

Southern Skies

Volume 29, Number 4

Journal of the Southeastern Planetarium Association

Autumn 2009



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Fajada Butte - See page 7. Credit: Woodrow W. Grizzle III

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President's Message

Jon Elvert

Irene W Pennington Planetarium
Baton Rouge, LA

Although SEPA Council meets once a year during our annual conference, the Officers continue to keep in touch throughout the year working on programs or resolving housekeeping issues. Since our Nashville meeting in June, Council has decided to form a Scholarship Committee whose function will be to administer the scholarship program. This committee will revamp its program description, establish guidelines, decide upon a selection process, and design an application procedure. In short, the schol-

arship fund will be updated to make it more relevant. Members of this committee are April Whitt (Chair), Adam Thanz, Mickey Jo Sorrell, Jon Frantz, and Linda Hare. Drew Gilmore, our web master, has volunteered to eventually post a password protected application process on-line, which will allow the committee members to review the applications and select the recipients. Last June we took in \$752.00 from our conference silent auction plus \$155.00 donated to the scholarship fund from the conference registration. These amounts significantly increased our scholarship fund, so it's important for this committee to revitalize the scholarship's goals and implement a strategy for distributing these funds. April will update SEPA members on her committee's progress by our conference next summer.

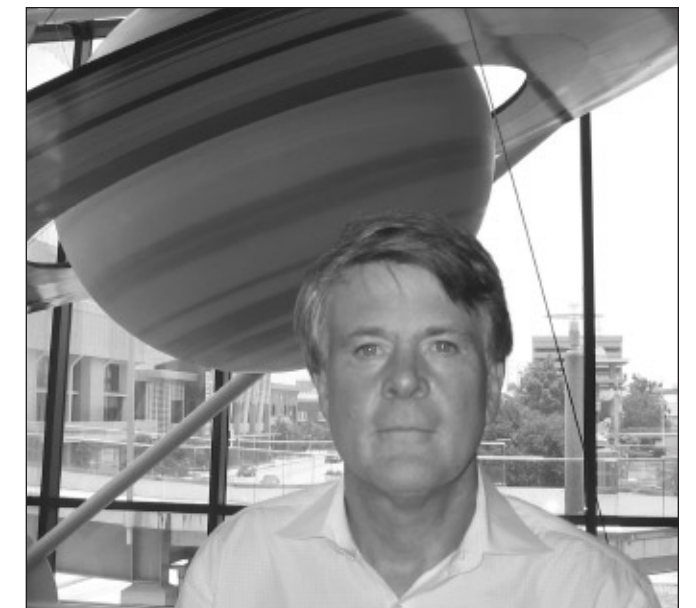
Officers also recently decided to draft a new document for the purpose of helping guide prospective conference bidders on how to host a SEPA conference. Earlier this year while trying to recruit SEPA planetarians to submit a conference bid for 2011, I discovered that those who might be interested in hosting had little idea of the process, or what guidelines to follow let alone their institution's responsibilities. The purpose of this "how to host a conference" document would be to outline a step-by-step procedure of what is expected of a conference host (providing Woodchuck will probably be mandatory) and their responsibilities. A long, long

(Continued on page 12)

Rates and submission formats for advertising space in SEPA's quarterly journal *Southern Skies* are:

Rates	Dimensions
\$100.	Full-page 7" wide x 10" high
\$50.	Half-page 7" wide x 4.5" high
\$25.	Quarter-page 3" wide x 4" high

These rates are per issue and in B&W copy. The entire back cover of our journal is also available either in B&W for \$125, or in color for \$150. A 10% discount to any size ad can be offered only with a year's (four issues) commitment of advertising. Ads accepted on a space available basis. Ads must be camera ready and conform to dimensions listed. Payment must accompany advertisement order, made payable to the Southeastern Planetarium Association (send payment to Secretary/Treasurer Mickey Jo Sorrell). The underlying mission of our advertisements is to promote resources, products, and services related to the planetarium profession. SEPA reserves the right to refuse advertisements.



SEPA President Jon Elvert

IPS Report

John Hare
ASH Enterprises
Bradenton, FL

In the last issue of *Southern Skies* I reported that IPS had selected Baton Rouge as the site of the 2012 IPS Conference. This opens up several cans of worms for SEPA.

This will be the third time that IPS has held their conference within the bounds of SEPA. The first was in 1988 in Richmond, VA and the second was in Cocoa, FL in 1994.

In 1988 SEPA voted to hold an abbreviated "conference" in Richmond in conjunction with IPS. A free evening of the IPS conference was used by SEPA to hold a combination business meeting and banquet. This was attended primarily by SEPA members who also attended the IPS conference. However, a few individuals nearby not registered for IPS were also able to attend the SEPA event. We had slightly more than a quorum so it was possible to conduct official

business.

In 1994 SEPA elected to have a separate conference in Charlotte, NC. This took place in early June several weeks before the Cocoa, IPS conference. Attendance was low by SEPA standards but even so, about 70 delegates were in attendance. The Charlotte conference in 1994 was a result of a mandate by the membership voicing concern that the Richmond event was too restricted and that a separate conference was preferred.

Another situation occurred in 2002. SEPA was to have met in Baton Rouge that summer but, due to last minute construction delays at the host facility, the conference was postponed an entire year. In order to conduct the necessary business of the organization, SEPA decided to hold an event similar to Richmond 1988, in Wichita, the site of the IPS Conference. SEPA barely managed to scrape up a quorum and the gathering had little resemblance to our normal meetings.

So we are faced with a decision for 2012. Do we have an abbreviated meeting in Baton Rouge or do we have a full-fledged and separate SEPA conference at another site?

(Continued on page 12)

Paul Campbell Fellowship Award Nomination Form

Nominees must have been a member of SEPA for at least ten years, and they must display qualities in each of five areas, as represented by the five-pointed star shaped award: integrity, friendship, service, knowledge, and vision. Please submit this form to any SEPA Council member.

Nominee's Name: _____
Qualifications: _____

Editor's Message

James Sullivan
Buehler Planetarium & Observatory
Davie, FL

I want to thank all the people who have been contributing to the *News from SEPA States*, and the coordinators who round up all of those contributions.

Please remember to send pictures. Especially, if you have a picture that is cover-worthy, send it! We are always looking for pictures for our cover. The subject matter needs to be of interest to our community, and preferably, be colorful. Planetaria, telescopes, space and sky are all potential topics. We are looking for either "wow" or an "art" factor. While we have done covers with some humor, we do always aim for professionalism.

Remember, we like pictures. We like them in arti-

cles and in *News from SEPA States*, as well as on the cover. Please send pictures.

We can receive electronic files in most any format. Also, graphics can be received electronically or in hardcopy, including slides or photos, and will be converted to digital with sufficient resolution.

Submission deadlines: January 1 (Winter), April 1 (Spring), July 1 (Summer), October 1 (Fall).

Thanks to Broward College and its wonderful printing department for assistance.



SEPA Membership Form

Please send your check to SEPA, c/o Mickey Jo Sorrell, Morehead Planetarium & Science Center, CB#3480 UNC-CH, Chapel Hill, NC 27599.

