### 2003 Expenses

Meeting Function Expenses	\$280.00
Office expenses & supplies	\$551.00
Other	\$373.00
<b>Total Expenses</b>	<b>\$1,204.00</b>

**2003 Change in Net Assets** **\$6,766.00**

**Balance 12/31/03** **\$13,096.00**

### 2004 Revenue (as of 9/30/04)

Dues	\$1,846.00
Contributions	\$1,500.00
Investment Income	
Gain (Loss) on Investments	
<b>Total Revenue</b>	<b>\$3,346.00</b>

### 2004 Expenses (as of 9/30/04)

Meeting Function Expenses	\$247.00
Meeting A/V	\$542.00
Travel	\$733.07
Office expenses & supplies	\$689.16
Other	\$538.97
<b>Total Expenses</b>	<b>\$2,750.20</b>

**2004 Change in Net Assets** **\$595.80**

**Balance 9/30/04** **\$13,691.80**

Doggett Prize Fund:

**Balance 12/31/02** **\$23,737.00**

### 2003 Revenue

Investment Income	\$977.00
Contributions	\$225.00
Gain on Investments	\$1,106.00
<b>Total Revenue</b>	<b>\$2,308.00</b>

### 2003 Expenses

Award	\$1,000.00
Contracted Services	\$345.00
<b>Total Expenses</b>	<b>\$1,345.00</b>

**2003 Change in Net Assets** **\$963.00**

**Balance 12/31/03** **\$24,700.00**

### 2004 Revenue (as of 9/30/04)

Contributions	\$475.00
Investment Income	
Gain (Loss) on Investments	

### 2004 Expenses

Travel	\$1,200.00
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**2004 Current Deficit** **(\$725.00)**

**Balance 9/30/04** **\$23,975.00**

Ron Brashear read the results of the recent election of HAD Officers. Elected as vice-chair (chair-elect) was Sara Schechner. Elected as committee members at-large were Peter Abrahams and Daniel Green.

### Old Business

Observatory reports: HAD supported the contention that current Observatory annual reports were not historically useful and could be dispensed with. HAD did suggest that a general template be put in place to allow observatory directors to more easily submit data to the AAS that will be useful for historians. AAS have asked HAD to help determine what data should be included in such a template. HAD has indicated in a previous report what data its members felt were important, so they will resend this to AAS.

### New Business

Cambridge Meeting Plans: [note: for more current info, see the article on page 1] Peter Abrahams reported on the upcoming joint DPS-HAD meeting in Cambridge, UK, Sep 4–9, 2005. Current plans are to have a Sunday reception. There will be papers on Monday, Tuesday, and Wednesday. On Wednesday will be the conference dinner. Thursday will consist of tours to local sites (possible

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The Chair's Corner

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September. Thanks should also go out to Ron Brashear, our active Secretary and Treasurer. As with any organization, nothing gets done without a good person in this position and we're fortunate that Ron has agreed to remain on board for another two years. A final thanks goes out to Al Hirshfeld and John Briggs for their excellent service as Committee members and to Barbara Welther for her chairing the Doggett Prize Committee.

Sara Schechner, our new Vice-Chair, has taken over as the AAS Editor for Obituaries and I leave this activity in her very capable hands. When I took over this position from Tom two years ago, I was a bit wary of the job but Tom and a few other past Chairs assured me that this activity would be well worthwhile. They were right. Editing the AAS Obituaries is a real learning experience, with sometimes emotional interactions with the deceased colleagues and loved ones. Through it all, one gets to know some rather remarkable figures in the history of astronomy. While I have no statistical evidence to back me up, it seems to me that astronomers live longer than most professional groups and a good many of them remain active well into their 80's and 90's. There is probably a cause and effect going on here and perhaps we all should take note of this. When the late Fred Whipple was asked how he managed to contribute so much, Fred pointed out that "you've got to start early"—and finish late it would seem.

I'd like to include a "Who's Doing What" column in upcoming HAD Newsletters so when you get a chance, please send me an e-mail with a sentence or two on what particular historical project(s) you're currently involved with.

