

Southern Skies

Volume 30, Number 4

Journal of the Southeastern Planetarium Association

Autumn 2010

Keep Looking Up!



Jack Horkheimer
1938-2010

Table of Contents

SEPA Officers.....	2
President's Message.....	3
IPS Report.....	4
Editor's Message.....	5
Jack Horkheimer: Planetarian and Star Hustler (1938-2010).....	6
Jack Horkheimer: Eulogies.....	13, 14
Small Talk.....	16
Archeoastronomy - Cross-Referenced: Cross-quarter Days Then and Now, Part I: Samhain.....	20
SEPA 2011: Conference Update.....	22
Theremin.....	24
News from SEPA Region.....	34

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President's Message

Jon Elvert

Irene W Pennington Planetarium
Baton Rouge, LA

As my two years as President are coming to a close, I want to reflect a bit on SEPA's overall values as an organization and dedication to the planetarium profession. Before coming to Baton Rouge from Oregon and New York, I had always heard rumors that SEPA members hosted the best party conferences, that if you had only one conference a year to attend, make it the *Animal House* party-like SEPA conference. But what I found out after moving here was that SEPA really had the best organized confer-

ences and they became some of the best conferences I've ever attended. These well run conferences are, of course, the result of the dedication and caring of its members and Officers who want to ensure the highest level of professionalism possible. I've really enjoyed working with a talented Council and so many other SEPA members these past two years. I also want to extend thanks to all the vendors and exhibitors that have supported SEPA over the years. But seriously, SEPA really does know how to party and it hosts the *best* hospitality suites of any conference.

As your next past-president, I hope to be involved in ways we can recruit new SEPA members. Recruiting potential members is always a challenge, but I'm sure we all know someone or some planetarium that just needs to be introduced to SEPA; our practice of hosting a new members meeting prior to our conferences is a great way to make new members welcomed in our field. And for those of you, who are not members of the International Planetarium Society (IPS), go to www.ips-planetarium.org to check out the benefits of this organization and consider joining.

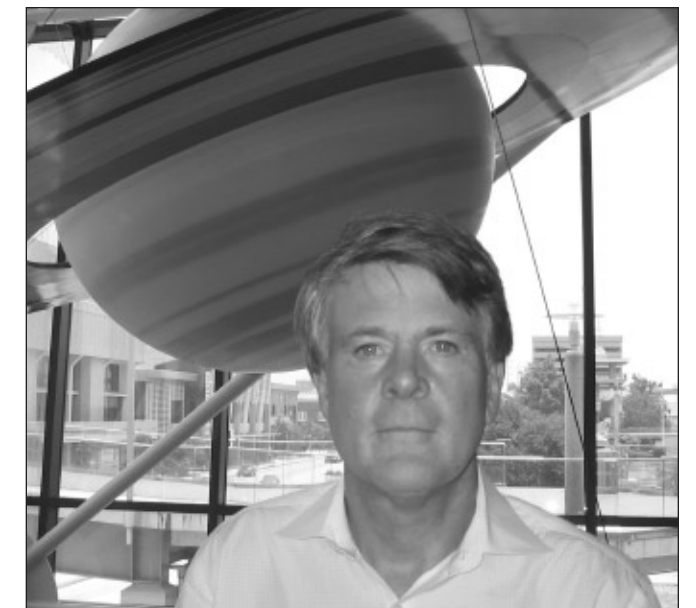
On 1 January, 2011 some changes take place on Council. I become Past-present as April Whitt of the Fernbank Science Center in Atlanta, GA becomes president. Adam Thanz of Bays Mountain Planetar-

(Continued on page 30)

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 Mickey Jo Sorrell). The underlying mission of our advertisements is to promote resources, products, and services related to the planetarium profession. SEPA reserves the right to refuse advertisements.



SEPA President Jon Elvert

IPS Report

John Hare
ASH Enterprises
Bradenton, FL

IPS conferences are held in even numbered years at sites selected by the IPS Council. Baton Rouge will host IPS-2012.

