

Southern Skies

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Spring 2009

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President's Message

Jon Elvert

Irene W Pennington Planetarium
Baton Rouge, LA

We're now well into celebrating the Year of Astronomy (IYA2009) and I'm hoping all of you and your institutions are in some way either planning to host or have already hosted astronomy related events or activities. I thought it would be fun for each SEPA state to report on their member's IYA activities and events, so I asked the contacts from each SEPA state (including Puerto Rico) to in turn ask their state members to submit a summary of what they're doing in their communities to celebrate IYA. Read the *News From SEPA States* section in this issue

to see how your SEPA colleagues are celebrating. The goal of the IYA is to bring astronomy to the public in ways we never have before, which will hopefully result in more publicity and attendance at your facility. 140 countries representing 98% of the world's population are participating in the IYA so, again, if you want to see what other countries are doing to celebrate the IYA, or to see how you can participate go to the IYA's official web site at www.iya2009.org where there's a wealth of information about projects, activities, and opportunities that connect you and your visitors to Galileo. There's even a web site for choosing appropriate dates that coincide with IYA and celestial events: <http://astronomy2009.us/getinvolved/>. If you didn't submit an update on what you're doing for IYA in this issue, please consider submitting something for the fall or winter issues.

Our 2009 joint conference is just around the corner which will be held at the Adventure Science Center 16-20 June in Nashville, TN and hosted by Kris McCall. Along with SEPA, the Western Alliance Conference (WAC) will also be joining us. This undoubtedly will be an exciting conference not to

(Continued on page 25)

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

If you're an IPS member you should have received your free copy of *Two Small Pieces of Glass*, a show that celebrates the astronomical application of the telescope by Galileo. If you did not receive the show check with IPS Treasurer and membership chair, Shawn Laatsch <slaatsch@imloahawaii.org>

2010 IPS Conference...

Alexandria, Egypt will host IPS in 2010. Conference dates are June 26-30. Lots of useful conference information is available at <www.bibalex.org/ips2010/home/home.aspx>

2012 Conference site invitations... last chance

Three sites have submitted invitations to host the 2012 IPS conference.

St. Etienne, France

Baton Rouge, LA

San Francisco, CA

See the previous issue of *Southern Skies* for details on the three sites.

IPS Council will meet in Toulouse, France July 4-5, 2009. If you have a preference, please contact me before June 27 to voice your opinion.

Editor's Message

James Sullivan
Buehler Planetarium & Observatory
Davie, FL

I would like to call your attention to our advertisers. They contribute a great deal to the journal. I am sure that these people are looking forward to meeting your needs and need your support as part of the planetarium community.

Thank you for the wonderful response. As you can tell, this issue is larger than normal because of all the wonderful submissions. Folks, again I say, if you're thinking about it, write it up and send it in. We need to hear from each other. The journal is what you make it. As always, the mistakes are mine.

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.



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: _____

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)

____ Two Years, \$40

Name _____
Organization _____
Planetarium _____
Address _____
City _____
State / Zip Code _____
Voice Phone _____
Fax Phone _____
Email Address _____
Staff Position _____
IPS Member? Yes _____ No _____
Contribution to Scholarship Award Account: \$ _____

Small Talk

Elizabeth Wasiluk
Hedgesville High School Planetarium
Hedgesville, WV

February and March were very busy months for Berkeley County Planetarium at Hedgesville High School. I am well on my way to celebrating International Year of Astronomy. There was one successful and one snowed out showing of "Passport to the Universe" the program narrated by Tom Hanks and produced by the Rose Center/Hayden Planetarium in New York City, back in January to kick off 2009 as International Year of Astronomy.

On Thursday, February 19, 2009 at 7:00 p.m., images of galaxy M101, taken by the Hubble Space Telescope, the Chandra X-Ray Telescope, the Spitzer Space telescope, as well as an image of the three images combined were revealed to the general public followed by a program in the planetarium as to where to find them in the sky. These images were given to selected planetaria, science centers and museums around the country by NASA's Great Observatories Program. You can read more about them by a special article by April Whitt elsewhere in the pages of this journal. My images will be on permanent display outside of Room 31 (the dreaded Art Room) and the planetarium. As you can see they are right over some kid's lockers. That's soon to become a prime locker space, right under the galaxy images. Thanks to Shenandoah Astronomical Society member Paul Augerberger who offered to help frame the images and Andy Stanichuk, professional photographer and Tri-State Astronomer who actually framed them along with pulsar hunter and astronomy student, April Liska who helped Andy. I love the combined image. It looks almost like 3



D. The images really bring outer space down to Earth.



Here I am describing the new Great observatories image. This picture was taken by Cynthia Kaminsky at my opening on February 19, 2009



Andy Stanichuk from the Tri-State Astronomers as well as April Liska from Hedgesville High put together frames for the NASA images.

On February 26, 2009, Dr. Rachel Rosen, astronomer from the National Radio Astronomy Observatory in Green Bank, WV drove down to meet with students, teachers and guidance counselors to discuss the pulsar search program and tell how students can get West Virginia University College



Dr. Rachel Rosen works with student Dylan Shoemaker in the library showing him how to find pulsars.



I took these pictures.

Credit for participating. She also took a brief tour of our school and stopped to admire the new images given us by NASA, saying she had a friend who helped take the Hubble image. She helped student Nathan Martin pass test #1 of the pulsar search laboratory, only the second student to do so. He now has passed test two as well and is only my second certified pulsar searcher. Dr. Rosen studies pulsations of compact objects such as neutron stars and white dwarves and has used telescopes all over the world such as the SOAR telescope in Chile.

Later that same day, I drove to the National Air and Space Museum and attended a lecture by astronomer, Sandra Faber of the University of Santa Cruz in California. Her topic was "The Milky Way Galaxy, How She Got the Way She Is and Why We Need Her." The talk was amazing! It is archived on the web. You can go to <http://www.nasm.si.edu/webcasts/archive.cfm> to watch them. I have seen many of these lectures and they are excellent. I go in person, since my computer at work will not download these programs to watch for some reason. Before the talk, the documentary, "400 Years of Astronomy" was shown for the first time to the general public. It was amazing! I obtained a copy autographed by the director, Kris Koenig and showed it to the public at my facility on Monday, March 30, 2009. This lovely documentary, filmed in 4K digital cinematography chronicles how far telescopes have come since Galileo first pointed it to the heavens in 1609. The documentary airs on April 10th, 2009 on PBS. Check your local listings for the time. I was pleased to show it up on my dome as an early preview. The documentary is narrated by astronomer Neil DeGrasse Tyson from the Hayden Planetarium/Rose Science Center in New York City and the original score is done by the London Symphony Orchestra. The web site for the documentary is <http://www.400years.org/>. I hear the planetarium program is much different, so I will be looking forward to seeing that as well.

From March 16 to March 28th, I participated with my astronomy students and members of the Tri-State Astronomy Club in the "Globe at Night" observation of constellation Orion. People who participate, observe the constellation Orion in the night sky and add their observation to a data base of observations from people of all ages in 119 coun-



David Devorkin from the National Air and Space Museum on the Mall, shows off his Galileo Scope at the Sandra Faber lecture on the Milky Way

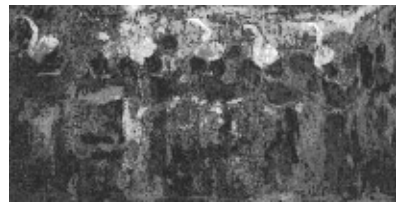
tries. This is the fourth year my astronomy students have taken part in this activity. This year the program director of the Tri-state astronomers, Mike Sager, used a Quality Sky Meter (don't know what that is? Go here to find out: <http://www.unihedron.com/projects/darksky/>) to do 30 observations on his way to and from work and discovered his back yard and our observing site, the Antietam Battlefield are the darkest in the area. Mike got his quality sky meter from participating in the Night Sky Network for free! Learn more about the Night Sky Network by going to: <http://nightsky.jpl.nasa.gov/> Go to <http://www.globe.gov/GaN/> to see the worldwide map with observations from this year and past years in the Globe at night project. Is yours there?

At the end of February, my astronomy students took part in the Quiet Skies activities and had lots of fun. Quiet Skies is a way for students to measure radio noise pollution in your area and help the National Radio Astronomy Observatory gathered data on the dreaded radio frequency interference, as much a problem with radio telescopes as light pollution is with visible light. Go here for details and to borrow a kit: Add your location to the database.

Archeo- astronomy

Digits of Doom: The Mayan Calendar and the Mystique of 2012

Woodrow W. Grizzle III
Jonesville, VA



Mayan Ceremony at Bonampak. Jacob Rus, 2004. Wikimedia Commons, 2009.

Cataclysm prophecies are fascinating things. They are, at once, terrifying, exciting, and incredibly morbid. Anyone remotely familiar with history will be able to immediately recall half a dozen failed (or possibly delayed) cataclysms. None of them has yet come to pass, yet humankind remains fascinated, undaunted. The most recent cataclysm theory to grace our short-sighted attentions is that surrounding the ominous date of December 21, 2012, an end date supposedly predicted by the ancient Maya, as that is the point in time when their calendar system ends. Did the Maya have knowledge enough to forecast humankind's destruction? Or, is this simply the newest effort of New Age theorists to cash in on book deals? This article takes a look at the ancient Mayan calendar system in hopes of lifting the veil from the ominous year of A.D. 2012.



Figure 1: Piedra del Sol (Sunstone)

Though often published alongside 2012 theory propaganda, this artifact is actually an Aztec (not Mayan) calendar. Though most Meso-american calendar systems are thought to have common origins, the Aztec Sun Stone does not represent the Mayan calendar believed to foretell the impending cataclysm.

What is this business with the year 2012, anyway? Put simply, it is the cataclysm of our time. The closer we come to the prophetic "end game," the stronger a cultural force 2012 becomes. Countless websites, books and pamphlets, and even an upcoming Hollywood film, have been produced on the subject, and many more are yet to come as increasing numbers of people seek to capitalize on our impending doom. Is there scientific basis for the cataclysm? No. Is there evidence in Maya tradition? Maybe. Either way, planetarians will likely end up with audiences questioning them about 2012, if they have not already. While there does not seem to be any planetarium productions available that deal specifically with 2012, the author has to admit to the writing of a half-finished script laying around that might just end up getting dusted off before the end of the world.

The Mayan calendar is not just a simple thing; it is a complex set of calendars and almanacs based upon solar cycles, each part serving a specific purpose in Mayan life. It is composed of three main parts: Cholq'ij (often referred to as the Tzolk'in), Haab', and Long Count calendars. It is from the Long Count calendar that the 2012 prophecy was first divined by José Argüelles in 1987. Before we get to Argüelles' famous New World prophecy, I

think it appropriate to discuss the major parts of the Mayan calendar in order to create a basis for rebuffing public popular opinion.

The first (and likely most influential) of the Mayan calendars is the Cholq'ij. The Cholq'ij is a 260-day cycle based, most likely, on apparent solar motion. It was used to organize religious and ceremonial events and for divination. The Cholq'ij alone does not account for years, but only for repetitive 260-day cycles. Although the exact derivation of this cycle is unknown, many theories exist to explain how such a calendar was developed. It could be because the human gestation period is approximately 260 days, or that Mayan crops typically required 260 days to reach maturity. However, a widely accepted theory is that the Cholq'ij was developed by observing the Sun's apparent annual passage to and from the zenith. At the Mayan locality, approximately 15° N, the Sun passes through the zenith twice per year, with successive passages separated by 260 days. This theory is supported by the existence of many gnomons at sites all around the Mayan world. As the Cholq'ij records no actual years, a doomsday year prediction with it alone is quite impossible.

