

# H-A-D NEWS

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

Number 68

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October 2004

# HAD MEETING IN SAN DIEGO MARKING OUR 25TH ANNIVERSARY!

AD will be meeting with the AAS in San Diego, California, on January 9-10, 2005. The location for the meeting is the Town and Country Resort and Conference Center, 500 Hotel Circle North, San Diego, CA 92108, 1-800-77-ATLAS, 619-291-7131. Registration for the AAS 205th Meeting is managed by the AAS Executive Office. Information about the meeting and how to register can be found on the AAS website at: http:// www.aas.org/meetings/aas205/. It is not too late to come to the meeting! The discounted Early Registration is still available until December 8. The fee for the entire HAD & AAS meeting is \$260. If you only want to come for one day then the cost is only \$130. After December 8, the rates go up considerably to \$325 (\$165 one-day). To register, go to the AAS website and use the Member Only Website (this includes Had Divisional Affiliates in addition to the full AAS members. Usernames and passwords are required, so I hope you have that information at the ready. An "Email My Password" feature is available if needed. Don't wait to the last minute!

The Town and Country is located about 10 miles from downtown San Diego in Mission Valley. This resort complex is situated on 32 acres, complete with high rise and ranch-style guest rooms. There are four restaurants on the grounds amid several pools and an outstanding new spa. Spoil yourself, why don't you, and get a massage? Golf, shopping, and a San Diego Trolley stop are adjacent to the hotel. One may get to Old Town in five minutes, downtown San Diego in 10 minutes and Tijuana in about 30 minutes (just in case you like to relax or have fun south of the border).

## THE CHAIR'S CORNER TOM WILLIAMS

would like to call to the HAD membership's attention an unusual request we handled during the past several months. HAD was asked to comment on a request to the AAS for funding support for a UNESCO initiative on preservation of astronomical heritage sites. The focus of the UNESCO program has been on sites with archaeoastronomical significance and has had support from the RAS and other organizations in Europe. The UNESCO proposal was reviewed by a small group of HAD members including Steve McCluskey, David DeVorkin, Steve Dick, Ron Brashear, Woody Sullivan, John Briggs, Don Osterbrock, Barbara Welther and Tom Hockey. The consensus in this group was that the proposal was too loosely defined to merit AAS funding at the present time. We did suggest to the AAS Council, however, that some support including participation in future meetings of the UNESCO committee engaged in this project would be appropriate. Furthermore, we recommended that some initiative within the AAS on preservation of more modern sites, instruments and other artifacts of astronomical interest would be appropriate. The AAS Executive Committee accepted HAD's report and recommendations and indicated they would welcome a more formal proposal for possible actions on the part of the AAS. We believe there should be interest in the general subject of preservation of historically important assets and plan to discuss this with the HAD membership at the annual business meeting in San Diego.

Plans for our next HAD meeting at the AAS Annual meeting in San Diego, California on 9-10 January 2005 are falling in place well. All speakers for the Sunday af-

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The HAD meeting will begin one day prior to the AAS meeting with a Special Session on Sunday, January 9, 2005, from 2:00 to 5:00pm in the Sunrise Room of the conference hotel. This session (HAD I; AAS Session 1) will be a Centennial Celebration of the Founding of Mount Wilson Observatory (generally considered to be on Dec. 20, 1904, so this is close enough). The scheduled papers are:

- 1.01. "Bruce Medalists at the Mt. Wilson Observatory." **J. S. Tenn** (Sonoma State University)
- 1.02. "Taking Charge: Walter Sydney Adams and the Mount Wilson Observatory." R. S. Brashear (Smithsonian Libraries)
- 1.03. "The Mount Wilson-University of California Connection from Hussey and Seares to Mayall and Olin Wilson." **D. E. Osterbrock** (UCO/Lick Obs., UCSC)
- 1.04. "Mount Wilson Staff Reaction to Light Pollution." **G. W. Preston** (Carnegie Observatories).
- 1.05. "The Historical Astronomy Division: Twenty-five Years of History as Revealed in the H.A.D. Newsletter." **B. G. Corbin** (U. S. Naval Observatory)
- 1.06. "History of Astronomy Then and Now." **O. Gingerich** (Harvard-Smithsonian CfA)

There will be a concurrent poster paper up in the same room at the same time (officially this is AAS Session 2). The paper is:

2.01. "The Mount Wilson Optical Shop during the Second World War." **P. Abrahams** (Historical Astronomy Division, AAS)

After you have had your fill of these tasty astronomical tidbits, please be sure to come by and socialize at the AAS Opening Reception later that evening from 7:00–10:00pm, at the Town and Country hotel (exact location to be determined). This opening reception is for all participants and registered guests. It will feature a cash bar and light snacks (not to be construed as dinner!).

