

# H-A-D NEWS

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

Number 83 \* October 2013



Doggett Prize to Stephenson

Jarita Holbrook, University of the Western

Cape, Chair, HAD Prize Committee and Joseph S. Tenn, Sonoma State University

The Historical Astronomy Division of the American Astronomical Society is pleased to announce that Professor F. Richard Stephenson will be the ninth recipient of the LeRoy E. Doggett Prize for Historical Astronomy. The Division's highest honor, the Doggett Prize is awarded biennially to an individual who has significantly influenced the field of the history of astronomy by a career-long effort.

The 2014 Doggett Prize is presented to Professor Stephenson in recognition of his research, writing, teaching, and leadership in the historical astronomy community. An emeritus



We're Meeting near Washington Joseph S. Tenn, Sonoma State University

The Historical Astronomy Division will again meet jointly with the AAS at its winter meeting, this time in National Harbor, MD, just outside Washington, DC.

HAD will start with two special sessions on Sunday, 5 January 2014. The first, 1:00–3:30 p.m., will be on "Origin of Structure and the Expanding Universe." Organizer Simon Mitton (University of Cambridge) has arranged talks by Virginia Trimble (University of California, Irvine), Robert W. Smith (University of Alberta), Cormac O'Raifeartaigh (Waterford Institute of Technology), Michael Way (NASA Goddard Institute for Space Studies), Jim Peebles (Princeton University), and himself.

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From the Chair
Jay Pasachoff, Williams College

It is interesting for me to see the workings of the various divisions of AAS, as we plan our HAD meetings not only for our normal time in January but also for joint meetings with the Division of Planetary Sciences (DPS) in Denver this month and with the Solar Physics Division (and the main summer AAS) in Boston in June.

For DPS, we have a set of invited talks, which I will chair, with David Levy about his relation with Clyde Tombaugh, Don Yeomans with a historical perspective about rocks from space, and Derek Sears about Gerard Kuiper and the development of infrared detectors on Monday, October 7. A set of contributed papers by Jason Callahan, Clifford Cunningham, Don Campbell, Paul Steffes, Matthew Knight, and me follows. We are co-sponsoring Dave Morrison's afternoon plenary lecture on his role in answering the public about their end-of-the-world fears. Don Yeomans gives a public lecture in the evening that is, unfortunately, opposite another event that would be of particular interest to HAD members: a public reading of the latest version of Dava Sobel's play about how Rheticus got Copernicus to allow his book to be published.

For the main AAS/HAD meeting in January 2014, I've been upset for some time with AAS headquarters choosing to have us meet in odd places like National Harbor, Maryland, which isn't quite in DC, and eventually Grapevine, Texas, which isn't quite in Dallas or Fort Worth. Personally, I remember the times when we used to meet at universities, which was nice, though we've outgrown that. Still, I prefer to meet in central cities, though I know the days when I went to my first AAS meeting at the Nantucket Inn for about 175 people in June 1961 are long gone. I assume that HQ got good discounts by arranging so many meetings in advance with the Gaylord conference

people to use a series of their facilities; I still think it was a mistake.

Anyway, I was in Washington last month, and I invited Marc Rothenberg, our vice chair, to join me to check out National Harbor (and to drive us!). I'm glad to report that it wasn't as bad as I expected. It is a new, artificial town of about 3 blocks square with a half-dozen or more restaurants and other kinds of shops, with a huge hotel/convention center at one end. The hotel, where most of us will stay, has 2000 rooms. There are a few other hotels as well, but they are much smaller.

Of course, facilities on the Potomac River look better on a warm September morning than they will on a cold January day. You can see Alexandria across the river, and I am assured that the water taxi to Alexandria will run, specially for us, during the meeting. There are shuttles run by Gaylord (<a href="http://bitly.com/14cNrks">http://bitly.com/14cNrks</a>) and by other National Harbor hotels (<a href="http://bitly.com/Te74GA">http://bitly.com/Te74GA</a>).

The conference areas are very spacious and connect with the huge hotel (run by Marriott). There is an indoor garden/lounge under the high atrium, with stores/restaurants around the periphery. I guess most of us will be cocooned at the conference/hotel facility for the few days of the meeting. We tried to arrange our Sunday sessions at the National Air and Space Museum on the Mall in DC, but the sequester cut off all hope of getting the additional funding we would need.

