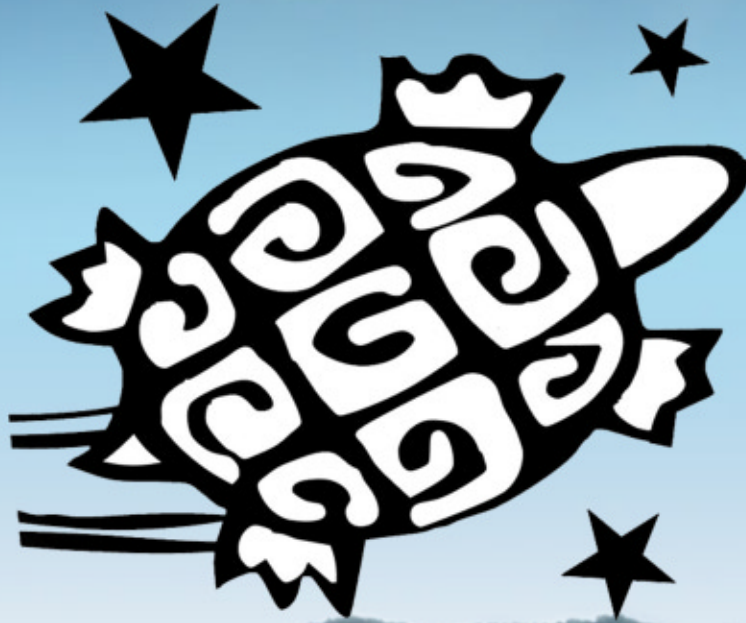


Southern Skies

Volume 30, Number 1

Journal of the Southeastern Planetarium Association

Winter 2011



SEPA 2011

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President's Message

April Whitt
Jim Cherry Memorial Planetarium
Atlanta, GA

This past Sunday, the priest at church mentioned three stages of transition: the ending of the old, the "wilderness" time between, and finally the new. I feel as though I'm part way through the wilderness this week. It is a humbling experience to be writing this column. SEPA has been blessed with so many amazing leaders.

NASA has named 2011 The Year of the Solar System for all the craft that are encountering objects out there. The "year" appears to run from December

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

Rates	Dimensions
\$100. high	Full-page 7" wide x 10" high
\$50. high	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 Patsy Wilson). 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.

2010 through August 2012 - more a martian than a terran year - and there is plenty to celebrate and share.

By now MESSENGER has safely achieved orbit around Mercury, and is continuing its stream of data. I remember when it launched, and was lucky enough to be in the first cadre of MESSENGER Fellows. The goal was to educate a million people about the project between launch in 2004 and orbital insertion seven years later. (I'll bet we educate almost that many people in just one year, here in the Southeastern region.)

Stardust NExT has encountered Comet Tempel 1. The Dawn spacecraft has passed Mars and is on its way to asteroid Vesta for a May rendezvous. New Horizons is more than half-way to Pluto. Later this summer, Juno leaves for Jupiter and Curiosity for Mars. Choose your favorite celestial object, and there's probably something on the way there or already sending back images. Be prepared for lots of questions from the public.

And don't forget the high point of the summer: the SEPA conference at Young Harris College in north Georgia, June 21 - 25. It will be a literal and figurative Mountain Top Experience. Start thinking about a paper or poster to share, an item for the silent auction, or how you plan to complete the Professional Development application. It's your chance for some dollars to help pay your way to the conference.

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SEPA President April Whitt

IPS Report

John Hare
ASH Enterprises
Bradenton, FL

Thomas Kraupe of Hamburg, Germany was elected President Elect of IPS. David Weinrich, Morehead, Minnesota, moved into the position of President, and Tom Mason, Armagh, Ireland, assumed the role of Past President. Reelected officers are Lee Ann Hennig, Alexandria, Virginia, as Secretary and Shawn Laatsch, Hilo, Hawaii as Treasurer. All terms are for a period of 2 years effective January 1, 2011. This is the second time around for Kraupe having previously served as President in 1997-98.

At the 2011 IPS Council meeting, IPS Council will determine the site for the 2014 IPS conference. Three locations are competing for the conference:

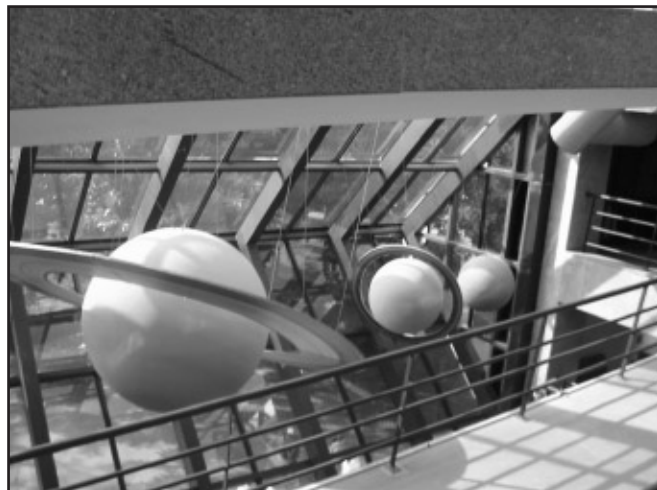
- Beijing, China
- Rio de Janeiro, Brazil
- Vancouver, Canada.

Details of the Beijing proposal were included in the previous issue of *Southern Skies* and details of Vancouver's bid will be featured in the next issue of *Southern Skies*.

The following is a summary of the invitation from Rio de Janeiro.

IPS-2014 Rio de Janeiro, Brazil:

Proposed conference dates are Sunday, July 26 thru Thursday, July 30.



*The exhibit gallery at the Rio planetarium.
Image by John Hare.*

(Continued on page 8)

Paul Campbell Fellowship Award Nomination Form

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

Nominee's Name: _____

Qualifications: _____

Editor's Message

James Sullivan
Buehler Planetarium & Observatory
Davie, FL

A production story: We recently took one of our shows that had been running a number of years (it made the transition from slide to digital), and brought it screaming into the 21st century. We took the cartoon characters and animated them - the heads move, the arms wave, the mouths open and shut synced with the soundtrack. We added motions to the transitions, and looked for places where motion would add visual interest. As I'm sure it is with many of you, teachers return year after year to see the same show. Showing this version to these veteran returning teachers and asking them to critique it for us yielded an interesting result. They consistently insisted that we had updated the content, when the only thing we had added was motion.

As this issue of *Southern Skies* was being worked on, we all got to deal with the "discovery of a new zodiac constellation" and "my astrological sign changed." While the news cycle moved on within a few days, we are still getting people talking to us about their sign and Ophiucus. As frustrating as this was, it was a great chance to educate people about the reality of the sky.

We are planetarians, and therefore want to educate people about the wonders of astronomy. Often we

(Continued on page 8)



SEPA Membership Form

Please send your check to SEPA, c/o Patsy Wilson, Margaret C. Woodson Planetarium, 1636 Parkview Circle, Salisbury, NC 28144.

____ 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 _____

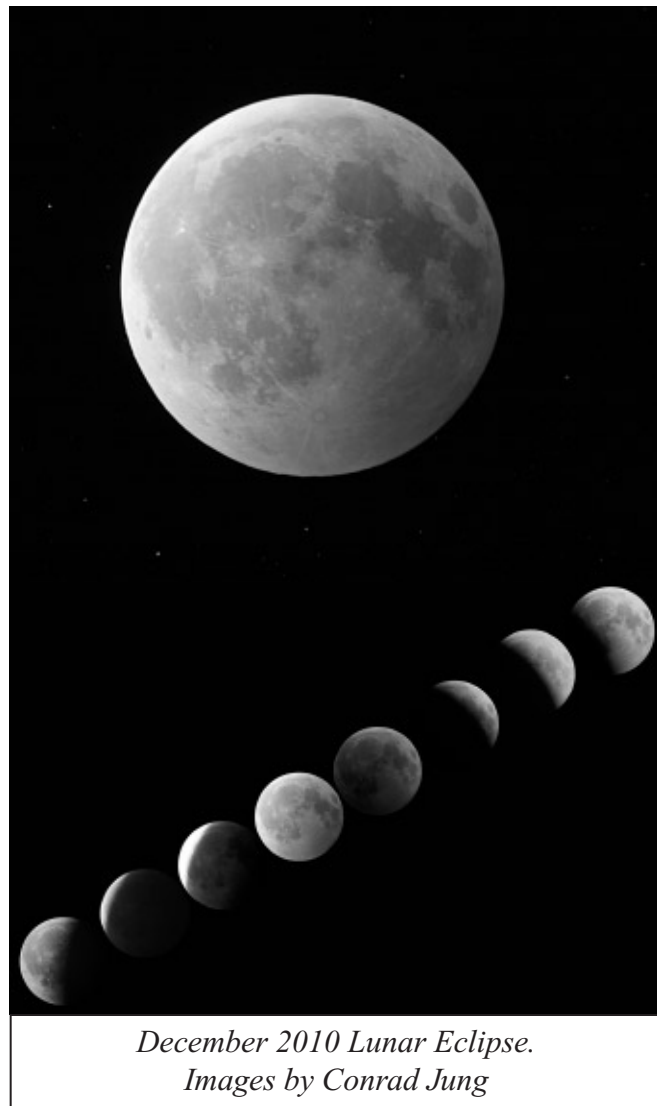
Contribution to Scholarship Award Account: \$ _____

Small Talk

Elizabeth Wasiluk
Berkeley County Planetarium
Hedgesville, WV

I am in an end of the year funk at this point. My stellar pulsar search students have vanished to the edges of the Universe, (pardon the pun.) and the new kids are just not the champions my last year's astronomy students were. I am not doing a "holiday" planetarium program, but I did do one for the lunar eclipse. I did two planetarium programs on the lunar eclipse. Had about twelve people come to attend the program and with only 25 people able to visit Berkeley County Planetarium at one time, that was a decent crowd for me. One couple called me after the eclipse to say thanks for the information and they watched the eclipse together under reasonably clear Martinsburg skies. With such a small planetarium (20 ft. dome, 25 seats) and such a large student body (over 1984 students and growing), I can't fit everyone in the planetarium, so I let kids answer questions in a school wide quiz and the winners get to come to see a planetarium program on the lunar eclipse and miss their fourth period class, if their teacher's agree to the arrangement. I saw Donovan in the hallways and he seems to remember the eclipse section from astronomy class. He tells me I taught him well, but he didn't make it the last nine weeks last year for not doing homework and work for the class. He is really a great kid, drove me crazy last year, but passed the pulsar tests and

was able to go to the big event at the end of the school year at West Virginia University and helped bring the team to victory. He was the only one who showed up for the school day



December 2010 Lunar Eclipse.
Images by Conrad Jung

version of the lunar eclipse program. Had a nice mix for the evening program and for the afterschool 4:30 p.m. program had a little old lady more interested in identifying stars than getting up early to watch the lunar eclipse. One astronomy student made a 30 minute movie.