After a good night's sleep, rise and shine, have a good breakfast, and enjoy the HAD activities for Monday. There will be another HAD Poster Session (AAS Session 4) in the Exhibit Hall. The posters will be up for viewing from 9:20am–6:30pm, so please stop by and show your support for our poster people. The scheduled poster papers for this session are:

- 4.01. "A. A. Michelson's Jovian Galilean-Satellite Interferometer at Lick Observatory in 1891." **D. E. Osterbrock** (UCO/Lick Obs., UCSC)
- 4.02. "The birthplace of planetary radio astronomy: The Seneca, Maryland observatory 50 years after Burke

- and Franklin's Jupiter radio emission discovery." L. N. Garcia (NASA/GSFC/QSS), J. R. Thieman (NASA/GSFC), C. A. Higgins (Middle Tennessee State University)
- 4.03. "Biographial Encyclopedia of Astronomers—A status report." **T. R. Williams** (Rice University), **T. A. Hockey** (University of Northern Iowa)
- 4.04. "Secondary ("Plain Mirror") Testing Methods of Sir William Herschel." E. F. M. Albin (Fernbank Science Center)

The first set of HAD oral papers (AAS Session 35; HAD II) has as its theme: Observatories, Toys and Genesis. They will be given on Monday from 10:00–11:30am in the Pacific Salon 1. The scheduled papers are:

- 35.01. "The Early History of the Apache Point Observatory." **G. Wallerstein** (University of Washington)
- 35.02. "Productivity and Impact of Large Optical Telescopes." **V. Trimble** (U California, Irvine)
- 35.03. "Mt. Wilson in 1910: The Year of The Great Solar Convention." **B. L. Welther** (Harvard-Smithsonian Center for Astrophysics)
- 35.04. "Metal Construction Toys of the Early Twentieth Century: Their Astronomical Applications." **K.S. Rumstay** (Valdosta State University and SARA)
- 35.05. "Cosmic Evolution: The History of an Idea." S. J. Dick (NASA HQ)

Have some lunch and then please return to the Pacific Salon 1 room at 1:00pm for the HAD business meeting. We would really appreciate your coming by to take part in the planning of our current and future business. The meeting will run until 2:00pm when it will be immediately followed by the second HAD oral paper session (AAS Session 44; HAD III), from 2:00 to 3:30pm, on the theme of Catalogs, Surveys and Ancient Observations. The scheduled papers are:

- 44.01. "Ancient Observations Reveal How a Variable Sun Has Changed the Earth's Climate." **K. D. Pang** (La Canada, CA), **K. K. Yau** (JPL)
- 44.02. "Discovery of the Lost Star Catalog of Hipparchus on the Farnese Atlas." **B. E. Schaefer** (Louisiana S. U.)
- 44.03. "Vacancies in the Heavens: Caroline Herschel and the Discovery of Dark Nebulae." **C. J. Lada** (CfA)
- 44.04. "The Digitized and Interactive Photographic Atlas of Selected Regions of the Milky Way by E.E. Barnard." J. R. Sowell, L. E. Crafts (Georgia Tech)

That ends the regular HAD sessions, but if any of you are planning to stick around for the entire AAS meeting, you might want to check out the following items that are of Chair's Corner, continued from Page 1

ternoon sessions on the Mount Wilson Observatory centennial and for the twenty-fifth anniversary of the founding of the AAS-Historical Astronomy Division have filed their abstracts. There has been one addition to the Sunday panel of speakers; Brenda Corbin volunteered to briefly summarize the history of the AAS-HAD, freeing Owen Gingerich to discuss progress in the history of astronomy during that same twenty-five year period. Otherwise the program is as outlined in earlier HAD Newsletters. We will have two sessions of contributed papers and a poster session on Monday. Please consider preparing your paper for a poster session rather than an oral presentation.