____ One Year, \$25 (\$15 outside SEPA geographical region)

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Small Talk

Elizabeth Wasiluk
Hedgesville High School Planetarium
Hedgesville, WV

Corrections to the last installment of "Small Talk": That was my pulsar team leader April Liska in the picture from the Capstone Event, not April Whitt, our illustrious SEPA president to be. Many pardons to both and to Martin Radcliffe for misspelling his name.

Wow! What a difference a year makes around here. Last year I had students in my astronomy class ready and willing to work, and this year I have students who bicker and fight with me every step of the way. They only have had three assignments so far and getting them to do anything, even something as easy as bringing back a form so they can get an e-mail address to use at school has been a struggle. However, I did get them to take part in the Cassini "Scientist for a Day" essay contest. Each year, the Cassini scientists at the Jet Propulsion Laboratory in California host an essay writing contest in the spring and fall where students get to pick a target to point Cassini's cameras. If you work with stu-

dents in grades 5 - 12, you might want to check this out. Go to <http://saturn.jpl.nasa.gov/education/scientistforaday8thedition/> for information, or at least to find out if any of my students won. Winners get a teleconference with NASA scientists and everyone who enters gets a certificate. This fall's contest has an International Theme for International Year of Astronomy in that students from around the world will be entering.

Anyway, all this craziness makes me long for a great summer I left behind.

After attending the SEPA conference in Nashville, I went with Conrad Jung of the Chabot Space and Science Center of Oakland, CA to the Franklin Institute in Philadelphia, PA to check out both the Galileo Exhibit as well as the Star Trek exhibit. Both were worth going to see. The Galileo exhibit included a telescope with handwriting that has been identified as Galileo's and seeing it, really cemented

the International Year of Astronomy. Besides telescopes, I especially enjoyed seeing the science and art from the period. I especially liked the glass frog that you strapped to your arm to get a temperature.

As to the Star Trek exhibit, what can you say? How cool is it to get a picture that shows you in the transporter room of the Enterprise and watch you dissolve away, via printing your picture on a lenticular piece of plastic? This exhibit featured "The Next Generation", but had material from all Star Treks including the new movie.



Conrad Jung

While in The Franklin we also visited famous Fells planetarium and saw "Two Small Pieces of Glass" in a planetarium with no star projector in the middle of the room and seats that stack and can be put away. Very similar to my planetarium on a much smaller scale.

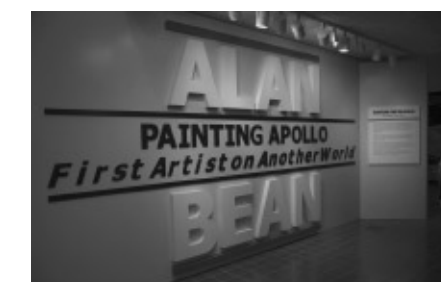


While in Philadelphia, we went to the Museum of Natural History to see two cool exhibits: one on Geckos and another on Butterflies. I even had a butterfly land on my finger! We also checked out the famous "LOVE" sculpture at J.F.K plaza and saw a

unique sculpture to honor Copernicus, most appropriate in International Year of Astronomy.



Not only was it International Year of Astronomy, but also the celebration of the 40th Anniversary of the Apollo moon landing. As a special exhibit, the National Air and Space museum in Washington, DC had an exhibition of the paintings of astronaut Allan Bean. I have a book of his paintings, however, it was amazing, seeing them up close and seeing the detailed textures that he creates by putting patches that have travelled to the moon, along with



tools he used on the moon and even a boot that he wore right into the canvass. There was a great documentary about him



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Archeo- astronomy

Intentionality in Stone: Chaco Can- yon's Fajada Butte and Colorado's Path- finder Rock

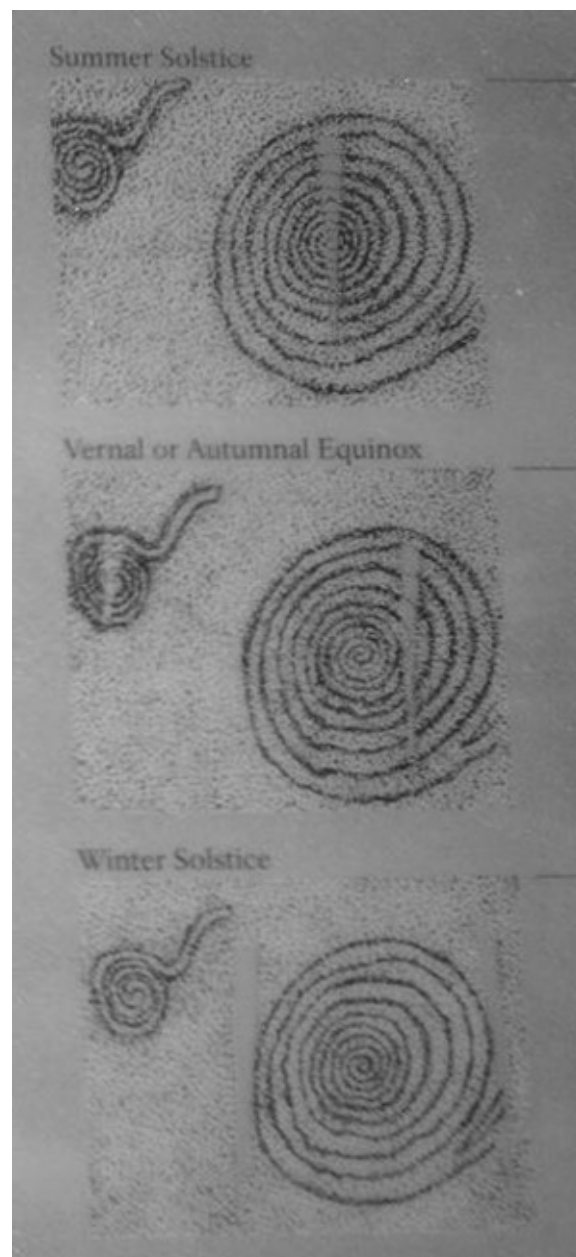
Woodrow W. Grizzle III
Jonesville, VA

Archaeoastronomy has a problem: a big problem. The problem is that intent is nearly impossible to prove. Many of the cultures that left what could be archaeoastronomical sites had no written language, or were active so long ago that no text survives. Much of the evidence is circumstantial, and intent must be only inferred rather than proven. Even in the cases of Chaco Canyon's great sun daggers and the astronomical alignments found in and between many of the canyon's buildings, such as Casa Rinconada, the canyon's largest kiva (ceremonial building), intent can only be inferred. Despite this harsh truth, there exists a site of obvious intent in southeast Colorado's Purgatoire River basin, known as Pathfinder Rock. The sheer number of alignments in Chaco Canyon, the striking apparition of a sun dagger there, and the magnificent site in southeast Colorado of a different, but similar, culture suggest strong evidence that such alignments were intentional, yet falls just short of conclusive proof.