Three locations are competing for the 2014 conference:

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

IPS Council will decide the winner at the 2011 council meeting scheduled for July 1 and 2 in Novogorod, Russia. As your IPS Council representative, I will be responsible for voting the wishes of SEPA. In the next 3 issues of Southern Skies I will present details from each prospective site in alphabetical order. I will also present a summary of the site invitations at our 2011 SEPA conference.

Please do not hesitate to contact me should you have any questions regarding the site invitations.

IPS-2014 Beijing, China

Proposed conference dates are Monday, June 23 thru Friday, June 27. Estimated registration cost is \$350 with the banquet extra at \$40. The 5-star, New Century Hotel is a 5-minute walk from the planetarium. Rooms are \$120 per night. The airport is 27 km distant and is about 40-minutes via taxi or subway. 1-stop airfare from Atlanta is approximately \$1800 on Delta Airlines. Bargain airfares should be available for less.

The *Beijing Planetarium* offers a combination of an ancient observatory and a modern planetarium complex with multiple theaters.

The *Beijing Ancient Observatory* was built in 1442 and was the royal observatory of the Ming and Qing Dynasties. The observatory contains a variety of instruments, many in excellent repair, as well as many displays and observation records thru 1929!

The 23-m *Zeiss Cosmos Theater* was opened in 1957 and contains 400 seats. It was recently ren-

(Continued on page 31)

Editor's Message

James Sullivan
Buehler Planetarium & Observatory
Davie, FL

We feel the loss of Jack Horkheimer because of the impact he had. To the public, Jack Horkheimer was the face of the planetarium industry. To our industry, Jack was a visionary. He brought change, moving us from the voice in the dark to emphasizing the story and on toward a theatrical presentation of education in the dome.

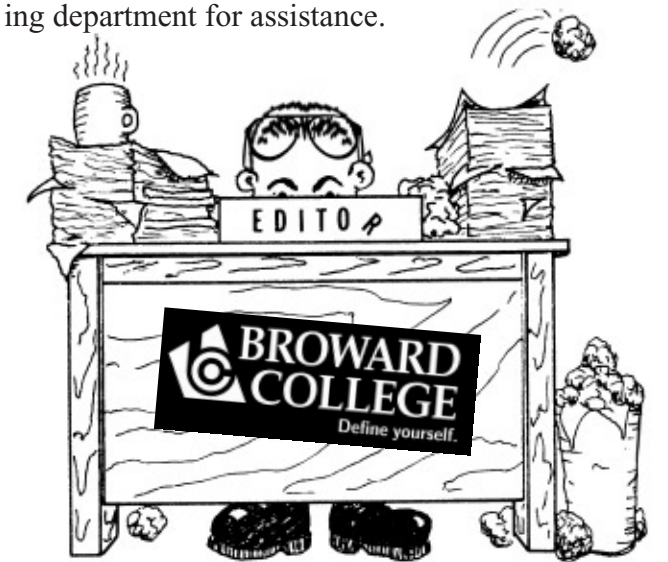
Jack was the giant upon whose shoulders we now have the opportunity to stand. Jack brought his background in theatre into the dome, giving us the example to follow in creating wondrous experiences for the audience. He also shared his passion for this, and his impact resonates far beyond those who got a chance to know him.

Jack Horkheimer was out to sell the universe. We all bought it. And we are better for it.

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

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

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



Paul Campbell Fellowship Award Nomination Form

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

Nominee's Name: _____
Qualifications: _____

SEPA Membership Form

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

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

____ Two Years, \$40

Name _____

Organization _____

Planetarium _____

Address _____

City _____

State / Zip Code _____

Voice Phone _____

Fax Phone _____

Email Address _____

Staff Position _____

IPS Member? Yes _____ No _____

Contribution to Scholarship Award Account: \$ _____

Jack Horkheimer: Planetarian and Star Hustler (1938-2010)

*A personal recollection
by Jane G. Hastings and others*

One of the planetarium community's longtime innovators, Jack Horkheimer, passed away in August. His contributions to the planetarium and stargazing worlds are impressive and legendary; effecting, along with other pioneers of the last century, the changing of the of the planetarium concept from a starry sky with a lecturer and a pointer to the various venues we see today.