For June, I've made some preliminary inquiries through Owen Gingerich about a visit to the rare astronomy books at Harvard's Houghton Library, and tentatively they can have one or two dozen of our favorites out in a room for a visit from us one of the days of the AAS/SPD/HAD meeting in downtown Boston.

We are already at deadlines for symposia for the August 2015 IAU meeting in Honolulu, and we'd like to be cooperating with the history commission. I note that Xi Jinping, who is now the leader of China, spoke to us at the 2012 IAU General Assembly in Beijing, and I remember seeing the Emperor of Japan at the Kyoto IAU GA and the president of Argentina at the Buenos Aires GA. So I wonder if somehow President Obama can greet us in Hawaii.

I look forward to seeing many of you at our HAD events or elsewhere.

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From the Vice Chair
Marc Rothenberg, National Science
Foundation

Can you find the death notice or obituary you are looking for? The new AAS webpage can make it difficult to find some information. The link to obituaries is at the bottom of the front page. However, there is no index to the obituaries, making it awkward to find the obituary of someone who died 4 years ago or whose last name begins with "N." However, there is a complete alphabetical list of published obituaries, easy to scan, at http://had.aas.org/obits.html. Or, by using the main search engine for the AAS website, you can quickly get to a particular death notice or all the obituaries and death notices for those AAS members who died in a specific year. example, placing "2011" in the main search block will result in a return of 174 items. However, if you look in the left column, you will see a list of content types. A click on "obituary" will retrieve the 42 members who died in that year. And if you find a name for which there is no BAAS obituary, consider volunteering to write it. Don't hesitate because you are only familiar with one phase of an astronomer's career. In illuminating that aspect, you are creating an important historical account.

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#### From the Secretary-Treasurer

Joseph S. Tenn, Sonoma State University

HAD is in good shape. We are currently meeting twice each year with special sessions at every meeting. We can afford this because we increased the dues by \$7 per year effective 2014. Our prize funds are not yet sufficient to be self-sustaining, however. As we approach the end of the year you might consider making a donation to the Doggett or Osterbrock Prize Fund. It is easy to do this when you renew your membership.



If you would like to know more about the progress of the AstroGen project, come to my talk at the meeting.

I look forward to seeing many HAD members at the meeting in National Harbor.

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From the Past Chair

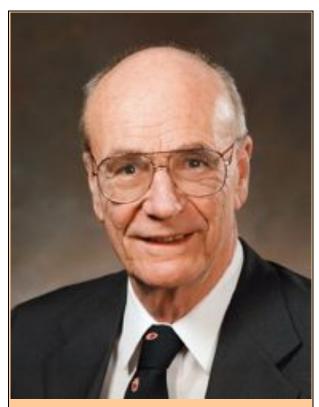
Jarita Holbrook,

University of the Western Cape

The HAD Prize committee had a full plate this summer: Deciding the recipient of the 2014 LeRoy E. Doggett Prize. With such great nominees the decision was no easy task. This year the prize goes to F. Richard Stephenson of the University of Durham (emeritus). I would like to commend prize committee members Joe Tenn, Jay Pasachoff, Steve Dick (substituting for me), Marc Rothenberg, and Woody Sullivan for this important service to the Historical Astronomy Division.

Nominations for the 2015 Donald E. Osterbrock Book Prize are due March 1, 2014. The Osterbrock Book Prize is awarded to the author of a book judged to advance the field of the history of astronomy or to bring history of astronomy to light. To find out more about both of these HAD prizes see our website: http://had.aas.org.

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#### Call for Nominations for the 2015 DONALD E. OSTERBROCK BOOK PRIZE FOR HISTORICAL ASTRONOMY

The Historical Astronomy Division 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.

Deadline for nominations for the next prize cycle will be 1 March 2014. Books with copyright dates 2010 through 2013 will be eligible for the 2015 prize. Previously nominated books with copyright dates 2010 or 2011 will carry over automatically.

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

Please send nominations and supporting materials to the Secretary of the Prize Committee, Joseph S. Tenn. <u>E-mail</u> is preferred.

For further details about the Prize and the prize rules see http://had.aas.org/osterbrock/.

#### **Student Travel Awards**

This year the HAD Committee decided that two applications for student travel awards were equally meritorious, so it made two awards for the January meeting.

Paul McKittrick, a graduate student in the School of History, Technology & Society at Georgia Tech will speak on "Copernican Astronomy and Oceanic Exploration," while Sarah Reynolds, a graduate student in the Department of History and Philosophy of Science at Indiana University, will present "Habitability and the Possibility of Extraterrestrial Life in the Early Telescope Era."