A second part of the Mayan calendar system is the Haab'. Haab' is a 365-day solar calendar, with eighteen months of twenty days each, plus a small month of five days at the end. The Haab' calendar did not number years, and, in fact, was quite terrible at keeping track of the seasons of the year, due to the fact that it had no leap years. A most interesting thing about the Haab' system is the final five days of the year, and shortest month, Wayeb'. The Maya thought these days particularly fraught with peril. "During Wayeb', portals between the mortal realm and the Underworld dissolved. No boundaries prevented the ill-intending deities from causing disasters." Pretty heady stuff, but, so far, no end of the world.

That leaves the third calendar: the Long Count calendar. This calendar is the one from which the 2012 hypothesis was extracted. The Long Count calendar counts forward in groups of days, or k'ins. Groups of k'ins are assembled as digits for the calendar: twenty k'ins makes a winal, eighteen winals makes one tun, twenty tuns a k'atun, and twenty k'atuns makes a b'ak'tun. As you can see, it is mostly

a vigesimal, or base-20 system, with the irregularity being that eighteen winals makes, roughly, one solar year. This system is perpetual.



Figure 2: Mayan Long Count Inscription, La Mojarra Steele 1. Wikimedia Commons, 2009.

The Long Count calendar numbers dates by counting from a starting point that corresponds to August 11, 3114 B.C. in the Gregorian calendar. Dates are expressed in a rather confusing vigesimal scheme, with each digit corresponding to a count of k'ins, winals, tuns, k'atuns, and b'ak'tuns. Thus, 0.0.0.0.1 equals one k'in, and 0.0.0.1.0 equals one winal, or 20 k'ins. The confusing part comes in when we express the value for one tun, being 0.0.1.0.0. If one counts along the vigesimal system, 0.0.1.0.0 would equal 400 k'ins, but recall that one tun is only 18 winals, or 360 k'ins. It is important to keep that distinction in mind when calculating Mayan dates expressed in Long Count format.

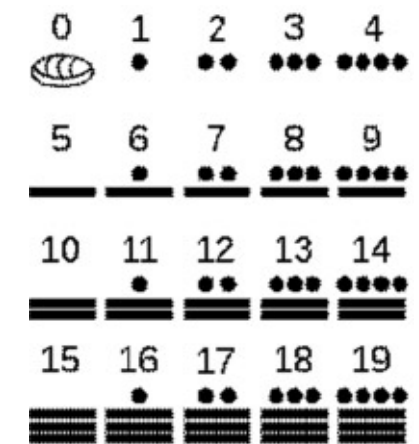


Figure 3: Mayan Numerals. Bryan Derksen, 2006. Wikimedia Commons, 2009.

The Maya had a unique numeral representation, which they used to represent dates in the Long Count calendar system.

(Continued on page 27)

SEPA CONFERENCE 2009

Kris McCall
Sudekum Planetarium
Adventure Science Center
Nashville, TN

Howdee fellow dome dwellers,

Another school year is almost over, and summer will be here sooner than you think. We want to make sure that SEPA 2009 is on your calendar for June 16 through 20, in Nashville, Tennessee. Get ready for 90 hours of non-stop planetarium excitement and no sleep!

Plans are well underway for the next annual conference of the Southeastern Planetarium Association, which will be held here at the Sudekum Planetarium at the Adventure Science Center in Nashville. In addition to delegates from the SEPA region, members of the Great Plains, Rocky Mountain, Pacific, and Southwestern Planetarium Associations will also be joining us. For that matter, GLPA and MAPS members are also welcome.

Of course, we will be showing off our own equipment, programming, and facilities, but we are also looking forward to showcasing others' equipment, shows, software, educational strategies, and more. The Dome Showcases will feature exciting new hardware and software as well as shows, trailers, excerpts, and NO powerpoint!

Everyone should plan on participating in the world famous Constellation Shootout, which was first held in Nashville during SEPA 1996. You will also not want to miss any of the after hours film festival during which we will show several programs never before seen in the U.S.

The conference hotel will be the Millennium Maxwell House, which has given us a rate of \$109/night. Check the sepadomes.org website to get more details and make reservations. This is the same hotel we used for SEPA 1996, but it has undergone another fabulous renovation since then.

The registration fee for the conference is \$250. This covers three lunches, three evening meals, the banquet, and one full breakfast plus transportation to a local observatory and more. Online registration is strongly encouraged as you will be able to print a receipt immediately, and it will make our tracking much easier.

Some delegates will want to arrive in Nashville early for a preconference lecture on Mayan astronomy titled "Skywatchers of Ancient Mexico". World-renowned archaeoastronomer Dr. Anthony Aveni will use the new Sudekum Planetarium, GOTO Chiron Hybrid optical star projector seamlessly integrated with Evans and Sutherland Digistar 3, to recreate important aspects of Mayan astronomy. This special presentation is scheduled for 8:30 to 10:30 am on June 16, 2009, and is made possible by the Center for Latin American Studies at Vanderbilt University. <http://www.vanderbilt.edu/clas/home>

Even if you cannot attend the conference, I still encourage your participation. We are always happy to put your materials out for the delegates. If you want to make sure everyone gets your promotional piece, consider a *Black Hole Bag* opportunity where for a small fee, we will place your item in the delegate bags, which are distributed at registration.

If you have questions or need additional information, please do not hesitate to let us know. We look forward to seeing all of you very soon.

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Ten reasons not to miss SEPA 2009 at the Sudekum Planetarium, Adventure Science Center, Nashville, TN June 16 through 20

1. SEPA is being hosted by the new, way cool, world-class, state of the art Sudekum Planetarium that just opened in June 2008. The Sudekum Planetarium features the first GOTO Chiron Hybrid optical star projector outside of Japan seamlessly integrated with Evans and Sutherland Digistar 3.

2. Delegates from across the United States will attend this conference. The four planetarium associations west of the Mississippi, (GPPA, PPA, RMPA, and SWAP) will join the fourteen states of SEPA for what could be largest planetarium conference in this country and maybe in the world in 2009.

3. More than eleven hours in the new Sudekum Planetarium for dome showcases will feature powerful new hardware for fulldome and laser applications, advanced software for presentation and education, dramatic new full length shows never seen before in the U.S., program trailers and excerpts, HYBRID planetarium, and more.

4. Get ready for 90 hours of nonstop planetarium excitement, demonstrations, shop talk, and inspiration while giving Nashville a small economic stimulus. There are slots for 74 papers allowing for presentations on a broad variety of topics and the exchange or stealing of ideas.

5. Exhibition hall of 4,800 square feet with more than 15 leading planetarium vendors including four portable domes highlighting hardware, software, and content for theaters of all sizes and interests.

6. Preconference lecture "Skywatchers of Ancient Mexico" presented by world-class archaeoastronomer Dr. Anthony Aveni using the new Sudekum Planetarium GOTO Chiron Hybrid optical star projector and Evans and Sutherland Digistar 3 to recreate important events and aspects in Mayan astronomy. Dr. Aveni was one of the leading consultants on the Hansen Planetarium show of the same name. This opportunity is being provided by Vanderbilt University's Center for Latin American Studies.

7. Other speakers include Dr. C. Robert O'Dell of Vanderbilt University, who was Project Manager for the Hubble Space Telescope during its early design and development in the 1970s. Dr. O'Dell continues to do research using data acquired by HST and will present a lecture on the Orion Nebula. Other speakers will be announced soon.

8. Be the first to see "We Are Astronomers" from the National Space Centre in Leicester, UK, the creators of "Astronaut" and the inaugural program of the new Sudekum Planetarium "STARS". Stellar Experiences from the Sudekum Planetarium "Nine Planets and Counting" and "Our Place in Space" will be presented in addition to other treats to be announced as we get closer to the conference.

9. SEPA 2009 is the ultimate opportunity for every planetarium professional from big dome directors to lowly console jockeys to renew, reawaken, rekindle, and revitalize your enthusiasm and energy for everything related to the planetarium experience. Wear comfy clothes so you can fully participate - without the responsibility for budgets, maintenance, or managing unruly students. And remember, it's a planetarium conference, so no one but other planetariumians will see you acting like a kid!

10. Find out who deserves the SWAP Bent Cage Award, who will receive SEPA's prestigious Paul Campbell Fellowship Award, and the secret of the Woodchuck.

SEPA CONFERENCE 2009 In Brief

day	date	time in	time out	activity	location
Tuesday	6/16/09	8:30 AM	10:30 AM	preconference lecture "Skywatchers of Ancient Mexic" by Dr. Anthony Aveni	Sudekum Planetarium
		1:00 PM	4:00 PM	registration	hotel
		1:00 PM	6:30 PM	vendor load in and set up	hotel
		5:00 PM	7:00 PM	registration and tour exhibits	ASC
		5:30 PM	7:00 PM	dinner buffet	ASC
		7:00 PM	9:00 PM	dome showcase	Sudekum Planetarium
		9:00 PM	9:15 PM	bio break	ASC
		9:15 PM	11:15 PM	dome showcase	Sudekum Planetarium
		11:15 PM	11:30 PM	bio break	ASC
		11:30 PM	1:30 AM	film festival	Sudekum Planetarium
Wednesday	6/17/09	7:30 AM	9:30 AM	registration	hotel
		9:00 AM	4:15 PM	vendor hall open	hotel
		8:45 AM	9:00 AM	official welcome	hotel
		9:00 AM	10:12 AM	paper session A	hotel
		10:12 AM	10:30 AM	bio break	hotel
		10:30 AM	11:54 PM	paper session B	hotel
		12:00 PM	1:30 PM	lunch and speaker	hotel
		1:30 PM	3:18 PM	paper session C	hotel
		3:18 PM	4:15 PM	bio break & vendor time	hotel
		4:15 PM	5:00 PM	travel to Sudekum Planetarium @ ASC	Sudekum Planetarium
		5:00 PM	6:30 PM	dome showcase	ASC
		6:30 PM	7:30 PM	dinner buffet and tour exhibits	Sudekum Planetarium
		7:30 PM	9:15 PM	dome showcase	ASC
		9:15 PM	9:30 PM	bio break	Sudekum Planetarium
		9:30 PM	11:15 PM	dome showcase	ASC
		11:15 PM	11:30 PM	bio break	ASC
		11:30 PM	1:30 AM	film festival	Sudekum Planetarium
Thursday	6/18/09	9:00 AM	5:30 PM	vendor hall open	hotel
		8:48 AM	10:12 AM	paper session D	hotel
		10:12 AM	10:30 AM	bio break	hotel
		10:30 AM	11:54 PM	SEPA pre business meeting	hotel
		10:30 AM	11:54 PM	paper session E	hotel
		12:00 PM	1:30 PM	lunch and speaker	hotel
		1:30 PM	3:30 PM	paper session F	hotel
		3:30 PM	4:00 PM	bio break	hotel
		4:00 PM	5:30 PM	concurrent workshops	hotel
		5:45 PM	7:00 PM	travel to SPOT Observatory	charter buses
		7:00 PM	8:30 PM	dinner & games	SPOT Observatory
		8:30 PM	10:30 PM	observing social	SPOT Observatory
		9:30 PM	11:30 PM	return to hotel	charter buses
		10:30 PM		until hospitality suite	hotel
Friday	6/19/09	9:00 AM	4:30 PM	vendor hall open	hotel
		8:48 AM	10:12 AM	paper session G	hotel
		10:12 AM	10:30 AM	bio break	hotel
		10:30 AM	12:00 PM	business meetings	hotel
		12:00 PM	1:30 PM	lunch and speaker	hotel
		1:30 PM	2:42 PM	paper session H	hotel
		2:42 PM	3:00 PM	bio break	hotel
		3:00 PM	4:12 PM	paper session J	hotel
		4:12 PM	4:30 PM	bio break	hotel
		4:30 PM	6:00 PM	vendor break down and load out	hotel
		4:30 PM	6:00 PM	paper session K	hotel
		6:15 PM	7:00 PM	cash bar and mingling	hotel
		7:00 PM	8:30 PM	banquet	hotel
		8:30 PM	9:00 PM	official business	hotel
		9:00 PM	10:00 PM	speaker	hotel
		10:00 PM		until hospitality suite	hotel
Saturday	6/20/09	8:30 AM	9:30 AM	breakfast buffet	hotel
		9:36 AM	10:12 AM	paper session L	hotel
		10:15 AM	11:00 AM	door prizes	hotel

SEPA CONFERENCE 2009

Kris McCall
Sudekum Planetarium
Adventure Science Center
Nashville, TN

Come to SEPA in Nashville early for a special presentation on Mayan astronomy by world-renowned archaeoastronomer Dr. Anthony Aveni and the Center for Latin American Studies at Vanderbilt University. <http://www.vanderbilt.edu/clas/home>

Dr. Aveni will use the new Sudekum Planetarium, GOTO Chiron Hybrid optical star projector seamlessly integrated with Evans and Sutherland Digistar 3, to recreate important aspects of Mayan astronomy.