With the end of the school semester and the lunar eclipse programs, there are Christmas presents lying on the floor all over my bedroom. The kids and teachers are all praying for snow so we can get ready for the holidays. With school lasting until December 23, 2010, there is no sense in going anywhere, so I will be staying home in Martinsburg, WV for the first time in twenty-three years! It will be sad not waking up in Canada on Christmas morning, however, I am glad that I do not have to brave the BWI and Buffalo airports.

I have a big problem with males taking my astron-

(Continued on page 7)

Small Talk (Continued from page 6)

omy class and just not doing basic work, such as homework. There is some math, but not any more than what non-science major students do in an astronomy class. Many of them are just satisfied with getting a "C" in class. I have been reading up on the topic and there are many statistics to back up that high school boys just don't do as well as high school girls and they continue to outshine them in college. Here is just one link to one of the articles I have been reading: <http://bigthink.com/ideas/19330> if you have any thoughts in the matter, send them in to me via e-mail, snail mail or pick up the telephone. I would be happy to share them.

On the gender topic, it has been found that pulsar search has been successful in getting female students interested in the science, technology, engineering, and math careers. You find a link to the article in the *Astronomy Education Journal* at <http://www.pulsarsearchcollaboratory.com/>

With the Christmas season upon us, I plan on reading some of the books I have collected over the years on the Christmas star. I have been collecting them over the years and will share their titles with you and a brief write up.

The Christmas Star [Hardcover] by Marcus Pfister and Alison James: This is a story about the first Christmas from a religious standpoint on how people saw the star and followed it to find the Christ child. It is not for those who are fundamentalist, as they have shepherds following the star and if you read accounts in the Bible, they did no such thing. But if you really are a fundamentalist, then you would be celebrating Christmas in spring since the shepherds keep watch on flocks in spring when the new lambs are being born. Also the star looks kind of comet or meteor like with a tail. What's that about? The only redeeming quality of this book is it is made by the people who did the kid's book, The Rainbow Fish, so the star is very groovy to look at, but that is about it. Skip it unless you want to buy a Christmas present for little kids who get attracted by shiny objects.

How about One Special Star, by Anita Mc Fadzean, Illustrated by Kate Jaspers. This is a counting book based on the nativity. Not much to help you get ready for "Star of Bethlehem" program, but great

illustrations to maybe inspire an artist to design pictures for your planetarium program. I would recommend this as a gift book for a child, however, it isn't a cardboard book, so if your child is rambunctious with books, it might not stand up very well.

The Christmas Sky by Franklyn M. Branley, Illustrated by Stephen Fieser. I love books by Franklyn M. Branley. I read many of them when I was a little kid and it got me really excited about astronomy. This book was originally written in 1966, so the ideas might be really old. The new illustrations are very lovely.

The Christmas Star by John Mosley. This is a book written by a guy who worked in the planetarium field for a long time. It is like a little planetarium show in book form and comes complete with stories about how holiday traditions come about. Highly recommended, if you can get a copy as it may not be still in print. (It is copyrighted in 1987.) It is a favorite of mine. I got mine from Griffith Observatory.

The Star of Bethlehem: The Legacy of the Magi by Michael R. Molnar. This book was greatly heralded when it first came out in 1999. Very well researched and documented. This is definitely a book to check out to put together that SOB show.

The Christmas Star by Linton and Phyllis Pitluga. Phyllis Pitluga was long the staff astronomer at Adler Planetarium in Chicago. This book was copy-written in 1976 and probably a gift book for patrons of the annual Christmas program at Adler. I picked it up from the gift shop at the J. M. Mc Donald Planetarium in Hastings, Nebraska in 1979 when I ran a Christmas program I devised from a script from the McMillan Planetarium in Vancouver, BC.

The Star of Bethlehem, a pamphlet I picked up from Adler Planetarium in the sixties for twenty cents. Fun reading for a historical perspective.

The Christmas Star by Allis Zobel-Nolan, Illustrated by Trace Moroney. A board book for kids about a shepherd boy and his dad who view the Star of Bethlehem. (Ok, if you are a purist, there is no record of shepherds even seeing the star according to biblical accounts, contrary to that Christmas carol, "The First Noel.") Pretty sparkley star pic-

(Continued on page 9)

The estimated registration cost is \$400 to \$500 with the banquet extra at \$75. The banquet site is at the top of Sugar Loaf, one of the premiere landmarks of Rio! The conference headquarters will be the Sofitel hotel located at the west end of the famous Copacabana beach and only 200m from Ipanema beach. Rooms are \$219 per night. More modestly priced, nearby hotels range from \$89 to \$199 per night.



Sugar Loaf as seen from the base of Christo.
Image by John Hare.

Taxi fare from the airport is about \$45. Nonstop flights to Rio depart from a number of gateway cities in the US, and economy fares are available for well under \$1000. US citizens are required to have a visa that can be obtained from the Brazilian embassy directly or thru a number of travel related service companies.

The host hotel contains a large conference center that will be utilized for the majority of the conference activities. Additional activities will take place at the planetarium complex. The planetarium is about 15 minutes distance by bus.

The main planetarium theater is a 23m dome containing 263 seats and a Zeiss Universarium VIII projector. A second, 12.5m dome contains a Barco/RSA Cosmos digital projection system.

Four grand conference themes are planned; Education, Technology, Low-Budget Solutions, and Regional Astronomy (archaeo-, ethno-, and cultural astronomy).

Rio and the Rio planetarium recently hosted the XXVII IAU General Assembly. The planetarium plans to partner with the same professional conference organizer to insure that IPS 2014 achieves the dreams and goals set forth in their invitation.

At the business meeting at SEPA 2011, I will present an overview of all three invitations.

Do not hesitate to contact me should you require any information regarding IPS and its activities.

Editor's Message (Continued from page 5)

have to battle against misconceptions or belief systems. Sometimes we win, sometimes we don't.

Do you have any good war stories about this battle? Do you have any favorite techniques or tricks to share? Consider writing them down and sharing them with your colleagues through *Southern Skies*. That is a goal of this journal, so that as a community we can share with and educate each other. So, write an article!

Don't forget to share pictures, too. Pictures for *News from SEPA Region* or any article are gratefully included. We are always looking for good cover pictures, too. The pictures should be of interest to our community and, hopefully, colorful. We are always looking for a "wow" or an "art" factor.

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.

Small Talk (Continued from page 7)

tures and cute story, but not much help in the writing of a Christmas planetarium program. Maybe good as a gift book for a child. Circa 2004 form Reader's Digest Children's Publishing, you can still pick it up from Amazon if you search, but I got it from Dollar Tree for a dollar and bought another copy for a friend's child.

Here are some articles you might like to check out:

"Science, Scholarship, & Bethlehem's Starry Night" by Aaron Michael Adair from the December 2007 Sky and Telescope magazine. The latest I know on the subject.

For fun, if you can find it, check out Elissa Malcolm's "The S.O.B. Show" in Asimov's Magazine. Can't tell you the year, however, Elissa was once married to a well-known MAPS member. It is really a funny story and you might recognize people mentioned there. Enough said.

Some videos to check out:

"The Christmas Star: The Search For The Star of Bethlehem" 1993 from York Films of England, released stateside in 1995 by Acorn Media. Great documentary, well researched. Don't know if it is still available.

My secret pal at school, a student member of a local "Assembly of God" church, gave me this DVD one Christmas "The Star of Bethlehem: Unlock the Mystery of the World's Most Famous Star." Long a best seller in Christian book stores, this is from the producer of "The Passion of the Christ" producer Stephen McEveety. This movie basically bores me. All it is is Fred Lawson showing you what he found playing around with the computer program "Starry Night." I am not necessarily agnostic, however, I don't share the religious zeal of the people in the movie and dislike the fact that the presenter describes the red color of a lunar eclipse as being "redshifted." I would avoid this, unless you want to play around with your starry night program.

Can't forget the opera, "Amahl and the Night Visitors." I remember it as a kid on television. Just for fun, not much help in putting together that SOB show, however.

For pictures of the covers of the books go here: [The Christmas Star \[Hardcover\]](#) by Marcus Pfister and Alison James:

http://www.amazon.com/gp/product/images/B0000VYDUM/ref=dp_image_text_0?ie=UTF8&n=283155&s=books

I put this list together after reading the discussions on dome-l about putting together a Christmas Star show. Although, I am now probably of the camp that agrees on programs such as "Tis The Season" that steers clear of religious stuff completely. When I was young, I heard a program done by someone about "The Star of Bethlehem" from the Adler Planetarium on the radio and it really got me interested to learn more about astronomy. Perhaps one of your planetarium programs will have the same effect.

Clear skies and all the best for 2011!

President's Message (Continued from page 3)

It is so important to share what we do. Your Council volunteers work at making SEPA a better organization, more helpful to our members. Let us know what would be useful to you. And help us out: send an article to our patient editor. Let Betty Wasilek know what's happening in your dome, no matter what size. Submit pictures of your latest project. Share a web site or a new product you've found. We're all in this together.

Several years ago, when Patsy Wilson (bless you, Patsy for stepping up to the Secretary/Treasurer plate!) read out that year's second recipient of the Campbell Award, I thought, "Oh, surely not!" All of us work hard at what we do. Sometimes an administrator, or an occasional student or member of the public will say, "Thank you." But I think recognition by one's peers is infinitely more precious. Thank you for this opportunity to serve SEPA.

Featured Planetarium

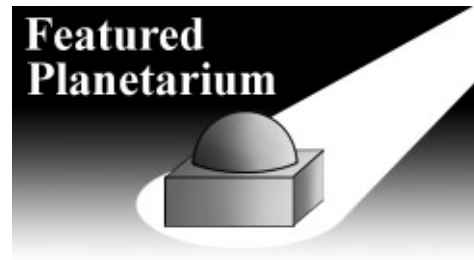
New Stars in Music City: Lessons Learned Building the New Sudekum Planetarium

Kris McCall
Sudekum Planetarium
Nashville, TN

Nashville, Tennessee is known around the world as “Music City,” the home of country music and the Grand Ole Opry. But Nashville is actually home to many different kinds of music, a wide variety of businesses, a surprisingly diverse population, and a unique new planetarium.



The first Sudekum Planetarium began presenting star shows in 1952, the second in 1963, the third in



Sudekum Planetarium in 1952 featured a Spitz A1 #10 under a 20 foot/6m plaster dome.



In 1994, the Sudekum housed a Spitz 512 under a 40 foot/12m dome.

1974. In June 2008, while the International Planetarium Society was meeting in Chicago, the newest incarnation of the Sudekum Planetarium debuted with an all-star lineup. For the first time in a large U.S. planetarium, an optical-mechanical star projector and full-dome digital projection were seamlessly integrated, using the best of both worlds to present breathtaking immersive experiences.

This project launched in March 2002 and provided the planetarium staff with a continuing series

(Continued on page 11)

Planetarium (Continued from page 10)

of challenges. From educating administrators and donors to being domeless for 18 months, from evaluating equipment to utilizing state of the art technology to build more personal connections with our visitors, the past eight years have been an exciting and exhausting journey to bring the universe to Nashville.