One hundred and fifteen meters above the floor of Chaco Canyon towers a massive stone butte. The



Fajada Butte at Sunset



Fajada Diagram

butte itself is an awe-inspiring site: a massive, rocky remnant of ancient erosive forces, reminding us that Earth is a living system moving at infinite slowness. Near the top of the butte is a seemingly unassuming area with three rock slabs and a rock wall with a couple of spiral petroglyphs. On any random day, the site seems just like any other rock carving site, however, if one visits on the summer solstice at about 11:15 A.M., a dagger of sunlight creeps across the large spiral petroglyph, piercing it down the middle. A similar apparition occurs on the day of the winter solstice, when double sun daggers graze the outer boundaries of the spiral. Even on the equinoxes, one can see sun dagger action, as a large glint of light passes off-center of the large spiral.

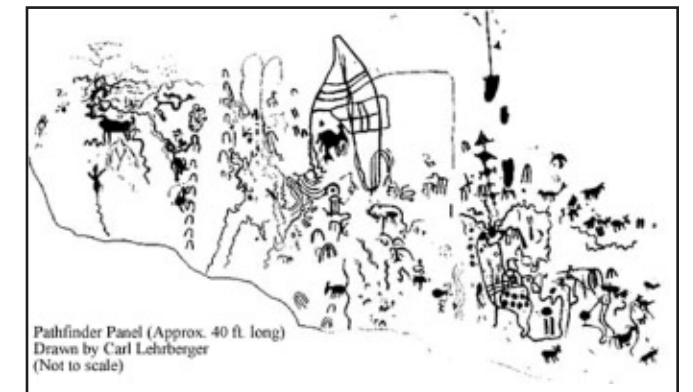


*Chaco
Spiral*

It can be argued that this alignment is coincidental, however, other evidence suggests that this site was of great cultural significance to the Chaco people. At Fajada Butte there exists the remains of a huge ramp, some 100 meters high and 230 meters long, which the Chaco people constructed to ease ascent. Also, archaeologists found a large number of ceramic vessels, analysis of which suggests that the site was occupied in the A.D. 10th century. For all of these signs of occupation, there is no water source at or near the site. Certainly, the large-scale existence of pottery and the construction of the huge, 100 meter-high ramp - all at a site having a total lack of water - indicates that the Fajada Butte site had great cultural significance. So, while intent cannot be proven in the case of the sun dagger alignment atop the butte, one can certainly prove that the cultural significance of the Fajada site, and so infer the intentionality of the sun daggers.

The Navajo site in Colorado, Pathfinder Rock features a sun dagger much like those of Chaco Canyon. A large stone alcove with a natural chimney and a wall covered with petroglyphs make up

the site. First documented by Carl Lehrburger in 2004, the most interesting aspect of Pathfinder is the scene upon which the sun dagger passes. Only on equinoctial days does the sun cast a perfect shadow from a nearby rock onto a large leaf-shaped petroglyph. This shadow serves as an alignment target, called an equinox target. The rest of the scene is made up of a number of glyphs from the popular Navajo story of Changing Woman.



Pathfinder Drawing

Near the top right of the scene, where the sun dagger first appears, there is a sexually explicit depiction of mating human sex organs. Lehrburger thinks that this depiction represents the coming together of Earth and Sky to give rise to Changing Woman, a primordial, supernatural anthropoid whose perpetual aging, death, and rebirth represent both the changing seasons and the cycle of life. The sun dagger begins its path by cleaving through the mated organs iconography.



Pathfinder Dagger

The next image in the sun dagger's path is a female figure, which may be Changing Woman herself. The passage of the sun dagger through her body could represent the mid-day sun's impregnation of Changing Woman with twins, an act that made all life possible according to Navajo myth.

Following Changing Woman is a snake and other life iconography from Navajo mythology. These icons could represent the life made possible by the fertilization of Changing Woman.

Lehrburger's argument is quite convincing, and, above documenting another alignment site, his work describes a site in which intentionality is strongly suggested. The petroglyphs are interesting, and they do appear to pertain to the myth of Changing Woman. What is most interesting is the presence of the sun dagger, which is another character from the myth of Changing Woman. The story cannot be completely told without the character of the mid-day sun and its impregnation of Changing Woman. Without the sun daggers this character is conspicuously absent. The dagger's occurrence clenches the argument that the alignment of Pathfinder Rock is not merely coincidental.

The relationship between the Navajo and Chacoan peoples is well documented. The word Anasazi, a term for the people of Chaco, comes from the Navajo term for "old enemy." It is even possible that the two tribes share common cultural roots. The existence of Pathfinder Rock and its similarity to the alignments of Chaco Canyon supports both the possibility of common roots between the Navajo and Chacoans and the possibility that Chaco's alignments are intentional. G.B. Cornucopia, a Chaco Culture Guide at Chaco Culture National Historical Park, summed it up best by saying: "They [the Chacoans] watched the sky and they understood it in very intimate ways. We see alignments everywhere: in and between buildings. We cannot prove intentionality, but for all alignments to be coincidental is the greatest coincidence."

References:

Lehrburger, Carl. Ancient Colorado Rock Art Site Employs Light Animation to Mark Equinoxes: Astronomical Alignments Predate Anasazi Civilization. Ancient American, Issue Number 65, 10:12-17. 2004.

Lehrburger, Carl. Colorado equinox sun dagger. YouTube video. 2007.

Sofaer, Anna. Pueblo Bonito Petroglyph On Fajada Butte: Solar Aspects. Celestial Seasonings: Connotations of Rock Art. International Rock Art Congress. 1994.

Sofaer, Anna and Rolf M. Sinclair. Astronomical Markings at Three Sites on Fajada Butte. Astronomy and Ceremony in Prehistoric Southwest, No. 2. 1983.

"Fajada Butte." Wikipedia, the Free Encyclopedia 28 September 2009. <http://en.wikipedia.org/wiki/Fajada_Butte>.

For further study:

Lehrburger Article:
<http://www.archaeoastronomy.com/lehrburger1.pdf>
<http://www.archaeoastronomy.com/pathfinder.html>

Pathfinder video:
<http://www.youtube.com/watch?v=ftueWxwI024>

Navajo Myth of Changing Woman:
Farella, John R. The Main Stalk, A Synthesis of Navajo Philosophy. University of Arizona Press. 1984.
<http://www.hanksville.org/voyage/navajo/ChangingWoman.php>
<http://www.mythencyclopedia.com/Ca-Cr/Changing-Woman.html>

Chaco Canyon National Historical Park:
<http://www.nps.gov/chcu/index.htm>
<http://www.youtube.com/watch?v=yWhsSjBfPgI>