Tuesday, June 16, 2009

8:30 - 10:30 am

Sudekum Planetarium at the Adventure Science Center

Admission to Planetarium professionals is free. You will be able to sign up for this presentation when online registration opens on March 10, 2009.

SKYWATCHERS OF ANCIENT MEXICO

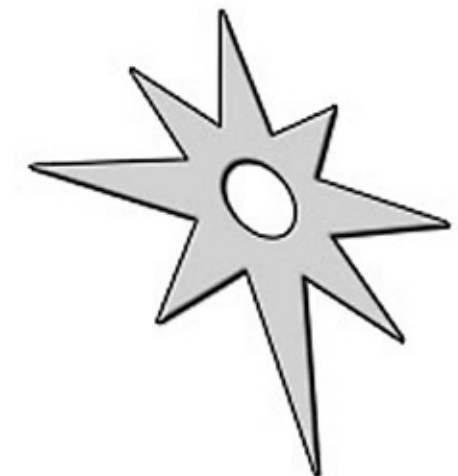
A Lecture by Anthony F. Aveni

Since western man first studied Mayan archaeological and artistic remains about a century ago, we have begun to appreciate that the ancient Maya rulers of Central America were possessed by the study of time, calendar and astronomy. In this lecture, we dwell mainly on the evidence that suggests Maya priest-astronomers carefully watched the planet Venus, clocking its motion to an accuracy of better than 2 hours in 5 centuries-all without the advantage of a technology like our own. What drove them to such precision? What was the observational methodology employed to follow the planet? Why was Venus, above all other celestial objects so important to Maya astronomers? What other cele-

tial bodies were given attention? These questions are discussed in some detail along with an understanding and appreciation of Maya calendar documents, hieroglyphic writing and the role of astronomical orientations in standing Maya architecture.

<http://anthonyfaveni.com/>

Anthony F. Aveni is the Russell B. Colgate Professor of Astronomy and Anthropology, serving appointments in both Departments of Physics and Astronomy and Sociology and Anthropology at Colgate University, where he has taught since 1963. Dr. Aveni helped develop the field of archaeoastronomy and now is considered one of the founders of Mesoamerican archaeoastronomy, in particular for his research in the astronomical history of the Maya Indians of ancient Mexico. Dr. Aveni is a lecturer, speaker, and editor/author of over two dozen books on ancient astronomy.



SEPA 2009
Sudekum Planetarium
Adventure Science Center
Nashville, TN

SEPA Scholarship Fund Silent Auction

Dave Maness
Sharpe Planetarium
Memphis, TN

It's time again to start thinking about what items you would like to donate to this year's silent auction. In case you are new to the group, this is a fun activity we do to help other planetarians by supporting the SEPA Scholarship fund. We are raising money so that someday (hopefully soon) one or more of our colleagues will benefit in the future from a little financial help to attend a professional workshop or a SEPA conference. To all those who provided items and bid on items in the past, I cannot thank you enough.

As of this writing, the fund's account balance stands at nearly \$2,000. As I have said before, I think our ultimate goal should be to get this account to a level from which we can provide a significant grant by using the interest alone and leave the principal intact. That all depends on us and (of course) interest rates. We still have a long way to go to make this self sustaining. But SEPA Council may make an announcement about it soon.

As has been tradition, we will again hold a silent auction to benefit this fund at the conference in Nashville. Last year, certain items were available as a raffle for \$1 per ticket or 6 tickets for \$5. Drawings were held at the banquet. That seemed to work well. I hope to do that again this year. Some things lend themselves better to a raffle as opposed to an auction. So it all depends on what sorts of items come in.

What we need from the membership (as always) are your contributions of items or services that you would be willing to provide to the highest bidder. In the past we have offered books, games, artwork, crafts (including a beautiful hand-made quilt and

some hand-tooled leather belts), musical CDs, and even an actual piece of space memorabilia. We have gotten some of the highest prices for items that were hand made works of art as well as for space related items and artifacts. I know there are some very talented people out there. So think it over and let me know if you plan to bring something along to the conference. Knowing what to expect ahead of time will help me plan the space requirements. Also, let me know if you would like to help out on the SEPA Scholarship committee.

I have provided a form for you to use in describing the item(s) you bring for auction and for my records. If you have an item you want to donate but cannot make it to the conference, then send it to me. If it is not too big for my car, I will try to get it there. As usual the auction will take place in the mingling time before the banquet. Thanks again for your participation as an item provider, bidder, raffle ticket buyer, or all three. I hope to see you all in Nashville.

Please use the form on the facing page.

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SEPA SILENT AUCTION ITEM

If you cannot bring the item, draw a picture or paste a photo here (if you think it will help with the sale.)

Item:

Description:

Offered by (Your name):

Preferred mode of contact information (Phone, Mail, Email, Fax, Telegram, Pony Express, or other)



Sudekum Planetarium Statistics and Fun Facts

	old planetarium	NEW Sudekum Planetarium
dome diameter	40 feet	63 feet
seating	116	166
dome tilt	0°	12.5°
floor slope	8°	12.5°
year installed	1974	2008
star projector	Spitz 512	GOTO Chiron Hybrid
# of stars projected	2,534	6,500,000
Sun, Moon, and planet projectors	mechanical analogs	computer controlled X-Y mirror assemblies
star projector and elevator weight	500 pounds	2.5 tons
time to manufacture a star projector	6 months	10 months
slide projectors	36	0
video projectors	1 CRT	2 Sony SXR
video projector weight	75 pounds	175 pounds x 2
maximum area of dome covered by slide or video	50%	100%
control computers	1	15
speakers	4	6 + 2 subwoofers
amplifiers	2	9
wattage sound design	1500 watts stereo	16,000 watts 5.1 surround sound
time to remove seats and all the old equipment	7 days	
demolition of old planetarium building	1 day	
clean up of rubble pile	3 weeks	
construction of planetarium portion of building expansion		8 months
time to manufacture a dome		5 months
dome weight	?	7 tons
number of holes in dome	13 million	67 million
time to erect new dome		7 weeks
time to install all planetarium technology		4 months
number of visitors to the Sudekum Planetarium	more than 2 million	TBD: 90,000 in the first eight months of operation

NASA brings piece of the “new era of space exploration” to Adventure Science Center

Kris McCall
Sudekum Planetarium
Adventure Science Center
Nashville, TN

The Orion Launch Abort System (LAS) was on display outside the Sudekum Planetarium at the Adventure Science Center in Nashville, Tennessee Wednesday, March 4, as part of its nationwide tour.

A full-scale mock-up of NASA’s Orion launch abort system stopped outside the Sudekum Planetarium as it traveled to White Sands Missile Range in New Mexico, where it will help NASA prepare for this

year’s abort system test, called Pad Abort 1.

The nearly 45-foot-long launch abort system (LAS) mock-up, known as the LAS pathfinder, represents the size, outer shape and specific mass characteristics of the Orion crew exploration vehicle’s abort system. The 90-second flight for Pad Abort 1 will help scientists and engineers gather information about how NASA’s newly-developed launch abort system operates in reality. The system will provide a safe escape route for astronauts in the Orion crew capsule if there is a problem on the launch pad or during ascent into low Earth orbit atop the Ares I rocket.

Photo credits: Ms. Theo Wellington



(Continued on page 18)



IYA meets M101

SEPA events with multi-wavelength images

April Whitt
Fernback Science Center Planetarium
Atlanta, GA

Isn't it great to be part of a profession full of creative, talented colleagues? In the late summer of 2008, the Space Telescope Science Institute announced that it would select sites around the U.S. to receive large-format, multi-wavelength images of the Pinwheel Galaxy, M101, along with lithographs and press kits. Recipients would be required to mount the large prints for permanent display, host an unveiling event, and report on the activity. Sixteen sites in the SEPA area were chosen, and several of them shared their events in prose and pictures. Each event was different, but they all brought the wonders of the universe a little closer to our audiences.

From Darlene Smalley (DuPont Planetarium - University of South Carolina Aiken): Our M101 images were unveiled at 4:00 p.m. on Friday, February 13th, before a group of about 80 people. A large, black piece of fabric was removed from in front of the images by the Mayor of Aiken and the Chancellor of USC Aiken. A reporter from the Aiken Standard attended and wrote about the event. The attractive black frames for our images were made by a talented USC Aiken employee. About half of our visitors enjoyed a sky-tonight program in the planetarium after the unveiling. All left with a new appreciation for the glorious objects in the night sky!

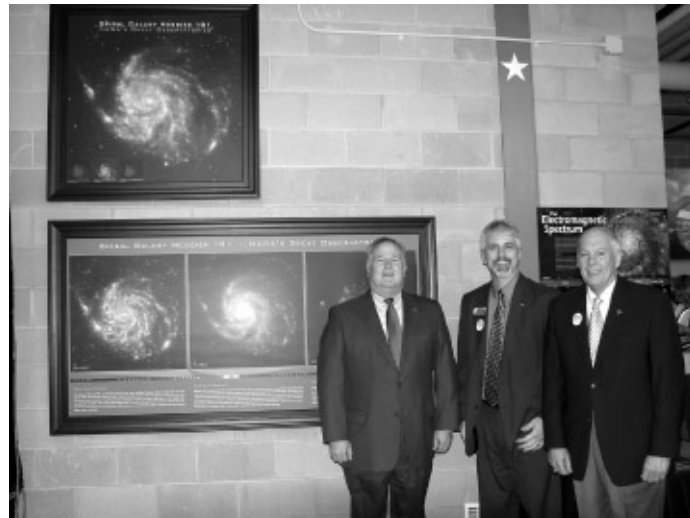


Photo 1 caption: The men in the photo are (from left to right): Dr. Tom Hallman, Chancellor of USC Aiken; Dr. Gary Senn, Director of the Ruth Patrick Science Education Center; and Mr. Fred Cavanaugh, Mayor of Aiken.

From Robert Hayward (Pisgah Astronomical Research Institute, Rosman, North Carolina): While primarily a radio observatory due to its history as a NASA and NSA tracking station, PARI is also involved in optical astronomy and has plans/dreams, currently unfunded, for observatories housing optical telescopes up to two meters in diameter. This emphasis on multi-wavelength astronomy, along with existing collaborations with STScI, made the unveiling of the Messier 101 images especially appropriate for PARI's visitors and supporters. In addition, Dr. Mike Castelaz, PARI's Science Director, has been a collaborative observer in research utilizing the Hubble Space Telescope.

PARI Education Director Christi Whitworth took advantage of the popularity of PARI's monthly Evening at PARI public series to schedule the unveiling of the photographs at PARI in conjunction with the February program. More than fifty scientists, students and other interested people attended the official unveiling of mural-sized images from NASA's Great Observatories during the February 13 Evening at PARI. Following a tour of the PARI campus, guests attended the unveiling of the images. They were then treated to a first-hand account of how such images are obtained by Dr. Castelaz who also described research he and other collaborators at PARI are doing using the Hubble Space Telescope and others of the great observatories represented in the multi-wavelength images of M101.



Photo 2: PARI's Education Director Christi Whitworth explains the significance of the Messier 101 images to visitors at PARI's Friends of PARI program on February 13, 2009.