"Ich bin HAD." That's probably true. Despite a rather busy schedule with my day job, I plan to be very active with HAD activities. In my next life, I'll be a full time historian of astronomy but until then, I'm looking forward to the Cambridge DPS/HAD meeting and my next two years in the Chair's corner.

Future HAD Meetings

Mark your calendars for the following HAD meetings, and consider not only participating by attending, but also submitting papers:

September 4-8, 2005—Cambridge, England

Joint meeting with the Division of Planetary Sciences.

January 8-9, 2006—Washington, DC

January 7-8, 2007—Seattle, Washington

January 2008—Austin, Texas

January 2009—Long Beach, California

HAD in Cambridge

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priate subject matter, and will assemble papers into thematic sessions. Poster papers are encouraged, and can be on a wider range of topics than spoken presentations.

The program:

HAD Papers will be presented in the Umney Theatre, Robinson College, Grange Road.

The schedule for Monday, Tuesday, & Wednesday is as follows:

- \* Joint morning plenary session, 9:00am to 10:30 (Sidgwick Road site).
\* Paper Session I, 11:00am to 12:30pm.
\* Paper Session II, 2:00pm to 3:30pm.
\* Paper Session III, 4:00pm to 5:30pm.

HAD posters will be on display for the entire three days, in the foyer areas near the Umney Theatre. Two sessions are planned on the history of radio astronomy. At least one session is planned on the history of planetary sciences, and one on cosmology. Other sessions will be announced.

The four DPS plenary sessions, including historic introductions organized by HAD, are as follows:

- \* Mon. 5 Sept., DPS session on the Cassini-Huygens Mission, will open with Albert Van Helden, speaking on the Saturn observations of Huygens & Cassini.
\* Tues. 6 Sept., session on the Mars Explorer Mission, will feature Richard McKim, on observations of Martian dust storms.
\* Wed. 7 Sept., session on the Deep Impact Mission, opens with Michael Hoskin, speaking on Caroline Herschel's comet observations.
\* Thurs. 8 Sept, session on the SMART-1 Mission, will open with Peter Schultz, on impact hypotheses for lunar cratering.

The DPS conference will take place at the Music School and the Law School of the University, Sidgwick Road site. The DPS conference continues through Friday. HAD attendees can attend a tour on Thursday; possible sites include historical radio telescopes, the Whipple Museum of Scientific Instruments, and the Greenwich Observatory Archives.

Fees: Housing will be at St John's College and Robinson College. Details can be found at the DPS web site, address below.

We invite your participation in the 32nd Meeting of the Historical Astronomy Division. The HAD Committee: Don Yeomans, Sara Schechner, Tom Williams, Ron Brashear, Dan Green and Peter Abrahams.

DPS meeting homepage:

http://www.dps2005.org/

Follow the links on this page to get all the details about the meeting including special information on accommodations and registration.

## HAD in San Diego, January 2005

HAD met in San Diego on January 9–10, 2005 as part of the larger AAS 205th meeting. On Sunday the 9th the HAD meeting started with a special session on the Centennial of the Mount Wilson Observatory.

The first paper was by **Joe Tenn** (Sonoma State U.), “Bruce Medalists at the Mt. Wilson Observatory.” Joe spoke about the various incarnations of the Mt. Wilson Observatory and how for more than half of the twentieth century it was the leading observatory in the world. One bit of evidence for this is the amazing number of its staff members awarded the Bruce Medal. The Catherine Wolfe Bruce Gold Medal of the Astronomical Society of the Pacific has been awarded for lifetime contributions to astronomy since 1898. It is an international award and it wasn't until 1963 that the number of medalists who had worked primarily in the United States reached half the total. Yet fourteen of the first eighty-seven medalists spent most of their careers at Mt. Wilson, including the period when it was Mt. Wilson and Palomar, and another three were Caltech observers who used the telescopes of the jointly operated observatory. Several more medalists made substantial use of the telescopes on Mt. Wilson and Palomar Mountain. Joe discussed highlights of the careers of a number of these distinguished astronomers: directors George Ellery Hale, Walter Adams, Ira Bowen, and Horace Babcock; solar observer and satellite discoverer Seth Nicholson; instrument builder Harold Babcock; galactic and cosmological observers Frederick Seares, Edwin Hubble, Walter Baade, Rudolph Minkowski, and Allan Sandage; and spectroscopists Paul Merrill, Alfred Joy, Olin Wilson, Jesse Greenstein, Maarten Schmidt, and Wallace Sargent. He also touched briefly on others who used Mt. Wilson and/or Palomar, including Harlow Shapley, Joel Stebbins, Charlotte Moore Sitterly, Donald Osterbrock, and Albert Whitford. To see Joe's site on the Bruce Medalists, go to:

