

H·A·D NEWS

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

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Doggett Prize to van Helden

*Thomas R. Williams
Rice University*

The Historical Astronomy Division is pleased to announce that Professor Albert van Helden is the tenth recipient of the LeRoy E. Doggett Prize for Historical Astronomy. The Doggett Prize, the history of astronomy's highest honor, is awarded biennially to an individual who has significantly influenced the field through a career-long effort.

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On to Kissimmee!

Marc Rothenberg

The January 2016 HAD meeting at the Gaylord Palms Resort and Convention Center in Kissimmee, Florida will be a full one, with a special session, the Doggett Prize lecture, oral and poster contributed papers, the annual business meeting, and the ninth annual HAD minibanquet.

PLEASE NOTE that the meeting will begin at 1:30 p.m. MONDAY (not Sunday), 4 January, with a special session on “The Centenaries of General Relativity and the Great War,” organized by Virginia Trimble. The speakers include Clifford Will, William Sheehan, Rudi Lindner, Virginia Trimble, and Roger Blandford.

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From the Chair

Marc Rothenberg

This newsletter will be the only one you will receive this year. For a variety of reasons, the transition from the previous group of officers went more slowly than anticipated. However, we are now back on schedule. I apologize for the delays in getting information to you.

I have just returned from the Fall Division Leadership Meeting, at which there was considerable discussion of Geoff Marcy in particular and sexual harassment within the field of astronomy more generally. If you have not yet read AAS President Meg Urry's recent column on the AAS website or the AAS "Statement on Sexual Harassment by Faculty," I strongly urge you to do so. It is the responsibility of all of us to ensure that there is a safe, hospitable, and productive environment at every AAS meeting and zero tolerance for sexual harassment in any aspect of our discipline. We must all uphold the highest standards of ethical behavior.

Another topic at the meeting was the interaction among the different AAS divisions. HAD is a leader in this, thanks to the efforts of my predecessor, Jay Pasachoff, who reached out to other divisions and organized historical sessions at the Division for Planetary Sciences and the Solar Physics Division. There is a brief notice from Jay later in this newsletter about the upcoming DPS meeting. Please consider organizing a historical session at future DPS or other division meetings.

We have a full HAD program for Kissimmee, including 14 oral presentations. I look forward to seeing you at the Gaylord.

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From the Vice Chair

Patrick Seitzer

University of Michigan

This is my first column as recently elected Vice Chair of the HAD. I salute my predecessor, Marc Rothenberg, for his valued service in this position, and for taking the time to instruct me in my duties.

The primary responsibility of the Vice Chair is the collection of obituaries of AAS members no longer with us. These serve two purposes: first, as a tribute to the individual, and second, to establish a historical record for possible future research. These obituaries are deposited in the archives of the American Institute of Physics (AIP).

There is quite a backlog of deceased AAS members who need obituaries, and we seek your help in bringing this backlog down. We intend to put soon on the HAD web site a list of individuals for whom obituaries are needed. I invite you to pursue this list and see if you can help out, either by writing an obituary, or by suggesting someone who could.

Recently Crystal Tinch (AAS Communications Manager) suggested listing recent deaths in the AAS electronic newsletter. She does this on a regular basis now, and this has resulted in some quite moving obituaries being submitted, along with pictures of the deceased.

I look forward to seeing many of you at upcoming AAS meetings.

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The AAS Oral History Project Storycorps Style

Jarita Holbrook

University of the Western Cape

The Historical Astronomy Division's Oral History Project began in 2012 with a grant from the American Institute of Physics Neils Bohr Library. Over the two years of the grant our team was able to conduct 12 interviews with AAS members. AAS Executive Officer Kevin Marvel approached HAD in 2014 about scaling up the project. With AAS funds behind the project, the goal was to interview 60 AAS members in a year. Together we decided to try a StoryCorps (<https://storycorps.org/>) style setup to interview members during meetings starting with IAU Honolulu in August 2015. We made use of two conference rooms at the Hilton Hawaiian Village Waikiki about 15 minutes from the Honolulu Convention Center. We advertised that we were doing interviews on the AAS website and in the IAU daily newspaper. We had people sign up for the time slot that they wished. Then we made sure one of our team members was there to interview them. It was a resounding success! During the two weeks of the IAU our team interviewed 40 people both IAU and AAS members. The interviews are in the process of being transcribed by the AIP and they will appear on the AIP Oral History website one-by-one over the next year (<https://www.aip.org/history-programs/niels-bohr-library/oral-histories>).