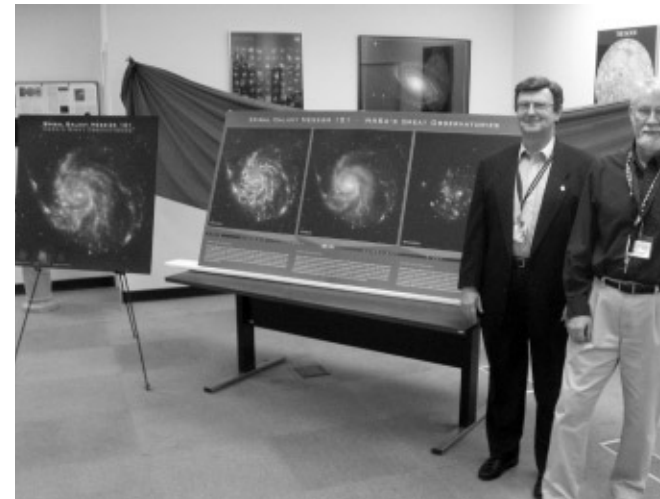


Photo 3: PARI's President Don Cline and Thurburn Barker, Director of PARI's Astronomical Photograph Data Archive (APDA) with the Messier 101 images.

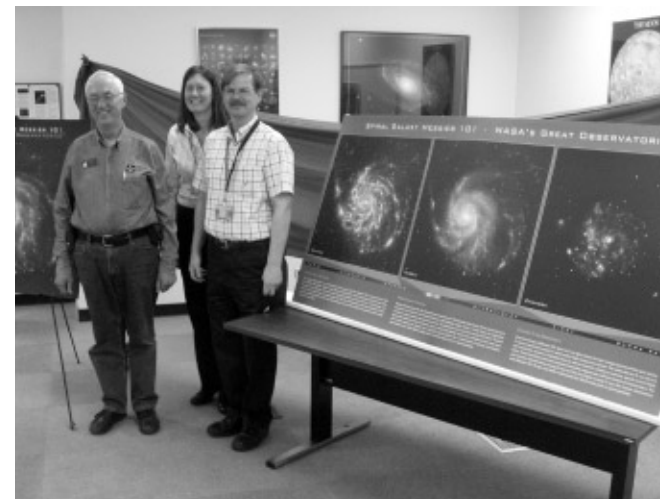


Photo 4: PARI staff members Bob Hayward, Christi Whitworth and Mike Castelaz with the Messier 101 images.

From Carole Holmberg (Calusa Nature Center and Planetarium in Fort Myers, Florida): We had our unveiling on Saturday February 14, as part of our Valentine's Day show and night hike. We didn't do any separate publicity, but all worked out well. The images look beautiful in our lobby. They, and all of our other large images, are framed by pieces of baseboard painted black, but you'd never know. Twenty-eight people attended, and were served food in the planetarium lobby. People were delighted to receive the lithographs and I gave a little speech about the images and there were lots and lots of questions afterwards.

From Laurent Pellerin (Santa Fe College Kika Silva Pla Planetarium, Gainesville, Florida): We also had our unveiling event on the 14th, along with four showings of our new Galileo show, computer lab access to micro Observatories, a space art exhibit, and children's activities. The local astronomy club was here with Ha and regular scopes, but they were rained out, and the lost/kidnapped child in a nearby county trumped most of our press releases, but we still had about 250-300 people show up.

From Kelly Herbst (Virginia Living Museum, Newport News, Virginia): Unfortunately, we got no pictures of our event, because it was a very busy night, and marketing didn't make it. We held ours on 2/14 also, in conjunction with a star party and planetarium and laser shows. It was a fabulous evening, with over 300 people in attendance!



Photo 5: We've mounted the images in our theater, and they look great.

IYA Meets M101 (Continued from page 21)

From April Whitt (Fernbank Science Center, Atlanta, Georgia) - Fernbank offered the Multi-wavelength Image unveiling as part of its "Give Your Sweetie the Universe" celebration on February 14th. Members of the public and the school system staff were invited to participate.

The images were framed and mounted by our exhibit department, and a large sheet of silver lamé fabric, fastened with two Styrofoam cut-out stars, covered the images. Jim Summers, an astronomer who retired from Fernbank several years ago, dressed as Galileo and did the unveiling. People came and went during the event and his talk afterward - so at any one time there were 20-50 people there.

We had glow-in-the-dark pinwheels for any children who came. The adults in attendance decided those were party favors for Galileo's 445th celebration, and several pinwheels glowed faintly during the planetarium programs. The programs were especially well attended that day - over 100 guests in each - and we encouraged audiences to see the new images after each show.



Photo 6: Galileo unveils the multi-wavelength images.



Photo 7: The audience asked questions: "Where did you get your training?"



Photo 8: Happy 445th!

Steve Nipper (Museum of Science & Industry - MOSI, Tampa, Florida): We had our unveiling Tuesday, Feb. 17th. We were on two of the major network news channels at 5 pm that evening, and had coverage in a local talk show after the morning news that morning. That afternoon, we introduced the images to the crowd before the planetarium show, and took photos then. We have a PR person who sent out the press releases to all the local broadcast (TV and radio) and print media. We had coverage in a couple of print outlets and at least two or three associated online sites.



Photo 9: The audiences loved the new images.

Betty Wasilik (Hedgesville High School, West Virginia): I was so pleased and surprised for front page coverage in the local papers of my event Thursday, February 19th. The local press did fabulous coverage on short notice and we got a well placed article on the front page of the local news paper. For details, go here: <http://www.journal-news.net/page/>

content.detail/id/516010.html?nav=5006.



Photo 11: Special thanks to Paul Augersburg and Alan Moeck of the Shenandoah Astronomical Society for their kind offer help to hang the images and to Andy Stanecek of the Tri-State Astronomers and April Liska, Pulsar Searcher and Astronomy Student extraordinaire for actually putting together the frames and hanging the images

From Rob Martin (Brish Planetarium, Hagerstown, Maryland): The Great Observatories Image unveiling was held on Saturday, February 21, 2009.

The Brish Planetarium and the Discovery Station joined together to present the unveiling of four special images of the spiral galaxy M101 from the great space observatories Spitzer, Hubble, and Chandra as part of the celebration of the International Year of Astronomy 2009 (IYA2009).

Julianna Albowicz (US Senator Mikulski's representative), State Senator Donald Munson, Marie Byers (Director of the Discovery Station), members of the Tristate Astronomers, and Rod Martin (Director of the William Brish Planetarium) were part of the activities during the day long event. Presentations about astronomy as well as StarLab planetarium programs using the planetarium podcast "Skylights" highlighted the day.

Watch a 15 minute video of the actual unveiling by going to this link: <http://video.google.com/videoplay?docid=5248363783985337397&hl=en>

In the video, listen and watch as Julianna Albowicz reads a letter from Senator Mikulski, and I discuss the importance of Galileo's achievements as they

relate to astronomy today and the released images. Thanks to TSA member Cynthia Kaminsky for recording this event.



Photo 10: The Tristate Astronomers hosted the event.

Mickey Jo Sorrell (MPSC, Chapel Hill, North Carolina): Morehead Planetarium and Science Center celebrated Family Science Night on Saturday, February 28, with a visit from Galileo, in celebration of his 445th birthday. MPSC Director Todd Boyette presented Signor Galilei with the stunning M101 images from NASA's Great Observatories.

At Galileo's request these images now hang in our NASA Digital Theater. The evening included two live planetarium shows, Moon crater and galaxy creations, tours of the Morehead observatory, and birthday cake. Over 500 people attended, and the physics students helping with the galaxy creation activity spread glitter from one end of the building to the other.



Photo 12: Morehead Planetarium and Science Center Director Todd Boyette presents M101 images to Galileo in honor of his 445th birthday (assisted by MC Michael Washington; Galileo aka Michael Neece)

From Jon Elvert - We had a Challenger Learning Center astronaut (in uniform) conduct the unveiling on Friday, March 13th. Following the unveiling we passed out astronaut ice-cream. Although the photos don't show it, we had about 75 third graders plus some public and press attend. Our local paper sent a photographer and reporter as well.



Photo 13: The images look great in the exhibit hall.



Photo 14: Third graders have lots of questions.



Photo 15: Everyone loves ice cream.

On Tuesday, March 17, 2009, Dr. Jason Best astronomer at Shepherd University did a presentation and talk about astronomy opportunities for students interested in attending Shepherd during my astronomy class. He incorporated information about International Year of Astronomy and what students are doing to celebrate at Shepherd University.

On Saturday, March 28, 2009, I turned off my lights for Earth Hour. Since it was cloudy, I sat in the dark and listened to the radio. Other folks did more interesting stuff. There are great pictures on the web site: <http://www.earthhour.org/>

Coming up in April are the 100 hours of Astronomy, April 2-5 with podcasts from astronomical observatories around the world and star parties where people can look through amateur astronomer's telescopes. Use a remote control telescope. Go to <http://www.100hoursofastronomy.org/> for more details. I will bring out the planetarium's telescopes to observe with the Tri-State astronomers of which I am a member. A club member who built their very own observatory is holding an open hours. See what it looks like here: <http://www.tristateastronomers.org/OrionisFlyer.pdf>

Speaking of the Tri-State astronomers, there is viewing of the Night Sky scheduled at the Antietam Battlefield on the evenings of April 17 and 18 if the weather is clear. Here is a flyer with details: <http://www.tristateastronomers.org/sp-poster4-09.pdf>

Also on that Saturday, April 18, 2009, I hope to attend the Central Pennsylvania Astronomers Consortium with Dr. Jason Best, astronomy instructor from Shepherd University. It will be held at Dickenson College in Carlisle, Pennsylvania. I am looking forward to the talk about Brown Dwarves. Here are details: <http://web1.fandm.edu/cpc/astronomers09.html>

On Tuesday, May 7th at 7:00 p.m. and Tues-

day, May 12 at 4:30 p.m. I will be presenting "This Year's Ringless Saturn" in the planetarium.

So that is spring in "International Year of Astronomy". The scary part is that it is no different from a regular year here a Berkeley County Planetarium, the same activities only more intense. Heck it is only March and I am already exhausted. Will I survive "International Year of Astronomy"? What are you up to? Has the budget constraints hindered your celebrating of IYA? Do you have concerns about small planetaria in IYA? Remember this is your forum and small is anyway you define it, small size, staff, budget, etc. If you don't submit your own thoughts you are stuck listening to me.

SORRY! The photo essay in the Winter 2008 issue of *Southern Skies* "Small Talk" was done by Brittney Martin, not Rachel Goldman as originally stated. Sorry for the mix up.

President's Message (Continued from page 3)

be missed. For many of us, it will be an opportunity to meet fellow planetarians from west of the Mississippi River. Please read Kris' conference update in this issue for a detailed listing of events, sponsors and field trips, or go to the conference web site at www.sepadomes.org. If, for some reason, you haven't already registered and booked a hotel room, stop procrastinating and let Kris know you're coming. Aside from attending conference paper sessions, workshops, vendor areas and the hospitality suite please plan on coming to our business meeting. Traditionally, the SEPA conference has two business meetings and I encourage you to attend both. Council will discuss and share a variety of items including updates on next year's IPS meeting in Alexandria, Egypt, as well as information on the prospective IPS 2012 sites. Your participation at these meetings is important, so please attend.

One of the highlights in our business meeting will be hearing about Adam Thanz's update on the 2010 SEPA conference at his place at the Bays Mountain Planetarium in Kingsport, TN. Adam and his staff have already begun planning a busy schedule, so don't miss the details of his presentation and a chance to ask questions.

A conference site for 2011 has not yet been decided. The 2011 conference search committee members are Carole Holmberg, April Whitt and I. We will present our report at the business meeting on possible 2011 sites. It's not too late to consider bidding if you're interested in hosting SEPA 2011 at your planetarium, so contact us for more information on the bidding process and what's expected in hosting a conference.