Each will receive \$500 toward their expenses. joe.tenn@sonoma.edu

#### 40 + E

Lee Anne Wilson, Iowa State University

In a new initiative, the AAS will recognize and bring together those who have been AAS members for 40 or more years and those who are Emeritus members, and it invites the Historical Astronomy Division to play a key role. Recently, email went out to those who satisfy at least one of those criteria, and it is evident from the responses received that there is substantial interest in contributing to the historical record in a variety of ways. Some volunteered to be interviewed, some mentioned archival material they have, some gave brief career summaries, and some mentioned that they are already active in the HAD or pursuing history-related interests. A number have expressed interest in a place where they could put autobiographical material such as narratives or career-summarizing CVs. Some questions were posed about delayed release of sensitive materials, and about appropriate depositories for archival materials of various kinds.

This group is just beginning to organize, but it does seem likely that a joint meeting with interested members of the HAD will be in its near future. Jay Pasachoff is serving on the 40+E committee as HAD representative; the committee also includes Lee Anne Willson (Chair), Bruce Balick, and Nancy Morrison. If you don't yet qualify for 40+E but would be interested in working with this group please get in touch with one of the members of the committee.

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**Honors for Krupp and Yeomans** 

Two past chairs of HAD are receiving major honors this fall. Coincidentally, both are based in the Los Angeles area, and both are being honored for communicating science to the public. Edwin C. Krupp (left), who chaired HAD from 1985 to 1987, will receive the Andrew Germant Award (<a href="http://www.aip.org/press\_release/gemant-award-2013.html">http://www.aip.org/press\_release/gemant-award-2013.html</a>) of the American Institute of Physics, while Donald K. Yeomans, HAD chair from 2005 to 2007, is to receive the Carl Sagan Medal (<a href="http://dps.aas.org/prizes/sagan">http://dps.aas.org/prizes/sagan</a>) of the AAS Division for Planetary Sciences.

The AIP is honoring Ed Krupp "...for 40 years of extraordinary public outreach and education through planetarium shows and programs, award-winning popular books, articles, television programs, exhibits, lectures and public events, as well as for his outstanding archaeoastronomical research, exploring the links between astronomy and ancient culture." The award will be presented in November at a meeting of the Los Angeles City Council. Krupp has been director of the city's Griffith Observatory, the most-visited public observatory in the world, since 1974. He led the recent ninety-three million dollar renovation and expansion of the historic observatory and planetarium, and he is well-known for his extensive research and many books on prehistoric and traditional astronomy, among them *Skywatchers, Shamans, & Kings: Astronomy and the Archaeology of Power; In Search of Ancient Astronomies;* and *Archaeoastronomy and the Roots of Science*.

Don Yeomans's medal will be awarded at the October DPS meeting in Denver, where he will present a public lecture, "Near-Earth Objects: Finding Them Before They Find Us." His citation states "For more than two decades, Don Yeomans has been the 'go to' person whenever the media seek a planetary scientist to illuminate the scientific middle ground between the hype and the ho-hum.... His calm demeanor and scientific rigor have helped to dampen doomsday hysteria and sound the all-clear on more serious potential risks (e.g. Apophis) when improved observations warrant. And in every case he takes the opportunity to educate the public on the real long-term risks and potential benefits of Near Earth Objects." At Caltech's Jet Propulsion Laboratory since 1976, Don currently heads the Near-Earth Object Program Office and the Solar System Dynamics Group. He is well-known to historians of astronomy for his 1991 book, *Comets: A Chronological History of Observation, Science, Myth, and Folklore,* along with many other publications.

## Albion College Celebrates 130 years with an Alvan Clark Telescope

Nicole Garrett Smeltekop and Nicolle E. B. Zellner, Albion College

In 2013–2014, Albion College in Albion, MI is celebrating the 130<sup>th</sup> anniversary of its 8-inch Alvan Clark refracting telescope and observatory building. The observatory is one of the few original surviving examples of nineteenth century astronomical buildings and instruments.



In the 19<sup>th</sup> century, common justifications for building observatories included demonstrating a college's commitment to improving students' mental and moral faculties. Since the telescope was the most costly scientific instrument on campus, it was also the most visible symbol of a commitment to the newly emphasized subject of science. New state-of-the-art buildings were also seen as a way to entice students. By the end of the century, almost every campus in America boasted an observatory.