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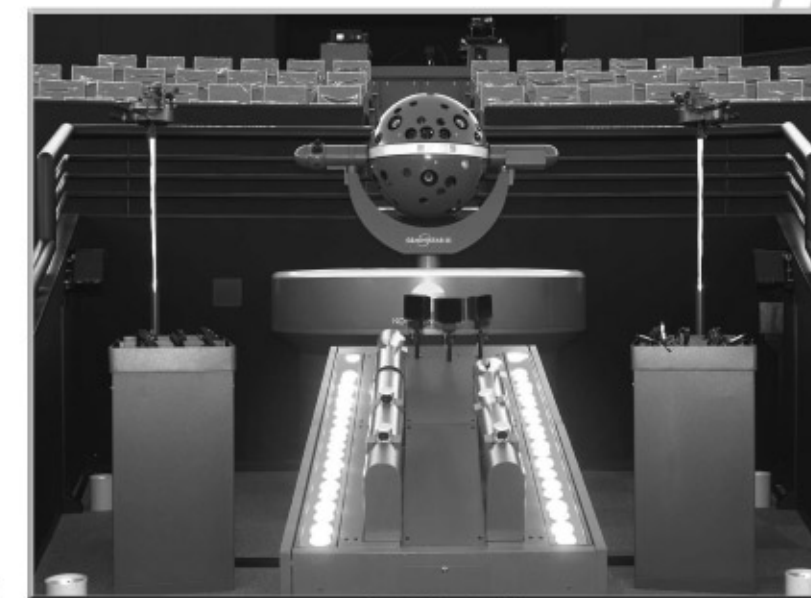
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<http://www.konicaminolta.com/planetarium/index.html>



KONICA MINOLTA

President's Message (Continued from page 3)

time ago, Jane Hastings wrote a description with suggestions and tips on what's expected of a conference host, but since Jane's account of how to run a conference seems to have been misplaced it's time to rewrite it. I'll take the initiative for drafting an updated document and having it completed by next summer. While I'm at it, this might be a good time to look back at previous SEPA publications and update those documents that remain relevant, and then compile them into files that can be attached to the SEPA By-Laws as addendums. In particular, I'm thinking of membership databases and informational documents we distribute to new members. Maybe some of SEPA's earlier publications can be resurrected and made accessible to all members on our web site. I'm hoping work on this project can get started during this coming winter break.

If you haven't already, remember to mark your electronic and paper calendars for 8-12 June, 2010 as a reminder to attend our SEPA conference at Adam Thanz's place at Bays Mountain Park & Planetarium in Kingsport, TN. Check out the link to the conference on our www.sepadomes.org web site.

And speaking of our 2010 conference, it's not too early to seek solicitations from the membership for those wanting to run for a SEPA Council office. All positions for Council are up for election, which will be held during our business meeting at Bays Mountain Park. For the position of President, it's a six year commitment that includes two years as President-elect, two years as President, and two as Past-president. The Secretary-Treasurer and the IPS Representative positions will also be on the ballot. Newly elected Officers will start their positions on 1 January, 2010. If you know someone who might be interested in running for a position on Council, or if you yourself would like to run, just notify someone on Council. The Council works as a team with shared responsibilities and a shared decision making process. It's also a very rewarding experience. Please contact any of the Officers if you have questions regarding responsibilities or requirements for a Council position.

The IYA2009 is drawing to a close and I hope you and your audiences were able to celebrate this phenomenal year. Throughout the IYA, we offered Galileo lectures, a special Galileo planetarium pro-

gram, star parties on the Mississippi levee (an event we decided to continue throughout next year), a Galileo teacher training workshop, an opportunity to purchase and use the Galileoscope, a program introducing students to science education and careers in astronomy, and using Galileo's influence on artists as our annual museum Gala's theme: *Starry Messenger*. Our biggest success in the IYA year however, was exposing more people to the wonders of astronomy, experiences that will remain with them long after the IYA. It doesn't get much better than that.

IPS Report (Continued from page 4)

Some things to consider are:

How many SEPA members will be able to afford the high cost of an IPS conference?

How many SEPA members will be able to attend both conferences?

Will the IPS conference have enough free time for SEPA to schedule an event without conflicting with other activities?

How much vendor support can SEPA expect if we choose a separate conference within several weeks of the IPS conference?

How likely are we to receive strong bids from prospective sites for a separate 2012 conference?

These questions and others should be discussed in detail before any conclusions are reached. I encourage anyone with an opinion to please voice your thoughts so that we can make the best possible decision for our organization.

Small Talk (Continued from page 7)

shot in his studio in Arizona that accompanied the exhibit.

One of the best things to start off the year is hearing that the very first discovery in the high school search for pulsars has occurred. A student from South Harrison high School in West Virginia uncovered a RATT, a rotating radio transient object. We think these objects are pulsars that are aging and having trouble generating enough energy to send out signals, so it has to spin several times before a signal is given off. If you want to learn more about the pulsar search collaboratoy project, you can go here: <http://www.pulsarsearchcollaboratory.com/> Find out more about RATT's here:

<http://www.skyandtelescope.com/news/3310901.html?page=1&c=y>

Find out more about Lucas Bolyard, the young man who made this discovery, in a press release and movie here:

<http://www.nrao.edu/pr/2009/pulsarstudent/>



Betty and Ben

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SEPA 2010 Conference Update

Adam Thanz
Bays Mountain Planetarium
Kingsport, TN

Planetarians in the SEPA region will have an incredible time at the 2010 conference held at Bays Mountain Planetarium in Kingsport, TN. The dates are June 8-12, 2010. We are in the northeast corner of Tennessee, nestled in the heart of the Appalachian Mountains. The following is a very brief overview of the event. All the details can be found at sepadomes.org.

The theme is "The Art of Storytelling." We'll be highlighting this very important skill throughout our five-day event. To whet your appetite, I'll list just some of the great activities. We'll have a rare opportunity to receive professional storytelling instruction in a workshop hosted by the East Tennessee State University Storytelling Institute. We'll be entertained by a professional storyteller at a local historic site called Rocky Mount. We'll be serenaded by the well-known singer/songwriter/storyteller, Chuck Brodsky. Our keynote speaker, Dava Sobel, will crown the event with her mix of science and storytelling. She's the author of *Longitude & Galileo's Daughter*. Of course, there will be great presentations and workshops by you, our delegates and really cool demonstrations by our supporting vendors.

We, at Bays Mountain, hope to have some entries in a new activity, "Mini Black Holes!" This is your chance to show off your creative production skills and bad taste! Yes, you can make something that only other planetarians will, and should, see. The only limitations are that it is less than five minutes long and be original. Nothing auto-made from the internet is allowed.

In addition to all of this, the planetarium recently

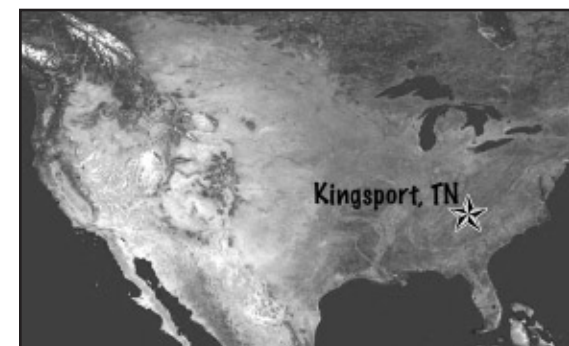
underwent a \$1.3M major renovation. We now boast the second installation of the Carl Zeiss ZKP-4 and Spacegate Quinto in the Western Hemisphere. In addition, everything else was replaced including a 40' Astro-Tec Ultimate Seam dome, an ECCS Advanced Pleiades LED cove lighting system, a unique 6.1 surround sound audio system, and 102 seats from Greystone Int.

