

H. A. D. News

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

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Astronomers Reveal Their Past in Toronto

by Dick Walker (USNO Flagstaff)

The HAD-ers convened in Toronto for the AAS January meeting. We had the distinction of being Session I on Sunday afternoon. A second paper session was held Monday morning, and our business meeting began after lunch.

The title of the first session said it all: "North of the Border: The Development of Canadian Astronomy." The speakers presented a constellation of subjects, from biographies to telescope development, and the sessions had large audiences. I estimate 75-100 attendees, and all papers received enthusiastic attention.

The social side of the meeting consisted of two evening meals. The first (Saturday night) sent us on a trek in the cold windy dark to eat parts of dead fish and squabble over a wine list trying to determine whether Sauterne is dry or semi-sweet. All this through hand gestures, smoke signals, and semaphore to a

waiter who spoke only Martian and thought he was on Earth waiting for a bus. We drank beer.

The Sunday meal found more joining us as we trekked in the cold windy dark to eat pasta. The entertainment that evening was the ceremony of figuring out the check, which resulted in several vain attempts. Owen Gingerich (not Newt) used a Patagonia abacus and a steam driven astrolabe, Alan Batten burnt incense to the gods and finally resorted to the cranking of a machine designed by Babbage. The only sane one in this melee was Tom Hockey who calmly figured it out in his head, and of course that was wrong.

This literary nonsense is just an attempt to report that the bitter cold of a winter in Toronto was offset completely by the warmth and charm of our Canadian friends.

LeRoy Doggett Memorial Book Fund

by Brenda Corbin (USNO)

Friends of the late LeRoy Doggett have established the "LeRoy Doggett Memorial Book Fund." The fund will be used to purchase a rare book or books for the U. S. Naval Observatory Library, in LeRoy's memory, on one of his subject specialties--calendars, mechanics, etc. A special bookplate noting the memorial gift will be placed in the books. LeRoy was a regular user of the USNO Library and often spoke of the depth and breadth of this collection, both for historical and current materials. Contributions may be sent to:

LeRoy Doggett Memorial Book Fund
c/o Sandra Powers, Administrator
2737 Devonshire Place, NW, #516
Washington, DC 20008

Checks should be made payable to: "LeRoy Doggett Memorial Fund."

A Conference in Honor of Dorrit Hoffleit's 90th Birthday

by David DeVorkin

On March 7th and 8th the Yale Astronomy Department sponsored a conference in New Haven to honor Dorrit Hoffleit's 90th Birthday. The event was more than a milestone. It was a passionate reminder of the importance of maintaining traditional core values in what is admittedly a rapidly changing discipline.

From her birth on an Alabama farm on 12 March 1907 and her youth in western

Pennsylvania, Dorrit Hoffleit was always fascinated by nature as she found it in the woodlands and in the heavens. Entering her freshman year in high school, she moved with her mother and brother to Boston, trained in mathematics at Radcliffe, and while she looked for a job teaching geometry, found employment at the Harvard College Observatory where she also took her MA (1932) and PhD (1938). She remained on the Harvard staff until 1956, except for war work at the Ballistic Research Laboratory at Aberdeen, where she remained until 1948 computing trajectories for V-2 missiles being fired from White Sands. "I was part of the future of something that was going to be an astronomical instrument," she recalled in an oral history, but although the pay was good and she had overcome some deep resentment toward women as professionals, she decided to return to Harvard and astronomy where she had long worked on variable stars, stellar spectra and meteors in one of Harlow Shapley's astronomical bureaus.

Dorrit Hoffleit's career spans a watershed period in modern astronomical history. She began work at a time when the laborious open-ended accumulation of astrophysical data was a core value in the discipline. Over time, as astrophysics became more theory-driven and problem oriented, astronomical bureaus dedicated to the accumulation and analysis of data such as those established by E. C. Pickering and maintained by Shapley at Harvard or by Campbell at Lick were rapidly disappearing. Astronomy was moving away from its naturalist roots to becoming a fully robust domain of the physical scientist, and as a result, as is widely regarded, prospered in deep and profound ways as each new regime in modern physics found expression in the astronomical universe.