Prologue: A Move

Jack Horkheimer moved to Miami in the mid 1960's. He had grown up in Wisconsin, but he had an acute lung problem that precluded his living in the cold northern latitudes any longer. With a degree from Purdue University and scripts of plays he had written and produced there, he moved to Florida where the more favorable temperature and humidity might extend what he considered would be a short life.

Shortly after his arrival, Jack met Arthur Smith, President of the Southern Cross Astronomical Society. Arthur was a member of the board of the Miami Museum of Science, and was looking for a director for the museum's new Spitz Space Transit Planetarium. Arthur became his mentor: Jack was introduced to the "real" sky through Arthur, and at Arthur's insistence the museum hired Jack as the director of the planetarium. After a few months under Arthur's tutelage, Jack came alive, so to speak.

Log 1: A New Life

Jack dedicated himself to his newly-discovered twofold mission in life: using carefully-crafted, thoughtful planetarium productions to show the majesty and wonder of the universe and introduc-

ing people to the real sky. This dual mission dominated his life until his death, at age 72. Yes, age 72. His life mission revitalized him: those of us who knew him well know that many medical crises arose in these 40 years in Florida until his death, but he always found ways to keep going.

Tributes to Jack appear on YouTube. Three you may enjoy are:

<http://www.youtube.com/watch?v=ltvORmtVRyM>
(by George Hastings)

http://www.youtube.com/watch?v=XXQche_V4tg
(by Tony Darnell)

<http://www.youtube.com/watch?v=t9SLpKuKdEA>
(by WPBT2)

Log 2: A Little SEPA History

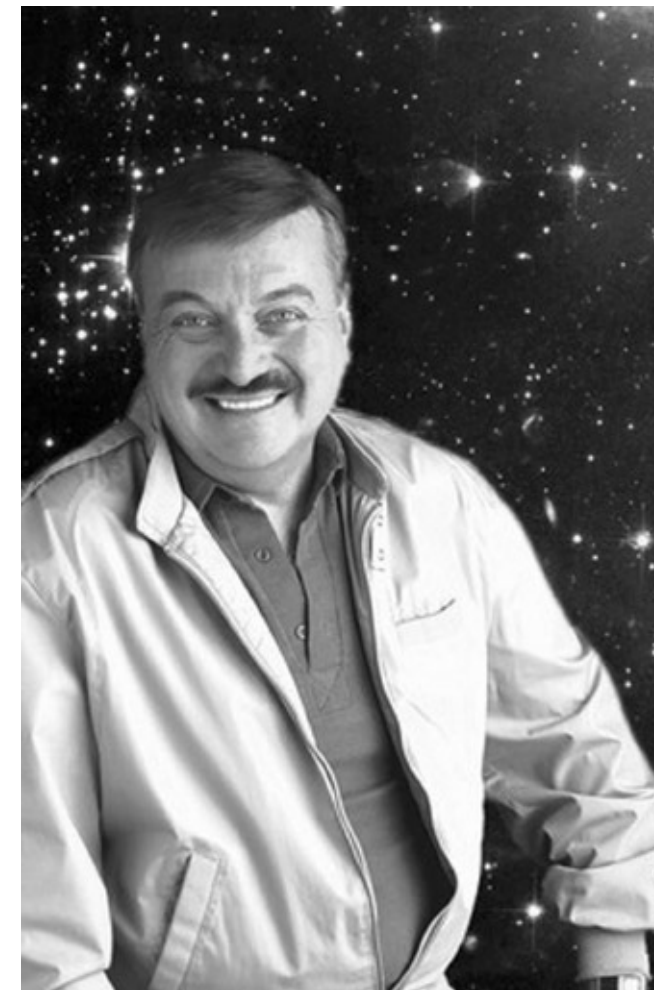
In the early 1970's, Jimmy Hooks, Jack Gross, and I were organizing a new regional planetarium group which came to be called "Southeastern Planetarium Association (SEPA)." The region was to be made up of the leftover states from the formation of all the other sectional organizations (some planetariums in border states stayed with the older organizations). We decided to have an annual meeting at some location in one the 16 states in the Southeast. In Atlanta, at one of the first get-togethers, we met Jack Horkheimer, and saw one of his shows.