Plans are also beginning to materialize for the joint HAD–DPS meeting in Cambridge, UK in September 2005. Simon Mitton of Cambridge University is acting as the chairman of the local organizing committee for both divisions and has been working hard to formalize arrangements so that costs and other details may be announced in a timely way. We expect to have considerable details available to us by the time of the meeting in San Diego and will make the preliminary plans available there. Incoming HAD committee members Peter Abrahams and Dan Green have agreed to begin their service to HAD early by helping out with the planning and arrangements for the meeting this fall, although they will not be officially into their terms in office until January.

We look forward to seeing you all in San Diego.

### **Future HAD Meetings**

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

#### January 9–10, 2005—San Diego, California

The theme in this meeting will be related to the Centennial of the Carnegie Institution of Washington's establishment of the Mount Wilson Observatory. The meeting will also mark the 25th anniversary of HAD.

### September 4–9, 2005—Cambridge, England

A joint meeting with the AAS Division of Planetary Sciences.

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January 8-9, 2006—Washington, DC

January 7–8, 2007—Seattle, Washington

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some historical interest:

Session 80. "Scanning Cosmological Horizons." **M. Rees** (Institute of Astronomy), the Russell Prize Lecture, Tuesday, January 11, 2005, 11:40am–12:30pm, Town and Country.

Session 90. "The Chandra X-Ray Observatory: The Past, the Present, and the Future." M.C. Weisskopf (NASA/MSFC), H. Tananbaum (SAO), the Rossi Prize Lecture, Wednesday, January 12, 2005, 8:30–9:20am, Town and Country.

Other sessions that might be of some general interest to some of our members:

Session 112. Astronomy Teaching Through Humanities. Poster, Wednesday, January 12, 9:20am–6:30pm, Exhibit Hall

along with a companion session:

Session 124. "Astronomy Teaching through the Humanities: Literature, the Visual Arts and More." **A. Fraknoi** (Foothill College & A.S.P.), **George Greenstein** (Amherst College), Wednesday, January 12, 2005, 10:00–11:30am, Pacific 6–7.

#### and finally:

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Session 47. "Intelligent Design and the Creationism/ Evolution Controversy." E.C. Scott (National Center for Science Education, Inc.), Tuesday, January 11, 2005, 8:30–9:20am, Town and Country.

We hope to see many of you there!

### **Historical Astronomy Division** of the American Astronomical Society

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

## UNESCO INITIATIVE ON PRESERVATION OF ASTRONOMICAL HERITAGE SITES

In the Chair's Corner of this Issue, Tom Williams mentioned that HAD was asked to comment on a request to the AAS for funding support for a UNESCO initiative on preservation of astronomical heritage sites. For your information, we have included here the text of the HAD response. First there is a cover letter explaining our response and this is followed by the appropriate background information that informed our response:

**TO**: Robert Kirshner, President, AAS Robert Milkey, Executive Officer, AAS

**FROM**: Thomas R. Williams, Chair, AAS-Historical Astronomy Division

**SUBJECT**: UNESCO Astronomy and World Heritage Initiative

At your request, a few HAD members have considered a UNESCO request for AAS support for a program to identify and characterize sites of astronomical as well as cultural importance. The attached document provides some background for this topic and makes a few general observations about the involvement of AAS in the effort.

HAD recommends that the AAS respectfully decline to support the UNESCO initiative with a cash contribution at this time. We believe, instead, that there are better ways for the AAS to support this cause, which is considered a worthy if poorly developed effort in this proposal. Some suggestions along this line are contained in the attached document, and include the appointment of an official AAS representative to the ICOMOS committee and providing limited travel support for that individual's participation in the 2005 ICOMOS meeting.

As indicated by the UNESCO staff, the Astronomy and World Heritage initiative has been actively supported by the Royal Astronomical Society. From our contacts within the RAS we have learned that the extent of their cash support to the initiative amounts to £5000 or just over US\$9000. The RAS justification for this expenditure, however, seems only partly related to the history of astronomy and preservation of astronomical sites.