I could talk at great length about building design and equipment selection. There’s lots of advice I can share about technical specifications and exhibit development, but I won’t be talking about any of those things. Instead, I want to share less tangible insights into how to, not just survive but to learn and grow during the process.

Build a strong foundation.

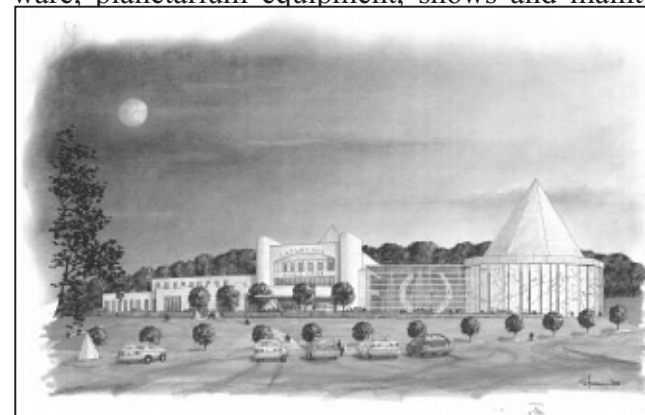
Be sure to do your homework. Before laying a concrete foundation, lay a foundation of research.

* Market research: who is your audience and what do they want? What will bring people in and keep them coming back for more? This means talking to people who will use and support your facility.

* Campaign feasibility: who are potential supporters and what do they think about the project? This type of study can reveal potential obstacles to the project and help gauge timing and fundraising goals.

* Select contractor early: to provide frequent cost estimates and contribute to design. Contractor expertise can aid in budgeting and value engineering.

* Develop a REALISTIC budget. It is essential to know how much things really cost: construction and building materials, exhibit hardware and software, planetarium equipment, shows and mainte-



Architectural rendering of the Adventure Science Center new Sky and Space wing by Tuck-Hinton Architects helped us build a strong foundation.

nance, etc.

Projects often announce too early and promise more than they can deliver because the planners do not know how much things really cost. Then, when fundraising comes up short, the new facility does not meet public expectations or even worse, is never built. Good research in the beginning will pay off in the long term.

Educate stakeholders.

Your development director may know how to raise money, but the more she knows and understands about the building, the exhibits, the equipment, and the capabilities, the more effective she can be raising money. Educating others about such technical things and taking the time to learn about their duties, processes, and needs will make everyone more effective.

Communication is one of the most important aspects



One of our stakeholders, L. Glenn Worley, lifetime member of the Sudekum Memorial Trust, tests out the seating in one of many Japanese planetariums.

(Continued on page 12)

of this endeavour. Keeping good notes about meetings, revisions, opinions, and more will help later on when you are trying to recall the basis of decisions. Carefully explaining or justifying a particular concept will help others understand the reasoning or logic and own their decisions down the line.

* Who are the stakeholders in the project: your institution administration and board members, donors, architect, exhibit designers, future audiences, the planetarium staff, and more.

* Knowledge is power and helps people make good decisions. One consultant told me "It is not my job to tell you what to do. By educating my clients about all aspects of their project, they can be comfortable, make informed decisions, and 'own' the final result."

* Don't tell people what to do. Do you like it when people tell you what to do? You, as planetarium director, may have great expertise, but you won't be doing everything yourself. Sharing information and teaching others what to look for will often result in better decision-making, fundraising, and short and long term success.

There will be stress.

When we received the initial gift that allowed us to do research for our project, I told my mother that night; I was worried about how to pace myself over the long haul. In some ways, it was more challenging than I ever imagined.



There was stress in January 2007. I can't watch! The old planetarium had to die to build the new one. Photo by Drew Gilmore

* Tearing down the old dome felt like tearing down my own home. Even knowing that a new dome would be built in its place, it was still an emotional time.

Once the dome is demolished, there is no turning back. There will also be much discussion about what the planetarium staff does during construction. Some facilities will establish a temporary dome on site or operate a portable dome. We actually chose not to do either. Staff was more than fully engaged in exhibit design, content writing, image acquisition, and new planetarium matters. Administration also believed that "absence makes the heart grow fonder," and there was advantage in building anticipation for the reopening of the planetarium.

* Pick your battles. You win some battles. You will lose many others. Thousands of choices will be made throughout the life of the project. You will not always get your way. Other people will bring good ideas to the table. You will need to compromise and admit that someone else may have a better solution than yours.

* Every recommendation or decision you make will affect the future of the institution - long after you are gone. I have heard it said more than once: many planetarium directors are egotists with visions of grandeur who seek to build monuments to themselves. It's OK to have grandiose plans and be proud of what you are doing, but remember whom you are building for: the visitors, the mission, and the institution.

Do your homework.

* Learn as much as you can - about everything. Admit it. You do not know it all. The more you know, the more effective you will be in all aspects of the project.

* Be thorough and objective: every technology has pros and cons, features you want and need, features you don't want or need, capabilities you didn't know you wanted or needed. Look at all the possible vendors at the time you are developing your plans. Do not base opinions and choices on hearsay or ancient history. An open mind is essential. I have seen some people write such narrow specifications that only one vendor can qualify. Maybe they got exactly what they wanted, but they might have missed an opportunity to get something even better

(Continued on page 13)



Doing our homework, overdressed construction workers Kris McCall and Bill Gutsch inspect a Sony projector.

than they considered.

* Don't be afraid to ask hard questions. Carefully analyze the answers you get. Doing so will not only provide valuable information, but it will give you deeper insight into the vendor. In most cases, your institution will have a long-term relationship with that vendor. The quality of the equipment, their people, how they do business, and less concrete measures should play a role in important choices. You will also likely be dependent on the vendor for many aspects of service

You are part of a team.

You have a vision. We all do. Very few people are in a position to dictate every single thing that will happen as the project moves forward. Even if someone draws the "big picture", they will not be able to fill in the myriad details required for successful completion.

* You are not building this by yourself. Everyone brings different skills to the table. Utilize those human resources to get more done: better, faster, and cheaper. Share and distribute the workload. Learn from others. Learn to delegate and accept that someone can get essentially the same result by doing things differently from the way you would.

* Everyone has the same goal. No one I know wants to build for failure.

* Everyone's vision of the project and the final result will not be identical. Administrators, exhibit designers, facilities staff, and even planetarium directors



Just a small part of a much larger team, Drew Gilmore, Kris McCall, and Theo Wellington look forward to the installation of comfy seats in the new Sudekum Planetarium in 2008.

will look at the project from completely different perspectives.

* Everyone has a different focus. Each person's focus or expertise will be different, but with good communication from beginning to end, you should all reach the same destination.

* Being flexible is a sign of strength. There is a classic story about what kinds of trees survive strong winds. Willow trees can bend and twist, even in gale force winds. A beautiful oak tree, which can be tall, wide, and heavy, is inflexible when the strongest winds blow. Not only may branches break off, but the entire tree could be ripped completely out of the ground and come crashing down.

Be prepared for compromise. As mentioned earlier, there are lots of ways to accomplish the same result. One way to measure the necessity of battle is "Are you willing to fall on your sword for that." There were occasions when I had to let a little thing go - such as ejection seats for unruly patrons. There were some occasions when I fought tooth and nail for a specific item. I did not win every challenge. Everything is not exactly as I thought it should be. That does not make me any less proud of what we accomplished.

* You will have to work with many of these people after the project is complete. Try not to burn bridges. If you strongly disagree about something, that's OK, but do it respectfully. Do not make it or take it personally. See comments above about stress, education, and compromise. "United we stand. Divided

(Continued on page 14)

we fall.”

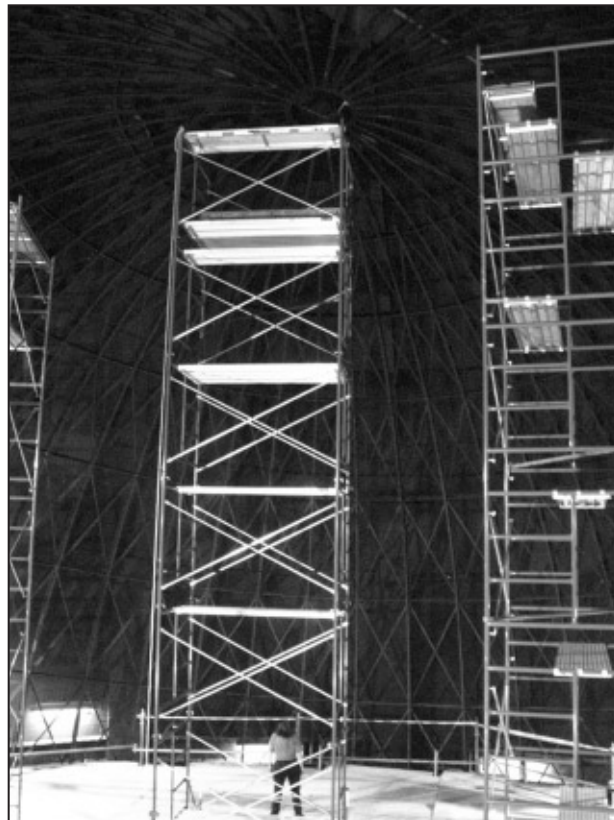
Be patient.

Rushing leads to mistakes. Anything worth doing is worth doing right. Patience is a virtue. Take a deep breath and get ready for a wild ride.

* These things take time. Back in 2002, our CEO asked if we could open the new wing in 2005. That would have been in three years. It took six. You should probably double your initial estimate.

* Don't announce too early. When an institution receives a gift to start a project, they will often get an architectural rendering and announce their plans within a matter of weeks or months. Do your research and have realistic expectations and budgets before announcing.

Many projects announce too early and promise more than they can deliver because the planners do not know how much things really cost. Then, when fundraising comes up short, the new facility does



*Proof of curved spacetime OR Gee, space sure is big! Either way, building the new Sudekum Planetarium and Sky and Space wing was a truly rewarding experience.
Photo by Theo Wellington*

not meet public expectations or ever worse, is never built. Good research in the beginning will pay off in the long term.

* Pick your battles. You win some. You will lose many more than you win. I have already covered this, but it bears repeating. Compromise, but also stand up for your principles, content, and professionalism.

* You will either acquire grey hair or lose hair as a direct result of this process. This one is self-explanatory. See stress above.

* Pace yourself. No one can work seven days a week at 110% capacity for years on end. You will suffer physically and mentally as will your personal and professional relationships. There will be times to push as hard as possible. There will be times to take it easy. Even in the home stretch leading up to opening, take care of yourself.

Building a planetarium is a once in a lifetime experience.

After all the advice you have read so far, this last bit needs little explanation.

- * Remember, you are building for the future and not just yourself.
- * Take lots of pictures and video.
- * There is a difference between pride and ego.
- * Have fun.