Even more significant for SEPA, Jack embraced the fledgling organization. As Jack Gross, founding vice-president of SEPA, said recently, "Tricks of the trade were well-guarded in those days. Jack was ready and willing to share his experience, technical tricks, and showmanship. He became a real mentor to our group."

Jack Horkheimer created a newsletter, bringing

(Continued on page 7)

Jack Horkheimer (Continued from page 6)



together news for and from planetariums in the region (he called the organizational newsletter "Southern Skies"!).

After attending the Atlanta meeting, Jack then invited SEPA to Miami for two annual meetings, first in 1973, then again in 1975 for what many people consider the most spectacular planetarium conferences of all time.

When you think "conference," you probably think "meeting rooms with people giving papers" interspersed with "planetarium shows." There were planetarium shows, lots of them. But as for other conference activities, Zen yoga master Lee Langstroth got conferees off to a good start early in the morning at the motel pool as delegates began their non-stop activities.

Here is what Jack said about his 1973 conference: "I call it 'INNER-OUTER SPACE,' subtitled 'A Sensate Journey into Other Realities.' It is a planned 'happening,' designed to immerse the participant

intellectually and emotionally in the arts and sciences both pertinent and relative to the profession. It will be four intensive days modeled in the classic retreat manner of Ignatius of Loyola."

I have to admit I don't know who Ignatius was, but I do remember overhearing a delegate remark, as we all left the private Mensanity concert at Lumonics Studio of Sight and Sound one afternoon," I don't know what's happening to me, but I THINK I'm going crazy."

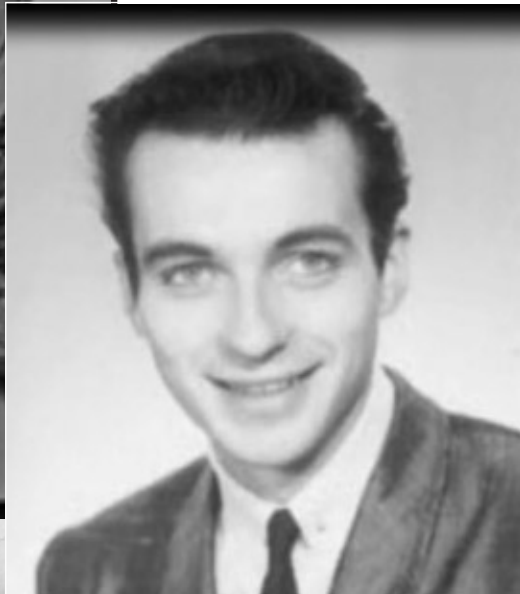
Who can forget an evening at the fantastic Italian Renaissance-inspired Vizcaya Palace? First, 35 Spanish ladies played guitars during a lavish buffet dinner. Next, a comedy group, the Intensive Care Unit, gave us the real story behind Skylab: two high school teachers (PE and Industrial Arts) are last minute astronauts as Cape Kennedy goes on strike. The paper session was next: an overhead projector was hooked up at the edge of the outdoor palazzo and the invited speaker from New York began his talk on "Superheterodyne Spectroscopic Stellar Measurement." A photographer took a picture, but it wasn't of the guest speaker; it was of a raccoon that wandered out from the bushes next to the projector! The evening at Vizcaya ended when the guest speaker smashed, in magnified view of all, some tropical insect that inadvertently appeared on the overhead projector.