Hoffleit watched as Harvard astronomy changed, responding to new priorities and new directions. She responded, too, but never forgot what made astronomy strong in the first place. She had returned to Harvard with a deep sense of moral obligation to maintain her varied programs, secure in the belief that one did not need to have a problem to solve in order to organize and collect observations that would be useful, if not today, definitely someday. Taking the long view, as she once mused about a curious correlation she had found among the stars "this will be interesting 50 years from now, to see whether this is going to be verified." She was content to work for work's sake, because her work was monitoring nature on the largest scale. "Everything needs independent checking" she often would lecture students and colleagues alike, "because we all have our own ways of thinking."

These musings were brought to life at the Yale symposium honoring Dorrit Hoffleit, who remains as active as ever maintaining and upgrading the *Yale Bright Star Catalogue*, a legacy handed to her soon after she left Harvard for the Yale staff in 1956, a position she held concurrently with her duties as Director of the Maria Mitchell Observatory on Nantucket Island. The symposium itself mirrored her career. Astronomers gathered to reconnoiter progress in spectroscopy, the production and maintenance of catalogues, the observation and analysis of variable stars, meteors, comets, and the positions and motions of stars, all areas she has made significant contributions to in her 68-year career thus far. The message from many of those who spoke was that one must not forsake the long view in astronomical practice. Long-term phenomena, observed, analyzed and catalogued on a consistent and reliable basis, still form, and will always form, the backbone of the evidentiary framework against which so many of our assumptions

about the way stars and stellar systems behave themselves will be tested in the future. Dorrit Hoffleit's own contribution to the symposium was a contemporary classic: "Suspected Variables Among Al Sufi Stars." She examined the brightnesses of stars catalogued by the tenth century astronomer to find if any of these stars showed evidence of being lensed. The light curves she produced, covering centuries, gave no hint of microlensing, but her effort stands as an exemplary use of historical data.

There were also paper sessions on history and education, areas where Dorrit Hoffleit has been both a pioneer and a trench worker. Her devotion to variable stars and to her muse brought her the directorship of the Maria Mitchell Observatory, where generations of young women were given their first real exposure to research. She was an untiring reporter for *Sky & Telescope* for 15 years, writing the always informative "News Notes" feature that kept readers apace with astronomical events and trends. And she has written some of the most perceptive reviews of the history of photographic astronomy, of trigonometric and spectroscopic methods of distance determination, and of the history of women in modern astronomy.

The Yale symposium mirrored Dorrit Hoffleit's career not only as an astronomer but as a woman. It was clear that the barriers she experienced, resisted and overcame in her life made her a role model for younger women and men, who encountered her not only at Harvard and Yale and Nantucket, but at meetings of the American Association of Variable Star Observers, or merely through picking up that indispensable tool of modern astronomy, *The Yale Bright Star Catalogue*.

As a woman, her career was largely defined for her at Harvard, but not completely so. Her devotion to duty and her ability to persevere in

her conviction for what is important in astronomy helped her find meaningful ways to contribute to modern practice in ways that never compromised her values. She stands firmly as a reminder that traditional values in astronomy should be treasured and preserved.

Vera Rubin and Bill van Altena kindly provided advice for this report, which also was based in part on an oral history with Dorrit Hoffleit taken in the 1970s and deposited at the AIP.

Meeting of the North American Sundial Society and Call for Papers

by Sara Schechner Genuth

The North American Sundial Society will hold its annual meeting on 11-14 September 1997 in Chicago. Highlights will include visits to the Adler Planetarium and Astronomy Museum (Chicago) and the Time Museum (Rockford) in order to inspect their early time-finding instruments. A tour of modern sundials in the Chicago area is also planned. The program committee invites papers on all aspects of dialing, including the history, culture, design, fabrication, and science of sundials. Exhibits and short show-and-tell demonstrations are also welcome. Abstracts (up to 500 words) must be submitted by June 15th. To submit an abstract, learn more about the conference, or receive registration forms, please contact: Sara Schechner Genuth, Center for History of Physics, American Institute of Physics, 1 Physics Ellipse, College Park, MD 20740; (301) 209-3166; fax (301) 209-0882; Internet sgenuth@aip.org.

