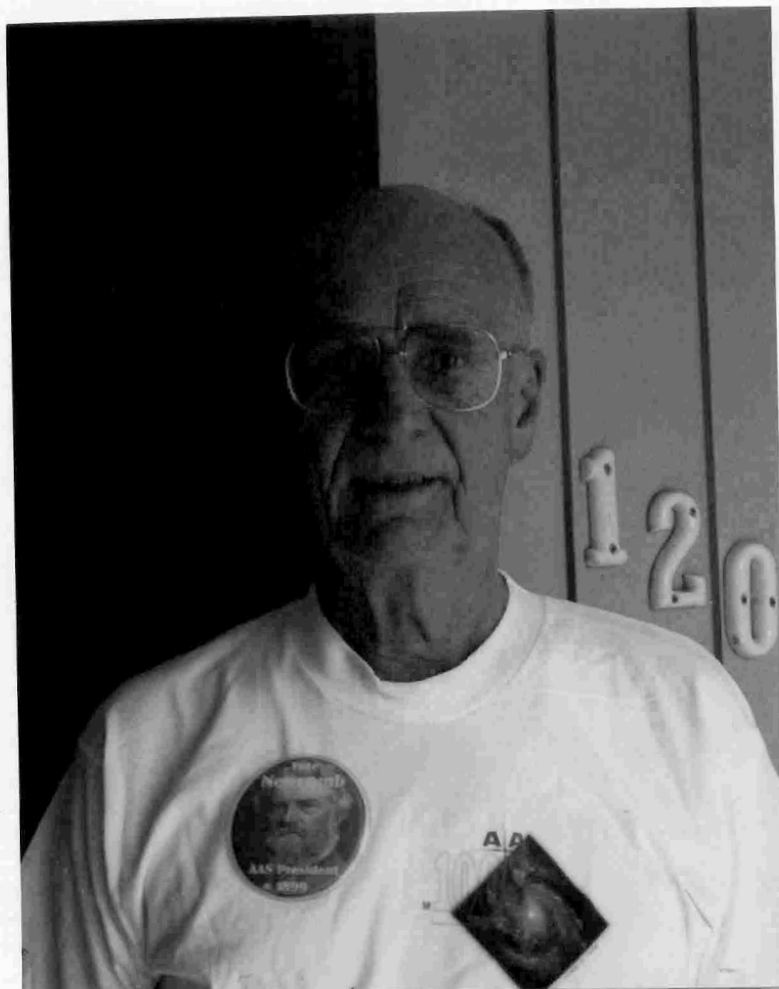


H. A. D. News

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

Number 50 November 1999



Donald Osterbrock, Chair of the AAS Centennial Committee, after a Successful June Meeting

OxVI: A Summary

By Rolf M. Sinclair

The Sixth Oxford Conference on Archaeoastronomy was held June 21-29, on the Island of Tenerife (one of the Canary Islands that lie in the Atlantic off the coast of Northwest Africa). The meeting was organized by the Instituto de Astrofísica de Canarias, the Museo de la Ciencia y el Cosmos, and the Universidad de La Laguna. The first is the Institute of the University that is the base for the many international astronomical activities of the Islands. The second is a fine new science museum in the town of La Laguna where the conference was held, and the third is the principal University of the Islands (which form a Province of Spain).

The location could hardly have been improved upon. La Laguna was founded when the Spanish first occupied the Islands in the 15th century, and the old part is reminiscent of other Spanish colonial cities of that time [such as Mérida (Yucatan) where Oxford II was held in 1986]. The Islands are a beautiful microcosm, ranging from rainy slopes and vineyards to desert, and from beaches to high volcanoes (active in historic times). Some peaks reach high above the clouds carried south by the Trade Winds, into a zone of astronomical seeing matched at few other places on Earth.

The Oxford Conferences have been held triennially since the first was held in 1981 at Oxford University (England). Successive meetings have been held in Mexico, Scotland, Bulgaria, Santa Fe (New Mexico), and now the Canary Islands. The first meeting tended to focus on the astronomical interpretation of archaeological sites, and had a number of reports on the stone

circles of the UK, Ireland, and Brittany. Later meetings have had a more varied content, and have tended to define archaeoastronomy in terms of the material presented.