I would like to thank our interview team: Jim Lattis, Dan Pendick, Sanlyn Buxner, with additional interviews done by volunteers Jen Lattis and Jennifer Bartlett.

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HAD Student Travel Award

Marc Rothenberg

Since 2011 HAD has made available an award of \$500 to one graduate student to attend and present a paper at each winter HAD meeting. For the 2016 meeting in Kissimmee the decision was made to give it to an undergraduate: Maria Temming, an Honors Fellow at Elon University where she double majors in both physics and English. Her presentation, entitled "The Order of the Dolphin: Origins of SETI," focuses on the attendees of the 1961 meeting at Green Bank that eventually led to what is now SETI.

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Call for Nominations for the 2017 DONALD E. OSTERBROCK BOOK PRIZE FOR HISTORICAL ASTRONOMY

The Historical Astronomy Division of the American Astronomical Society awards the Donald E. Osterbrock Book Prize biennially to the author(s) of a book judged to advance the field of the history of astronomy or to bring history of astronomy to light.

Any member or affiliate member of HAD may nominate a book for the Prize. References to published book reviews and supporting letters are welcome.

Deadline for nominations for the next prize cycle will be 1 March 2016. Books with publication dates 2012 through 2015 will be eligible for the 2017 prize. Previously nominated books with publication dates of 2012 or 2013 remain eligible, but would proposers and seconders please resubmit their materials, or submit additional supporting materials.

Please send nominations and supporting materials to the chair of the Prize Committee, Jay Pasachoff. E-mail to jpasacho@williams.edu is preferred.

For further details about the Prize and information about past recipients, please visit <http://www.aas.org/had/osterbrock/>

AstroGen Progress

Joseph S. Tenn, Sonoma State University

It has been close to three years since the HAD Committee approved my proposal to create the Astronomy Genealogy Project (AstroGen) as a HAD project and since the AAS agreed to host it on the Society's website. Inspired by the highly successful Mathematics Genealogy Project (<http://www.genealogy.ams.org/index.php>), AstroGen is intended to list the world's astronomers with information about their highest degrees and advisors. (In academic genealogy, your thesis advisor is your parent.)

What have we accomplished since then?

A small group (the AstroGen Team) has been working on the project. We have been learning as we go, finding where the difficulties are, and trying to deal with the questions that come up. Unlike the MGP, which relies on individuals entering themselves, we have tried to gather information that is available online to start with. The project has grown to include more than just advisors.

We currently have more than 12,000 "astronomers" in the database, with quite a bit of information about most of them. This includes essentially all who have earned doctorates in Australia, Canada, New Zealand, and the Netherlands, and most of those in the U.S. (all through 1990 plus many more).

Nearly every item generates questions:

Who should be included? So far we have been working in the recent era, where the Ph.D. or equivalent can be used as a criterion for inclusion. This will have to change as we go back in time. We have been including all those who earned doctorates (usually Ph.D.'s or equivalent) with theses (aka dissertations) on astronomical topics, regardless of the name of the degree or department granting it. We also intend to include all academic ancestors of these.

What are "astronomical topics"? So far we have included classical astronomy of positions and motions, celestial mechanics, all types of astrophysics, cosmology, planetary science, and instrumentation or software intended for use in astronomy. We have some geophysical theses, dealing with particles and fields surrounding the Earth. We have excluded theses on history and

education. Of course there are grey areas on the boundaries of each of these.

Name: We have been entering the current or latest name used, as that is what inquirers are likely to search for. We also list other names used, indicating the one that is on the thesis (aka dissertation). Some have published under three or four different names.

Years of birth and death: We include these when we can find them. Our present intention is not to publish birth years of living persons, even though we obtain all of our information from the web or published sources.

University granting the degree: For most this is straightforward. For those who have been awarded two or more doctorates with different theses, we list both, even if one was not on an astronomical topic. This includes those awarded an honorary degree, usually a D.Sc., **IF** a thesis was submitted for it. When a degree based on a single thesis is awarded jointly by two universities, we list both.

Country in which the university is located: This is difficult. We have been following the MGP practice of listing the country as it is today, not necessarily the one at the time of the award of the degree. Many cities have changed nationality numerous times over the years, and countries are still changing (the breakups of the USSR, Yugoslavia, and Czechoslovakia, the annexation of Crimea, perhaps in the future the independence of Scotland, Catalonia, and others). There are several places where the nationality of a city is hotly disputed.

Name of degree: For most of those currently in the list this is Ph.D. or D.Sc. It has been suggested that we just list "Dr" for all for those with equivalent degrees, not worrying about translations.