In 1882, Dr. Samuel Dickie, professor of mathematics and astronomy, and later president of the college, approached the Board of Trustees for funding such a project at Albion College to materially increase facilities for instruction and to add dignity and reputation to the College. He asked for authority to solicit a total of \$10,000 from "not more than one hundred persons or firms."

The Board approved his plan and on September 8, 1883, the cornerstone was laid. A brick structure with a large white dome, the building was dedicated in June 1884. The building's interior contained a classroom, offices, an astronomical observation room on the second

floor, and a telescope beneath the retractable dome on the third floor. A transit telescope, astronomical clock, and chronograph were installed on the second floor of the building.

For its primary telescope, the college selected a refractor from Alvan Clark & Sons of Cambridgeport, Massachusetts. Their work was the significant American contribution to astronomical instrument making, and unparalleled by other companies of the time. Old Albion, a college history published in 1909, notes that Alvan Clark made the Albion telescope himself, and that it was the last telescope he made before his death. This claim is largely unverified. but Clark's health was deteriorating in the early 1880s and the amount of work he accomplished in the years prior to his death in 1887 is unclear. The history of his firm notes that he claimed to rework an object glass for Amherst College himself in 1884 and was testing instruments into 1886. An 1887 article in Scientific American stated Clark had stopped making telescopes four years prior, which would have been around the time Albion's instrument was built by the company.



The refractor is located in the domed tower of the observatory. The base for the telescope is independent of the building and stretches down into the bedrock three stories below. According to the 1892 college catalog, "The Equatorial...[has] eight inches clear aperture and provided with circles, driving clocks, filar micrometer, and a full out-fit [sic] of eyepieces", which give a range from low-power to 800x. Categorized as an f/15, the telescope has a 120" focal length.

The December 1883 issue of the Albion College newspaper, the *Pleiad*, reported that the eight-inch Clark refractor, transit circle,

astronomical clock, and "chronograph of the latest style" were purchased for a total cost of \$8800.

By 1919, the observatory had fallen into disrepair and the Pleiad asked if it was defunct. The article notes the observatory had not been used in two years, and, with simple cleaning, could be made functional again. Shortly after, the building was locked and unused until a student. Marvin Vann, approached the college president in 1936, and offered to clean and repaint the building and repair and refurbish the telescope and its mounting. As a result of Vann's efforts, President Seaton re-instituted the John astronomy curriculum. In 1965, a team from the Yerkes Observatory cleaned the telescope and updated the drive mechanism. From the 1990s to the 2000s, motivated by Albion's students, the observatory underwent a series of renovations that included restoring the Alvan Clark lens, fitting a new motor to the telescope's mechanical gears in 2007, and basic maintenance and upkeep of the dome. Today the telescope is still used by astronomy students.

Since its completion, the observatory has served the college in various capacities. Originally the room on the first floor was used as a classroom for physics, math, and astronomy courses. During World War I, the building served as barracks for soldiers training on Albion's campus. In the 1923–1924 school year, the building became home to the cooperative bookstore that operated for a number of decades. In 1951, it was the home of the Department of Education, and it housed the college archives from 1971 to 1981. It is now the home of the Prentiss M. Brown Honors Institute. The building was dedicated as an official historical site on May 3, 1985.

Most scientists feel that it is important to connect astronomy to people, "no matter what 'the classroom' looks like" (ASP). To that end, the Physics Department and the Astronomy Club at Albion College plan several public events during 2013–2014 to commemorate the anniversary of the Alvan Clark telescope: tours of the observatory, a steampunk ball for students, public observing nights, and a public lecture in the spring to celebrate the 210th anniversary of the birth of Alvan Clark.

For more information about the telescope and the observatory, see <a href="http://www.albion.edu/">http://www.albion.edu/</a> academics/departments/physics/observatory.

A longer version of this paper with full references will appear in the ASP Conference Series volume, *Ensuring STEM Literacy*, in press.

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The Kepler Story: Theater + Science + Harmony

Motion Institute

The Kepler Story is the first-ever live theater planetarium show about the life and discoveries of 17th century astronomer and mathematician, Johannes Kepler. Played by veteran screen actor Norbert Weisser (Schindler's List and Pollack) The Kepler Story is about discovery, history, and science, and it explores the connection between consciousness and the universe.