The sixth meeting was well attended. I counted close to a hundred attendees, and there may have been others who came for part of the meeting. For the first time at an Oxford Meeting, those from the US did not make up the principal group of attendees. People came from 26 countries. Spain and the US contributed equal numbers (17 and 20). Poland (seven) and Germany (six) were well represented. In all 59 came from Europe. A number of countries had one or two attendees, but many of them were represented for the first time at an Oxford Meeting.

There is no simple way to characterize the papers presented. Sixty or so dealt with the normal topics we have come to assume make up archaeoastronomy--the evidence for astronomical practices in preliterate or early-literate societies. The work came from all over the world--mostly from Europe and the Mediterranean basin, and Mesoamerica, but other examples were from India, Australia, and South America. The quality likewise varied, to be honest. Some papers, including several of the review talks, were excellent and represented real contributions to the field. Most papers addressed local issues and were the building blocks of archaeoastronomy. Descriptions of astronomically oriented alignments were the most popular single topic. Most alignments were to the Sun, although stars and the Moon were not slighted. And alignments to the lunar standstill extremes continue to

be reported. It is difficult to know if some of these alignments were found primarily because the idea is in the air. There were a number of discussions of the constellations and their origins. Only a few dealt with time-indicating illumination of rock art. Several papers made cross ties between astronomical events and the early records of dates, to find correlations with our present calendar. A few papers were off on other subjects, such as art or primarily cultural phenomena--this is not a criticism, because they were interesting in their own way and added variety to the meeting. A couple of talks were unfortunate, but that is hardly a reflection on the meeting organizers--with only abstracts to go on, a few oddities will find their way in. A selection of the papers will be published shortly.

On the whole, the standards of quality and interest were high. I counted perhaps 60 papers that were (to me) worth coming to hear. This reflects the publicity and planning done by the organizers. The Oxfords--when held in locales that are both convenient and interesting in their own right--have been shown capable of attracting new people and new ideas. The original impetus of this series of meetings ran out of steam after Oxford III, and the series reached a low point in Oxford IV (Bulgaria). Since then, the last two have been more widely and efficiently publicized, and this is reflected in the greater variety of people and topics.

The Oxford Meetings have now reached a steady state. The planning and operation are left up to the group responsible for each meeting. The earlier idea of a permanent committee with oversight over the basic features of the meeting has been dropped in favor of a "council of elders" that does little more than

get together at each meeting and discuss the site of the next one. Ed Krupp (Griffith Observatory) kindly agreed to head this group and coordinate the choice of the next location. The Oxford Meetings have proven their value, and they seem to be most effective when left to operate by themselves in this independent and autonomous manner.

This was perhaps the best planned and best supported of the Oxford Meetings. (I say this as one who helped organize an earlier meeting!) Full credit goes to the local organizers, in particular Juan Antonio Belmonte and César Esteban of the IAC, for their careful planning and for obtaining a depth of local interest and support from the University, the towns, and the Province. All the attendees will long remember a number of non-scientific highlights, such as the tour of Tenerife and the splendid lunch each day on the Museum terrace. Those who stayed after the conference were rewarded by a fascinating tour of the neighboring Island of Gran Canaria.

There were excellent suggestions for the locations of the next two Oxford Meetings. We can expect an announcement shortly.

I add one personal note. My previous visit to Spain was in 1958, when the fascist government reigned supreme. All that now seems like a bad dream whose memory is fading quickly. Spain has recovered from that time, the people breathe freely again, and Spanish science has found its way into Europe and the World.

AAS/HAD To Meet January, 2000

By Virginia Trimble and Tom Hockey

In Atlanta, the second LeRoy E. Doggett Prize for Historical Astronomy will be awarded. The recipient is Owen Gingerich (Harvard University). Professor Gingerich will receive the prize in recognition of his wide ranging contributions to the field and his effectiveness in keeping the history of astronomy before the public.