One idea that emerged from our discussions seems worthy of mention here though it is only vaguely mentioned in the UNESCO document. Planning is now apparently underway for The Year of Astronomy 2009, a celebration of the invention of the telescope and its first use by Galileo to examine the sky nearly four hundred years ago. AAS will no doubt want to be involved in that event if it

is not already engaged in some way. This may afford some added justification for budgeting a small amount for funds for participation in the UNESCO/ICOMOS efforts described in the attached document.

We would be pleased to discuss this further with you if that would help your preparation for the forthcoming meeting of the Executive Committee.

### BACKGROUND FOR AAS COUNCIL CONSID-ERATON OF A UNESCO INITIATIVE ON ASTRONOMY AND WORLD HERITAGE

The following is intended to provide background for AAS officers and Council members on a request from UNESCO for support for their initiative on Astronomy and World Heritage.

### BACKGROUND ON THE UNESCO ASTRONOMY AND WORLD HERITAGE INITIATIVE

This new program follows a Global Strategy adopted in 1994 by ÛNESCO's World Heritage Committee. Their intent was to establish a representative and balanced World Heritage List which reflects the diversity of cultural and natural sites of outstanding universal value. The definition of a cultural site is extremely broad, and has been described as encompassing not only whole towns like Torun, the birthplace of Copernicus, but also natural landscapes and intangible heritage such as rituals, songs, folk-craft, etc. The UNESCO initiative apparently runs in parallel with and is supported by a non-governmental organization, the International Council on Monuments and Sites (ICMOS), represented in Washington, DC by the US/ICMOS. The staff, officers and directors of US/ ICMOS are architects, archaeologists, preservation specialists and the like. The US/ICMOS board includes exofficio representatives from a large number of professional organizations in those fields.

The Astronomy and World Heritage project is the first program at UNESCO to link the study of astronomy with cultural sites and monuments which have been devoted to the explanation of the universe and humankind's relationship to the sky. Some examples of archaeoastronomical sites already on the World Heritage List are: the Temple of the Sun in Teotihuacan (Mexico), the Historic Sanctuary of Machu Picchu (Peru), Stonehenge (United Kingdom) and the Ulugh-Beg Observatory at Samarkand (Uzbekistan).

The UNESCO World Heritage List is not so much a comprehensive list of all sites in need of preservation, but in-

stead is a select list of culturally and historically important sites. The full list of 788 sites includes less than 20 sites in the US, the most recent US structure being the Statue of Liberty. The only sites with any astronomical pretensions on the US list are Chaco Canyon and Cahokia. In neither case does the formal evaluation mention astronomical claims for those sites, and in any event the astronomical significance of the Cahokia site is doubtful. In a recent (2004) analysis of gaps in the World Heritage List, the ICOMOS (which approves nominations for the list) has noted the "much lower representation" of modern sites (15 worldwide) and called for efforts to fill that and other gaps. As we understand it, this new UNESCO/ ICOMOS program should be seen as an attempt to establish criteria, and to identify modern sites with specific connections to astronomy for inclusion on that selective list. The US representative to the meeting at which astronomy was identified as a "gap" and the Astronomy and World Heritage project was formulated was a Mr. Troy Cline, Senior Science and Educational Technology Coordinator, NASA Sun-Earth Connection Education Forum. The goals of the UNESCO/ICOMOS Astronomy and World Heritage Initiative, as they have been described to us include:

- **★** Involving more early (ancient) sites like those listed above, especially from underrepresented cultures.
- **★** Encouraging national nominations of culturally important astronomical sites.
- \* Promoting the preservation of culturally important astronomical sites.
- **★** Providing research opportunities for experts in various fields.

### SUPPORT PROVIDED BY ROYAL ASTRONOMICAL SOCIETY

Based on the information provided by the UNESCO staff representative who contacted AAS, we inquired of the RAS Treasurer about the support provided by RAS to the UNESCO/ICOMOS initiative. He confirmed that the RAS did agree to contribute £5000 (roughly \$9000) to the initiative. Their support may extend beyond that level to include some web hosting on RAS servers as that has been intimated from other sources. The RAS justified this level of support as consistent with their strong interest in "exploiting the motivational power of astronomy as an entry into science education." The RAS Council views this as consistent with and supportive to a UK government policy to develop skilled manpower to develop the UK economy, and to cement astronomy into popular consciousness. They see these incentives as equal to or perhaps greater justification than their other interests, e.g. to promote preservation of sites like the Greenwich Observatory and Stonehenge. Their view is that designation by the Astronomy and World Heritage Initiative would enhance likely governmental support and enhance other opportunities for financial support for the preservation of such sites. The British ambassador to UNESCO has been very supportive of the Astronomy and World Heritage Initiative, and had strong support in this regard from the Dutch ambassador as well.