Writer/director Nina Wise tells the story of a young man who at the age of 24 had an epiphany that everything in the universe is connected. The narrative revolves around Kepler's unique capacity to integrate a worldview steeped in mysticism with a rigorous scientific perspective based on observation and experimentation. With the Scientific Revolution in the background illuminating the huge split between science and religion, Kepler stood alone and steadfast in his belief that everything in the universe is connected. The story of Kepler's life, including his discovery of the three laws of planetary motion (which removed Earth once and for all from its anthropocentric position at the center of the Universe) is a true tale where history, religion, passion, and science intersect.

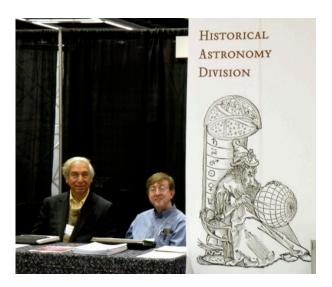
The Kepler Story is also cutting edge theater. The piece integrates spectacular visuals developed

by the Morrison Planetarium Visualization Studio, haunting music by avant-garde cellist Zoë Keating, and sound design by multiple Emmy Award-winner Christopher Hedge. All facets of the piece are designed to be performed inside Morrison Planetarium, so the audience is completely immersed and surrounded by the art and music. The show will premiere and run every Sunday in October 2013 at the California Academy of Sciences Morrison Planetarium in San Francisco.

Come see the story of this extraordinary man come to life in an extraordinary way.

For more information and tickets see <a href="http://thekeplerstory.org/">http://thekeplerstory.org/</a>.

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**The HAD Booth**Arnold Heiser, Vanderbilt University

Our HAD folk will be meeting near Washington this coming January. In addition to our oral and poster sessions, the Doggett Lecture, and the HAD business meeting, we will again have our "Booth" (table) set up inside the AAS booth in the exhibit hall. We are hoping that HAD members attending the meeting will volunteer to help at the booth sometime between Monday 9:00 a.m. and Thursday noon, except at those times when we will be having HAD sessions. Please let me know those dates and times that you will be able to join us at the HAD booth. Use e-mail or after 1 January call me at 615-438-4290.

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More Stories About Astronomers
Helmut A. Abt. Kitt Peak Nat. Obs.

(Ed. note: We continue the collection of stories begun in HAD News #82. The author, shown above in a recent\* photo, says they are all true.)

#### Oil Can on the 0.9-m Telescope Mirror

Helmut was scheduled to use the 0.9-meter telescope and spectrograph. Because it was the monthly visitors' night on the mountain, the first hour or two was to be spent showing objects to visitors. He looked through the eyepiece and the images were terrible and couldn't be focused. After some searching, he climbed the ladder on the inside of the dome and looked down at the mirror. There was an oil can on the mirror, and as the telescope was moved, the oil can spread oil over the surface of the mirror.

What had happened was that a week earlier a mechanic had climbed up that ladder to oil the shutter mechanism and unintentionally left the oil can up there. In subsequent use, the dome motion shook the oil can off the ladder and down the telescope tube. Fortunately it did not hit the mirror, but just slid down the side of the tube and gradually came to rest on the mirror. But what bothered Helmut was that observers had used the telescope for a week before he came on and did photometry without noting the bad images.

#### **Halton Arp's Reaction to Picture Locations**

In the mid-20<sup>th</sup> century the only way to put halftones on glossy stock within a paper in the *Astrophysical Journal* was for someone to hand cut each signature and insert the halftones. That was expensive. So in the 1960s Chandrasekhar started the policy of putting all the halftones at the end of the issue. To Halton C. (Chip) Arp the halftones were the most important parts of many

\*Historians take the long view.

papers, so he said to me, "Why don't they put the equations at the end of the issue?"

The Member of the Royal Astronomical Society Kris Bjornerud was a graduate student at Caltech when I knew him. Previously, as a Canadian, he had been in the Royal Canadian Air Force early in World War II, stationed in England. Being interested in astronomy, one evening he went to the Greenwich Observatory to see the telescopes. He knocked on the front door, to no avail, and then on all the other doors that he could find. Finally an elderly gentleman opened a door and on hearing of Kris' interest in seeing the telescopes, he gave him a tour. On parting he mentioned that if Kris was free the next day, there was to be a meeting of the

Kris went to the meeting the next day and was surprised to see that his tour guide of the night before was the Astronomer Royal, Sir Harold Spencer Jones. During the course of the meeting Sir Harold nominated Kris for membership in the RAS, and, of course, it was approved.