A midnight movie: do you remember watching Jane Fonda float in space in an uncut version of the movie 'Barbarella'? Some other events during the conference: a three-hour moonlight cruise/dinner/lecture on the Island Queen, cocktail parties and meals in exotic places, a visit to the Miami Seaquarium to meet Flipper, and non-stop socializing and floating in the swimming pool at the Silver Sands (conference motel on Key Biscayne). April Whitt, planetarian from Atlanta, remembers that the SEPA business meeting was held IN THE POOL.

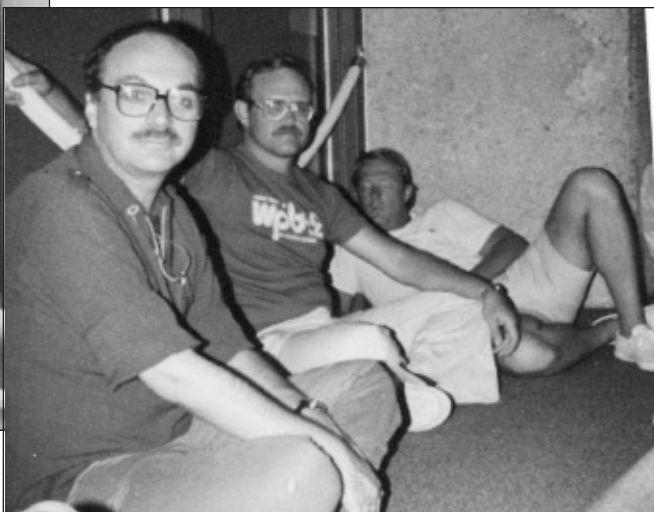
Oh, I almost forgot: cannelloni and wine in the artist colony of Coconut Grove, a tour of the National Hurricane Center, a deep sea dig, and lots more talks. We heard "Devil's Triangle," "Lost City of Atlantis," "Ancient Mayan Lunar Calendar," and Robert Little's famous 'Gemini Twins' lecture. Whew! I think I have finally revealed the origin