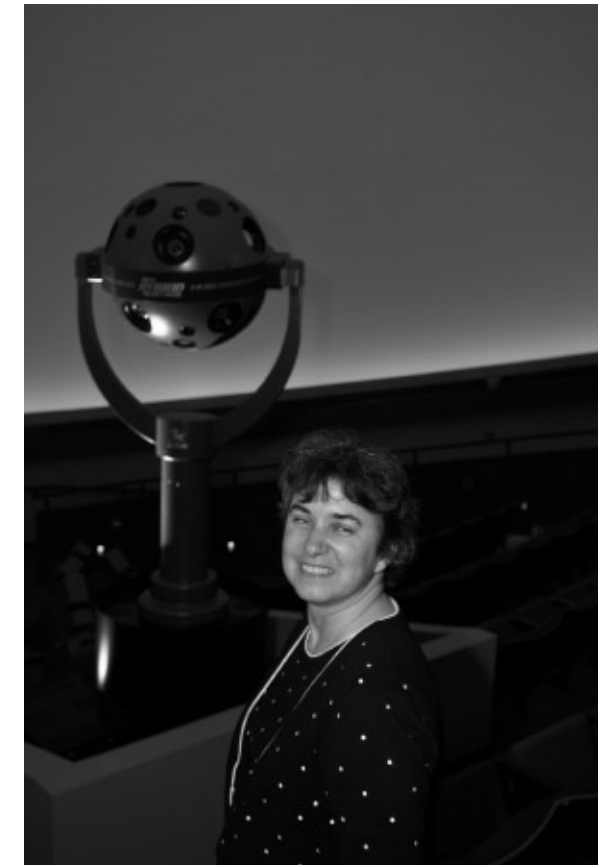
Keep in mind who you are building it for, the visitors who will tell you how awesome the experience was or how much they learned or those who will never thank you but who will be inspired to pursue a career in science or maybe become the first person to set foot on Mars (no pressure). They won't know or care about the disagreement over carpet color.

If you have any questions about embarking on a renovation or expansion project, please do not hesitate to ask. If someone can benefit from my experience and enjoy success down the road, then everyone, especially public engagement, inspiration, and education will benefit.

(Continued on page 15)



*“Backed up against a wall?”
Image by Theo Wellington*



*Kris with star projector
Courtesy of Adventure Science Center*



Adventure Science Center as seen from the top of the AT&T Tower (a.k.a. Batman Building) is the culmination of our persistence and patience. Photo by Winston Caldwell



ASTRO- TUNES

THERE ARE PLENTY OF STARS IN THE SKY

Jon U. Bell
Hallstrom Planetarium
Fort Pierce, FL

To the tune, "For He's Gone and Married Yum-Yum" from Gilbert and Sullivan's "Mikado"

There are plenty of stars in the sky
- sky-sky!

I'm not being hum'rous, their numbers are
num'rous

A fact that you cannot deny
- nye-nye!

There are plenty of stars in the sky!

On this subject we'll make you aware
- ware-ware!

I'd say on the off-hand there's more than a thou-
sand

And that's just the ones that I see
- see-see!

And that's just between you and me!

On this subject we'll make you aware
- ware-ware!

If you try to count them beware
- ware-ware!

There are lots of bright stars in the sky
There are plenty of stars in the sky,
There are lots of bright stars in the sky

There are lots of bright stars in the sky
- In the sky, in the sky, in the sky. in the
sky!

In this galaxy called Milky Way
- way-way!

There's more than a thousand, there's more than
a million

There's hundreds of billions you see
- see-see!

And that's just between you and me!

And beyond us there's Andromeda
- da-da!

A larger collection I feel I should mention
Of stars that are far beyond us

- us-us!

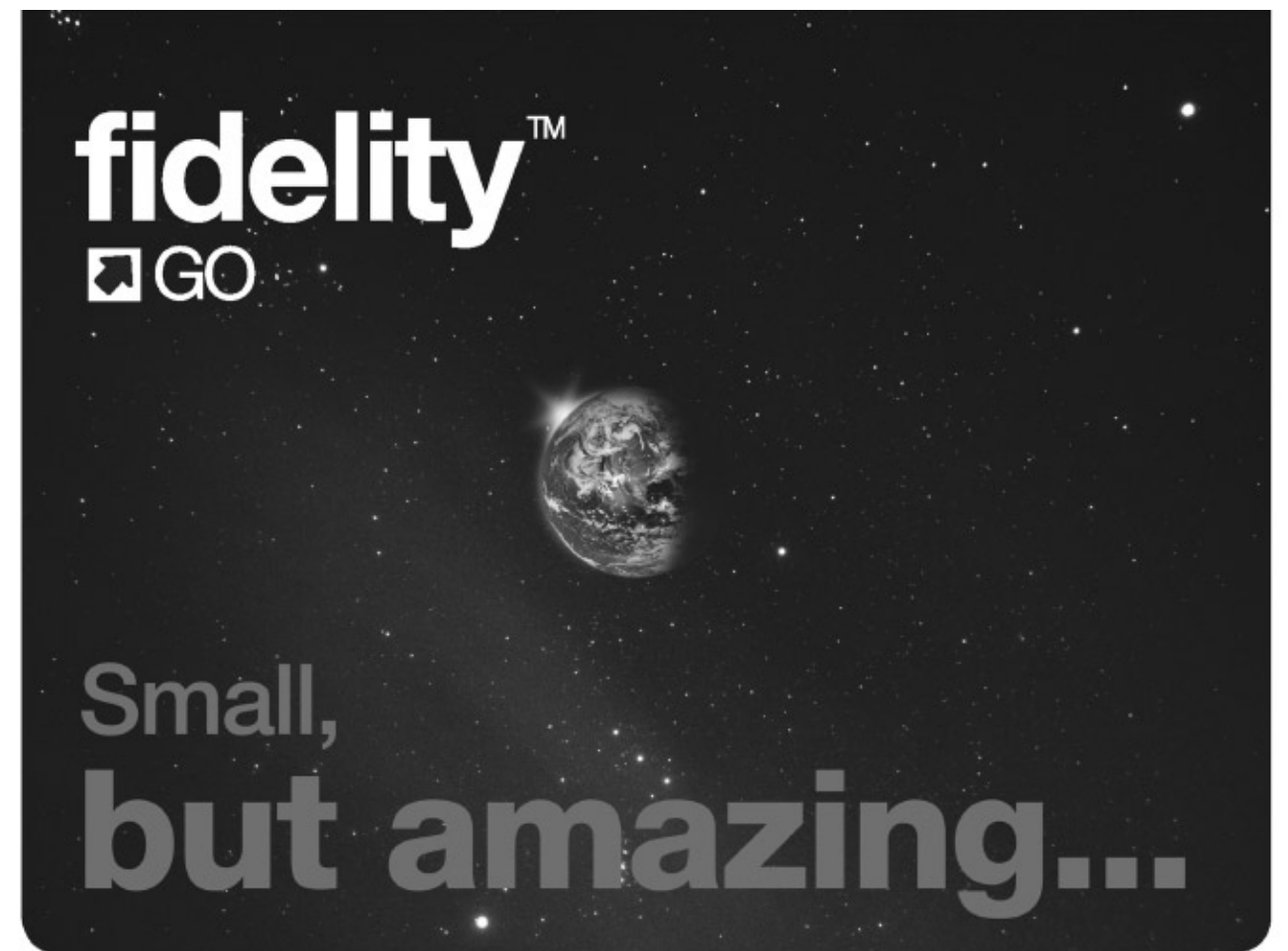
So please do not make such a fuss!

And there's galaxies light years away
- way-way!

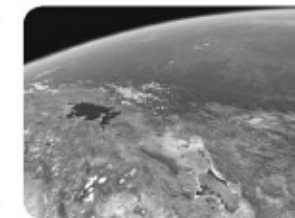
There may be a trillion they say
- say-say!

There are far, far more stars in the sky
Than the grains of the sand on the beach
There are far, far more stars in the sky
Than the grains of the sand on the beach

- On the beach, on the beach, on the beach,
on the beach!



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Archeo- astronomy

Cross-Referenced: Cross-quarter Days Then and Now

Part II: Imbolc

Woodrow W. Grizzle III
Elizabeth City State University Planetarium
Elizabeth City, NC



Kheimon: winter personified. A.D. 2nd-3rd century. Floor mosaic, glass and ceramic tesserae. House of the Drinking Contest, Antioch, Syria. Virginia Museum of Fine Arts. 2010.

Ah, winter! Love it or loath it, winter in the temperate climes represents a time of few daylight hours, colder weather, and (sometimes) snowflakes drifting down to Earth. Winter is also a busy time for many. Dark winter begins with bright holidays gracing the terrestrial stage each December, warming our

hearts with the joys of Christmas and Chanukah. From darkest December 21, the Sun slowly returns, driving ever farther northward bringing light and warmth again to our fragile globe.

The winter solstice of 2010 is now behind us, and daytime grows longer: minute at a time. This year, we were treated to a wondrous total lunar eclipse early in the morning on the day of the winter solstice. How symbolic it seemed to have the Moon plunge into the darkness of Earth's shadow on the day that the sun "stands still." Dedicated observers across North America burned the midnight oil to greet winter with this, nature's grand spectacle of syzygy. Our superstitious ancestors would likely have become quite neurotic for such an alignment to take place so near the solstitial point.

Time passes, however, and, though the winter solstice is the shortest day of the year, the bright side (pun intended) is that the Sun's light will ever increase over the proceeding weeks, allowing life to reawaken across the world. Between the winter solstice and the vernal equinox lies the cross-quarter point of Imbolc. It occurs each year sometime between February 2-7, and it is also historically celebrated on February 1 in Ireland and Scotland as the Feast of Imbolc or St. Brigid's Day.

Near Imbolc, snowdrops spring from snowy ground and buds begin to swell, bringing hints of green back to the meadows and forests, and creatures begin to stir from burrows dank to forage the fields for food. It is the re-animation of one such beast that is the focus of our tale. Few rodents can boast a national holiday held in their honor: the humble groundhog stands alone.

February 2nd - Groundhog Day; it is unique among holidays in that it both celebrates the mystical powers of a marmot and changes in weather due to the increasing power of the Sun. Each year, on February 2, humans watch with bated breath the surfacing of SEPA's greatest champion. Most famous among the furry chuckers (at least to non-SEPA folk) is most likely Punxsutawney Phil, but we have our own champion down South, the venerable General Beauregard Lee, who dwells near the capital of Atlanta. Whether in Punxsutawney or Atlanta (or any nearby meadow), groundhogs who emerge on

(Continued on page 19)

Archeoastronomy (Continued from page 18)

February 2 take a look around for their shadow. We all know the legend. If the sun shines on that day and they see the shadow, we are all resigned to six more weeks of wintry weather. If clouds render a shadow impossible, we are spared this chilly fate and spring comes early. How the groundhog developed these powers remains a mystery, however, how he became associated with them is not nearly so enigmatic.



Punxsutawney Phil Hailed as Great Meteorological Prognosticator. Kieth Srakocic/Associated Press. 02 February 2008.