Royal Astronomical Society at Burlington House.

After the war while Kris was an undergraduate student at the University of Washington, the elderly professor Theodor Jacobsen was informed that his lifelong ambition was satisfied: he was approved to become a member of the RAS. He was so elated that he told everyone he met, including lowly undergraduate Kris. Kris' reply was, "Oh that. I'm a member of that too."

#### The Candlestickmaker Paper

S. Chandrasekhar worked very systematically in a field (e.g. radiative transfer, stellar dynamics, hydromagnetics, turbulence) for about five years, wrote dozens of papers, and then summarized those papers in a book.

In 1956–57 John B. Sykes came from England to work with Chandra on hydromagnetic problems. He noted Chandra's style in his papers and wrote a parody. Normally Chandra was very serious, but in this case he saw the humor in it. He had the University of Chicago Press print it as a reprint and individuals at Yerkes paid for copies. The reprints were so widely distributed that finally it was published in the *Quarterly Journal of the Royal Astronomical Society*, 13, 63, 1972, with an introduction by John. However, John did not explain all the humorous aspects of it, so I will add more explanation.

Nearly all of the references were to volume 237, page 476. At that time only the *Proceedings* 

of the Royal Society had that many volumes, so if you look at that volume and page in the Proc. Roy. Soc., you will see the paper that John parodied.

In the Candlestickmaker paper the received date was when Chandra was born. The credit for computing help to Miss Canna Helpit mimics the name of Chandra's computing assistant Donna Elbert. John claims that all the journal names are real ones. The acknowledgments at the end are nearly identical to the ones in *Proc. Roy. Soc.*, 237, 476, 1956, except for the puns.

John had a remarkable gift for languages and loved to spend evenings reading foreign language dictionaries. He could read many languages. He later worked as a translator and was Chair of IAU Commission 5 on Documentation.

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#### **Oral History Project is Under Way**

Jarita Holbrook, University of the Western Cape

I'm pleased to announce that HAD is the recipient of an American Institute of Physics Niels Bohr Library grant of \$2500 for the collection of oral history interviews of astronomers. The grant specifically goes towards travel expenses. So far the HAD Oral History team has interviewed Guinevere Kauffmann (MPA, Germany), Jacqueline van Gorkom (Columbia U.), Woody Sullivan (U. of Washington), Per Olof Lindblad (Stockholm U.), Radhakhrishna Somanah (U. of Mauritius) and Wojciech Dziembowski (Nicolaus Copernicus Astronomical Center). Team member Sally Bosken is in the process of interviewing Kenneth J. Johnston (USNO), and should complete that interview by the end of September. A fascinating range of astronomy topics are included, dominated by radio astronomy and extragalactic astronomy for this group of interviews. The interviews are being transcribed by AIP and will join the archive at http://www.aip.org/history/ohilist/transcripts.html.

The HAD Oral History team members are Jarita Holbrook (Past-Chair HAD), Simon Mitton (Vice President RAS), Tom Williams (Rice U.), Sally Bosken (USNO), Gary Cameron (Iowa State U.), and Jim Lattis (U. of Wisconsin-Madison). If you would like to join our team or if you are interested in interviewing a particular astronomer for the archive contact me.

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#### **Meeting near Washington**

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The second special session, 4:00–6:00 p.m. Sunday, will be titled, "From Barnard's Star to the Kepler Mission: Searching for Low Mass Companions to Stars." Organized by Steve Dick (NASA, retired, and Library of Congress) and David DeVorkin (Smithsonian Institution), it will feature speakers Gordon Walker (University of Victoria), David Latham (Harvard-Smithsonian CfA), Geoff Marcy (University of California, Berkeley), William Borucki (NASA Ames Research Center), Edward Dunham (Lowell Observatory), and Timothy Brown (Las Cumbres Observatory Global Telescope Network).

As usual, Monday will be the biggest day for HAD. There will be poster papers all day, morning and afternoon sessions of contributed oral presentations, and the annual HAD Business Meeting at 12:45 p.m. The afternoon will culminate in the presentation of the 9th LeRoy E. Doggett Prize for Historical Astronomy to F. Richard Stephenson of the University of Durham, followed by his plenary lecture on "Applied Historical Astronomy." And the day will conclude with the seventh HAD minibanquet in a nearby restaurant.