You may have noticed that some recent issues of *Southern Skies* have been somewhat thin due to a lack of articles. I know our journal's editor, James Sullivan, would appreciate your input on contributing an article. Coming up with ideas for writing an article may not always be as easy as it seems. It may be helpful to look through the past couple years worth of *Southern Skies* to get a sense of what kind of articles were submitted, or simply begin writing about a favorite subject or a particular planetarium related story you wish to share. So please consider contributing an article and ask James if you have questions regarding guidelines.

I also encourage your feedback on ways we could enhance membership benefits or improve our association as a whole. Again, I look forward to serving the SEPA membership and working with a great team. Together, we want to help you get the most out of being a SEPA member. I would like to hear from you if you have any questions or suggestions regarding SEPA. Also, don't hesitate to contact anyone on our Council (listed on the inside cover of this journal) if you would like to direct questions or suggestions to them.

I hope all of you are having a successful school year, especially this spring with end of the year field trips, in despite of the current economic challenges. I look forward to seeing you in Nashville.

Sometimes, when it comes to planetarium systems, it's best to be single-minded!

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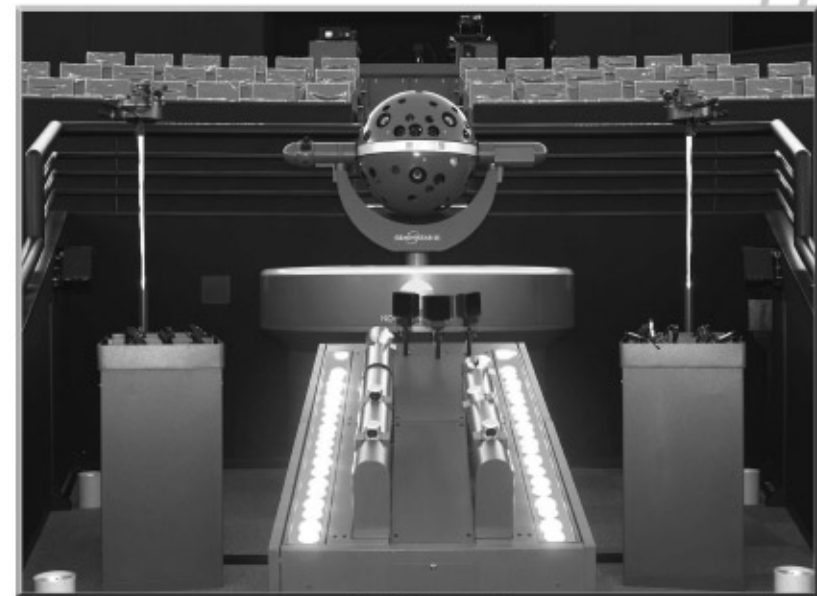
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Archeoastronomy (Continued from page 9)

So, how does all this add up to the end of the world in 2012? As previously stated the Long Count calendar is perpetual, involving no end date. To understand how the theorists divined such information, one must examine a Maya text known as the Popol Vuh, a book chronicling Maya creation myths transcribed by Spanish conquerors in the A.D. 16th century. The Popol Vuh tells us that the gods created three previous manifestations of the world successively, and that none of them worked out, for one reason or another. The fourth creation, our world, worked out beautifully, and was deemed worthy of inhabitation by humans. These previous creations lasted for 13 b'ak'tuns, or approximately 5,122 solar years, meaning that the Maya date for the end of the last creation was 12.19.19.17.19. Where the plot thickens is that the next time 12.19.19.17.19 rolls around is December 21, A.D. 2012. QED for the theorists, right? Wrong.

Such a date could be significant if the Maya themselves did not write about dates beyond the winter solstice of A.D. 2012. Several so-called "distance dates" exist, each corresponding to calendar rotation dates, and are indicated by the addition of a second period of time, in date form. An example of this kind of distance dating comes from the Tablet of Inscriptions from Palenque. On this tablet the date 10.11.10.5.8, with a distance date of 10.11.10.5.8. It all calculates to correspond to a Gregorian date of October 21, A.D. 4772, about 2,700 years from now! It turns out that this inscription states that a certain Pacal, king of Palenque, predicted that there would be great celebration on this date, as it marks the eightieth calendar renewal since his accession. Importantly, it tells us that important Mayas surely did not believe that the world would end in A.D. 2012.

Calendar renewal was a regular part of life for the ancient Maya. Modern New Age theorists have been careful to take note of the consistencies (and irregularities) in the Maya calendars, but have been too quick to devise erroneous theories as to the calendars' meanings. To the Maya, the calendar was a source of information in planning ceremonies, religious festivals, and crops. Sandra Noble of the Foundation for the Advancement of Mesoamerican Studies, Inc. put it best when she said, "For the

ancient Maya, it was a huge celebration to make it to the end of a whole [calendar] cycle. To render December 21, 2012 as a doomsday, or moment of cosmic shifting, is a complete fabrication and a chance for a lot of people to cash in." Whether or not you agree with Ms. Noble, the fact remains that there are always ways of manipulating the facts and figures to arrive at a desired outcome. Put simply, the best hypothesis concerning the 2012 phenomenon is to assert that, in reality, there is no phenomenon at all.

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The Little Star That could



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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 *Teddy's Quest*, *Endless Horizon*, *400 Years and Home*, *Japan: Reflections of Time* and *Celestial Navigation*.

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.

Schoolhouse Children's Museum & Learning Center Boynton Beach, FL

Erich Landstrom reports: On the first Fridays throughout the spring, assistant director Kelsey Harris and NASA-certified instructor Erich Landstrom of the Schoolhouse Children's Museum and Learning Center will be presenting at both the Schoolhouse Children's Museum and Learning Center and the Boynton Beach City Library. During these programs, children ages 5 - 9 become pioneers to planets with space exploration story time, and astronomy arts and crafts projects. Attendees also stargaze through the museum's telescope (sidewalk astronomy is weather permitting).

GeoGraphics Imaging & Consulting Tampa Bay, FL

George Fleenor reports: The Bradenton/Sarasota area of Florida will be celebrating the International Year of Astronomy through several events. Thanks to individuals, local astronomy clubs and a handful of museums, science centers and schools, a year full of events is planned.

First up is the 100 Hours of Astronomy. The Gulf Coast World Imagination Zone (GWIZ) is collaborating with the Local Group of Deep Sky Observers (the local Bradenton/Sarasota astronomy club) to make these 100 hours very memorable for the community. Astronomer and author David Levy will be flying in to participate in events planned throughout the weekend. A special fundraising event, "Cocktails and Comets," will kick off the celebration Friday night, April 3 with a special presentation, "A Night Watchman's Journey: My Life and Times as a Comet Hunter," by Dr. Levy. Members of The Local Group will also be on hand with telescopes and other various types of equipment for observing during the evening's festivities.

On Saturday, April 4, the celebration continues at the science center with solar observing on the lawn,

telescope, NASA Moon Rock and meteorite displays, with featured talks on meteorites, an Astronomy 101 lecture, astronomy workshop for teachers, a family telescope building workshop, and another presentation by Dr. Levy will highlight the afternoon. Evening festivities include a Junior Girl Scout sleepover and a sidewalk astronomy observing session provided by the Local Group with a guest appearance by David Levy.

On Sunday, April 5, "Radio Telescopes & The Incredible Edible Antenna" will be presented by Dale Clement a Life Member of the American Radio Relay League & Amateur Satellite Corporation.

IYA celebrations continue the following weekend, April 11, throughout the Tampa Bay area. WEDU, the bay's largest public television station has arranged for the premier showing of "400 Years of the Telescope" that will be aired at a later date on PBS stations across the nation, at three facilities. These facilities include the Museum of Science and Industry's (MOSI) Saunders Planetarium in Tampa, the Science Center of Pinellas County's Spirit of Columbia Planetarium in St. Petersburg, and the South Florida Museum's Bishop Planetarium in Bradenton. Each of these facilities will also premier the digital planetarium program "Two Small Pieces of Glass." Local astronomy clubs in each of these cities will also be providing observing sessions following the events.

Special television commercials promoting these events and IYA are also planned to run two weeks prior and up to the scheduled dates.

The Local Group of Deep Sky Observers also has a number of scheduled Sidewalk Astronomy observing sessions scheduled throughout the rest of the year. The sessions will be at GWIZ, the Bishop Planetarium, the community of Lakewood Ranch, Robinson's Preserve and several elementary and middle schools. The MARS astronomy club in Tampa and the SPAC astronomy club in St. Petersburg also have special events in the planning for the rest of 2009.



Fernback Science Center Planetarium Atlanta, GA

April Whitt reports: Fernbank has already begun a year's worth of celebration. We have partnered with SciQuest in Cardiff, Wales, as part of ASTC's Twinning Program, and have been exchanging lesson plans and exhibit demos.

In January we opened "New Horizons: Bridge to the Beginning," a planetarium program produced by Patty Seaton in Maryland.

February saw our unveiling of the NASA Multi-wavelength images of M101, complete with a guest appearance by Galileo (Jim Summers). They look wonderful in the lower exhibit hall. Astronaut Eric Boe visited his alma mater, and did several presentations in the planetarium at the end of the month.

Dr. Rick Aster of New Mexico Tech spoke March 12 about "Taking Earth's Pulse and Temperature using Seismology: Roaring Oceans and Singing Icebergs." It was a wrap-up of sorts for the International Polar Year as well. We're currently in the middle of GLOBE at Night - taking Star Lab out to fourth grade classrooms and sharing the Dark Skies Awareness kits. We offered teacher packets for Solar Week and Sun/Earth day.

In April we're encouraging participation in the 100 Hours of Astronomy, working with Brownie scouts, and promoting the "400 Years of the Telescope" program on PBS. The Southern Crescent Symphony Orchestra is offering selections from Holst's The Planets in several concerts this month, and we're partnering with them to offer discount planetarium program tickets for their audiences.

May 2 is both Science Olympiad (we're writing new questions for the Starry Starry Night portion) and National Astronomy Day with special planetarium programs, telescopes set up by the Atlanta Astronomy Club, and family activities. Hopefully we'll have a telescope to give away.

June brings Lockheed camp and Star Lab travel to local libraries. Maybe the Galileoscopes will be here by then. And we're looking forward to Nashville hospitality at the annual SEPA conference.

The 40th anniversary of the Apollo 11 moon landing will be celebrated with a planetarium program from the University of South Carolina/Aiken's Darlene Smalley.

The planetarium closes for a few weeks in August for annual maintenance, so we'll be working with our SciQuest partners on exhibit activities. Fulton County Libraries are partnering with us for the Smithsonian's "Earth from Space" exhibit opening that month.

September brings Part Two of our Galileo's Universe planetarium program, from scripts by observatory volunteer Steve Bieger.

Tellus NW GA Science Museum Cartersville, GA

David Dundee reports: We are gearing up for an exciting year of Astronomy. We are bringing astronomers from around the state to speak at our lecture Series (Hal McAlister (Ga. State) and Rick Williamson (Emory Univ.) are lined up so far.

The planetarium at Tellus is playing a wide variety of shows including daily live guided tours of the night sky. Planetarium attendance is over 25,000 in our first two months of operation; annual attendance in the planetarium should reach over 100,000. (Not bad for a 40' dome & 120 seats).

We inaugurate our new 20" Planewave telescope in our brand new observatory on Astronomy Day. Speaking of astronomy day we have local astronomy clubs joining us for day and night time observing and the Georgia meteorite club coming to give

folks a chance to see and touch some visitors from space.

Georgia Southern Planetarium Statesboro, GA

Becky Lowder reports: It's already been an exciting beginning of the 2009 International Year of Astronomy at Georgia Southern University! Our weekday school shows are full weekly, and we've added additional Girl and Boy Scout workshops on weeknights and the weekends to satisfy the demand as they earn their badges in astronomy and space science.