Thesis title: in the original language, perhaps transliterated for those in non-Roman alphabets.

English translation of thesis title: We have only translated a few from French so far, but this will become more important as we extend the database.

Advisors (aka supervisors, promoters, etc.): We have been listing up to three, but a few people have four. It is difficult to determine the "official" advisors except for those few universities that list them on the theses themselves. We have been reading the acknowledgments sections of those theses which are available to us and discovering

that many students list two or three advisors other than the official one. We generally following what the students say. However, a great many theses are not online or are online but restricted to those associated with the university granting the degree. We need people who can access these and also go into the university libraries and look at those theses only available on paper. As we go back in time this will become more important.

Thesis availability: When the thesis is available online, we link to it. This is true of most since early in the 21st century and of some back to the mid-20th. A few universities have scanned all of their old theses and put them online. If access is restricted, we indicate this.

Other mentors: Some students list other mentors in their thesis acknowledgments, stating that one is “almost another advisor” or something similar. We list these. As we go back to earlier centuries, most or all will be mentors.

Sources: We are linking to web pages of living persons and obituaries of others when we can find them. This is something the MGP has resolutely refused to do because web pages change so often. Nowadays, most new Ph.D.s change locations as many as five times in the first decade as they play the postdoc game of musical chairs. Most change websites each time. Are we foolish to attempt to keep up with them?

By now it should be clear that AstroGen will be a valuable resource for historians of science as well as a source of fun for those who like to look up their academic family trees. A dedicated researcher following links from AstroGen will be able to learn quite a lot about the careers of astronomy graduates of a particular university, country, or era.

The next step: Soon we will ask the ace programmers in the IT department of the AAS office to convert our huge Excel spreadsheets (Did you know there is a maximum size? We have found it.) to pages similar to those used in the MGP. Before doing so, we need to make a few more decisions.

We could use some help. Do you have access to the library of a Ph.D.-granting university? Would you be willing to check that university’s graduates, look at the theses that are not available to the general public, and fill in the missing information? or perhaps you would be willing to enter some or

all of the theses from a country whose language and customs you are familiar with? How about helping with the decision-making? One item missing from the above list is the subfield of astronomy. Initially we had planned to include it, as the MGP does (the MGP lists such “subfields of mathematics” as “astronomy and astrophysics”, “mechanics of particles and systems”, “quantum theory”, and “geophysics”.) However, there are many difficulties, both in determining which subfields to use and in assigning theses known only by title. Our present inclination is to skip it.

Do you have comments or suggestions? Are you interested in joining the team? Please contact me.

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AAS Election

Marc Rothenberg

The AAS will be holding its annual election beginning in mid-December. The AAS Council consists of the ten officers of the Society and nine elected Councilors

(<https://aas.org/governance/current-council>).

It could potentially be helpful to our Division to have a member on the Council. Past Chair Jay Pasachoff has been nominated and will be one of the choices in the next AAS election.

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History of Astronomy at the Division for Planetary Sciences Meeting

*Jay Pasachoff
Williams College*

Following the successes of historical sessions at the last two DPS meetings, together with the DPS officers we plan to have HAD historical sessions at all future DPS meetings. So you may want to plan ahead for future DPS meetings.

2015 National Harbor, Maryland, November 8-13

2016 Pasadena, October 16-21

2017 Provo, Utah, October 15-20

2018 Knoxville, Tennessee

This year, only the following three historical papers are on the program. Bosh et al. is listed in a poster session for Tuesday afternoon, November 10, and Rathbun et al. is listed in a poster session for Wednesday afternoon, though the posters are up all week. Pasachoff and Wright is an oral paper assigned to the *Moon and Mercury* session at 5 pm on Monday, November 9.

107.07. The Lunar Profile and Baily's Beads at Solar Eclipses *J. M. Pasachoff; E. T. Wright*

210.31. Revisiting the 1988 Pluto Occultation *A. S. Bosh; E. W. Dunham; L. A. Young; S. Slivan; L. L. Barba née Cordella; R. L. Millis; L. H. Wasserman; R. Nye*

210.35 Photos from Inside Pluto: Historic Images from the New Horizons Encounter with Pluto *H. B. Throop; J. Spencer; S. J. Robbins; C. Tsang; D. Cruikshank; S. A. Stern; H. Weaver; P. Bedini; A. Calloway*

312.01. Historical trends of participation of women in robotic spacecraft missions *J. A. Rathbun; L. Dones; P. Gay; B. Cohen; S. Horst; E. Lakdawalla; J. Spickard; M. Milazzo; K. M. Sayanagi; J. Schug*

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Minutes of HAD Business Meeting 5 January 2015, Seattle

I. The meeting was called to order by chair Jay Pasachoff

The minutes of last year's meeting, were approved. Current (2013–15) officers were introduced. These were vice chair Marc Rothenberg, past chair Jarita Holbrook, secretary-treasurer Joe Tenn, and committee member Linda French. Committee member Wayne Orchiston was unable to attend.