[phys-astro.sonoma.edu/brucemedalists](http://phys-astro.sonoma.edu/brucemedalists).

Joe was followed by **Ronald Brashear** (Smithsonian Libraries) who gave the paper, “Taking Charge: Walter Sydney Adams and the Mount Wilson Observatory.” Ron spoke about how the growing preeminence of American observational astronomy in the first half of the 20th century is a well-known story and much credit is given to George Ellery Hale and his skill as an observatory-building entrepreneur. But a key figure who has yet to be discussed in great detail is Walter Sydney Adams (1876–1956), Hale's Assistant Director at Mount Wilson Observatory. Due to Hale's illnesses, Adams was Acting Director for much of Hale's tenure, and he became the second Director of Mount Wilson from 1923 to 1946. Behind his New England reserve Adams was instrumental in the growth of Mount Wilson and thus American astronomy in general. Adams was hand-picked by Hale to take charge

of stellar spectroscopy work at Yerkes and Mount Wilson and the younger astronomer showed tremendous loyalty to Hale and Hale's vision throughout his career. As Adams assumed the leadership role at Mount Wilson he concentrated on making the observatory a place where researchers worked with great freedom but maintain a high level of cooperation. This paper concentrated on Adams's early years and looked at his growing relationship with Hale and how he came to be the central figure in the early history of Mount Wilson as both a solar and stellar observatory. Ron noted how Adams's education, his years at Dartmouth and Yerkes (including his unfortunate encounter with epsilon Leonis), and his formative years on Mount Wilson are all important in learning how he shaped the direction of Mount Wilson and the development of American astronomy in the first half of the 20th century. This latter history cannot be complete until Adams is brought into better focus. Ron can be contacted at [brashearr@si.edu](mailto:brashearr@si.edu).

The third paper came from **Donald Osterbrock** titled “The Mount Wilson–University of California Connection from Hussey and Seares to Mayall and Olin Wilson.” Don started by noting that George Ellery Hale, who founded Mount Wilson Solar Observatory, first visited Lick Observatory in 1890, soon after his graduation from MIT. After his parents' deaths, when he began openly planning a Yerkes Observatory “expedition” to California, Hale's friend James E. Keeler, then Lick Observatory Director, invited him (in 1899) to locate it on Mt. Hamilton. Hale thanked him, but replied that sites further south would have more clear weather. He had probably already decided on Mount Wilson. There were many close connections between the University of California and Mount Wilson Observatory from that time right up to the present. W.J. Hussey was the Lick astronomer who carried out the official site survey that confirmed Mount Wilson as the best site. Harold Palmer (UC Astronomy PhD 1903) was the first new staff member Hale hired, but he only lasted a few months. The two main reasons for the continuing connection were the geographical proximity of Pasadena and the Bay Area, and the fact that for many years UC was the outstanding graduate astronomy department in the country, producing numerous well trained observational research astronomers. However in the early years the reasons were more complicated. After Palmer, the next three hired at MWO were Arthur King, the first UC Physics PhD (1903), Harold Babcock (UC Engineering BS 1907), and F.H. Seares (UC Astronomy BS 1895). Harold Babcock trained his son in astronomy almost from birth, and Horace (UC Astronomy PhD 1938) joined the MWO staff after World War II and became its Director in 1964. Palmer and Edward Fath (UC PhD 1909) were less successful at MWO and soon departed. These and numerous other MWO astronomers with UC backgrounds were mentioned, and their careers discussed.