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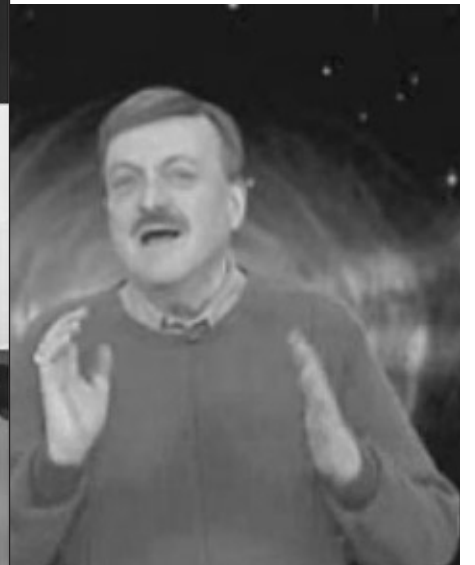
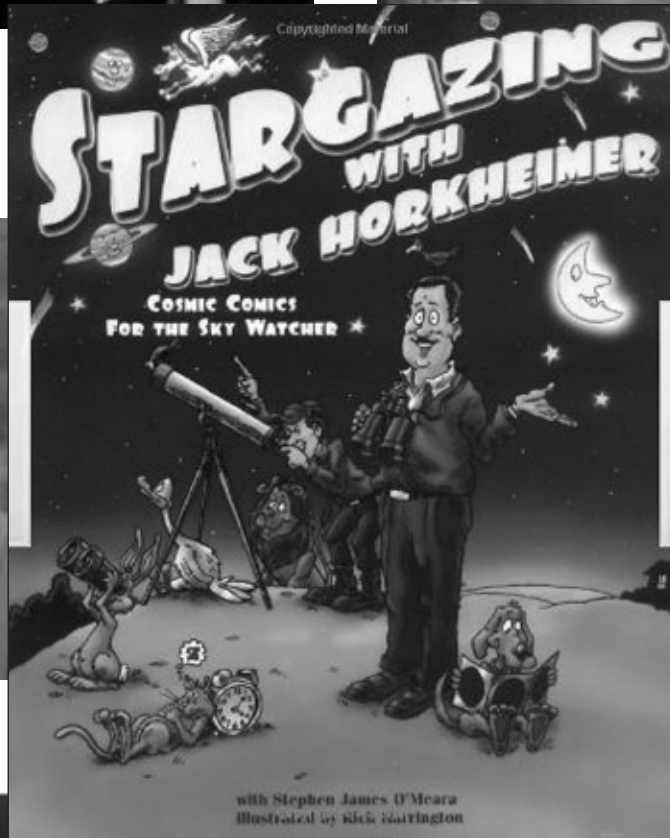
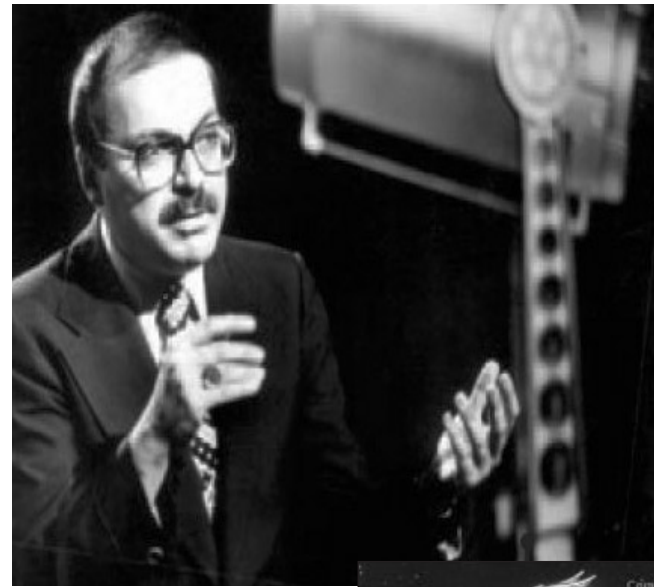
Jack Horkheimer 1938-2010



L to R: Jimmy Hooks, Jack Gross, JH (with curly wig) at 1971 Atlanta conference.



JH, Bill Dishong, Mike Hutton at 1983 conference in Kingsport.



Jack Horkheimer (Continued from page 9)

of the worldwide planetarium community's impression that Southeastern Planetarium Association conferences are a l-i-t-t-l-e different!

Log 3: The Mission Begins

In 1969, I was thrust from the Earth Science classroom into the new 30-seat planetarium chamber of our school district and told to "do something with it." I began looking up planetarians and going to their shows. In the larger planetariums, shows I saw consisted of a live lecturer using a lighted arrow pointing at the stars. Maybe there were a couple of slides; perhaps soft intro and exit music. That was all.

But then we saw Jack Horkheimer's shows in Atlanta and Miami in the early 70's. Instead of a narrator with an arrow, I thought of poetry and imagination. This was something new. Instead of a lecturer with a flashlight, there was a recorded soundtrack with multiple narrators, fantastic images, a story being told: a story... about the universe.

To keep the audience engaged, he divided his programs into segments, which he called "logs" or "episodes." Each 10-12 minute segment was a story into itself; the next story in the script might bear no apparent resemblance to the first, each segment making you wonder how it could possibly be related to the previous ones. Somehow, at the end, it all fit together in an unexpected and poetically magical way. I saw what a planetarium show could be.

And so did many others. Over the years, Jack produced at least 25 original shows. Although the shows rarely left Miami, a lot of planetarians saw them, as word spread about them, and people came to see them. Jack arranged script-writing sessions for people who requested them; he welcomed visitors to Miami and generously gave of his time and talents one-on-one to anyone who asked. In 1976, Dennis Simoupoloulos, a planetarian from Greece who visited American planetariums and took 5 of Jack's shows back to Greece, commented: "European planetariums are 10 years behind American, and American planetariums are 5 years behind Horkheimer!"