The invited **Papers of the Century** HAD session will include Paul Hodge speaking about Humanson, Mayall, and Sandage; Neta Bahcall on Abell; and Robert Kennicutt on Tinsley. (Each title refers to a citation in the 20 December 1999 *Astrophysical Journal*.) Helmut Ait will chair the session and present some numbers for citation rates to the fifty-two "outstanding papers" in comparison with others from the same issues of *AJ* and *ApJ*.

Contributed papers will focus on a key journal publication that have appeared since 1900, why the author deems the publication a "key paper," and what has become of the key paper's subject matter. There also will be contributed papers on other aspects of historical astronomy and the history of astronomy.

The HAD Business Meeting will be held on Saturday, January 15th.

From the HAD Secretary

I have only just returned from a month-long stay at the Herzen State Pedagogical University in Saint Petersburg, Russia. Anxious to get this issue of *HAD News* out before the new millennium-less-one, I'll defer a description of my visit to the Pulkovo Observatory until next time.

I do take time to note (with a certain sadness) the passing of the journal *Vistas in Astronomy*. Here appeared my first "historical" paper in astronomy. *Vistas* is to be reincarnated as a new journal by its publisher.

Thanks, this issue of *HAD News*, go to Matt Dowd, one of the organizers of the highly successful History of Astronomy Workshop (Notre Dame) IV. In addition to making this meeting run smoothly, Matt also took time to prepare a poster presentation. His "timely" article (below) is based on that work.

I still am soliciting your favorite astronomy-history related WWW Pages. Thank you to those who have already contributed. A list will appear in February's *News*.

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FAX: 319-273-7124
I: hockey@uni.edu

P. S.: Note that this issue contains *HAD News's* first centerfold photograph!

William Herschel, the Millennium, and Me

Matt Dowd (University Of Notre Dame)

I cannot recall exactly when it happened, but sometime in the not too distant past I started to notice discussion of the impending millennium. Whether it was forecasts of doom and destruction or special events billed as the last (or first) of the millennium or advertisers appealing to yet another milestone of which their product could be the official whatnot, I was always annoyed at the improper labeling of when the new millennium would begin. In nearly all cases, the millennium was assumed to begin in the year 2000, when anyone who could add, it seemed to me, must have known that the year 2000 was the 2000th year, and thus the end, not the beginning, of a millennium.

I must also confess to a little arrogance on the matter. I was quick to point out the error whenever I saw it. My family, co-workers, and friends all learned my opinion, whether they wished to or not! The year 2000 was the last year of a millennium; anyone who said otherwise was simply wrong. Then I ran across some letters of William Herschel. In a handful of letters, Herschel addressed the question of when the eighteenth century would begin, in obvious parallel to questions of when the millennium begins.^{1} Surprisingly, at least to me, Herschel was in favor of the year 1800 as the beginning of the nineteenth century, whereas my reasoning insisted that 1800 was the last year of the eighteenth century. I suddenly felt the need to reconsider the issue.

William Herschel's first correspondence on the question of the beginning of the nineteenth century was with Joseph Planta, a librarian at the British Museum. In a letter dated 19 February 1798,^{2} Planta had asked William Herschel to settle a bet regarding whether the century began "on the 1st of January, 1800?" In his response,^{3} Herschel ignored the question of date, and responded that the century does not begin "on" January 1, but "with" January 1. At this point, the only issue Herschel saw was over the proper preposition, not the proper date.

A later letter of Herschel's, however, would show a more careful consideration of the matter. In a letter addressed to a Reverend Mr. Davies in March of 1798,^{4} Herschel pondered the question, "When does the nineteenth century commence?" In this letter, Herschel discussed various reasons why one might choose either the year 1800 or the year 1801 as the beginning of the century. In the end, he considered both positions valid under the right circumstance. He argued that the "popular" way of viewing the centuries is that they begin with the new hundredth, in this case 1800. He also suggested that astronomical tables support 1800 as the beginning of the century. The method of finding the position of an astronomical body on 1 January 1800 by means of these tables assumes that 1800 years have passed from an initial starting point, thus making 1800 the one thousand, eight hundred and first year. Herschel also noted, however, that when one carefully calculates how many years have passed given the dating of the year on the civil calendar, the year 1800 is the one thousand, eight hundredth year; thus, when one uses the civil calendar to calculate the