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## HAD in San Diego

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The papers on Mount Wilson concluded with **George Preston's** (Carnegie Observatories) talk, "Mount Wilson Staff Reaction to Light Pollution." George started by saying that by 1950 Mount Wilson astronomers had come to accept light pollution by Los Angeles and its environs as inevitable. Those concerned with measurements of faint objects transferred their research to Caltech's Palomar Observatory under the terms of an agreement between Carnegie and Caltech. Others, such as Halton Arp, Arthur Vaughn, Olin Wilson, Allan Sandage, and George himself, took advantage of reduced pressure on the Mount Wilson telescopes to undertake major scientific programs that could tolerate the Los Angeles sky. However, these adjustments in style produced no remedy for the progressive deterioration that accompanied advancing age of the Mount Wilson facilities and lack of investment at a polluted site. The accelerating imbalance in demand for the Mount Wilson and Palomar facilities began to weigh on the Carnegie-Caltech joint operation. In the 1960s Carnegie attempted to redress the imbalance by developing a dark-sky site at Las Campanas, Chile, but the telescopes (1.0-m, 2.5-m) it could provide in the 1970s failed to arouse sufficient interest among Caltech astronomers, who opted to discontinue joint operation of the Carnegie and Caltech observatories in 1980. To fulfill its own need for a large telescope at a dark site Carnegie withdrew from the Mount Wilson operation in 1985, redirecting all of its resources to Las Campanas, and soon thereafter organized the Magellan Consortium that built, and now operates, two superb 6.5-m telescopes at the Las Campanas Observatory. This outcome is the legacy of Los Angeles lights.

The Sunday session concluded with two papers celebrating the fact that 2005 marks the 25th anniversary of the founding of the HAD. The first paper came from **Brenda Corbin** (USNO) on "The Historical Astronomy Division: Twenty-five Years of History as Revealed in the H.A.D. Newsletter." The Historical Astronomy Division was founded in 1980 and its Newsletter first appeared in May 1985. From that time on the Newsletter provided an archive of activities of the HAD. Based on this, Brenda gave a brief history of the Division using the information which appeared in the Newsletter, later called the *H.A.D. News*. A large range of interesting papers have been presented at meetings throughout these twenty-five years, and the *H.A.D. News* often reported on the paper and poster sessions after the meetings. Ruth Freitag's astronomical bibliography lists began appearing in the News in April 1988 and grew over the years into an all-inclusive listing of books and articles on the history of astronomy. Minutes of the HAD Business Meetings were also reported in the Newsletter and the growth of the Division and its interests, including the establishment and awarding of the Doggett Prize, have been reflected in this publication. Brenda can be reached via email at: [corbin.brenda@usno.navy.mil](mailto:corbin.brenda@usno.navy.mil).

The session ended with **Owen Gingerich** (Harvard-Smithsonian CfA) speaking on "History of Astronomy Then and Now." As one of the three founders of the Historical Astronomy Division, Owen reflected on the progress of the history of astronomy over the past three decades. This includes the success of the *Journal for the History of Astronomy* and the proliferation of other venues for the history of our discipline, the usefulness of Steve McCluskey's HASTRO e-mail list, and the many reference works now available or forthcoming. The status of archaeoastronomy and the ill-fated *General History of Astronomy* was also mentioned. Today history of astronomy is recognized as a serious endeavor on the part of younger scholars, and is no longer dismissed as an activity best carried out by retired astronomers long past their prime!

In the session room that Sunday, attendees also had the opportunity to see **Peter Abrahams'** (Independent Scholar) poster paper, "The Mount Wilson Optical Shop during the Second World War." The paper showed how, during WW2, the Optical Shop of Mount Wilson Observatory, located in Pasadena, engaged in a variety of exacting and pioneering ventures in optical design and fabrication. Roof prisms for military optics were produced on a large scale, leading to the production of an instruction manual, for guidance in other workshops. Triple mirrors, or autocollimating corner cubes, were another precision part made in large numbers. Aerial photography was extensively developed. Test procedures for measuring resolution of lenses were researched. Various camera shutters and film sweep mechanisms were devised. The most significant work concerned Schmidt cameras for possible use

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### Historical Astronomy Division of the American Astronomical Society

Chair: Donald K. Yeomans, [Donald.K.Yeomans@jpl.nasa.gov](mailto:Donald.K.Yeomans@jpl.nasa.gov)