Registration is expected to be \$250/person, but will include all meals, transportation, and more. No extra or hidden charges. The hotel/conference site is the Marriott MeadowView Conference Center & Resort. It is a four-star facility that can meet all of your needs. For those with financial concerns, there will also be the first-ever chance to acquire a SEPA scholarship. Please seek out the article with more detail elsewhere in this journal. I could go on and on about the conference, but, again, all the details can be found on the SEPAhomes.org website. Please let others in the field know about it as they will not want to miss it.



The four-star Marriott MeadowView Conference Center Resort is both charming and luxurious.

Bays Mountain Park is a city-owned nature preserve with over 3,500 acres, over 25 miles of trails, and lots of natural animal habitats with wolves, bobcats, and more.



Kingsport, TN is in the heart of the Appalachian Mountains and centrally located to the Eastern U.S.

SEPA Scholarship Committee News

April Whitt, Committee Chair
Fernbank Science Center Planetarium
Atlanta, GA

For the past several years, SEPA Council has worked to set up a scholarship fund. Proceeds from the silent auction at conferences, along with donations from members, have quietly collected a bit of interest in the SEPA accounts.

I was asked to chair the Scholarship committee, to develop an application process and award scholarships for the 2010 SEPA meeting in Bays Mountain, Tennessee. We've decided to award up to six scholarships of \$250 each for that meeting.

Each scholarship will cover the amount of registration, and (depending on how the costs come out) perhaps a small stipend for travel or hotel stay. Recipients' names will be sent to the conference host (so they don't have to pay the registration fee when submitting conference materials). If there is a stipend, it will be in the form of a check, given to recipients at the end of the conference (so they'll be reimbursed for part of their expenses).

To apply, one must be currently employed at an active planetarium (i.e. be a member of the planetarium staff) in the SEPA region. Candidates will submit a completed scholarship application and current resume. They must meet deadlines for submitting the scholarship application, and, if selected, for conference registration and paper presentation.

Scholarship recipients will present a paper or poster at the conference. The paper or a write-up of the poster will appear in the fall edition of the journal. And recipients of the scholarship this year will be ineligible for the award next year.

Candidates will complete an on-line application

form. The form can be located at the SEPA dome's web site. The completed form, the candidate's resume, and an abstract for his/her paper or poster are submitted electronically to the SEPA dome's site. Deadline for applications is midnight EST January 15.

Applicants will be asked for contact information (name, planetarium, postal and e-mail addresses, phone number(s) and answers to specific questions, such as:

- In what year did you join SEPA?
- How long have you worked in the planetarium field?
- Without financial aid, will you be able to attend the upcoming SEPA Conference?
- Can your employer/planetarium provide any financial assistance or pay part of the conference expense? If so, how much?
- In one paragraph, tell us why should you receive this scholarship.
- How do you anticipate benefiting from attending the SEPA Conference?
- Do you plan to attend any other planetarium conferences this year, with or without financial assistance?

The committee discusses the applications and chooses recipients by February 28.

Successful applicants are notified by e-mail March first, to allow the registration process to move along smoothly. If you're interested in applying for one of the scholarships, check the web site for the application form.

The Scholarship Committee takes great pleasure in supporting the SEPA membership, and is looking forward to excellent applications.

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News From SEPA States

FLORIDA

contact: George Fleenor
GeoGraphics Imaging and
Consulting, Bradenton, FL
Jetson1959@aol.com



Florida Planetarium Association (FLORPLAN)

Contact George Fleenor for details.

Buehler Planetarium Broward College Davie, FL

Susan J. Barnett reports: The Buehler Planetarium & Observatory is running public shows four days a week. The weekend shows and monthly specials include *Galaxies*, *Max's Flying Saucer*, *Moon-Witch*, *Comets are Coming* and *Through the Eyes of Hubble*.

We continue to rotate shows on Wednesdays, and these shows include *The People*, *Dawn of Astronomy*, *Astrology: Fact or Fiction*, *2061: Secrets of Mars*, *To Worlds Unknown* and *A Dozen Universes*.

The Buehler Observatory has viewing four times a week. It has free public observing Wednesday, Friday, and Saturday evenings. In addition, we observe the Sun on Wednesday afternoons. We usually have one telescope set up to view sunspots,

and watch flares through a Hydrogen-Alpha filter on another.

GEORGIA

contact: David Dundee
Tellus Museum
Cartersville, GA
DavidD@tellusmuseum.org



Fernback Science Center Planetarium Atlanta, GA

April Whitt reports: There were plenty of visitors to the observatory and planetarium this summer, despite the economic times and some cloudy weather.

The planetarium ran "To the Moon and Beyond" a program from the University of South Carolina - Aiken in celebration of the 40th anniversary of the Apollo 11 moon landing, along with "More than Meets the Eye" from Loch Ness. Our in-house production of "Adventures in Star Land" entertained and educated campers and families with younger children.

Summer camps with Lockheed Martin brought groups of elementary and middle school students to the center to build model rockets, study the space environment and design aircraft.

Star Lab traveled to area libraries, integrating IYA with summer reading programs.

Almost all of the Galileoscopes we ordered arrived in July. Monthly Science Night Out programs made use of them in August and September, along with students in our Science, Engineering, Mathematics and Aerospace Academy program.

School started in early August. Planetarium lessons aligned with Georgia Performance Standards have been developed for elementary and middle school students. Post visit activities, teacher resources, and lists of web sites accompany the programs.

Mars did not appear as large as the full moon in August, but some awesome rainfall in September closed county schools for one day and made for some exciting travel.

Planetarium Tellus NW GA Science Museum Cartersville, GA

David Dundee reports: We opened *Zula Patrol & Two Pieces of Glass* this summer. Over the 40th anniversary Moon Landing Weekend we showed *Dawn of The Space Age*. It opened to a full time run in September. We have been open 9 months now and we are over 85,000 visitors through our planetarium. On September 26th was Smithsonian day. So as a Smithsonian affiliate (one of 9 museums in Georgia) we offered free admission. 3,700 people came in one day, by noon all 9 planetarium shows were sold out for the day. School groups are returning we are offering 3 new programs including *Galactic Weather* (K & 1) and *Farming for Fuel* (4th - 7th). This program all about biofuels is underwritten by the department of energy. And the last new one is *Solar Energy and the Sun* for High School. These school programs are in addition to *Meteorite* program (5th & 6th), *Moon* program (4th) and *Constellation* program (2nd & 3rd).

The other exciting news happening here is that our 11 meter radio telescope will be under construction by the time this article goes to press.

Rollins Planetarium Young Harris College Young Harris, GA

Steve Morgan reports: Our celebration of the International Year of Astronomy continues this fall with the full-dome version of "Two Small Pieces of Glass" as our featured Friday evening public show. Response has been very positive. Each showing is followed by a viewing session at the Young Harris College Observatory located about a mile-and-a-half from the planetarium on the grounds of the Brasstown Valley Resort. The observatory includes a 15-ft. dome and various telescopes, the largest being a 16-in. reflector, operating under the (rela-

tively!) dark skies of the north Georgia mountains.