Continued p8

The AAS Historical
Astronomy Division
Meets at Yerkes
May 29, 1999

(Photo courtesy of
Richard Dreiser;
Captioning by
David DeVorkin)

Front row:

Roy Garstang
Ann Garstang
Christopher Corbally
?
Irene Osterbrock
Don Osterbrock
Mrs. Bill Howard
Richard Dreiser

Row two:

Bob Eklund
Mrs. Bob Eklund
Marc Rothenberg
John Briggs
Daniel Fischer
Steve Dick
Bill Howard
Owen Gingerich
Sata Schechner
David DeVorkin

Row three:

Horace Smith
?
Barbara Welther
Kristy Dyer
Thomas Hockey
Pat Whitesell
Mr. Pat Whitesell
Tom Williams

Fourth row:

Rich Kron
Greg Buchwald
Frank Edmondson
Kyle Cudworth
Heather Cudworth
Dave Dudek

Last row:

Jim Gee
?



beginning of the century, the year 1801 must be named. Herschel's ambivalence over the proper date, or rather his insistence that either date can be correct given what one considers the proper method of reckoning, demonstrates a reasonable attitude to what is ultimately a rather minor question.

Herschel also wrote two letters to Henry James Pye, the poet laureate, in 1799.{5} In both letters, Herschel defended 1800 as the beginning of the century, but noted that using 1800 as the start of the new century neglects "small deficiencies," as he stated was the common practice when speaking "popularly." Herschel knew full well that one thousand, eight hundred years of the common era would not be passed until the end of 1800, but was quite comfortable neglecting the precision of one year.

I respect Herschel's suggestions that dates of this sort can be calculated in a variety of ways, but I am still not convinced that we ought to consider the year 2000 as the beginning of a new millennium. There was no year 0 A.D., and thus the millennium is not over until the end of 2000 years, which will not happen until 31 December 2000 is over. Yet I have achieved a degree of equanimity over the issue. Herschel pointed out that people of intelligence can disagree over such matters. He also felt that common usage regarding a topic like dating is not worth heated debate. On that I have come to agree; I no longer share my opinion with all who would hear. Yet I am still what Herschel would call a "critical chronologist"; in my own mind, that one year of imprecision will always come to mind when someone heralds the year 2000 as the beginning of a new millennium. But as many participants of the HASTRO listserve suggested regarding a debate on this issue, I will happily accept a larger than average New Year's party on 31 December in both 1999 and 2000.

FOOTNOTES

{1} I have submitted for publication a paper with a fuller description of the contents of these letters.

{2} RAS MSS Herschel W.1/13.P.50. This and all subsequent notations of Herschel correspondence makes use of the citation conventions established by the cataloguer of the Royal Astronomical Society's William Herschel archives. See J. A. Bennett, "Catalogue of the Archives and Manuscripts of the Royal Astronomical Society," *Royal Astronomical Society Memoirs* 85 (1978): 1_90. The letters have been used with the kind permission of the Royal Astronomical Society.

{3} RAS MSS Herschel W.1/1, pp. 226-227.

{4} RAS MSS Herschel W.1/1, pp. 228_33.

{5} RAS MSS Herschel W.1/1, pp. 238_39 and RAS MSS Herschel W.1/1, pp. 239_40 (the latter letter is not dated; but probably falls in late November or December of 1799).