We've also gone "green" with our school and scout show confirmations, sending them along with pdf attachments via e-mail instead of mailing them out via snail mail. It helps the environment, saves money, and they receive their confirmations faster. We also added a Google calendar on our web site to post our events, but keeping the school and scout shows private so it just shows up as "busy" on the online calendar. This helps teachers plan ahead what days to ask for when they either e-mail or call us to schedule their shows.

We've planned our monthly public events around the IYA topics using the NSN resources, activities, and handouts for the public. Members of the Statesboro Astronomy Club, Physics Department, and planetarium interns/volunteers are tremendous helping with all the telescopic observing and astronomy activities during our events as well as outreach into the schools. We can't thank them all enough!

Here's our list of public events for the entire year:
January 30 - 7&8pm: Telescopes and Space Probes: Today's Starry Messengers
February 27 - 7&8pm: Our Solar System
March 28 - 4 TO 9pm: Astronomy & Space Day: Observing at Night & in the Day
April 17 - 7&8pm: Galaxies and the Distant Universe
May 1 - 7&8pm: Our Sun
June 5 - 7&8pm: Clusters of Stars
July 17 - 7&8pm: Black Holes
Aug. 28 - 7&8pm: Rocks and Ice in the Solar System
September 25 - 7&8pm: Planets and Moons
Oct.16 - 7&8pm: What is the Fate of the Universe?

November 13 - 7&8pm: The Lives of Stars
December 5 - 5, 6, & 7pm: Holiday Show: Discovering New Worlds

We hope to inspire and share the amazing discoveries in astronomy with our community as we celebrate 400 years since Galileo first looked up using a telescope. All events are always free to everyone and open to all ages. If any of you are ever down our way please join us! Clear skies!



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

Jon Elvert reports: IYA2009 will continue to be a busy year for us. We officially began our IYA celebration in early March with the unveiling of the Great Observatories images of M101 that attracted school groups, public and the local media. The Pennington Planetarium is located next to the Mississippi River downtown, so we held a *Star Party on the Levee* attended by 250 people. This was our first levee party and we had the city turn off the lighting along the levee, which made observing unexpectedly nice. We're offering levee parties again in the summer and fall. In addition, we're partnering with the local symphony orchestra in their performance of Gustav Holst's *The Planets*. We're also running both *Probing the Heavens with Galileo* and *Two Small Pieces of Glass* as our primary sky show, as well as in our portable. For the cornerstone project 100 Hours of Astronomy, two public lectures are being offered about Galileo, as well as teaming up with the local astronomy club at their observatory. The theme for our National Astronomy Day celebration is Galileo's astronomy, which includes solar observation, exhibits on weights and pendulums, talks, demonstrations and planetarium shows. An

exhibit on telescopes past, present and future is on display for most of the year. A Galileo teacher workshop is set for the fall where educators will be challenged to simulate experiments Galileo performed. And, this year's museum's annual fundraiser Gala takes on Galileo's *Starry Messenger* theme where Galileo himself has promised to make an appearance.

Lafayette Planetarium
Lafayette Natural History Museum
Lafayette, LA

Dave Hostetter reports: The Lafayette Natural History Museum & Planetarium is starting the International Year of Astronomy with the program, *New Horizons: Bridge to the Beginning*. During the summer, we hope to offer the IPS program, *Two Small Pieces of Glass*, rounding out the year with an update of *Moons of the Solar System*, which includes a hands-on activity where the audience simulates Galileo's observations of Jupiter, discovering its four largest moons in the process. With Jupiter in the sky during the fall and the end of IYA, it seems like a particularly appropriate program!

We are well into our IYA celebration and hope to offer at least a couple of events each month. We have already done a pair of successful telescope classes, and in conjunction with other local agencies have hosted a Canadian Starlab offering French language programming to the local French Immersion groups. In the meantime, we are well along with plans for Assistant Curator Charlotte Guillot to offer French Immersion programs much less expensively in the planetarium in the next school year.

Our plan is to offer some sort of program in conjunction with downtown Art Walks on the second Saturday of each month, but so far we have been overwhelmed by clouds...and Mardi Gras parades. We plan an Art Walk display of local astrophotographers' work in June, with sidewalk astronomy planned in other months (all we need is clear sky!).

We'll do a good deal of safe, public, solar viewing this year, including International Sun-Earth Day, many of the Art Walks, and Lunchtime Sidewalk Astronomy during the summer.

Our *100 hours of Astronomy* celebration at the beginning of April is scheduled to include a night of sidewalk astronomy, a moon lecture and moon viewing at the local Barnes & Noble, solar viewing at the Museum, and a star party at a local park.

Planetarium staff will work with Museum Education Curator Dawn Edelen as she develops a summer Cosmic Camp about astronomy and space flight for kids of elementary school age. We'll provide a planetarium program as well as a number of the camp activities and some instruction for the camp teachers. Galileoscopes may also be on the camp menu.

Arrangements are also being made for placing sidewalk telescopes at some local festivals during the fall, and with clear skies we can expect several hundred people look through them at those events.

Finally, we plan to pursue some new partnerships with the local school board for including light pollution with environmental education topics, and with the state school board to help with workshops for training teachers in science and math. We'll expand our Young Astronomers Club for teen-agers next school year, and are in conversations with local astronomy teachers about the merits of launching a local teachers' network. And, dare we hope...perhaps we'll find funding this year to make our rooftop remote observatory a reality!

Saint Charles Parish Library Planetarium
Luling, LA

Gary Meibaum reports: The Saint Charles Parish Library Planetarium which is part of a public library is participating in the Louisiana State's Summer Reading Program. This year the theme is *Once Upon a Time*. We will be having *Stories under the Stars* where the children are told stories in the planetarium. This should turn out to be fun.

We will be showing *Two Small Pieces of Glass* during the months of July and August as part of our tie in to IYA 2009. This year I am also hosting a monthly Dark Skies program at the Jean Lafitte National Historical Park and Preserve. We will be observing from the swamps, on a boardwalk of

course, just a foot or so away from the creatures of the night. I wonder if we will have any alligators want to look through the telescope. They do inhabit this area. It should turn out to be an entertaining if not spooky series.

As of this writing, the St. Charles Parish Library still has a MEDIAGLOBE I projector for sale. It is loaded with all the standard shows supplied by Konica Minolta and many demo shows. If anybody is interested in this projector (which is for use in a 30 ft or smaller dome), please contact me at 985-785-7471 or gary.meibaum@stcharles.lib.la.us.

Sci-Port: LOUISIANA's Science Center
Dayna and Ronald L. Sawyer
Space Dome Planetarium
Shreveport, LA

Greg Andrews reports: The first quarter of 2009 has passed and we have certainly been busy here at Sci-Port in celebrating the International Year of Astronomy. We have had several bonuses as a result of IYA.

Bonus #1: The biggest bonus is the insertion of a series of programs known as 4th Friday Astronomy. As the name implies, we have special presentations dedicated to Astronomy every Friday. Mainly, we bring in a guest speaker to talk about a particular mission or topic.

Bonus #2: Our 4th Friday Astronomy in February was dedicated to the MESSENGER space mission and we brought in Cathy Williamson, a MESSENGER Fellow. Surprisingly she and I received a phone call from NASA officials in Washington, DC on behalf of the MESSENGER mission. Apparently word had traveled back to Dr. Sean Solomon, who is the Principle Investigator for MESSENGER!

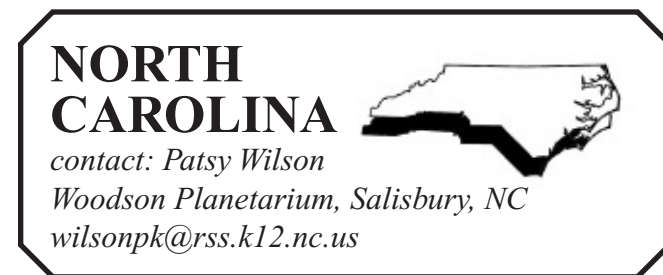
Bonus #3: One of our local colleges, LSU-S, invited a prominent guest speaker, Dr. Jocelyn Bell Burnell, as part of a program named *Space Shots!* which is independent of IYA. LSU-S partnered up with Sci-Port and we were able to conduct a few workshops for high school students.

Bonus #4: We were approached by the Louisiana

Public Broadcast (LPB) Corporation to help promote the premiere of the film *400 Years of the Telescope*. As a result, we will be doing activities and presentations on April 11 and April 14.

As I write this, the *100 Hours of Astronomy* event is speeding right around the corner! We have teamed up with our local astronomy club to promote this event! This collaboration is definitely exciting because it is one of many events the astronomy club, LSU-S, and Sci-Port are putting together.

There is much more, but let me summarize everything by stating we have planned programs for National Astronomy Day and National Astronomy Week; we've invited more guest speakers; we are offering a short class in Astronomy for teachers; we've added on several star parties; and we are planning several "get together" meetings centered on celestial events for local astronomy enthusiasts. Plus, we've received freebies to give away, which provide one more reason for people to come delve into the excitement of Astronomy!



Carolina Association of Planetarium Educators (CAPE)

Curt Spivey reports: The Catawba Science Center in Hickory, NC is proud to host this year's CAPE Conference, with a big assist from KMP/ AVI. The Conference will take place starting at 10:00 am on Monday, June 29 and should wrap up by mid afternoon on Tuesday, June 30. Registration is \$45, which includes a light breakfast Monday and Tuesday, and dinner Monday night.

We have a special rate established for CAPE Participants at

CROWNE PLAZA HOTEL

Hickory
HWY 70 1385 LENOIR RHYNE BLVD. SE
HICKORY, NC 28602

This is just off I-40, exit 125, about 5 to 10 minutes from the Catawba Science Center. Call **828-323-1000** for reservations.

They have blocked some rooms for Sunday, but the majority of rooms are being held for Monday night, June 29th. When registering, indicate that you are with the "CAPE Conference" in order to get the room rate of \$49 plus taxes (\$54.88, inclusive). The cut-off date for this rate is **June 14, 2009**. Be sure to have your reservation in by then!

Some of the featured speakers include Ken Brandt sharing JPL Resources, the PARI Institute talking about the SCOPE Program, Curt Spivey of CSC sharing the history of constellations, and a demonstration of the Millholland Planetarium Konica Minolta MediaGlobe II system. Monday night we will travel to the Lucille Miller Observatory for stargazing with the Catawba Valley Astronomy Club.

While the CAPE conference is ostensibly for planetariums in the Carolinas, we would be delighted to host any SEPA members, even if you do bear the handicap of not having "Carolina" in your state's name. If you wish to join us and have not received a registration form, please contact Curt Spivey at astronomy@catawbascience.org or phone (828)322-8169x341.

See you there!

Millholland Planetarium Catawba Science Center Hickory, NC

Curt Spivey reports: After a few bumps in the road, Heart of the Sun is being very well received. Thanks to Phil Groce of KMP and Paul Tetu of AVI for the quick fix to our poorly balanced soundtrack.

Our laser shows have become so popular; we have added a Friday matinee showing of Laseropolis at 4 p.m. So far, we haven't had a noticeable increase

in attendance for that show, but we are optimistic attendance will increase as the word gets around.

Lastly, we are so jazzed about hosting the CAPE Conference (see our separate blurb), that we will also be hosting the MediaGlobe User's Group (MUG) conference August 3 through August 7! We look forward to seeing all of you MediaGlobers again for the first time since I attended in Salinas, CA. Have a great end of the school year, all!

Robeson Planetarium and Science Center Public Schools of Robeson County Lumberton, NC

Ken Brandt reports: The Robeson Planetarium and Science Center is celebrating its 40th anniversary this year, and our focus has been and continues to be educating the children of this part of NC. As part of IYA, we are holding monthly programs for the public, celebrating the life and times of Galileo, and Kepler. We are one of the partner institutions for the Lawrence Hall of Science's **Strange Planets** program, and as of this writing are eagerly awaiting the **Two Pieces of Glass** planetarium program.