The North American Sundial Society was established in 1994 and publishes a quarterly journal, *The Compendium*, in both print and digital formats. The latter often includes

dialing software. The Society maintains a registry of sundials in North America; serves as a clearinghouse of dialing information; and makes copies of early instruments and novel designs available to members. NASS offers opportunities for dialing enthusiasts to come together to share ideas about the history, theory, fabrication, and artistry of sundials. The first two annual meetings were held in Washington, D.C. and Toronto. Membership is international and currently stands at several hundred. For more information about NASS and membership, please contact: George McDowell, 24 Indian Lane, One West, Baltimore, MD 21210; telephone (410) 528-1282 and (410) 435-8306; Internet geomcd@erols.com.

From the Chair

As of mid-April 25 people, mostly HAD and AAS members but many from beyond the Society, have donated \$2400 to the LeRoy E. Doggett Prize for Historical Astronomy, bringing the fund to \$12,400. We hope to provide a listing of all donors in an upcoming *HAD News*, and would like to add your name to the list. Please refer to the enclosure in the last *News* for details in my letter of 17 January to members. Make checks or money orders payable to the "AAS - Doggett Prize" and mail to the Executive Office, 2000 Florida Avenue, NW, Suite 400, Washington DC 20009. Attn: "Doggett Prize."

The AAS is qualified under the IRS regulations section 501C3 to receive tax-deductible donations.

From the Secretary

In 1996, the HAD sponsored special sessions of the AAS entitled, "Applied History of Astronomy." I especially liked the word

applied, as it provided me with a clearer sense of identity.

When I have written about the history of observing the outer Solar System, I've had my work called "historical astronomy." It isn't. That's "history of astronomy." Yet when I have attempted to trace the longevity and variability of jovian features through the use of archival records, I've had my work called "history of astronomy." It isn't. *That's* historical astronomy! (The noun is still "astronomy.") This is because, when I am doing historical astronomy, even though I may use historiographical methods, I am foremost interested in the astronomy--not the history. I like to tell my students that astronomy history is using modern historiographical techniques to look at old data and old interpretations; historical astronomy is using old data (and, sometimes, old interpretations) to look at modern historical problems.

Regardless of whether you use "history" as a noun or an adjective, I hope this *HAD News* meets your needs. Feel free to let me know how I'm doing!

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Report of the Obituary Committee

The AAS continues to attempt to publish a complete set of obituary notices, for all members, former members, and major prize winners, who have died during the year in the last number of each volume of BAAS. It is

not always easy to find the right person to provide an obituary, even for very well known astronomers. Thus, if a colleague, close friend in the community, former advisor or mentor, or even a former student has died recently, please consider whether you might be willing to provide a write-up, and, if you are, contact the current chair of the Obituary Committee, Virginia Trimble (coordinates in the AAS directory, except that the correct ZIP code is 92697-4575).

From the Lucubratory

by Woody Sullivan (University of
Washington)

Some thoughts about time, a subject that fascinates me and one central to astronomy since its beginning. In fact, Plato said that our very concept of time was not innate, but came from observations of the heavens.