The ASP Meets in Toronto, July 4, 1999

By Joe Tenn (Sonoma State
University)

The complete list of invited
papers presented in morning and
afternoon sessions on that
"nonholiday" follows:

GETTING ORGANIZED: U.S.
AMATEUR ASTRONOMY FROM 1860 TO
1985
Thomas R. Williams, Rice
University

CONFIDENCE AND DEFERENCE: THE
ORIGINS AND DEVELOPMENT OF THE
RASC
Peter Broughton, Royal
Astronomical Society of Canada

PETER MILLMAN'S ARMY: AMATEURS
AND PROFESSIONALS IN CANADIAN
METEOR PROGRAMMES
Richard A. Jarrell, York
University

GROTE REBER: PIONEER OF RADIO
ASTRONOMY
Kenneth I. Kellermann, National
Radio Astronomy Observatory

CANADIAN ASTRONOMERS WITH EARLY
HARVARD PH.D.'S
Dorritt Hoffleit, Yale
University

"A SPRING OF WATER IN A DRY AND
THIRSTY LAND": WILLIAM HUGGINS
AND THE ORIGINS OF ASTROPHYSICS
Barbara Becker, WestEd and
University of California, Irvine

THE GREAT INSTRUMENTS OF THE
GRUBB TELESCOPE-MAKING DYNASTY
John W. Briggs, Yerkes
Observatory, University of
Chicago

For more information, including
abstracts and descriptions of
the speakers, please see
<http://www.phys-astro.sonoma.edu/people/faculty/tenn/ASPHistory/1999long.html>

The sessions were presented by
the ASP History Committee. This
was the sixth and last such
session organized by Joseph S.
Tenn, Sonoma State University.
The new chair of the committee
is Katherine Bracher, Whitman
College.

Correspondence

"Dudley Observatory announces
its Pollock Award for the year
2000, in the amount of \$5,000,
for an innovative project in the
history of astronomy and
astrophysics. The deadline for
submission of proposals is
December 10. Fliers giving
details of the Award will be
sent out toward the end of
September. For further
information, or to be put on our
mailing list, please contact
Ralph A. Alpher, Administrator,
Dudley Observatory, at
ALPHERR@UNION.EDU."

Some Upcoming Meetings

[Source = Working Group for the History of Astronomy in the *Astronomische Gesellschaft* (Wolfgang Dick, Secretary)]

February, Moscow, Russia
Giordano Bruno and our Epoch
Contact addresses:
lmg@sai.msu.ru (Dr. Lev M. Gindilis, SAI MSU),
boch@sai.msu.ru (EAAS)

March, Munich, Germany
History of Geophysics and Space Physics
One day session during the Annual Meeting of the German Geophysical Society
Contact address: Dr. Wilfried Schroeder, Hechelstrasse 8, D-28777 Bremen-Roennebeck, Germany.

April 10-12, Leeds, United Kingdom
Science in the Nineteenth-Century Periodical--an interdisciplinary Conference
Place: University of Leeds
Deadline: 1 June 1999
Contact address: Dr. J. R. Topham, School of Philosophy, University of Leeds, LS2 9JT, UK, e-mail:
j.r.topham@leeds.ac.uk (no file attachments please), tel: 0114-2228484 or 0113-2333280, fax: 0114-2228481 or 0113-2333265

[New listings for this column are solicited. - T. H.]

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

- When Does the Day Begin?

- David Peck Todd
- Foucault's Pendulum and the Eclipse
- George of Trebizond
- Kepler and Saturn's Rings
- Abraham Ihle and Hevelius
- Astronomer Struck by Lightning
- *De Telescopio*
- Time Balls and Noon Guns
- Voltaire's *Micromegas*
- Stonehenge
- Islamic Astronomical History
- Viking Astronomy
- Tycho and Kepler's Manuscripts

HASTRO-L is provided by Stephen McCluskey at the University of West Virginia.

Web Pages

By Andrew Fraknoi (ASP)

"Women in Astronomy Bibliography" (with Ruth Freitag)
www.aspsky.org/education/womenas_t_bib.html

This listing gives articles about women in astronomy in general and then an alphabetical list of resources about specific women in astronomy.

"Web Resources for College Astronomy Teaching"
www.aspsky.org/education/educsites.html

This is an annotated listing of web sites that are useful for college astronomy teachers—dealing with subject matter, but with teaching techniques, resources, new ideas for classroom approaches, etc.

Contributors: The submission deadline for issue #51 is January 7, 2000.

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