In November, we'll host a special "Kid's Night" for children and families, featuring the show "Zula Patrol: Under the Weather." Then it's on to the ever-popular holiday show, "Season of Light," to finish out the public year.

Weekday school shows are also cranking back up. For the younger set, we've added "The Little Star That Could" to the lineup. The slide-based version of the show was always a favorite; it's nice to see it updated and better than ever as a full-dome production. One of our biggest school show weeks will be in November, when the college theater department offers "Schoolhouse Rock Live" as its annual Children's Theater production. Numerous school groups will do a flip-flop visit to the planetarium while they're here.

Finally, as I mentioned last issue, we look forward to hosting the 2011 SEPA conference in Young Harris. Please mark your calendars for June 21-25, 2011 and plan to join us in the mountains!

LOUISIANA

contact: Jon Elvert
Pennington Planetarium
Baton Rouge, LA
jelvert@lasm.org



Irene W. Pennington Planetarium La. Art & Science Museum Baton Rouge, LA

Jon Elvert reports: Looking back on the IYA2009, we had a pretty successful line up of programs relating to Galileo and introducing our audiences to the power of the telescope. We offered a pair of Galileo lectures, a special Galileo planetarium program (*Exploring the Heavens with Galileo*, which was a North American premier), three star parties on the Mississippi levee (an event we decided to continue throughout next year), a Galileo teacher training workshop, an opportunity to purchase and use the Galileoscope, a program introducing students to

science education and careers in astronomy, a Galileo theme for National Astronomy Day, and using Galileo's influence on artists as our annual museum Gala's theme: *Starry Messenger*. Our biggest success in the IYA year however, was exposing more people to the wonders of astronomy, experiences that will remain with them long after the IYA. And we had fun putting on these events. It doesn't get much better than that.

**Lafayette Planetarium
Lafayette Science Museum
Lafayette, LA**

Dave Hostetter reports: Many of Lafayette's IYA recent solar viewings and telescope nights were canceled due to the cloudiest summer for several years, but we did have a successful run of the traditional version of *Two Small Pieces of Glass*. We hope to see clearer skies in October, as we have five telescope events planned.

Our autumn program will be an updated version of *Moons of the Solar System*.

During the summer, the Lafayette Natural History Museum & Planetarium changed its name to the Lafayette Science Museum. Our web site is now www.lafayettesciencemuseum.org, and our new e-mails are as follows: Curator Dave Hostetter-dhostetter@lafayettela.gov; Assistant Curator Charlotte Guillot-cguillot@lafayettela.gov; and Planetarium Technician Dexter LeDoux-dledoux@lafayettela.gov.

MISSISSIPPI

contact: James Hill
Rainwater Observatory & Planetarium
French Camp, MS
jhill@rainwaterobservatory.org



**Rainwater Observatory & Planetarium
French Camp, MS**

James Hill reports: Rainwater Observatory and
page 20

Planetarium announces a new Assistant Director. Edwin Faughn, who was the Art Director at the Pink Palace Planetarium in Memphis for many years has joined us. Look for his painting on the back cover of the new issue of "The Planetary Report".

Rainwater was one of the museums that received 100 Galileo telescopes from the ASP that we will be using in a series of teacher workshops during the fall and winter. We'll also be participating in the unveiling of the new IYA Hubble images of the center of our Milky Way galaxy in November.

I spent the month of July at Bryce Canyon National Park as part of their "Dark Ranger" program. Volunteers get housing and spend three nights a week doing star parties for several hundred visitors. Two other nights a week the volunteers take telescopes and a program to other parks in the region. The other two days each week you are free to visit some of the most amazing areas in the world: Zion, Grand Canyon, Arches, etc. A great way to vacation and share your love of astronomy at one of the darkest skies in the country.



*Ranger James Hill at
Bryce Canyon National Park*

**NORTH
CAROLINA**



contact: Patsy Wilson
Woodson Planetarium, Salisbury, NC
wilsonpk@rss.k12.nc.us

**Millholland Planetarium
Catawba Science Center
Hickory, NC**

Patsy Wilson reports: Curt Spivey has announced his departure from North Carolina. On October 7th, he will be leaving his current position as director of the Millholland Planetarium to begin work as the Planetarium Engineer of Youngstown State University. His replacement has not been named, but in the interim, local educators will continue offering programs for the scheduled visitors. This is an excellent, practically brand-new facility that will soon be searching for a professional in the planetarium field. Stay tuned, and inform anyone that might be interested in applying.

Our best to Curt as he leaves the SEPA region!

**PARI StarLab
Pisgah Astronomical Research Institute
Rosman, NC**

Christi Whitworth reports: PARI's summer programs were full and rewarding. In addition to those programs, PARI hosted another Robotics: Opportunities for Building Outstanding Talent in the Sciences (R.O.B.O.T.S.) Project Symposium for the North Carolina Math and Science Education Network (NC MSEN) system as well as provided another series of professional development for their instructors in August. PARI also received notification its proposal for a National Science Foundation grant has been accepted. Over the next three years, PARI will offer training nationwide and data through the National Science Digital Library (NSDL) system from Smiley, Stellar Classification Online Public Exploration (SCOPE), and the Astronomical Photographic Data Archive (APDA).

In September, the Friends of PARI Symposium honored several volunteers and donors from 2009 that make it possible for PARI to continue its outreach, educationally and publically. The President's Award was presented to Dr. Michael Castelaz, PARI Science Director, for his continued commitment to PARI. And finally in September, PARI held a Star Party on its campus. This event was well attended with 55 participants. The programs indoors had to make up for the rainy weather outside though. Lots of great photos were captured even with the poor weather. Smiley and the campus were the highlights for many participants. Visitors from this year's event are already asking when the next star party at PARI will occur.

October brings presentations for the North Carolina Astronomers Meeting, the Mid-Atlantic Star Party, and American Association of Physics Teachers. Check the PARI website (www.pari.edu) for more information on and photos from these programs. You will also find announcements and registration links about future educational and public programs offered by PARI. Contact Christi Whitworth with questions at cwhitworth@pari.edu.

**Margaret C. Woodson Planetarium
Horizons Unlimited, Rowan-Salisbury Schools
Salisbury, NC**

Patsy Wilson reports: The school year has started with the usual influx of young visitors. Early fall programming has focused on weather with 2nd graders doing **Space Weather Forecast**. We've also been seeing some of the local 6th graders who are doing a solar system overview.

Plans are underway for the IYA finale Hubble Image Unveiling. We've been selected to receive these images for permanent display (like 152 other sites around the country.) Our unveiling event is November 27th in downtown Salisbury during the Holiday Evening Out. One Friday each month, thousands of visitors come downtown to shop, listen to music, ride the trolley, visit with artists and authors, etc. The images will be displayed in the front windows of a local business during that evening and for two weeks after. We are going to set-up telescopes for sidewalk observing, do face painting and have other

child-friendly activities available. Following that time, the images will be prominently displayed for the visitors to Horizons Unlimited.