The word "imbolc" comes from Old Irish *i mbolg*, meaning "in the belly," a term referring to the pregnancy of ewes. It is a festival of hearth and home, wherein families feasted and gave thanks for surviving winter's wrath. During this time, people celebrate the steady lengthening of days with bonfires and special foods such as bannocks (flatbread) with butter and cheese. It is also a time of speculation and much prognostication in regard to the weather. Ancient and medieval Gaels spent much time watching for badgers or snakes to leave the comfort of their winter dens, taking such a sighting as a sign of warm weather to come. There is an old Scottish Gaelic proverb:

*The serpent will come from the hole
On the brown Day of Bride,
Though there should be three feet of snow
On the flat surface of the ground.*

Another fascinating Imbolc awakening story is that of the Cailleach ('käl-e-yahck), an old hag of Gaelic

lore having mystical powers controlling the weather. It is said that Imbolc is the day in which the Cailleach gathers firewood needed for the rest of the winter. If winter is to be long on a given year, she will ensure sunny weather on Imbolc to ease her burden of gathering. If, however it is a dreary, foul day, most believed the Cailleach to be abed, not gathering firewood, and signifying a short end to come for winter that year.



The Cailleach. Unknown artist. Tempera on Wooden Panel. A.D. 20th century. Pagan Weblog Hungary. 2010.

All these snakes, badgers, and hags somehow predicting the weather in the Old World over the centuries brings us back to our humble New World groundhog. His special day immediately follows Imbolc's feast day of February 1, and there is no shortage of proverbs and poetry devoted to our furry friend:

*The groundhog emerges on February two
To see if the sky is sunny and blue.
It seems rather funny
That if it is sunny*

(Continued on page 20)

He goes back under
For six weeks of winter.

Depending on whether or not you enjoy winter weather, spend the next few weeks watching for critters and hags wandering the woods near you. Only they know what lies in store for us weather-wise this spring. Though the weather may change from day to day, it is certain that Earth will be in the right place at the right time for the cross-quarter of spring and warmer weather will come as always: eventually.

References:

Aveni, Anthony F. *The Book of the Year: A Brief History of Our Seasonal Holidays*. Oxford University Press, USA. 2004. p. 38.

Briggs, Katharine. *An Encyclopedia of Fairies*. Pantheon Books. New York, New York. 1976. pp. 57-60

Danaher, Kevin. *The Year in Ireland: Irish Calendar Customs*. Dublin, Mercier. 1972. pp. 200-229

“Imbolc.” Wikipedia, the free encyclopedia. <http://en.wikipedia.org/wiki/Imbolc>. 23 December 2010.

“Lesson Eight ~ The Four Major Gaelic Festivals.” The Pagan Network. <http://druidnetwork.org/br/learning/courses/online/polytheist/eight>. 23 December 2010.

Dollars and Sense

Patsy Wilson
Margaret C. Woodson Planetarium
Salisbury, NC

Greetings from your SEPA Secretary/
Treasurer!

In this column each quarter, I'll share information and reminders relating to your membership in SEPA. I hope you find it helpful. Please don't hesitate to contact me with your suggestions.

\$ If you move or change or contact information (especially email addresses), please notify me so that I can keep the database current.

\$ It is my plan to email you a month in advance of your dues renewal. I will also send a gentle reminder if your membership lapses so that you will continue to receive *Southern Skies* and are able to register for the yearly conference.

\$ Help SEPA grow...contact me with names of persons in your state who run planetariums, but haven't yet joined our ranks.

\$ Vendors: I'll be happy to talk with you about pricing for an ad in the journal.

\$ Don't forget - Associate Membership is available to anyone interested in the aims of SEPA who does not work in or provide substantial services to a planetarium in the SEPA region.

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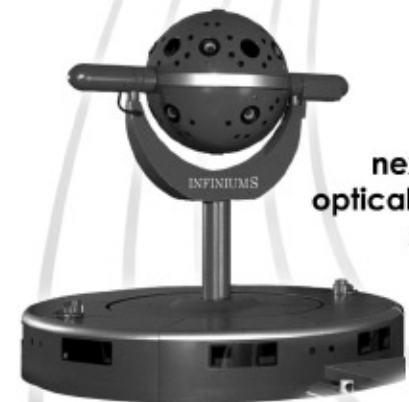
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News From SEPA Region

ALABAMA

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Wernher von Braun Planetarium
Huntsville, AL
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Christenberry Planetarium Samford University Birmingham, AL

George Atchley reports: After eight years of use, we overhauled the audio-visual system within the Christenberry Planetarium by replacing most of the old playback system, which had become unreliable. Two Blu-ray players were added, one in the control room and another in an AV cabinet at the front of the theater. A Yamaha receiver was installed, as well as a 1080p projector for front projection. All video components were converted from analog to HDMI.

A new mirror was purchased to be used with our 1400x1050 full dome projector. We reduced space utilization from four racks to two and moved one rack for easier access from the console. Now we can control presentations from the front of the planetarium via remote control.

All of this was accomplished with two main goals in mind. First, of course, was to have a stable HD video system. Secondly, and most important to me personally, was separating the audio-visual presentation system from the planetarium star projection system. This enabled me to train operators for the presentation system so that I wouldn't have to be present.

The second goal became important because more and more organizations on campus were using the planetarium at night for classroom enrichment activities and documentaries. Our attendance had increased by 162% over the previous year and with only one person working in the planetarium, the number of work hours mounted quickly! The plan worked; the use of the planetarium continues to increase.

FLORIDA

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



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 *The Explorers*, *Teddy's Quest*, *The New Cosmos*, *African Skylore* and *Women Hold Up Half the Sky*.

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.

Astronaut Memorial Planetarium and Observatory Brevard Community College Cocoa, FL

Mark Howard reports: we will be hosting the

(Continued on page 25)

News (Continued from page 24)

Florida-Georgia Southeast Regional Middle School Brain Bowl competition on February 26th, 2011. This day-long event promises to be a rigorous yet fun-filled experience including a double-elimination style quiz tournament and hydrogen fuel cell powered car race. Winners will advance to the national completion in Washington DC. The annual Science Bowl completion is sponsored by the U.S. Department of Energy and is an especially rewarding event to be involved with.



Our spring lecture series hosted by Dr. Fiorella Terenzi (www.brevardcc.edu/astrolectures) continues, featuring appearances by Dr. Rafael Guzman (University of Florida) on February 11, Dr. John Logsdon (George Washington University) on March 11, and Dr. James Webb (Director SARA Observatory) with special guest Jonn Serrie on April 8.

AMPO will join forces with the Brevard Astronomical Society for Astronomy Day 2011 Saturday, May 7. The featured speaker is Dr. Joy Crisp, Deputy Project Scientist for the Mars Science Laboratory mission scheduled for launch in November this year.

Calusa Nature Center and Planetarium Fort Myers, FL

Carole Holmburg reports: Thanks to a 30-day license from Chabot Space and Science Center and Sky-Skan, we will be showing *Tales of the Maya Skies* in both English and Spanish daily starting February 12. This is the first time in recent memory that we have devoted programming to the Spanish speakers. The

local Hispanic community has been welcoming and generous. For the show premiere gala there will be a Mariachi band and appetizers served by a local Mexican restaurant. One result directly attributed to this show will be permanent trilingual (English, Spanish, and German) signs placed both on our nature trails and throughout the facility.

Kika Silva Planetarium Santa Fe College Gainesville, FL

James C. Albury reports: The Kika Silva Pla



Planetarium had a lot going on these past few months. On November 16th, 2010 we celebrated our first annual "Kika Silva Pla Day" in memory of our planetarium's namesake. Kika Silva Pla is the mother of one

of our planetarium's benefactors (John Pla) and in honor of his mother's commitment to education and passion for social justice and civic engagement, our planetarium offers free planetarium shows for the general public on this day. November 16th was chosen because it coincides with both Mrs. Pla's birthday and the peak of the Leonid meteor shower. Unfortunately, Mrs. Pla passed away in June 2010, so we decided to have the inaugural KSP Day this year on what would've been her 90th birthday. The event was well attended and we look forward to doing this every year.



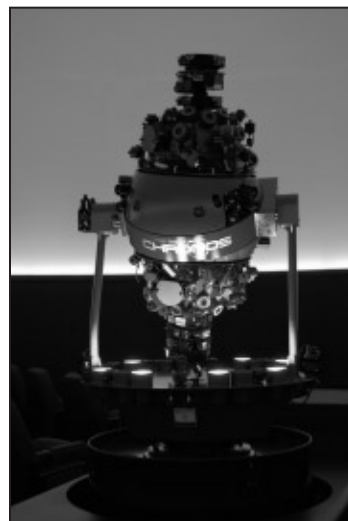
(Continued on page 26)



On November 22nd, we hosted the Santa Fe Madrigal Singers, as they performed a free concert entitled “Stellar Madrigals.” Due to the popularity of their previous shows, the Madrigal Singers performed two one-hour shows, serenading audiences with both classical and contemporary madrigal music following a trip through the universe projected onto the planetarium’s 34-foot dome. Unlike band songs, which can last more than 10 minutes, madrigal compositions are usually shorter, and each song was introduced with an interesting tidbit about the song or the story it tells.

“Our shows at the planetarium have always been really successful, and we’ve had an overflow audience every time,” said the Madrigal Singers’ director Professor Lynn Sandefur, who advised spectators to show up early in order to nab one of the 60 planetarium seats. The planetarium dome provides unique acoustics for live choral performances; so needless to say, we had a packed house for both shows.

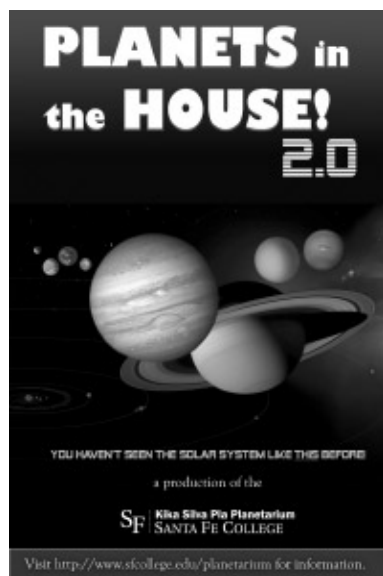
In December, we celebrated the total lunar eclipse of Tuesday, December 21st, 2010 with special showings of our newest presentation, *Eclipse: The story of our nearest neighbor in space*. On the night of the eclipse, we had over 100 people visit the planetarium for our performances. *Eclipse* is an hour long, live narration presentation that utilizes the



planetarium’s Spitz SciDome full-dome projection system and its Goto Chronos optical-mechanical space simulator. This planetarium show takes audiences on a journey of discovery to our nearest celestial neighbor. They learn about the origins, composition and mechanics of the Moon, discover how the ancients were able to predict eclipses with great accuracy, and find out how, when and where they can view the eclipse. The show will be in the planetarium’s regular show rotation, and being a live-narration presentation, it can be updated to feature any eclipses in the future. This show is also special to us because we’ve dedicated it to the memory of our friend, Jack F. Horkheimer. Jack was a member of the Kika Silva Pla Planetarium’s advisory committee and James Albury, our planetarium coordinator, worked with and was mentored by Jack at the Miami Space Transit Planetarium from 1982 - 1990. *Eclipse* is a planetarium show that captures the spirit and enthusiasm of Jack Horkheimer who, for over 30 years, brought the wonders of the night sky into the homes of millions of people around the world. So it is with great honor that we present *Eclipse* in Jack’s memory.