II. Secretary-Treasurer's Report

The Secretary-Treasurer (Joe Tenn) reviewed the HAD website, which contains titles and links to abstracts of all papers presented at all HAD meetings, a complete set of HAD News, and links to all obituaries of AAS members published under

HAD auspices. There is also a selection of links to important online sources for history of astronomy, historical photos of early AAS meetings, and more.

There was a summary of presentations at recent meetings and mention of forthcoming meetings. Membership data and prizes were reviewed, and a preliminary financial summary for the year 2014 was presented. The figures are given below. It was pointed out that nearly one-fourth of HAD members have emeritus status.

III. Report of Ongoing HAD Activities

A. Eight annual HAD minibanquet

Woody Sullivan provided information on the dinner that would take place that evening.

B. Obituary Committee

The Vice Chair (Marc Rothenberg) described the task of preparing obituaries of all deceased AAS members. These now appear on the AAS website. Currently the easiest way to find them is to go to the list at <http://had.aas.org/obits.html>. Each year the HAD vice chair depends on members to inform him or her (usually via the AAS) of the demises of AAS members and seeks volunteers to write the obituaries. Marc also mentioned the difficulties in getting those who pledge to write obituaries to actually complete them. Volunteers are needed to write a number of obituaries.

C. HAD Prize Committee

Past Chair Jarita Holbrook announced that Osterbrock winner Barbara Becker would be speaking that afternoon and called for nominations for the 2016 Doggett Prize.

D. The HAD Booth

Arnold Heiser solicited more volunteers to staff the booth, which was again inside the AAS area.

IV. Progress on New Initiatives

A. Oral History Interviews

Jarita Holbrook described substantial progress on this project, which is further discussed in her column on page 3.

B. Astronomy Genealogy Project

Joe Tenn presented a progress report on the project, which at that date had approximately 5,500 entries. He also solicited volunteers to join the AstroGen team.

V. Regime Change

Outgoing chair Pasachoff thanked those committee members who had completed their terms—Joe Tenn, who had served as secretary-treasurer for eight years, Jarita Holbrook, who had served six years as vice chair, chair, and past chair, and Wayne Orchiston, who had served on the HAD committee for two—and introduced new vice chair Patrick Seitzer. New committee member Brenda Corbin was not present. He then handed the “Ich bin HAD” gavel to his successor, Marc Rothenberg.

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Treasurer's Report, January 2015

HAD Account

Balance 1/1/2014: 16,236
Income 2014: 4,566
 Dues: 3,952
 Contributions: 325
 Interest: 289
Expenses 2014: (2,722)
 Speakers: 2,574
 Other \$148
Investments 2014: (123)
Balance 12/12/14: 17,957

Doggett Prize Fund

Balance 1/1/2014: 36,147
Income 2014: 831
 Contributions: 175
 Interest: 656
Expenses 2014: (1,970)
 Certificate: \$570
 Honorarium: 1,000
 Other: 400
Investments 2014: (279)
Balance 12/31/2014: 34,729

Osterbrock Prize Fund

Balance 1/1/14: 16,622
Income 2014: 3,256
 Contributions: 2,960
 Interest : 296
Expenses 2014: 0
Investments 2014: (126)
Balance 12/31/2014: 19,751

Meeting in Kissimmee

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On Tuesday there will be contributed poster papers and two very full sessions of oral

contributions. Sandwiched in between the two oral presentation sessions will be the business meeting.

Concluding the formal part of HAD activities will be Albert van Helden's Doggett Prize presentation at 4:30 p.m. His presentation is titled "New Information about Old Telescopes."

That evening we will enjoy the ninth annual HAD minibanquet. I will be making the arrangements, and you will be asked to make reservations via e-mail later.

Full abstracts of all HAD papers will appear soon on the HAD website at <http://had.aas.org/>.

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van Helden to Receive Doggett Prize

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The 2016 LeRoy E. Doggett Prize awarded to Professor van Helden recognizes

- his outstanding scholarship in the history of the telescope,
- his extensive and insightful exploration of telescopic astronomy in the 17th and 18th centuries,
- his significant contributions to Galilean studies, and
- his dedicated service to the historical astronomy community and the public at large.