Furthermore, this source led to philosophy and thus to all knowledge:

"Had we never seen the stars and the sun and the heaven, none of the words which we have spoken about the Universe would ever have been uttered. But now the sight of day and night, and the months and the revolutions of the years, have created number and have given us a conception of time, and the power of inquiring about the nature of the Universe. And from this source we have derived philosophy - no greater good ever was or will be given by the gods to mortal man." [Timaeus, 47a]

We are all traveling through time. Time is so enmeshed in our lives that its attributes are intimately known to each of us. The future appears to slip inexorably into the past, passing over the threshold we call the present. We eat and then soon again we're hungry. We watch the seconds and minutes and hours slowly tick away while we perform some dull

task, but time zips by when we're having fun. The sun rises and sets; daytime alternates with night. Our bodies pulsate with rhythms in synch with the days, the months, the years. Seasons come and go. Events happen in our lives and in the world around us. Our sense of who we are as individuals and as a society is largely based on our history, that is, the memories that we hold of those events. But those memories too change with time. We watch all living things inevitably age, including ourselves. This process is finalized in death, which in one sense is a cessation of time . . . but still time marches on. We try to understand all this, but are baffled along with philosophers throughout recorded history. Fifteen hundred years ago St. Augustine complained:

"What then is time? If no one asks me, I know. If I wish to explain it to someone who asks, I know it not."

Finally, an excerpt from a 19th C. poet:

**For age is opportunity no less
Than youth itself, though in another
dress,
And as the evening twilight fades
away
The sky is filled with stars, invisible
by day.**

This quarter's trivia question is: Who is the poet? Send your answer to me for eternal fame and glory. Last time's winner is Phil Morrison, who recognized that the source of **"Meanwhile, according to our custom, let us go and enjoy an hour of refreshment in the gondola that awaits us"** was the closing line in Galileo's Dialogue *Concerning the Two Chief World Systems* (1632).

[Dr. Sullivan can be reached at woody@astro.washington.edu]

Upcoming Meetings

Here is a list of meetings, of potential interest to members, not previously listed in the *HAD News*. (Some notices have been extracted from the *Electronic Newsletter for the History of Astronomy**, edited by Wolfgang Dick and translated by Donald Bellunduno)

6-10 July Lisbon, Portugal

17th International Conference on the History of Cartography

Contact: Commission for the Commemoration of Portuguese Discoveries (CNCDP), Casa dos Bicos, Rua dos Bacalhoeiros, 1100 LISBOA, Portugal
Tel.: (+351-1) 888 48 27
Fax.: (+351-1) 887 33 80
E-mail: cncdp@mail.telapac.pt

11-13 July, Cambridge, UK

Natural Catastrophes During Bronze Age Civilizations: Archeological, Geological, Astronomical and Cultural Perspectives, to be held at Fitzsimmons College, Cambridge University

Topics include: Cosmic Catastrophes.
Contact: Dr. Benny J. Peiser, Liverpool John Moores University, School of Human Sciences, Byrom Street, Liverpool L3 3AF, UK.
Tel.: +44 151 231 2490
Fax.: +44 151 298 1261
E-mail: B. J. Peiser@livjm.ac.uk

4-14 August, Uppsala, Sweden

Global Change and the History of Geophysics and Related Disciplines

Contact: Dr. Wilfried Schroeter, Hechelstr. 8, D-28777, Bremen-Roenebeck, Germany

*http://www.astro.uni-bonn.de/~pbrosche/hist_ast/ha_meet_1997.html

1-5 September, Odessa, Ukraine

International Conference on Variable Stars
(Dedicated to the 90th Anniversary of
V. P. Tsessevich).

Contact: Prof. V. G. Karetnikov,
Astronomical Observatory, Odessa
State University, T. G. Shevchenko
Park, Odessa 170014, Ukraine
Tel.: 70482 228 442
E-mail: root@astro.odessa.ua

22 September (preliminary), Innsbruck,
Austria

Scientific Meeting of the Working Group for
the History of Astronomy in the
framework of the Annual Meeting
of the Astronomische Gesellschaft

Contact: Dr. Anneliese Schnell
Email: schnell@astro1.ast.univie.ac.at

10-11 October, Schloss Seggau near Leibnitz
(Steiermark), Austria

Annual Meeting of the Working Group for
Sundials in the Austrian Astronomical
Society.