Finally, starting in January 2011, we’re bringing back a popular Gainesville favorite, *Planets in the House 2.0*. *Planets in the House 2.0* is an updated version of our live presentation which explores the 8 Planets and 5 Dwarf Planets of our Solar System.



(Continued on page 27)

During the show, audiences visit the surfaces of Mercury, Mars, Jupiter’s volcanic moon Io, and Saturn’s icy moon Tethys. As an added treat, we let the audience experience one of the four roller coasters featured in *Space Park 360: Geodesium Edition* (by Dome 3D and Loch Ness Productions). Prior to the beginning of the show, the audience chooses one of four solar system bodies at random (Mars, Io, Titan or Triton), and then before the conclusion of the program, the audience gets to “ride” a roller coaster at that location. It’s definitely a hit with younger audiences, many of whom have never experienced a roller coaster. So with the addition of this program to our library, 2011 is going to be a great year.

**The Bryan-Gooding Planetarium / Alexander Brest Planetarium
Jacksonville Museum of Science and History
Jacksonville, FL**

Thomas Webber reports: No, you don’t have double-vision. It’s me again, this time reporting not from Tennessee but from my new home in Jacksonville, Florida.

I assumed the position of Planetarium Program Director of the Bryan-Gooding Planetarium at the Museum of Science & History in October of 2010. The facility was right in the middle of a major renovation and it was both exciting and scary to be thrown into the midst of it all. I am pleased to announce that the work has been completed and that the planetarium has been going nearly non-stop. The response and feedback from both schools and the community have been very positive.

The planetarium opened its doors with a refurbished and painted 60-foot dome, new carpeting and lighting, 192 unidirectional chairs, and an awesome 5:1 surround sound system. The entire layout of the theater was rearranged, with new entry/exit doors and light blocks constructed. Automated cove lighting was provided by East Coast Controls.

At the heart of the operation is a new Konica/Minolta Super MediaGlobe II, installed and serviced by Audio-Visual Imagineering. We are the second planetarium to have this technology and are now the largest single-lens digital planetarium in

the country. Also purchased was a SkyLase laser projector, manufactured by AVI. This entire central enterprise is mounted to an elevator that not only allows us to maximize the capabilities of the two projectors but also lowers them to the first floor of the museum for cleaning and servicing.

We opened with record-breaking attendance, offering many special programs, hosting guest speakers, and running a heavier-than-usual public schedule. We are now in a more normal routine, with the planetarium serving schools in the mornings and the public in the afternoons. We will soon be providing laboratory instruction and demonstrations to local college astronomy classes as well.

From November 2010 through the end of the year the planetarium hosted over 17,300 guests, and we’re just getting started! We are already preparing for the summer months, when the museum and the planetarium receive almost 40% of their annual attendance. In addition to planetarium programs we will be offering “sidewalk astronomy” and space camps for kids.

We currently have ten automated programs in our library. On top of this, we are offering a daily *Skies over Jacksonville* program - a completely live and forum-style look at the night sky. It is here that the many features of the MediaGlobe can be demonstrated and the skills of our educators put to the test!

When considering the show content for the planetarium over the next few years, we not only consider astronomy- and physics-related programs, but also look at how we can complement the museum’s rotation of exhibits. For example, this summer we will be presenting the program *Sea Monsters* to coincide with the *Savage Ancient Seas* exhibit MOSH will be offering.

But it’s not all work and no play at the Bryan-Gooding Planetarium. Public laser shows, or *Cosmic Concerts*, are offered to the public and soon even to school groups. We also host live *Music Under the Stars* and are a big part of museum events, such as the *Gravedigger’s Ball* at Halloween, *Bella Luna* for Valentine’s Day and, of course, an adult New Year’s celebration.

(Continued on page 28)

News (Continued from page 27)

I must also report that the planetarium is staffed by the most wonderful group of individuals it has ever been my pleasure to work with. In addition to myself there is Brett Jacobs, a technological wizard and laserist extraordinaire. Brett went out of his way to make me feel welcome and our only issue is that he is an avid Star Wars fan and I am a devoted "Trekkie," but with time and understanding we will work through this. We also have two educators, Lena Hernandez and Heather Smith. Lena is a recent graduate of Eckerd College and a natural at the controls and with an audience. Heather is currently working on her undergraduate degree in aerospace science and is planning on graduate school next year. Working behind the scenes are volunteers and interns, who keep the place looking spic and span and do what needs to be done.

Equipment is good, but it is the people that make a planetarium great!

So that is the current status of the Bryan-Gooding Planetarium in sunny Florida. All of us here wish everyone clear skies and are looking forward to working with you in the future.

Keep looking up!

Miami Space Transit Planetarium Miami, FL

Mark Bennett reports: We here at the Miami Space Transit Planetarium are still recovering from the loss of Jack Horkheimer. For the staff, Jack was not only our boss, friend and mentor, he was also part of our family and we were part of his.

This holiday season was very busy with December's attendance up over 1,000 from December 2009. Our current public show lineup is *Two Small Pieces of Glass: The Amazing Telescope, How to Find the Stars & Planets of the Month* & the *Legends of the Night Sky* laser show from Audio Visual Imagineering. Both *How to Find the Stars and Planets of the Month* and *Legends of the Night Sky* have a live star and planet I.D. at the end of the show. By the time you read this, we should have *Nine Planets and Counting* up and running from the Sudekum Planetarium in Nashville.

Our Fabulous First Friday programming continues to be very popular averaging 1,200 to 1,600 people each first Friday of the Month. We start off with a 7:00pm *Legends of the Night Sky* family laser show. Then at 7:30pm we have a free star show in the Planetarium (normally a full house) followed by free telescopic observing 8:00-10:00pm (averaging 200 to 400 people). We finish the night off with 9:00pm, 10:00pm, 11:00pm & Midnight laser shows (normally sold out shows). We have found that by doing the nighttime programs once a month it makes it more special and much better attended.

Solar System Ambassador (and Planetarian)

Erich Landstrom reports: Speaking of plans for the future, I wanted to share a set of circumstances which occur in summer of 2012.

ITEM #1: A partial lunar eclipse will be taking place on Monday morning, June 4, 2012 as the Moon sets around 6:30 AM Eastern.

<http://eclipse.gsfc.nasa.gov/LEplot/LEplot2001/LE2012Jun04P.pdf>

ITEM #2: A transit of Venus occurs on the next day, on Tuesday morning, June 5, 2012 as the Sun rises around 6:30 AM Eastern.

<http://eclipse.gsfc.nasa.gov/transit/venus0412.html>

Wow! That's a lot of shadow and syzygy in space, and perfect opportunity to popularize astronomy.



Fernbank Science Center Planetarium Atlanta, GA

April Whitt reports: Fernbank Science Center enjoyed a busy fall schedule. School programs aligned with the county and state science standards

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played for elementary schools. The two Star Labs traveled all over the county, to schools and libraries. The fall planetarium show for the general public was an adaptation of Fiske Planetarium's *The Many Faces of Hubble*. Families enjoyed our in-house production of *Dinosaurs in the Sky*. Our in-house production for Halloween, *The Enchanted Lab*, played for families during October, and we also hosted activities for National Fossil Day. Students from area colleges and universities attended evening planetarium programs and observatory sessions.

By the time you read this, our Black History month presentation for the general public, and a new *Stories of Africa* show for families will have come and gone, as will teacher workshops on the MESSENGER space probe, which will be entering orbit around Mercury for a year-long data-fest.

Testing schedules and budget changes keep the challenges coming, and we're looking forward to the Mountaintop Experience in June. See you there!

Planetarium Tellus NW GA Science Museum Cartersville, GA

David Dundee reports: Tellus Science Museum had a very busy fall, our planetarium had **Saturn: Jewel of the Heavens, Extreme Planets and Zula Patrol: Down to Earth, and One World One Sky** playing and we brought back **Mystery of the Christmas Star** for the holiday season. We will open with **We are Astronomers** in January. We hosted Jonn Serrie for two Christmas concerts in the planetarium. Our first live concert under the stars! The observatory hosted 3 more sold out astronomy workshops plus a family science night. The popularity of the observatory has transformed the museum night schedule to more than double the observatory events for 2011 over 2010. Speaking of observatory events we had almost 800 people attend our Lunar Eclipse night. With live images of the Moon taken from our observatory and streamed throughout the museum. As the clouds rolled in, the Moon image switched to images from south Florida, so everyone got to see the entire eclipse. During a Q & A, while I narrated the eclipse images to the crowd one person asked "Do lunar eclipses have any effect on people." I

responded, "Absolutely, it causes people to want to visit science museums in the middle of the night."

Planetarium Walker County Science and Technology Center Chickamauga, GA

Bobby Thompson reports: The planetarium at Walker County Science and Technology Center in Chickamauga, Georgia will be preparing for its new opening at the end of January 2011. For over 10-12 years. I lost count, Wayne Robinson and I have been trying to get to this point, now we will have a state-of-the-art 1960's planetarium, the future of which who knows. This is not bad for the small venue this is and better than a lot of you may have. The sound system and cove lighting are awesome. We have also tried to keep Science in the name, but there is very little science done at the Science Center, but you should see the new football field at the new middle school, wow!

I have been working with the public in observatory/planetariums since age 14. I am now 72. The frustration I have, and most of you very well know and experienced. We will have a planetarium designed by committee, as one has said. Many of you know that Wayne Robinson and I have done dome crawls with you and bugged you about what you would do differently with your theaters. I have done this on my own from coast to coast here in the USA. Dr. Robinson's plan was I would oversee the building of the planetarium, instead we were told that one of the school system maintenance men would be in charge and added to this frustration a bone headed architect who had never been in or designed a theater. We had very little input! We got a building not held to the standard quarter inch but to 6-8 inches with many safety concerns, which some have been corrected. Now the crazy thing is Wayne and I just wanted a barn, if need be, to have a planetarium. We nearly got our wish at \$800,000 plus. The barn would have been more beautiful and keeping with this rural county of 62 thousand.

The planetarium is made up of parts from Harper Planetarium in Atlanta, Sudekum Planetarium in Nashville, and our old planetarium in Rock Spring, Georgia. We also got the seats and dome from Jack-

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sonville, Florida but did not use. Wayne and I have been very good at taking down planetariums. I did get to see our old dome go up in Kinston, North Carolina, and did the grand opening shows there. I think that was the most fun I ever had in my life working with Bill, the director of parks and recreation there and the people of Kinston. I am in hope of many of our surplus parts will go to UTC Jones Planetarium in Chattanooga, Tennessee. I am retired from there and volunteer and do repairs. This has been another frustration of mine. I believe it must be in our blood to try to get people to look up and to see there is a whole universe out there, and we would give a talk with holes punched in a tin can to show it.