Vice-Chair: Sara Schechner, [schechn@fas.harvard.edu](mailto:schechn@fas.harvard.edu)

Secretary-Treasurer: Ronald S. Brashear, [brashearr@si.edu](mailto:brashearr@si.edu)

Past-Chair: Tom Williams, [trw@rice.edu](mailto:trw@rice.edu)

At-Large Committee Members: Peter Abrahams,  
[telscope@europa.com](mailto:telscope@europa.com)

Daniel Green, [green@cfa.harvard.edu](mailto:green@cfa.harvard.edu)

Website: [www.aas.org/had/had.html](http://www.aas.org/had/had.html)

*HAD News* is published in February, June, and October, and sent to all individual members of the Historical Astronomy Division of the American Astronomical Society. The deadline for receipt of articles, news items, and announcements is the first of the month prior to the month of publication. Please send contributions as plain text in email or as email attachments in Microsoft Word to Ronald Brashear at [brashearr@si.edu](mailto:brashearr@si.edu).

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in night-time aerial photography. Variations included a solid Schmidt, and the Schmidt–Cassegrain, which was fabricated for the first time at MWO. Key figures included Don Hendrix, Roger Hayward, Aden Meinel, and Walter Adams. If you would like more information about this abstract, please follow the link to Peter's website at [home.europa.com/~telscope/binotele.htm](http://home.europa.com/~telscope/binotele.htm). Peter's email address is [telscope@europa.com](mailto:telscope@europa.com).

The HAD meeting continued on Monday the 10th with the first of two paper sessions, starting with the talk by **George Wallerstein** (U. Washington), "The Early History of the Apache Point Observatory." George described the efforts he made to fund and organize this major optical telescope. The story started with his visit to a potential contributor in November 1964 within a month after he had accepted the appointment as chairman of the Astronomy Department of the University of Washington. A number of unsuccessful efforts to find private money or to find partners were described as well as the unexpected contribution by Mr. Alex Kane of Ashland Oregon in 1975. With a significant sum in hand it became possible to search for partners so as to maximize the telescope size and to find a site with favorable weather. After a number of unsuccessful efforts to find partners and additional funds a series of very lucky events led to the formation of the Astrophysical Research Consortium consisting of the universities of Washington, Washington State, New Mexico State, Princeton, and Chicago. With the organization in place by 1984 design and construction of the Apache Point Observatory very close to the National Solar Observatory in Sunspot, New Mexico, commenced with the 3.5-m telescope as its primary instrument. The observatory was dedicated during an annular eclipse on 10 May 1994, thirty years after the program was initiated.

**Virginia Trimble** (UC-Irvine) followed with her talk on "Productivity and Impact of Large Optical Telescopes." Virginia noted that the advent of HST and 8-meter mirrors has considerably changed the pattern of publication and paper citations in optical astronomy. She made a comparison between the 1163 papers published January 1990–June 1991 and the 2100 published in 2001, cited in each case in the next two years. Among her results: (a) HST is an alpha male primate, though perhaps only 400 pounds rather than 500, (b) the 4-meter IR telescopes are more than holding their own, though the optical ones are not, (c) there are fashionable topics with many citations per paper (cosmology), and less fashionable ones (binary stars), and (d) more than half the papers from 2001 dealt with topics not generally regarded as drivers for the next generation of Humongous Optical Telescopes. Virginia can be reached at [vtrimble@astro.umd.edu](mailto:vtrimble@astro.umd.edu).

**Barbara Welther** (Harvard-Smithsonian CfA) came next with her talk on "Mt. Wilson in 1910: The Year of

The Great Solar Convention." In 1910 the meetings of the Astronomical and Astrophysical Society of America (now the AAS) and the International Union for Cooperation in Solar Research (later the ISU) were arranged so that astronomers from many countries first met in Cambridge, MA, for the AAS meeting from August 17–19, then spent eleven days sight-seeing as they traveled from the East Coast to the West Coast, and finally met again in Pasadena, CA, for the IUCSR from August 31–September 6. Formal notes for these meetings were published widely in such journals as *Nature*, *The Observatory*, *Popular Astronomy*, *Science*, and *The Transactions of the ISU*. In addition to those records for the three-week span, newspaper reporters published numerous articles, astronomers kept personal diaries, and amateur photographers took many candid photographs of their peers enjoying informal moments. Fortunately, some of the newspaper clippings, notebooks and picture albums ended up in observatory archives. Barbara's paper presented some of the highlights of the meetings and travels as recorded both formally and informally by H. D. Babcock, J. S. Plaskett, E. C. Pickering, F. Schlesinger, H. H. Turner, and others.