Tuesday morning will see the last session of oral contributed papers, and that afternoon there will be a special workshop on Oral History conducted by Gregory Good, Director of the Center for the History of Physics of the American Institute of Physics (AIP). He will coach the session participants in the nuts and bolts of preparing for, conducting, and following up after an oral history interview session. Dr. Good is very experienced with collecting oral histories. Oral histories are a very important part of documenting the background and motivations for administrative and scientific contributions, the part of history that is not usually available in the printed record, such as peer-reviewed publications. So they help fill in the gaps on why some scientists dedicated much of their professional lives to a particular topic or describe the journeys they traveled to reach notable goals and/or make lasting contributions to the field.

Details of all sessions, including abstracts, will be available on the HAD website at <a href="http://had.aas.org/meetings/2014ameeting.html">http://had.aas.org/meetings/2014ameeting.html</a>.

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#### **Doggett Prize to Stephenson**

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professor and honorary research fellow at the University of Durham, Dr. Stephenson is widely considered to be the founder of the field of applied historical astronomy. He has done exemplary work in searching ancient records for entries related to astronomical events, such as eclipses and supernovae, that would have been spectacular to our ancestors. On one level, finding such entries is of historical importance. Dr. Stephenson went further, however, by extracting information of importance to modern scientists, such as precise dating of eclipses and changes in the appearances of supernovae. His research has provided convincing evidence that the study of ancient records can contribute not only to the history of astronomy but also to the solution of problems in contemporary astronomy and geophysics.

For more than forty-five years Professor Stephenson has applied records from ancient and medieval East Asia (China, together with Korea and Japan); ancient Babylon; the medieval Arab world; and ancient and medieval Europe to modern problems. These records have allowed him to investigate long-term trends, of which the most important is the change in the Earth's rate of rotation: Working with Leslie V. Morrison, he has determined the average lengthening of the day over the past 2700 years and found long-term fluctuations in the length of the day. His 1997 book, Historical Eclipses and Earth's Rotation, received high praise. One reviewer wrote, "It is a Herculean task involving the collection of reports of historical eclipses, which tend to be incomplete (lumps of clay tablet missing, or the reporter failing to note vital details such as the time and location), in exotic languages (Babylonian, Assyrian, Chinese etc.), and with reference to obscure calendars. Each report presents a problem which can be solved only by scholarship of the highest order to yield useful scientific data."

Around 1970 Professor Stephenson began searching the historical records for evidence of galactic supernovae. At the time only three—appearing in 1054, 1572, and 1604—were definitely recognized with their remnants identified. Since then he has examined and translated ancient records, mostly Chinese, and, working with two radio astronomers, first David H. Clark, and later David A. Green, has analyzed many possible sightings and inspired searches for

their remnants. As a result two more, observed in 1006 and 1181, have been accepted. His 1977 book with Clark, *The Historical Supernovae*, is a classic, while his later publication with Green, *Historical Supernovae and their Remnants* (2002) includes more ancient texts, from the Arab world as well as East Asia, and describes modern searches for the remnants with X-ray as well as radio telescopes. Observations of several other possible supernovae are discussed, with just three considered likely.

Dr. Stephenson has made additional important studies of the past orbit of Halley's Comet, solar

variability, oriental star maps, ancient chronology in several regions, and the accuracy and reliability of pre-telescopic observations.

The author or editor of ten books and more than 200 research papers, Dr. Stephenson has organized conferences on three continents and supervised graduate students in historical astronomy. He remains a leader in the field he essentially founded, applied historical astronomy. The Historical Astronomy Division is pleased to recognize his achievements.

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Five Doggett Prize recipients at Notre Dame, June 2013: Owen Gingerich, David DeVorkin, Woody Sullivan, Michael Crowe, Steve Dick.

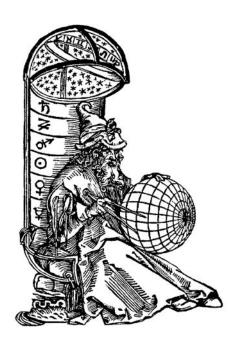
#### **Future HAD Meetings**

**2014 June 1–5, Boston** with AAS and Solar Physics Division.

**2015 August 3–14, Honolulu** with AAS and IAU.

**2015 January 4–8, Seattle** with AAS.

http://had.aas.org/meetings/



### Historical Astronomy Division of the American Astronomical Society

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

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