I would like to thank all of you who have put up with me: the 14 local volunteers, Bob Tate and John Fonz for getting the projector and cove lighting going, Adam Thanz and Jason Dorfman showing Jim Smith, our board member, what a real planetarium can look like, Jason's help with the sound system, and Kris McCall, Carole Holmberg, Kelly Herbst , and many of you of SEPA for your encouragement and sympathy. My under the dome showmanship has been kept alive in Texas, Tennessee, Virginia, Georgia, North and South Carolina in these many years. I am retired, so I can't be fired for what I have written here and is my opinion alone. :) I am sorry I can't be more positive.

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

Jon Elvert reports: Since the opening of our planetarium in 2003, we've offered 8/70 large format films as part of our program line-up, but in 2010 we began running digital movies that had been transferred from film. We hope the film industry contin-

ues to provide digital transferred film, because we really want to put this film format behind us.

Our 2010 winter holiday season line-up included *Season of Light*, *Holiday Music Magic*, *Mummies: Secrets of the Pharaohs* (digital version) and *Coral Reef Adventure* (film). In January we opened with Morehead Planetarium's *Earth, Moon & Sun* and Detroit Science Center's *Bad Astronomy: Myths & Misconceptions*. As always, our public programming, excluding movies/film, includes a tour of the seasonal night sky.

In January, we held a teacher's workshop in conjunction with 2011: Year of the Solar System. Two ambassadors from NASA's Mercury Mission and New Horizons programs presented the workshop, which concluded with the most recent images of planet and planetary moon discoveries.

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

Dave Hostetter reports: The Lafayette Science Museum has been a bit overwhelmed this fall with the exhibit: *Star Wars: Where Science Meets Imagination*. Attendance is up and the number of programs is up, but planning for the future is down. The exhibit ends in mid-January and it will be interesting after that as we try to catch up with everything that was put on hold!

The planetarium has been running the fall version of SEPA's *The Planets* and is working on production for *Dark Matters*, a program about dark matter and dark energy from the Maryland Science Center. We plan to open that in mid-February.

Our sidewalk astronomy was very successful during the fall, with nearly 1200 people looking through our telescopes during a variety of art walks and festivals.

Planning continues for our conversion to full dome. As things head ever deeper into the bureaucracy, I believe we are getting close to having the project go out to bid.

We hope that Technician Dexter LeDoux will be
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able to return to us on a very limited basis early in 2011. The list of waiting repairs should keep him safe and off the streets for quite a while!

**Planetarium
St. Charles Parish Library
Luling, LA**

Jason Talley reports: The St. Charles Parish Library Planetarium - the name is starting to roll off my tongue now - wrapped up a productive year with our holiday shows: Loch Ness Productions' *Season of Light* and Ward Beecher Planetarium's *George and Oatmeal Save Santa*. *Season of Light* ran as a part of our Evening Showings every Monday and Wednesday night at 6:30 and 7:30. *George and Oatmeal* ran as our Children's Matinee, Saturdays at 10 a.m. Both of these holiday shows ran for our Holiday Double Feature every Saturday at 2 p.m.

The St. Charles Parish Library system will host three, moon-related exhibits from the Lunar and Planetary Institute this February. These exhibits will tour the various branches of the library system encouraging the public to learn more about our nearest neighbor in space. In conjunction with the exhibits, we will premiere Morehead Planetarium's *Earth, Moon & Sun* for our local patrons and school groups.

With the productivity of 2010 behind us, we eagerly await what 2011 and this winter season will bring.

NORTH CAROLINA
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 wilsonpk@rss.k12.nc.us



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

Christi Whitworth reports: Pisgah Astronomical Research Institute has hosted Dr. Giovanni Fazio, Senior Physicist from the Harvard Smithsonian

Center for Astrophysics and North Carolina Lt. Governor Walter Dalton this fall. About 80 people turned out for International Observe the Moon Night as part of the North Carolina Science Festival. PARI's booth at the USA Science and Engineering Festival on the National Mall was next door to the Robeson Planetarium booth and our good friend Ken Brandt. Our fall Homeschool Day content featured our collaboration with Appalachian State University. Our Star Party in December was cut short by a snow storm.

PARI's newest educational program, SciGirls is off to a flying start. The first session on measuring light pollution for the Great World Wide Star Count had several new young astronomers emerge. These monthly sessions will expose middle school aged girls to several areas of science beyond astronomy.



PARI and the Pisgah Forest Institute will hold an educators' astronomy workshop on March 25-26, 2011. The workshop will include School of Galactic Radio Astronomy training for using Smiley and SCOPE. Any SEPA members interested in attending this workshop should contact Christi Whitworth (cwhitworth@pari.edu) for registration.

More information on PARI's programs can be found at www.PARI.edu <<http://www.PARI.edu>> .

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

Patsy Wilson reports: We begin 2011 with our 3rd grade programs, **Earth, Sun, and Moon** and **Stars**
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of the Night Sky. In addition we will premiere **Our Solar Neighborhood**, a look at the Solar System for 6th grade students. **Friendly Stars** continues to delight our younger audiences.

During this quarter, our public shows will be feature our Skylase system to unveil the new **Laser Country** show as well as offering **Hypnotica** for the first time in this area. In February we will run **Laser Potpourri**, a combination of music selections, the Orion story, and a brief look at how the laser system works. In January, we'll admire the beautiful winter sky with a program called, **Constellations Tonight**.

The beginning of the year also signals the start of Science Fair here. We'll be busy preparing and conducting both the county and regional fairs over the next few weeks.

SOUTH CAROLINA
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 DuPont Planetarium, Aiken, SC
 SennG@sc.edu



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

Gary J. Senn reports: The DuPont Planetarium at the Ruth Patrick Science Education Center (RPSEC) on the campus of the University of South Carolina Aiken (USCA) enjoyed a successful Christmas season as it closed out the calendar year with its annual presentation of *'Tis the Season (Season of Light)* from Lochness Productions. This show continues to be one of our favorite planetarium shows as we notice many visitors in the area return to see this as an annual component of their Christmas celebrations. Also in December, the staff enjoyed the solstice lunar eclipse. We viewed this from separate locations with various family members and friends, but all who braved the cool night to witness this event enjoyed it.

In January, we celebrated the 40th anniversary of Apollo 14 by providing opportunities for visiting students and the general public to attend one of our moon-focused shows. We showed *Larry Cat in Space* by Lochness Productions and the local production, "To the Moon and Beyond."

In February, we will show *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. Also in February, the planetarium will present *The Explorers of Mauna Kea* produced by the Bishop Planetarium in Hawaii for student groups who visit the planetarium.

Hooper Planetarium
Roper Mountain Science Center
Greenville, SC

Charles St. Lucas reports: Our new Spitz SciDome HD was installed in early December. It is beautiful! It also represents one of the largest (50') full-dome video planetariums in South Carolina. It enables us to present programming that is quantum leaps ahead of what we previously we able to do, and allows Starry Nights software to display the starfield.

Since we've never had an opto-mechanical system in our dome, we can avoid the whole "Which is better?" argument. However, a full-dome video system allows us to address curriculum standards that were previously out of the question. The full-color stars do not hurt either. The Starry Night curriculum also enables us to present celestial concepts without the associated hand-waving previously required.

The lobby has been completely remodeled. You wouldn't recognize the place. The Greenville County School District did a wonderful job of it, and we are grateful to them. The lobby will also have two flat-panel video screens with ViewSpace being pre-

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sented while people wait their turn in the theatre.

The SciDome HD system and other associated costs were purchased with funds generated by the Roper Mountain Science Center Association, to whom we are also very grateful. The Association invested over two and a half years in fund-raising for the project.

Opening date for the public was January 6th, with *Astronaut* being our first presentation. We have also purchased *Stars*, and *The Enchanted Reef* for future presentations along with *Ares Express* to replace the *Cosmic Roller-Coaster* (Mobius).

TENNESSEE
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Bays Mountain Planetarium
Kingsport, TN

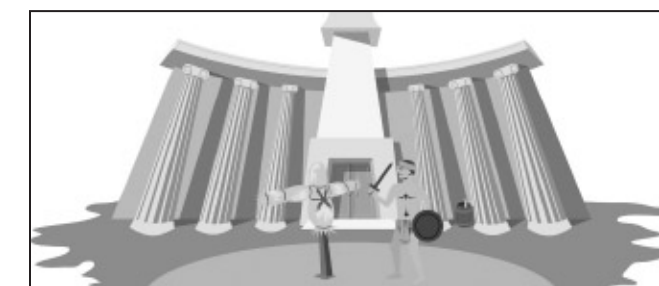
Adam Thanz reports: Jason & I have been working on our goal of catching up with show production hah! Actually, "Planetary Visions" is running in our theater now and is a real hit! This was Jason Dorfman's project to head up and he has done a fantastic job. We describe the program as "an adventurous tour of the Solar System!" We start the program with a live presentation and highlight any planets, moon, constellations, etc. that would be visible. But, we then have a "video phone call" interrupt us that leads us into a spectacular ride through the



Some key show elements in "Planetary Visions."

Solar System. The main character is Toggle, an upbeat, floating robot that is our tour guide. Some of the many very cool aspects of this show is that it uses the theater operator as an interactive tool for both the show and the audience, the characters are great, the science is correct, the visuals are stunning, and the audience really enjoys the experience. It is going to be a perfect Solar System school show. We plan on opening distribution to other theaters this summer.

Production for another show is well under way. I can now reveal the title; "A Part of the Sky Called Orion." It looks at how three different cultures saw the stars in and around the area we call Orion. It was written by Heather Fries (pronounced "Freeze") and myself. You met Heather as our intern during the 2010 SEPA conference. We have partnered with a local university, East Tennessee State University (ETSU), to not only help with production, but also to allow some students use their skills in a unique environment. Three art students have provided great artwork for the three different cultures. Four professors have helped as well to provide excellent voice talents. Jason is working on the score and I'm in the middle of layout and compositing the visuals. We feel that this show will be a real hit as it has a strong script. It is due to open this winter and distribution starting this summer.



Part of a scene for "A Part of the Sky Called Orion."

The last issue mentioned our 27th annual StarFest star party event we host. The two-day event was very successful. We must have had the best slate of presentations yet. They ranged from learning about George Ellery Hale to hearing about one of our own club member's work experience when he was involved with the Space Shuttle's design back in the '70's. The 28th StarFest is scheduled for October 21-23, 2011, a three-day event! E-mail me and I'll put you on the e-mailing list when registrations open.

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Sharpe Planetarium Memphis, TN

Dave Maness reports: It was a very busy year, especially in the fall. Attendance was just shy of the ambitious goals I set for the month. Along with eight different school programs our public program offerings were Loch Ness's *Light Years from Andromeda* and our very own *Autumn Nights*.