We continue to demonstrate the kinesthetic activity: **Phases of Venus** and the **Heliocentric Solar System**, developed by Ken Brandt and based on several other outstanding activities in this genre.

Robeson Planetarium Director Ken Brandt was recently featured as a podcaster for the **365 Days of Astronomy** podcast series assembled by the New Media working group of the International Astronomical Union. Ken's topic was aired on March 16th, and featured a simple way to find the North Star, and how to figure compass directions using shadows and the sun.

Ken is refocusing on distance and online education, and is trying to determine how the 'brick and mortar' planetarium can be used in this medium.

PARI StarLab Pisgah Astronomical Research Institute Rosman, NC

Bob Hayward reports: PARI remains busy with educational programs throughout Western North Carolina and beyond. Besides ongoing STARLAB visits to schools in the area we have had or will have a presence in the following:

- * Astronomy Days at the North Carolina Museum of Natural Science in January
- * Pisgah Forest Institute teacher workshop at PARI in March
- * Brevard Middle School Career Day in March
- * Cherokee Middle and High School Space Day in April
- * Semi-annual Homeschool Day at PARI in May
- * Annual public Space Day at PARI in May
- * Civil Air Patrol Workshop at PARI in May

Our **Evening at PARI** programs for the public continue to be a success. In February, we had the unveiling of the IYA NASA images of M101. This is particularly pertinent to PARI because our capabilities and observing programs in both optical and radio astronomy. In March we had a Messier marathon for the public although the skies didn't cooperate. April's program features our colleagues Gary Senn and Darlene Smalley from the DuPont Planetarium in a program on celestial navigation. We'll take a look at air quality in Western NC in May.

PARI's **Space Science Lab** summer resident program for high school students has had a successful three-year run. We are pleased that the Burroughs Welcome Fund has renewed that program for three more years. We will shift emphasis from the Sun to the Moon. In addition, the Duke TIP (Talent Identification Program) will be on campus this summer and has been renewed for 2010. The ROBOTS (Robotics: Opportunities for Building Outstanding Talent in the Sciences) program has been renewed with five professional development workshops scheduled through 2010 in conjunction with the MSEN Center at NC A&T State University. Derek Dennis, our CISCO/Kenan Fellowship recipient, is developing a series of web-based video activities for middle school students using our Smiley 4.6m radio telescope.

PARI presented three awards to students at the WNC Regional Science Fair in February for excellent science fair project on astronomy topics.

PARI has recently been mentioned in *Mercury* and *Physics Today* in reference to our APDA (Astronomical Photographic Data Archive) activities in which we are gathering historical photographic plates from around the world for archiving and digitizing.

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

Patsy Wilson reports: Our monthly 3rd Saturday public planetarium openings are continuing to draw nearly sellout crowds. In April we will present, **Stories in the Stars**. The May opening will feature **Astronomy 101**, a look at basic astronomy concepts that can be demonstrated using the star projector. We will distribute IYA bookmarks and highlight Galileo at this event. Unfortunately, budget woes have hit our facility. We were required to cancel the June and July openings as our school system moves to a 4-day week in an effort to conserve energy and dollars.

Requests from groups outside our school visitors have increased. Lots of folks are hearing about our laser system and want to experience it. It is a credit to our staff at Horizons Unlimited that we have moved from a place that no one had heard of to a place that people want to visit over and over again. In July, we will offer **Astronomy's Awesome**, summer day camp for rising 3rd-through 5th grade students. Activities will focus on various aspects of astronomy. Planetarium and laser shows will be included during the week.



SOUTH CAROLINA
contact: Glenn Dantzler
Settlemyre Planetarium, Rock Hill, SC
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DuPont Planetarium
Ruth Patrick Science Ed. Ctr. , USC
Aiken, SC

News from the DuPont Planetarium: The DuPont Planetarium at the Ruth Patrick Science Education Center (RPSEC) on the campus of the University of South Carolina Aiken (USCA) has been busy with the International Year of Astronomy (IYA). We began the celebration with the image unveiling of NASA's Great Observatories. Our event was held on February 13, 2009 with the images being unveiled by the Mayor of Aiken, Honorable Fred Cavanaugh and the Chancellor of USCA, Dr. Tom Hallman. The images from NASA's Great Observatories, the Hubble Space Telescope, Spitzer Space Telescope, and Chandra X-Ray Observatory, are on display in the main entry area of the planetarium. Our images include custom built frames by a talented craftsman, C.D. Ford.

At the time of the unveiling, we announced a youth art competition with an entry deadline of March 19, 2009. Entries reflecting an astronomy theme were submitted with overall dimensions not exceeding 15"X18"X4". Student prizes will include ribbons, free planetarium tickets, and an ice cream party with a private planetarium show. In addition, the teacher with the most student entries earned a gift certificate to the Science Store. We received 216 art entries from local schools and one entry from the Philippines.

The student artwork was put on display in our planetarium gallery area during the next event related to the IYA. That event was on April 4, 2009 when we took part in the 100 hours of observing event. We did not schedule observing during the entire 100 hours, but we did have observing from 4:00 p.m. until midnight. We provided solar observing from 4:00 until the Sun was too low in the sky, and then

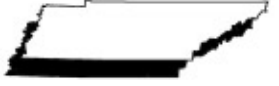
we offered telescope observing as night sky objects became visible. The Astronomy Club of Augusta joined us with telescopes on the lawn in front of the RPSEC. The Bechtel Telescope in the Ruth Patrick Science Education Center Observatory was also available to our visitors that night. In addition to observing, this event featured a visit from Johannes Kepler portrayed by John McFarland. This was Kepler's second visit to the DuPont Planetarium in the last 3 years. During the event, we showed "In My Backyard" from the Calgary Science Centre and Lochness Productions', "The Voyager Encounters."

The next event will be on May 2, 2009 when we host our annual Earth and Sky Night on National Astronomy Day. Events include planetarium shows, hands-on activities, night-sky viewing, and a visit from the Galaxy Gals who will present awards to art contest winners. The Galaxy Gals are fun-loving women who will be dressed as planets and other celestial objects, and they will mingle with the crowd throughout the evening. A variety of hands-on activities will be available from 7:00 - 9:30 to help people understand the wonders of earth and space science. Many activities will have materials that visitors can take home with them, and live animals such as snakes, turtles, alligators, and our barred owl, Raleigh, will be on display. Telescopes operated by members of the Astronomy Club of Augusta will be set up on the lawn outside of the RPSEC. The Bechtel Telescope will also be available.

In February we showed "Follow the Drinking Gourd," based on the program by the New Jersey State Museum Planetarium and the Raritan Valley Community College Planetarium. We updated the script somewhat to make it a little longer and to include some more astronomy. We also address some of the concerns that others have expressed about the accuracy of the facts in the show surrounding the song and the Underground Railroad. In March we showed "Star Stories," a live program, and "More than Meets the Eye" by Lochness Productions. Throughout the month of April we showed "In My Backyard" from the Calgary Science Centre and Lochness Productions', "The Voyager Encounters."

We look forward to the next Carolina Association of Planetarium Educators conference that will be held at the Catawba Science Center in Hickory, North Carolina on June 28, 29, 2009. We hope to see many of you there.

TENNESSEE
contact: Kris McCall
Sudekum Planetarium
Nashville, TN
krismccall@adventuresci.com



Bays Mountain Planetarium
Kingsport, TN

Adam Thanz reports: After a year of being closed, Bays Mountain Planetarium in Kingsport, TN has reopened to huge crowds! We shut our doors at the beginning of March, 2008 to proceed with a \$1.3M renovation (funded mostly with tourism tax dollars). The project started with Jason Dorfman and myself removing everything we could from the old theater. Then, a variety of construction projects took place. A new curved entranceway was installed, a sloped floor, HVAC return ductwork, electrical work, carpeting on the floors and walls, painting everything behind the dome flat black, etc. Then the dome was replaced with an Astro-Tec Ultimate Seam dome. East Coast Controls (ECCS) installed a Pleiades Advanced LED Cove lighting system. Also installed were a custom 6.1 surround system (one speaker at the zenith), 102 plush seats from Greystone Int., a 40 processor (5, 8-core) render farm, updating our building's ethernet to gigabit speed and adding a large switch for the render farm, and much more. The last item to be installed was the Zeiss ZKP-4 with Spacegate Quinto. During the year, we were doing a fair number of public programs in a classroom downstairs, producing our first full-dome show, and being directly involved with all steps of the installation.

Creating the show was quite a learning experience as there were constant problems to overcome. I am not exaggerating to say that every step of the way

provided a hurdle for us to overcome. Possibly a few hundreds of steps at that. Now that the show is installed, we will be much more prepared for the next one. Our first full-dome show is called "Connections" and highlights how we connect with nature, natural environments, the night sky, constellations and sky lore, the Solar System, the Milky Way, and the Universe. The show was produced to be more of an emotional experience while providing an understanding of the 3-D structure of space. The show includes original, jaw-dropping 3-D modeling, animations, scenery, and artwork by Allen Davis and a kick-tuchas original score by Jason Dorfman. I do want to say that the show not only includes 3-D content, but a large percentage of the show highlights the optical sky from the ZKP-4.

We opened to the public on March 7, 2009. As of this writing on April 20, 2009, we are around a total of 11,000 visitors for both public and school programs! We have never experienced this amount of public support. There has been advertising, but now it is a word-of-mouth event. Everyone has been so impressed by the new theater and its design. But, they are amazed by the show. Being immersed makes an impression and the show was designed to consider how the viewer would experience these visuals. When the optical sky comes up, the oohs and ahhs are pronounced. The key word from everyone after the show is "awesome." I have heard this from not only kids and young adults, but even octogenarians!

We are so happy for the public response, the support from City officials (we are city owned), and all the help from the staff here at Bays Mountain. We will be working on school shows and our next summer show very soon. Just in time for the 2010 SEPA conference that we will be hosting! (We have plenty of time, ha, ha!)

We hope to see you at the 2009 conference in Nashville, TN, with our good friends at the Sudekum Planetarium and then next year right here.

Speaking of the 2010 conference, I have been busy getting our ducks in a row so we can make a complete presentation at the 2009 conference. I have a great keynote speaker lined up, but want to wait for my presentation so it's a surprise to all of you. I

know you have all heard of this person. Is your interest peaked yet? What I can say about the 2010 event is that it will have great presentations and workshops for you to learn from, provide many vendors and their products, you'll experience a wonderful slice of Appalachian life, have plenty of incredible food, and have lots of fun. It is June 8-12, 2010.

**Sharpe Planetarium
Pink Palace Family of Museums
Memphis, TN**

Dave Maness reports: Well, I have just passed my one year anniversary here in the Sharpe Planetarium at the Pink Palace. Memphis is a wonderful town with a surprising amount of culture and activities. If only I had time to enjoy some of it. I am still essentially a one man operation. In the current economic climate it is not likely that I can hire staff soon. That is up to the city to decide.

We are looking into full dome digital upgrades in the future. An architect firm to oversee the project has not been selected as yet. We will be having the Super Media Globe II here on June 5 for demonstrations on our 50 foot dome. It is hoped that the city and some generous donors will be inspired by this to spur the project along.

Fairly heavy March attendance continues the upward trend of February. We are set to break last year's record of school programs. I just finished a successful run of the Adler program *Images of the Infinite*. Opening this Saturday is *Bad Astronomy: Myths and Misconceptions*. The seasonal program is *Visions of a Spring Night*. I am also trying to find time to do some public observing events for the IYA here at the museum and other sites on my own and with the Memphis Astronomical Society.

Thanks again to the generous folks (Sharon Shanks and Stephen Nipper) who donated some matching lenses for my all-sky system.

That's about all for now.