Contact: Karl Schwarzinger, Am Tigls 76A,
A-6073 Sistrans, Austria

22 October - 1 November, Moscow, Russia

Paleoastronomy: Sky and Mankind
(Conference is part of the 4th Euro-Asian
Astronomical Society Meeting).

Contact: I. Pustyl'nik, Tartu Observatory,
To~ravere, EE2444, Estonia
Tel.: (372) 7- 410265
Fax.:(372) 7- 410205

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

- Fire at the Pulkovo Observatory
- The History of Astronomy Day

- The "Star of Bethlehem"
- The Discovery of the First Double Star
- Lyra and the Great Seal of the United States
- Galileo and Uranus/Galileo and the
Telescope
- American Astronomy in the Civil War Era
- Proper Names for Points on a Circle
- Celestial Cartography Before 1800
- Eratosthenes' Global Circumference
Measurement: Fact or Fiction?
- Archeoastronomy Texts

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McCluskey at the University of West
Virginia. Subscribe by send the following
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to:

listserv@wvnm.wvnet.edu

New Web Pages of Interest

These address were checked, and found to be
valid, on 30 April, 1997.

A Facsimile of Giovanni Battista's
Almagestum Novum (description of Mizar as
a double star) by Leos Ondra

<http://www/sci.muni.cz/~ondra/mizar/mizar.html>

A Virtual Exhibition About Tycho Brahe by
the Museum of the History of Science
(Oxford)

<http://www.mhs.ox.ac.uk/tycho/>

Abstract from the Biannual Journal
Linguistics of the Tibeto-Burman Area
(Chinese traditions surrounding the star
Antares and constellation Scorpius) by
Richard Cook

<http://bantu.berkeley.edu/lingdept/research/stedt/cookabstract.html>

Astronomy in Japan Page (includes Japanese starlore and astronomical history) by Steve Renshaw

<http://www2.gol.com/users/steve/jastro.html>

Bologna Astronomy Library (a popular history of astronomy) by Fabrizio Bonoli

<http://www.bo.astro.it/~biblio/Cis/copertina.html>

Who's Who

by Brad Kroll

I am in my last semester at the University of Northern Iowa, as an all-science major. I am assisting Dr. Hockey with the *HAD News*. As a class project, I recently asked a few HAD members to write a brief summary of their current activities in the history of astronomy. The following are their responses.

Jay Pasachoff (Williams College) is revising his book manuscript, written with art historian Robert J.M. Olsen, about images of comets in British art and science. Also working on a book is Michael Molnar of Rutgers University. Its title is *Aries' Legacy: The Clue to the Magi's Star*. (Molnar presents the famous star based on Roman numismatic evidence and from the perspective of ancient astrology at the time of Herod the Great.) George Mumford is presently at work on a paper about Katherine Bruce.

Along with "straight" astronomy, Carol Ambruster (Villanova University) uses the history of astronomy as part of a research interest in archaeoastronomy, specifically the

Southwest, both Anasazi and Navajo. While Dr. Ambruster's focus is on pre-Columbian astronomy, Roberta Brawer's (Massachusetts Institute of Technology) lies more in anthropology than history. She currently is engaged in an ethnographic and cultural study of modern cosmology and cosmologists.

At work on the Herbert C. Pollack Award is Ralph A. Alpher, a part-time administrator at the Dudley Observatory. This award is an annual competition. Funding is given to the best proposal for research in the history of astronomy.

Vera Rubin, an observational extragalactic astronomer at the Carnegie Institution, is continually using the history of astronomy in lectures and papers.

This collection of responses was returned by HAD members living in the eastern United States. Thank you to all who took the time to share their current activities in the history of astronomy.

The HAD Mailing List

I have not yet been provided with an updated mailing list from the AAS. If you have a friend, colleague, or co-worker bemoaning the fact that they have not received the *HAD News*, please suggest that he/she write, call, Fax, or e-mail the editor.
- T. H.

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HAD News layout by Brian Hynek, an Earth science/all-science major at the University of Northern Iowa.