Van Helden is recognized as the leading authority on the history of the telescope. His scholarship is best illustrated in his magisterial monograph, "The Invention of the Telescope," in the *Transactions of the American Philosophical Society*, published in 1977. There, Van Helden corrected a longstanding but erroneous historical theme that identified Galileo as the inventor of the telescope. He considered a multitude of original documents with translations of primary sources in four languages. An extension of this monograph points to van Helden's second major scholarly project, Galileo's rapid improvement of the weak (nominally 3X magnification) terrestrial telescope then spreading throughout Europe to make it suitable for astronomical observation. Van Helden's other publications, in journals such as *Isis*, *Osiris*, and the *Journal for the History of Astronomy*, have enlarged upon these contributions, demonstrating, among other things, the limited role science played in the development of the telescope during the

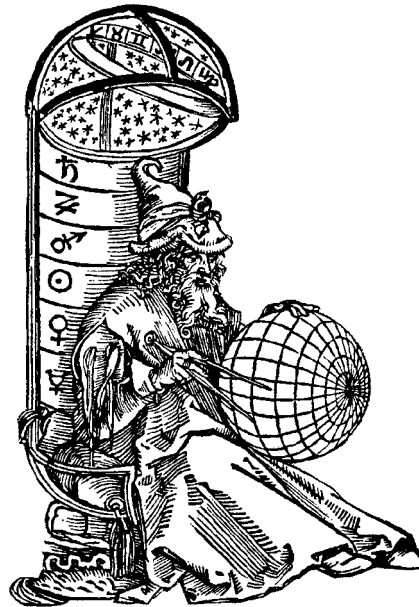
17th century in contrast to the dramatic role the telescope played in the evolution of scientific understanding of the cosmos.

Van Helden's contributions include the history of telescopic astronomy in the 17th and early 18th centuries. In his second book, *Measuring the Universe*, he summarized the development of observational astronomy from antiquity to the end of the eighteenth century. His discussion of the observations and interpretations of Ptolemy, Tycho Brahe, Galileo, Huygens, Cassini and others explains how the characteristics of the instruments available to astronomers limited their understanding of the fundamental astronomical problems of the time. In later papers on telescopic astronomy, Professor van Helden described the process through which observational astronomy approached maturity, as well as the idiosyncrasies of each important astronomer. He demonstrated how differences in their observing practices led some, but not all, to discovery. He illuminated the conflicts among leading astronomers over questions of interpretation and authority. Taken as a whole, his papers convincingly demonstrate van Helden's mastery of the technical as well as the social aspects of observational astronomy.

Galilean studies constitute an equally important contribution of Professor Van Helden's career. He published the first complete English translation of Galileo's *Sidereus Nuncius* to appear in the 20th century. Both *Sidereus Nuncius* and his translation of the letters passing between Galileo, Christoph Scheiner, and others in their debate on the nature of sunspots (*On Sunspots* in collaboration with Eileen Reeves), have been recognized for the integrity of their translation. Both books feature comprehensive interpretive introductions, comments in the text, and conclusions that ensure their accessibility. Neither book is likely to be displaced as a standard in this field of scholarship for decades to come. In other papers, van Helden describes Galileo's career and the state of the science and culture in the community of astronomers around Galileo. Professor van Helden's dedication to Galileo scholarship revealed itself in The Galileo Project (<http://www.rice.edu/Galileo>). Although his website was intended for secondary education, it is in fact an invaluable entry point for Galilean studies on a collegiate level.

Professor van Helden's dedication to the history of astronomy, and more broadly, the history of science, could be characterized no more effectively than by pointing to his extended participation as a member of the editorial boards of the *Journal for the History of Astronomy* (for 25 years and more), and *ISIS* (for five years). His stature within the history of science profession is acknowledged by his election as the History of Science Society's President (1998-1999).

The Historical Astronomy Division Prize Committee is pleased to award the 2016 Leroy E. Doggett Prize to Albert van Helden. We look forward to hearing his talk at our meeting in Kissimmee.



Historical Astronomy Division of the American Astronomical Society

HAD News #86, October 2015, edited by Marc Rothenberg. Please send contributions for the next issue, comments, etc. to josephhenr@aol.com

A complete version of this newsletter, with color photographs and active links, may be found on the HAD website at <http://had.aas.org/>.

Photo credits: p. 1: A. van Helden; AAS; p. 2: M. Rothenberg; P. Seitzer.