**Sudekum Planetarium
Adventure Science Center
Nashville, TN**

Kris McCall and Drew Gilmore report: Sudekum is keep-

ing busy for IYA. Below is a list of ASC IYA events by month:

March 2009

special event: March 16 through 28, 2009 - participation in Globe at Night <http://www.globe.gov/GaN/> encourages everyone to make observations and contribute to science research. Speaker: Dr. Susana E. Deustua is co-chair of the U.S. IYA Node and made possible as a Harlow Shapley Lecturer through Austin-Peay State University

special event: Saturday, March 28, 2009, 8:30 to 9:30 pm - Earth Hour www.earthhour.org Nashville is one of the six main US sites

**party:* Saturday, March 28, 2009, from 8 to 10 pm at Sudekum Planetarium at Adventure Science Center - watch Nashville turn out the lights and turn on the night. Telescopes provided by Barnard-Seyfert Astronomical Society. Speaker: Tennessee State University: Discovering Planets Orbiting Other Stars

special event: Tuesday, March 31, at 6:00 pm, the public is invited to celebrate the 10th Anniversary of the first direct detection of a planet outside our solar system. The program will be presented in the Sudekum Planetarium at the Adventure Science Center. Admission to the program is free. Speaker: Dr. Mathew Muterspaugh, an astronomer at Tennessee State University, will present a program about TSU Astronomy: Past and Future with special emphasis on how TSU astronomer Greg Henry detected this first extra solar planet using TSU automated telescopes.

April 2009

special event: Friday, April 3, 2009, premiere Two Small Pieces of Glass planetarium show with reception for Middle Tennessee IYA partners, local PBS affiliate NPT, and producers from Interstellar Studios

**party:* Friday, April 3, 2009, from 8 to 10 pm at Sudekum Planetarium at Adventure Science Center. Waxing gibbous Moon, Saturn, Orion, Pleiades. Telescopes provided by Barnard-Seyfert Astronomical Society.

**party:* Saturday, April 4, 2009, from 8 to 10 pm at Edwin Warner Park Special Events Field. Waxing gibbous Moon, Saturn, Orion, Pleiades. Telescopes provided by Barnard-Seyfert Astronomical Society.

2nd Saturday: April 11, 2009: Stars of the Pharaohs, Skies Over Nashville/Two Small Pieces of Glass, STARS + telescopes set up outside weather permitting

May 2009

special event: International Astronomy Day in Middle Tennessee, May 2, 2009, 10:00 am to 5:00 pm - exact events and activities TBD, collaborating with Barnard-Seyfert Astronomical Society www.bsasnashville.com

**party:* Saturday, May 2, 2009, from 8:30 to 10:30 pm at Longhunter State Park Visitors Center. FQ Moon, Saturn. Telescopes provided by Barnard-Seyfert Astronomical Society.

2nd Saturday: May 9, 2009: Stars of the Pharaohs, Skies Over Nashville, STARS + telescopes set up outside weather permitting

June 2009

2nd Saturday: June 13, 2009: Astronaut, Skies Over Nashville, laser shows + telescopes set up outside weather permitting

special event: June 16 through 20, 2009, Southeastern Planetarium Association annual conference joined by Great Plains, Pacific Planetarium, Rocky Mountain, and Southwestern Planetarium Associations

July 2009

2nd Saturday: July 11, 2009: Astronaut, Skies Over Nashville, laser shows + telescopes set up outside weather permitting

**party:* Saturday, July 25, 2009, from 8:30 to 10:30 pm at Longhunter State Park Visitors Center. Crescent Moon, Saturn (early), summer star clusters. Telescopes provided by Barnard-Seyfert Astronomical Society.

August 2009

2nd Saturday: August 8, 2009: Astronaut, Skies Over Nashville, laser shows + telescopes set up outside weather permitting

**party:* Saturday, August 15, 2009, from 8:30 to 10:30 pm at Edwin Warner Park Special Events Field. LQ Moon, Jupiter rises 7:30, Perseid meteors, summer star clusters. Telescopes provided by Barnard-Seyfert Astronomical Society.

September 2009

2nd Saturday: September 12, 2009: Nine Planets and Counting, Skies Over Nashville, Astronaut + telescopes set up outside weather permitting

special event: September 17, 2009 (very tentative) Panel discussion on the definition of a planet and status of objects within our solar system

October 2009

2nd Saturday: October 10, 2009: Nine Planets and Counting, Skies Over Nashville, Astronaut + telescopes set up outside weather permitting

**party:* Saturday, October 24, 2009, from 8 to 10 pm at Longhunter State Park Visitors Center. Young Moon, Jupiter, Uranus, Neptune, Pleiades. Telescopes provided by Barnard-Seyfert Astronomical Society.

November 2009

2nd Saturday: November 7, 2009: Nine Planets and Counting, Skies Over Nashville, Astronaut + telescopes set up outside weather permitting

December 2009

2nd Saturday: December 12, 2009: Laser Holidays, Skies Over Nashville, TBD + telescopes set up outside weather permitting

**party:* Saturday, December 12, 2009, from 7:30 to 9:30 pm at Edwin Warner Park Special Events Field. no Moon, Jupiter early, Geminid meteors, Uranus, Pleiades, Orion Nebula. Telescopes provided by Barnard-Seyfert Astronomical Society.

VIRGINIA

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Abbitt Planetarium

Virginia Living Museum Planetarium
Newport News, VA

Kelly Herbst reports: Work continues apace on reproduction of our catalog of school programs on

our new sciDome system. Today I finished *Assignment: Earth*, our home-grown program for 3rd and 4th graders. I've always loved the show (it was my very first solo production), and now it looks even more amazing than ever before. It even prominently features a woodchuck. Go SEPA!

Summer will soon be upon us, and we are preparing to trade *Microcosm* for *Kaluoka'hina: The Enchanted Reef*, which will pair off to our summer exhibit "Vicious Fishes and Other Riches." We'll also be using a short full-dome companion program, *Amazon Voyage*, to change up our regular *Virginia Skies* program for the summer. Even our beloved "Stroller Brigade" gets a new show as we'll be running *The Zula Patrol: Under the Weather* for the preschool set all summer long.

But before the insanity of summer comes the insanity of a Grand Opening! We will celebrate both the International Year of Astronomy and the reopening of our theater on May 16th with a full day of excitement. *Astronaut* will be the featured program of the day, along with many others. We'll also have Galileo on hand (in the person of Mike Francis) to talk to folks, and even a real live NASA astronaut, Susan Kilrain, to meet and greet our guests. Plus a ton of NASA Langley folks, and even a dear friend of mine, Michael Uzzo, from SOHO. It should be an exciting day!

Speaking of IYA 2009, we've had amazing success with our monthly free star parties plus planetarium programs and laser nights. Second Saturday of the month is becoming a real happening here in Newport News! Observing is free, programs are paid, and we've been having a lot of fun introducing the laser crowd to the sky, and the sky crowd to the lasers. Our discount double feature has been selling like crazy. On a sad note, it hasn't been selling enough that the museum can afford to send me to Nashville (having the SEPA conference at the end of the fiscal year is a definite disadvantage!), and neither will my personal finances allow for it. So I'm afraid I'll be missing all the fun...again. Darn rotten economy... Hope everyone has a blast! I'll be thinking of you!

Pretlow Planetarium Old Dominion University Norfolk, VA

Declan De Paor reports: More by coincidence than design, ODU is marking the IYA by undertaking a major renovation of the Pretlow Planetarium. With the aid of the VA equipment trust fund, we have purchased a Digitalis Epsilon full-dome projector (currently awaiting delivery) and Mac Pro computer with four video cards for supplementary projection, replacing our old Kodak slide projectors. We have an NSF Major Research Instrumentation grant proposal pending. The project, if funded, would assess the educational value of full dome immersion across several campus courses.

I have been busily revamping ODU's Introductory Astronomy courses (PHYS 103/104) to include night observation labs - quite an undertaking given over 230 students!

Radford University Planetarium Radford University Norfolk, VA

Rhett Herman reports: The Radford University Planetarium has been recently upgraded thanks to Patricia Reiff of Rice University. I talked with her at the December meeting of the American Geophysical Union about my problems using multiple hand-me-down LCD projectors and having to control them with 6 keyboards. I was using 3 for panoramas and 3 for the upper-level individual photos for the various shows. Having to keep up with those along with the star projector console (analog-switches and buttons) made for quite an effort with each show. Due to our small (24 foot diameter) dome even three projectors only covered about 160 degrees of the dome, and it only rose a few feet above the base of the dome. Not very satisfying to say the least, but it was all I had.

Pat was kind enough to tell me about something that would help with my problem. It involves a single projector coupled with a quarter-sphere mirror. Those are the mirrors that you often see in T-shaped hallway intersections. These allow you to see down the other two hallways as you approach the inter-

section along the long axis of the "T." If you bounce one projector's output off of the mirror then it will fill up the entire hemisphere of the dome.

I talked our campus multimedia people out of a slightly higher resolution projector (1440 pixels wide DLP) and rigged that up with the half-sphere mirror that I bought online. (It's plastic which means that it's cheap, but that also means that it's affordable!) I got our Facilities people to install a type of bar fastened to the underside of the dome on which to mount this projector. I put the mirror on a shelf I had rigged at the bottom of the dome.

When this was installed I turned everything on and, after some adjusting the entire dome was alive! I have since converted 3 of our shows to this new format and am working to get the rest of our shows to match. Since the shows are really PowerPoint presentations with all the images I can use the features in PowerPoint to make satellites fly all around the dome, Mars rovers land from orbit, shooting stars cross all over the dome, and most anything else I have time to include. No more trying to coordinate six projectors in a very difficult choreography with the star projector. Things are definitely looking much better!

Planetarium Children's Museum of Virginia Portsmouth, VA

Dan Borick reports: Not a lot new going on here in the planetarium per se. As you may know we are planning to shut down for a total renovation September 2009. We are going to improve our exhibits, add exhibit space, add new seating to the planetarium, redesign the entrance of the planetarium to look like a movie theater to fit the "Olde Towne" exhibit on the floor, and hopefully go digital before the re-opening. It is a dynamic situation that depends upon the total funding of the budget.

On the school side, we have purchased Galileoscopes for all the schools (33 per high schools) that will be shared to do sky observations during the IYA 2009. I will be doing a Moon Movement and Mystery professional development for our district's elementary science teachers. It is funded by

a NASA AESP grant through Hampton University. That will be taking place this fall semester. We will be focusing obviously on the moon, its movements and its characteristics from the point of view of the 40th anniversary of the first trip to the moon and our return in the near future.

**Thomas Jefferson HS Planetarium
Richmond, VA**

Leslie Bochenski reports: It's been a busy spring! I've seen about 100 classes since the first of the year; that's over 1200 students! Most of my programs have been for younger children, 3rd and 4th grades, but I have seen a few 8th grade and High School classes too.

I also have a new 'toy' in my Planetarium. I've finally moved into the 20th century, the 21st century is still a long way off around here! I now have a computer, internet access, and an LCD projector. I'm using this everyday to replace the slides and overheads I used to use during my programs, and I am looking forward to getting it integrated into my audio system so I can show DVD's and other audio content.

See y'all in Nashville!

**West Springfield HS Planetarium
Fairfax County Public Schools
Springfield, VA**

Dave Hincer reports: The WSHS planetarium will be hosting an IYA event at 7:30 PM on March 28th. Seating 60 people by reservation only, the event filled in the first three days open to the public. We hope to spend a brief time under the stars of the thirty foot dome and then trek outside to the roof so that, weather permitting, our guests are able to look through one of the four large donated telescopes. In the spirit of our 400 year celebration of the events surrounding the Birth of modern Astronomy, we hope to inspire people in our audience to become involved in Astronomy as a hobby, study or career.



The WSHS Planetarium is tentatively closing June 2009 to the public after 43 years of continuously serving the students of FCPS schools due to lack of FCPS school operating budget funds :(

The Editor requests that you remember your State Coordinator and send something!

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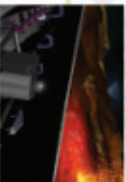
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