In October the Sharpe Planetarium hosted a talk by Dr. George V. Coyne, S.J. Director Emeritus of the Vatican Observatory and adjunct professor at the University of Arizona's Astronomy Department. He presented a lively talk in the planetarium theater titled: *The Dance of the Fertile Universe: Chance and Destiny Embrace*.



The Holiday run of *Star of Wonder* was well received and helped us to essentially reach our attendance goals. Thanks again go to Dr. Kelly Herbst and Jon Bell who both found some cleaner soundtracks for me to use in the much improved version of the show. As part of the Holiday theme, the museum opened its annual *Enchanted Forest* exhibit with the arrival of Santa Clause by helicop-

ter on November 20.



As you can see, upon stepping out of the helicopter he was quickly mobbed by a throng of admirers. Along with the *Enchanted Forest* the upstairs exhibit platform featured a juried exhibit of theme-decorated Christmas Trees. Some were quite beautiful.



It was disappointing that Memphis skies were cloudy for the total lunar eclipse in December. Fortunately George Hastings sent me to some good websites that were showing pictures.

After a very busy December, we are now in the relatively slow season. After the Holidays, school program attendance seems to ramp up gradually through the winter and reach full steam by March. For our winter feature we are running SEPA's *The Planets* and the seasonal program offering is the popular *Wonders of a Winter Night*. As always, I give a short "live" segment along with every program, in which I talk about points of interest in our current Memphis area skies. I also conducted several live programs on January 6 for new and renew-

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ing members in conjunction with the opening of the new IMAX movie *Hubble*.

I am proud to report that the Memphis Pink Palace Museum (one of the earliest AAM accredited facilities in the country) was once again successful in its recent round of rigorous re-accreditation interviews. Plans for renovating the Sharpe Planetarium and the exhibits of the Pink Palace Museum are moving ahead with no major delays expected.

I am thinking ahead to seeing you all again at the conference this June. Now is the time to think about possible donation items to bring for the silent auction to support the SEPA Scholarship Fund. Speaking of which, if you weren't at the 2010 conference, then what was your excuse? If you or your institution could not afford it or you have financial concerns about attending the upcoming SEPA conference, then go to the SEPA website (www.sepadomes.org) now and apply for professional development support for next year through the SEPA Grant Fund.

Sudekum Planetarium Adventure Science Center Nashville, TN

Kris McCall and Drew Gilmore report: Where did 2010 go?

From August through October, Kris McCall and Drew Gilmore (mostly Drew) produced video accompaniment for the Nashville Symphony Orchestra's Pied Piper Concert Series show "Halloween in Space." This concert for young people featured selections from Wagner and Strauss to Shostakovich and Williams. Forty minutes of visuals came from a variety of space missions: STEREO, Mars Exploration Rovers Spirit and Opportunity, the Hubble Space Telescope, and many more. To get the complete playlist or if you want to know more about the show, please do not hesitate to contact us.

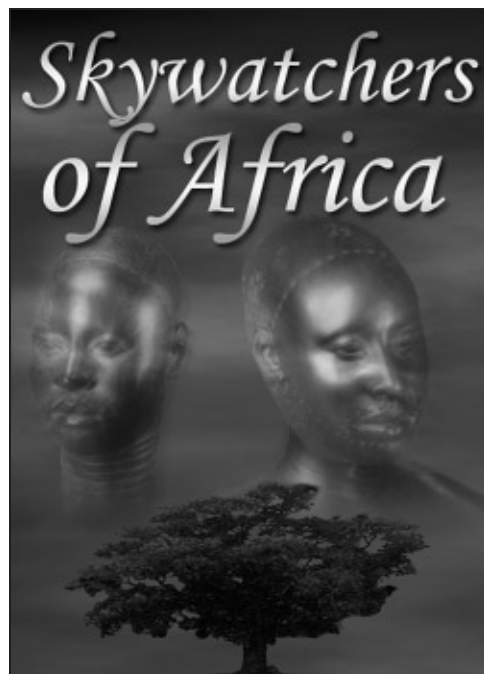
You can read more about "Halloween in Space" at http://www.lipscomb.edu/event.asp?SID=4&ev_key=2193
<http://www.nashvillesymphony.org/main.taf?p=1,1,3,1,4,3&PerfNo=2611>



As soon as the Symphony project was complete and presented, Drew was finally able to get started on the full-dome production and hybridization of Adler Planetarium's "Skywatchers of Africa." Lots of people think of "Follow the Drinking Gourd" when it comes to Black History in the planetarium. This show features both complex culture and advanced astronomy from people all across the African continent.

For thousands of years, Africans have used their knowledge of the sky to build their societies, shape

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their spiritual lives, and meet their physical needs for survival. "Skywatchers of Africa" highlights the diversity of African astronomy, examines cultural uses of the sky that developed

over thousands of years, and celebrates our shared human experience.

Drew has utilized the original imagery and maintained the show's ethnic flavor while adding simple yet effective full-dome sequences. The show also allows us to fully integrate our beautiful opto-mechanical star projector (GOTO Chiron) with full-dome digital coverage (E&S Digistar 3). The movements of the stars, Sun, and Moon were important to the people of Africa and are beautifully reproduced by our state-of-the-art planetarium technology.

For those full-domes who are not hybrid systems, we are hoping Adler will allow us to distribute a full-dome version of the show to others, provided it meets Adler's approval.

The Sudekum staff worked through the long winter break presenting public shows every day but Christmas and putting the finishing touches on "Skywatchers of Africa." We were also preparing for a Dark Side of the Moon Total Lunar Eclipse Star Party. We had previously said there would not be a star party because of the early/late hour. We changed our minds!

The public was invited to "Join us midnight to 2:30 am Tuesday morning, December 21 for a Lunar Eclipse Star Party! While you're waiting for total-

ity, visit the Sudekum Planetarium for Pink Floyd's Dark Side of the Moon laser show at 12:45 am. Tickets for the laser show are \$8, or \$6 for Adventure Science Center members. The star party itself is free." While we were skeptical there would be a huge crowd, we did receive quite a lot of calls and emails from people planning to attend. Unfortunately, the sky was cloudy, but we are already preparing for April 15, 2014.

In the meantime, Sudekum Planetarium at Adventure Science Center and several others have been asked to provide suggestions to JPL on how JPL and NASA can better distribute information and data for Mars Curiosity (now and after landing) to members of the Museum Alliance. If there is some product or content you wish you had had for Spirit and Opportunity, now is the time to ask for upcoming missions. You can contact us or Sarah Marcotte at JPL directly via Sarah.S.Marcotte@jpl.nasa.gov. We submitted a list of fourteen items ourselves.

Last but not least, the National Science Foundation has funded a project called Open Exhibits. <http://openexhibits.org/> The goal over the next several years is to create computer software that can easily be adapted and utilized in exhibits. The goal is to keep it simple, so that small institutions with minimal equipment resources and staff can incorporate



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computer interactives into their exhibits. Check out the website for details and the opportunity to contribute to the effort. <http://openexhibits.org/>

Watch the Total Lunar Eclipse With Us!

Tuesday morning December 21
Midnight - 2:30 am at ASC

Pink Floyd
The Dark Side of the Moon
Laser Show

12:45 am
December 21
in the Sudekum Planetarium

Both events are weather permitting.

www.SudekumPlanetarium.com



VIRGINIA

contact: Kelly Herbst
Virginia Living Museum
Newport News, VA
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**Abbitt Planetarium
Virginia Living Museum
Newport News, VA**

Kelly Herbst reports: Winter has arrived, and with it the holidays. We are enjoying another run of our holiday classic *Star of Wonder: The Mystery of the Christmas Star. Laser Holidays* is doing amazingly well, especially among families with little children. What could be more fun than singing "Rudolph the Red-Nosed Reindeer" in the planetarium? Once the new year begins, we'll return to our regular order of business with three shows most days. *Virginia Skies* returns to the daily line-up, as does the popular preschooler program *The Friendly Stars*. For 2011 we'll be debuting *IBEX: Search for the Edge of the Solar System* during the first two weeks, and then it will pop back into the line-up whenever we are not running a co-market show with our changing exhibit gallery.

Speaking of our changing exhibit gallery, on January 15th we reopen the gallery with a new exhibit called "Masters of the Night: The Story of Bats." Everybody loves a good bat exhibit! It looks like it will be a wonderful exhibit, and of course, with the word 'night' in the title, we had to do something special to tie-in the planetarium. Even as I write this, John Wright is working on the production of our companion program to the exhibit: *Beyond the Night*. We'll explore the night sky as we can see it with our eyes, and then show our guests what's visible with a little help from binoculars, telescopes, and Hubble. I'm sure John will find a way to sneak a bat or two in there as well. That will run through early May, replacing *IBEX* during the run of the exhibit.

We've got a number of fun special events on the calendar as well for the first part of 2011! February will bring us our always-popular "Groundhog Night," where we show off our live groundhog and

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even feature the critter in the planetarium with our home-grown show *Assignment: Earth*. Next comes Valentine's Day, and we'll be debuting *My Laser Valentine*, a special mix of love-themed laser songs. Finally, over President's Day weekend we consider all things reptilian (hmmm...a subtle statement about politicians? Nah!) with our annual "Reptile Weekend." The planetarium goes scaly too, hosting a 'game show' called *A Sky Full of Scales* where we search around the sky and learn about cold-blooded constellations. All in all, February is a busy time for us! And after that, we're hoping for a good Spring run of school programs to round out the season. Our best of all of you for a happy and healthy 2011!

**Planetarium
Radford University
Norfolk, VA**

Rhett Herman reports: On Saturday December 18 a young couple (one an RU alum from 2009 and current Marine) will get married in our little planetarium! It will be a small friends-and-family affair under the stars. The guests will come in and enjoy a full-dome projection put together by the groom. Then after about 15 minutes, when their eyes are dark-adapted, they will enter and the ceremony will begin. The light will be provided only by the starlight of the star projector, the red evening and morning glows, and a candle by which the officiator will read the ceremony. They had originally thought about getting married in the evening on a mountaintop in the area about this time of this year, but thought that the "weather" inside the planetarium would be much more friendly.

**Thomas Jefferson HS Planetarium
Richmond, VA**

Leslie Bochenski reports: I've had a busy fall semester with about 75 programs for third grade classes and developing a new program for first grade classes. Requests for Planetarium Programs is up, due to cuts in funding for field trips to other locations. Since my Planetarium is part of the school system, visits here are not considered to be a field trip. Attendance is up 8% compared to the same time period last year.

I missed out on seeing the Winter Solstice Lunar Eclipse. I was in Roanoke, Virginia at the time, under a thick blanket of clouds.

Happy New Year, everyone!

Remember your State Coordinator!

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There's an App That!



Introducing a revolutionary new way to operate your Digistar 4 system: the iPod Touch. With our new app, you can control virtually every system feature from a handheld wireless device. It has never been easier to give live astronomy presentations and respond instantly to audience questions with stunning examples on the dome. This unique interface puts the power of the universe at your fingertips.

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