The fourth paper came from **Kenneth Rumstay** (Valdosta State University and SARA), "Metal Construction Toys of the Early Twentieth Century: Their Astronomical Applications." During the early twentieth century several toy manufacturers around the globe introduced construction toys in the form of sets of metal parts which could be assembled into a variety of models. The two most successful were the Erector Set, introduced in the United States by A.C. Gilbert in 1913, and the Meccano Set, patented in 1901 in England by Frank Hornby. Whereas the Erector Set never developed beyond being a child's toy, Hornby envisioned his Meccano system as providing a way to teach principles of mechanical engineering to young schoolboys. The variety of parts increased during the first third of the century, and increasingly sophisticated models were constructed and exhibited in competitive events. Among these were several clocks of remarkable accuracy, and at least one equatorial mounting for a small astronomical telescope. At the same time, many university science and engineering departments found these interchangeable metal parts invaluable in the construction of experimental apparatus. The introduction in 1928 of a flanged ring with 73 (a sub-multiple of 365) teeth allowed for construction of accurate orreries and astronomical clocks. The most remarkable of these was the Astronomical Clock constructed in the period 1924–1932 by M. Alexandre Rahm of Paris. Kenneth can be reached at [krumstay@valdosta.edu](mailto:krumstay@valdosta.edu).

**The conclusion of the article (and hopefully a few photographs) on the HAD San Diego meeting will appear in the next issue of HAD News.**

**HAD Business Meeting Minutes** *Continued from Page 2*

tours include historic radio telescopes). All the details about the meeting will appear in the call for papers which should happen in about 2 weeks. The deadline for abstracts, advance registration & housing will be on 1 July 05; the call for papers will note that organization of the sessions will be facilitated by early submission of abstracts to the papers chair.

HAD will participate in four DPS sessions by sponsoring an historical talk on the theme of the sessions. On Monday, for a DPS session on the Cassini mission, HAD will feature a paper by Albert Van Helden. On Tuesday, for a DPS session on the Mars Explorer, HAD will feature a paper by Richard McKim. On Wednesday, for a DPS session on Deep Impact, HAD will feature a paper by Michael Hoskin on Caroline Herschel's comet observations. On Thursday, the DPS will have a session on the SMART-1 mission and HAD plans to feature a talk by someone (to be named later) on lunar history. The HAD paper sessions on Monday through Wednesday will all start with a joint plenary session. All in all there will be the potential of having up to 27 half-hour historical astronomy papers at the Cambridge meeting. In addition, poster papers will be on display for the entire three days of the HAD meeting.

HAD & DPS-HAD Plenary Sessions will be at Robinson College. The Law School will hold DPS sessions. It is a brisk 5 minute walk between the two locations. The DPS-HAD meeting will be handled as an ordinary AAS meeting as AAS will handle the postings, registrations, etc. There will be housing available and locations and prices should be set very soon. More details will become available at the conference website, [www.dps2005.org](http://www.dps2005.org).

Preservation of Historical Sites (UNESCO/ICOMOS Project): AAS recently received a request from UNESCO for funds to support their world astronomical heritage initiative. The initiative is a plan to designate astronomical sites around the world as important and obtain funds for their preservation. At a recent UNESCO meeting on the matter, the RAS donated \$10,000 toward the initiative. AAS asked HAD if AAS should contribute as well. After some discussion among HAD members, HAD said that the initiative should not be funded at this time. HAD felt that the program is poorly defined, it has no principal investigators, its objectives are vague, and the time period and objects involved are a bit "fuzzy" (e.g. Torun was a site, and the night sky is an astronomical "object"). There was also an initiative to have 2009 declared as the "Year of the Telescope," and that seemed like something HAD & AAS should participate in. HAD advised the AAS that there is some need to identify, designate, and preserve historically important objects. There is a precedent in the NPS designation of seven important astronomical sites, but their preservation went beyond what the owners wanted to do while still being able to use them. As for