Our third Saturday planetarium shows have begun. In September we presented **The Search for Life: Are We Alone?**. October will feature the AVI laser show, **Fright Light**, and **The Blue Planet** will be shown in November.

SOUTH CAROLINA

contact: Gary Senn

DuPont Planetarium, Aiken, SC

SennG@sc.edu



DuPont Planetarium Ruth Patrick Science Ed. Ctr. , USC Aiken, SC

Gary J. Senn reports: The DuPont Planetarium at the Ruth Patrick Science Education Center (RPSEC) on the campus of the University of South Carolina Aiken (USCA) has enjoyed the International Year of Astronomy (IYA). We began the celebration with the image unveiling of NASA's Great Observatories on February 13, 2009. We will end with another image unveiling in November. We are fortunate to have great support from our city's mayor, the Honorable Fred Cavanaugh, who continues to participate as the celebrity unveiler of the images.

The big news for the DuPont Planetarium and the RPSEC Observatory continues to be a lightning strike that occurred in June. Lightning damaged the HVAC and computer networking systems in the building and in a few other buildings on campus. The RPSEC sustained a significant hit that damaged eight slide projectors, six automation system controllers, part of the cove lighting system and the Bechtel Telescope. We didn't notice the telescope problem for a few weeks, because we were enjoying the South Carolina summer clouds instead of the night sky. The damaged components are in various parts of the repair process. The planetarium was

only down for a couple of days, but it is not running at full capacity yet. We have an 8" Meade LX200 mounted to our pier in the observatory whilst our 16" LX200 is being repaired.

Gary Senn had the pleasure of attending the Annual Digistar Users Group (DUG) conference in Salt Lake City in September. The conference was a wonderful time to network, participate in some training and see the wonderful work done by planetarians around the world. The annual DUG demo contest was a great success, and all of the demos are available for DUG members on the DUG website. The next DUG meeting will be in Phoenix Arizona. The membership also voted for its 2011 venue, which will be in Auckland, New Zealand.

In August, the planetarium presented *Mission to Mars* and *Digistar Virtual Journey*, two local productions. *Mission to Mars* is a taped show that is dialogue between a "member" of the audience and the show presenter. The show explores past missions to Mars and discusses future human visits to the Red Planet. The *Digistar Virtual Journey* begins by exploring astronomical features of the universe and then delves into a virtual journey of sight and sound featuring our Digistar II projector.

In October, *Blown Away: The Wild World Of Weather* from The New Detroit Science Center was the featured presentation for the public. For student programs in October, the planetarium added *More than Meets the Eye* from Lochness Productions and *Dark Shadows* to the option of seeing *Blown Away*. *Dark Shadows* is another local production that features a mostly live presentation of phases of the moon and eclipses.

November will feature our newest production, *To the Moon and Beyond*. This is the first production that we have made available to other planetariums. Two planetariums have already purchased the show. Check our show's web page for more information. <http://rpsec.usca.edu/planetarium/MoonBeyondShowKit.html>

It is hard to believe that we are already looking forward to our Christmas season. Once again, we will feature our Christmas favorite, *'Tis the Season* from Lochness productions and the Taylor Planetarium.

Settlemyre Planetarium Museum of York County Rock Hill, SC

Glenn Dantzler reports: The Settlemyre Planetarium is again receiving weekday field trips from schools on a regular basis. This is quite unlike last year's first semester. The museum and planetarium have also returned to free admission on Sunday. This change has prompted an enormous influx of visitors. In fact, there have been so many visitors that we have to turn away people from the planetarium shows. I have already exceeded my first quarter fiscal year goal for attendance and am approaching 35% of the total year's goal!

The State Coordinator reports: Congratulations to Glenn Dantzler who has officially retired but is still working 3 days per week. He states that retirement and working three days per week is a wonderful thing. Please join the South Carolina planetarians in thanking Glenn for his service as the SC State Coordinator for SEPA for these many years.

TENNESSEE

contact: Kris McCall

Sudekum Planetarium

Nashville, TN

krismccall@adventuresci.com



Jones Observatory and Planetarium UT Chattanooga Chattanooga, TN

Bobby Thompson reports: I am back volunteering at UT Chattanooga's Jones Observatory and Planetarium. I donated and installed rope lighting for the cove lights and they work great with the control system. The lighting replace the Christmas tree type lights and is a safer more uniform light. We are trying for a grant to replace the home made 1951 Spitz A1 type projector.?? :)

I have also repaired the dome drive for the 20.5" telescope and cleaned the telescope optics. The drive

had some design problem from 1936. The winch drum shaft had eaten into the brick wall. This prevented tightening the cable around the dome track which slip preventing the turning of the dome. The engineering department replaced the slow motion control on the telescope, also they motorized the shutters of the dome as a student project. All works well now.



Jones Observatory in 1936

We have about 50 visitors per week without any public notice. That is more than the 24 foot plaster dome planetarium can handle. The observatory is only open during the fall and spring.

Bays Mountain Planetarium Kingsport, TN

Adam Thanz reports: The summer season has come and gone and my, it has been busy. I would like to thank our intern extraordinaire, Heather Fries (pronounced: frez). She is a student of East Tennessee State University in science communication. She has been a great help in providing most of our public programs in the theater as well as helping with our day camp activities. She has recently created a live planetarium program for our fall StarWatch observations if it is inclement weather. I'm sure it will be well received. You'll also be able to meet her at the upcoming SEPA 2010 conference.

As stated earlier, we have been busy. We continue to have record attendance, even though visitation has calmed down nine months after our grand opening from our major renovation. We are currently running at double attendance compared to pre-renovation. We changed our public show to "Two Small

Pieces of Glass” back in August. To add to the bill, we have created a live presentation called “Galileo’s Skies.” We use our Carl Zeiss ZKP-4 star projector to accurately recreate the skies of Galileo. We cover specific dates of discovery from Fall 1609 to January 1613. We even use the ZKP-4 to accurately recreate a telescopic view of Jupiter and its moons. Even with all the technology, the audience still reacts very positively to a live person making science engaging, fun, and interactive. I’m not surprised.

Relating to the topic of show production are two new full-dome productions we are involved with at this time. The first is an incredible, and interactive, space adventure while traveling through the Solar System. This is being written and produced by Jason Dorfman. The second is a blockbuster set for release next summer. It is still under wraps, but is called “Celestial Wonders.” We have already been working on it for many months and expect at least a full year of production. We’ve already recorded the voices of the actors and completed the first stage of rotoscoping. Many of the models have been completed and are close to the render phase. We are very excited about this production. We think both of these shows will do very well in distribution. They will both include fascinating educational content, an amazing soundtrack, incredible imagery, and a world of excitement. They will be mastered in 4K and full surround sound.

As I write this, we have just started our fall Star-Watch evening observing sessions. Our first one of the season garnered over 100 visitors! We are also on the cusp of our annual StarFest event. We have 84 registered for our two-day event in which all meals, a unique commemorative T-shirt, and all activities are covered. This year will be very special in which we will be highlighting our newly renovated planetarium. And much to the credit of Jon Bell, we will hold a Constellation Shootout. We’ll just see how knowledgeable our visiting amateur astronomers are of the night sky. Thanks Jon!