#### PRIOR INITIATIVES IN THE UNITED STATES

The UNESCO initiative appears similar to but much broader in scope and intent than a project undertaken in the 1980s by the National Park Service. According to both Don Osterbrock and Steve Dick who assisted with that work, the study was very professionally conducted. Dr. Harry A. Butowski developed an inventory of 100 sites that had special significance from an astronomical history perspective. Of those, he visited 25 sites and recommended that 16 be designated National Historic Landmarks. A copy of the most important parts of the Butowsky report is available on the web at:

#### www.cr.nps.gov/history/online\_books/butowsky5/.

A cursory search on the web reveals that at least seven of the sites Butowsky recommended were actually designated as National Historic Landmarks, though none of those is an active research site (observatory). The effort failed to achieve its full recommendations because of perceptions that designation would impose regulatory requirements hindering modifications necessary to advance research. Observatory directors resisted designation in the case of active research locations.

#### VIEWS OF THE UNESCO INITIATIVE EXPRESSED BY HAD MEMBERS

Among the HAD members who responded with comments to the proposal AAS received from UNESCO, the commonly held views can be summarized as follows:

- 1. The HAD encourages the AAS to endorse the importance of preserving important astronomical resources of all kinds. Within the category of sites, there are subcategories of Native American and pre-Columbian sites, the main focus of the UNESCO initiative, but also modern sites useful for better understanding and appreciating the origins and growth of western European style observatories on the American landscape. In addition to sites, the concern of the present UNESCO initiative, other important objects for preservation include instrumentation, books, journals, archival materials and raw scientific data in unaltered form, such as photographic plates. At the moment it is not clear that the UNESCO initiative is quite this broad.
- 2. As a general and practical rule, preservation of sites must be undertaken locally, by local persons knowledgeable about local problems and empowered locally to en-

courage and promote preservation. These persons should be further encouraged and enabled to appeal for the assistance and support of regional, national and international organizations. Approaches and techniques for preservation maintained by national and international bodies should be shared freely with local interests, and to the extent that local interests wish to follow them, they should be supported by information and expertise and money, if available. Promotion of such local support is the main thrust of the UNESCO initiative.

3. AAS might consider, as a contribution to one of the UNESCO World Heritage Center's projected Main Activities, co-sponsoring a workshop on preservation of astronomical sites and instruments. HAD might be the logical organizational focus for such an effort but it should also be linked to other professional organizations with similar interests and more experience in this area. AAS might consider co-sponsoring a workshop on preservation of astronomical sites and instruments with other logical organizations like the Antique Telescope Society, the Society for American Archaeology, and perhaps others. One useful outcome from such a work shop might be a better understanding of how to manage preservation without restricting current use of assets or interfering with on-going research. Such concerns seem to

have been the major impediment to implementing the National Park Services' initiative at observatories.

4. The Astronomy and World Heritage initiative is well intentioned but lacking in sufficient specifics to merit support at this time. It may provide a resource of value to AAS if the Council wishes to undertake an initiative to encourage preservation of important astronomical sites and artifacts. At a minimum, AAS should be represented at future meetings of the UNESCO/ICOMOS Astronomy and World Heritage Initiative; the next meeting for the group involved will be in 2005.

### HAD PARTICIPANTS IN THE EVALUATION OF UNESCO/ICOMOS ASTRONOMY AND WORLD HERITAGE PROPOSAL

John Briggs (NMIT); David DeVorkin (Smithsonian); Steve Dick (NASA); Tom Hockey (Univ. Northern Iowa); Steve McCluskey (WVU); Don Osterbrock (Lick Obs); Sara Schechner (Harvard); Woody Sullivan (Univ. Washington); Barbara Welther (Harvard-Smithsonian CfA); Tom Williams (Rice)

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