scientific instruments, these are often sent to scrap, so these could be documented at least or preserved. Astronomical personal papers also need to be preserved (Helmut Abt's papers are an example of this problem). Steve McCluskey & David DeVorkin have agreed to co-chair a HAD committee to begin looking into what we should be doing along these lines. Tom Williams will organize a workshop at the upcoming Notre Dame meeting to discuss the various issues of identifying, designating, and preserving historic astronomical sites. Sara Schechner will serve on the panel as she took part in a Scientific Instrument Commission preservation study. The committee may also include an Observatory Director as well as a historian or two to bring together a focus of the preservation of important historical assets. The idea is to have a small group look at the problem and report at the 2006 HAD meeting with a charter statement as to how a permanent committee should be charged and work. Bob Milkey noted that AAS have two years to act on Abt's papers. No archivist has examined them yet. Whatever is done, we have to be sure to involve Abt in all decisions regarding the papers. There are over two million pages in the entire collection. The Niels Bohr Library doesn't want it all. One suggestion was that a University of Arizona archivist be asked to examine the papers and make a recommendation.

HAD Bibliography: Peter Abrahams announced that he has begun a bibliography of publications in English, from 2003-04, on the history of astronomy. He will look into getting partners to permit the inclusion of foreign language works. HAD expressed its thanks to Peter for starting this project.

A motion was passed to thank Ruth Freitag for her work in preparing her bibliographies and to prepare some kind of commendation to present her in 2006.

Announcements:

History of Astronomy workshop in Notre Dame on July 7-10, 2005.

INSAP V will be at the Adler Planetarium in Chicago on June 26-July 1, 2005.

Copies of the history of AAS are still available. AAS are willing to discount them (see March newsletter) if you want them.

Committee Reports:

Obituary Report read by Donald Yeomans: He noted the AAS members who have passed away and the authors who will publish their obituaries. He provided a long list of pending obituaries for 2005, showing that HAD has been able to find plenty of authors willing to write them.

Doggett Prize Committee report by Barbara Welther, read by Ron Brashear: The Doggett Prize Committee for

**HAD Business Meeting** *Continued from previous page*

2004 consisted of Barbara Welther, Chair; Tom Williams, Chair of HAD; Ron Brashear, Secretary of HAD and of the Prize Committee; Owen Gingerich and Curtis Wilson, Members-at-Large. After awarding the fourth Doggett Prize to Michael Hoskin in January 2004, the Prize Committee called for nominations of candidates for the fifth prize cycle. The collection of nominations and supporting documentation of candidates ended on December 31, 2004. In addition to the carry-over nominations from the fourth prize cycle, the Committee has received several new nominations for the fifth cycle of the Doggett Prize. Since all the candidates are well-qualified under the rules, the Committee will have its work cut out for it. During 2005 the Doggett Prize Committee will choose the fifth winner of the prize from the current candidates. We anticipate that the prize will be awarded at our HAD meeting in 2006. We also anticipate that the recipient will prepare and deliver a prize lecture at that meeting. Members of the Doggett Prize Committee for 2005-2006 will be Tom Williams, Chair of the Prize Committee; Don Yeomans, Chair of HAD; Ron Brashear, Secretary of HAD and of the Prize Committee; Owen Gingerich and Robert W. Smith, Members-at-Large.

Future meetings announced:

Cambridge, UK (Sep 2005)  
Washington, DC (Jan 2006)  
Seattle, WA (Jan 2007 with AAPT)

Tom Williams then passed the Chair's gavel to Don Yeomans, who thanked Tom, the Nominating Committee and the Outgoing Executive Committee Members.

There followed the drawing for door prizes (some nice books provided by publishers at the AAS meeting).

The meeting adjourned at 1:55 PM.

Minutes respectfully submitted by  
Ronald Brashear, HAD Secretary-Treasurer

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