We’re also busy getting ready for the SEPA 2010 conference! There is still much to do, but the majority of the planning is finished. Registration will open in March 2010 for the June 8-12, 2010 event. Please see the article about this special gath-

ering in another part of this journal. We hope that ya’ll have a great fall and holiday season!

Sharpe Planetarium Memphis, TN

Dave Maness reports: We had a great summer with record breaking crowds. Summer attendance was up 88% over 2008. I even added a program to the summer schedule to take advantage of the crowds. The peak month of July showed an average attendance at 86% of capacity. Although I would dearly like to credit my wonderful programming, I suspect that the great attendance numbers were largely due to a free trial membership we offered at the beginning of the summer. This proved to be a brilliant move. It brought in many of the locals doing their “stay-cations” and since they didn’t pay for admission they tended to spend more for extra programs and for souvenirs in the gift shop. As I write this, the fall season attendance is (as expected) looking down compared with the summer. School programs bookings are filling up though and soon we will hear the sounds of little feet, the cries of babies, and the occasional blood curdling scream signaling an impending tantrum.

We’ve had many special events here over the last few months. As an added attraction on nights when we are either holding a preview of a new IMAX movie, the opening of an exhibit, or a simple fundraiser event, I open the planetarium for a guided look at the skies over Memphis. We’ve held two Wine Tasting events and one that featured flavored Vodkas. We treat our visitors well here. Maybe I can interest them in Woodchuck for the next one.

In the planetarium *Two Small Pieces of Glass* is running from September 12 through November 14. Since I don’t have a Full Dome system and only have a single set of All-Sky projectors, it was a challenge to install such an all-sky and video heavy program. In spite of the problems, I think it looks good. The short length of the program gives me more time to present my traditional live sky talk at the end. Here’s a big thank you to Dave Hostetter for his help. In November I will bring back *Star of Wonder* which will run through January 2. After that will be *Nine Planets and Counting* from the

Sudekum. Concurrently with those programs but in alternating time slots I also offer a seasonal sky show.

Memphis has an active Astronomy Club called The Memphis Astronomical Society. I attend their meetings when I can. They have helped out with public observing sessions over the past year. I brought the short tube refractor I won in a SEPA Constellation Shootout to one of their daytime observing sessions last month. Using it as a projector I was able to show people a sharp, although blank image of the sun.

Thanks to Kris McCall and her staff for a terrific conference this summer. If you have not yet visited the Sudekum Planetarium and the Adventure Science Center it is worth the trip. I believe the silent auction raised a record amount for the scholarship fund, a cause that is dear to my heart. In fact, last month I saw an opportunity to acquire my next contribution to the auction (see photo): an autographed copy of Buzz Aldrin’s latest book *Magnificent Desolation*. I had forgotten about the book signing that day until Tony Hardy the IMAX manager reminded me. So it was just coincidence that I was wearing a tie that has a painting of Buzz on the moon. I didn’t think he noticed it at the time but on my second look at the photo, maybe he did. Either way he never commented on it. He probably just thought that I was another one of those science geeks, and of course, that is correct.



Photo Credit: Tony Hardy

VIRGINIA
contact: Kelly Herbst
Virginia Living Museum
Newport News, VA
Kelly.Herbst@thevlm.org



Abbitt Planetarium Virginia Living Museum Newport News, VA

Kelly Herbst reports: Well, fall has arrived, and so soon shall the happy-go-lucky school kids...but not until October. As I write this, John Wright and I are busily cleaning, reformatting, programming, and generally reworking everything about the theater in preparation for the return of the kiddos. Summer was fun, but we’re glad it’s over. New bulbs have put life back into our fading system, and everything is coming together nicely. On a sad note, the economic downturn was more than we could overcome, and I could not convince the museum to keep our summer man, John Moorman, as a year-round employee. We miss him terribly, but are glad to still have him in the area to call upon for contract work and volunteer time.

Megalodon is being installed in our changing exhibit gallery, and *The Future is Wild* is being produced for our theater. E&S’ futuristic animal romp is a bit much for young kids, so we’ll also be keeping *Kaluoka’hina* and its sharks around for them. *Two Small Pieces of Glass* will also be opening in October as we continue to celebrate the International Year of Astronomy.

Holidays are coming too, with October bringing our annual Halloween bash we call *Night of the Living Museum*. In the theater, we’ll be kicking things up a notch, changing out our well-loved Harry Potter theme for a more classic science fiction look with our new program *Captain Rip Manly and the Aliens from Beyond Space!* If you think this will involve our SkyLase system and its ability to play Asteroids on the dome...well you’d be exactly right! Should be tons of fun for everyone. November will bring us around to our first anniversary of being the Abbitt Planetarium, and the return of our holiday

classics, *Star of Wonder: The Mystery of the Christmas Star* and *Laser Holidays*. I can't believe how quickly this year has flown by.

Radford University Planetarium
Radford University
Norfolk, VA

Rhett Herman reports: I passed a milestone of sorts this past July. A summer enrichment elementary school group for which I scheduled an extra show contained my 20,000th visitor. This was counting from the semi-official rescue in late October of 1999 from its previous broom-closet-in-waiting destiny.

Thomas Jefferson HS Planetarium
Richmond, VA

Leslie Bochenski reports: Another school year is underway! I'm teaching one High School level astronomy class in addition to my planetarium duties this year. I've been busy booking programs for the year, and the third grade students started visiting this week.

Eric Melenbrink from ASH Enterprises was here last week. He gave my little old machine a thorough cleaning and adjustment, so the stars look a lot better and the planets are back on track.

During August, I took a weekend trip to Philadelphia to see the Galileo exhibit at the Franklin Institute. The instruments on display were amazing! I've never seen so many astrolabes, sundials, compasses, and surveyor's tools in one place before. I was most impressed by the fine brass engraving work on these practical works of art. Of course, the highlight of the whole trip was seeing Galileo's telescope, one of only two in existence. It was in a free-standing case, sitting up at about a 75 degree angle. I sat on the floor and put my eye as close to the eyepiece as I could, just a thin piece of Plexiglas between my eye and that eyepiece (I was not the only one doing this!) Galileo's moon drawings, letters, and books were also on exhibit, some original and some facsimiles. Several copies of *Siderius Nuncias* were there, along with works by Kepler, Huygens, Newton, and others.


A fine educational hands-on exhibit was included. It contained several refractors built to the specifications of Galileo's telescope, aimed at illuminated transparencies on the wall. Each telescope demonstrated a different principal of telescope optics, such as spherical and chromatic aberration, the effect of stopping down an aperture, and the difference between a refractor and reflector.

Unfortunately, photography was not allowed in the exhibit, but I did pick up the small catalog describing some of the more important instruments in the collection. I'd love to hear from anyone else who got a chance to see this once-in-a-lifetime exhibit.

Remember your State Coordinator!

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