My favorite planetarium shows at his Miami

Museum of Science are "Buck Rogers...Right On," "Long Journey of a Young God" and "Child of the Universe."

"Buck Rogers..." was a comedy about an aging space-faring Buck Rogers, his septuagenarian sidekick Wilma and their experiences in space. The science was timely and fascinating; the dialogue funny and engaging. In the show, in one scene, Buck uses the tip of Wilma's cane to plug an air leak in the zero gravity toilet. Later on in the show, an audience member tries to rescue Wilma by using the STP control when Wilma loses her footing on an EVA. Phyllis Pitluga, retired planetarian from the Adler Planetarium in Chicago was one of the 70 or so attendees of the 1973 conference who saw "Buck..." She remembers that Jack "used the zoom orbiter projector to show fat ladies in bikinis swooping across the starry night." [I think this is one of those... "you hadda have been there..."]

"Long Journey of a Young God" was beautifully written with comparisons between "young gods:" the mythological Apollo, the Apollo moon program and recently-assassinated President John Kennedy. In each case, a young leader manifests all our dreams, and for a brief time seems magical. In Jack's view, this scenario contains all the elements of the great stories of the past. The 65-minute show was jam-packed with mystical, cosmological, sociological, and psychological headings. As Jack Dunn, planetarian from Lincoln, Nebraska, says "As philosophical exercises, Jack's shows asked audiences to think. What a concept!"

"Child of the Universe" was Miami's favorite. Using Jack's signature segments, we examined Kurt Weill's song "Lost in the Stars," heard confrontational dialogue between Galileo and the church, then traveled out to space and back inward to the nanoworld of the cell ("Powers of Ten"-style). The story ended with a popular poem-song of the era which engaged the audience by asking them to "belong" to the diversity of the Universe. The show was so popular that it had revivals in Miami at marked anniversary years. If you want to read the poem upon which the show was based, try <http://en.wikipedia.org/wiki/Desiderata>

It is quite likely that you have not seen any of these

(Continued on page 11)

Jack Horkheimer (Continued from page 10)

shows; but you may have seen Jack Horkheimer's "Starbound," an ambitious project funded by NASA that was distributed to many planetariums around the world. This is how it begins:

"Once upon a time...

In a galaxy not so VERY far away...

There existed a creature strange,
With an insatiable thirst for knowledge.

Now this is the peculiar part:

The more it learned, the less it knew...

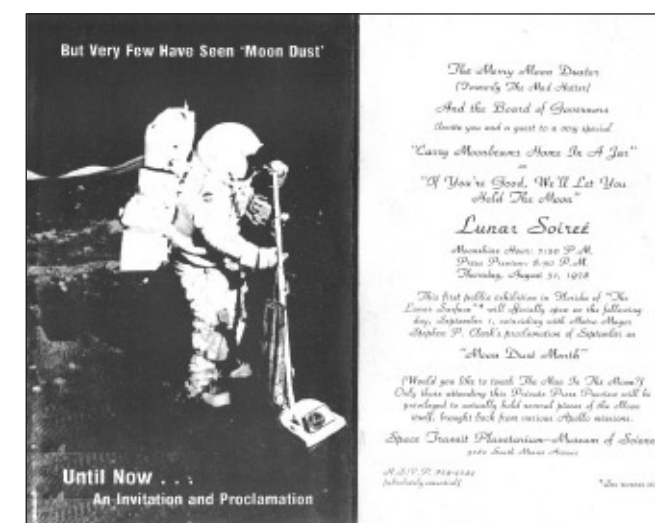
For with every answer, came another question.

Now this is the beautiful part:

Of all the creature's thirsts,

This one... brought him closest... to the Gods."

Jack Dunn adds: "What made these shows work was that Jack Horkheimer understood audiences and how to draw reactions from them. He got inside their heads and knew what they were thinking sitting there in the dark." He reminds us that Jack H. was also an innovator in laser shows. He embraced the new technology and "brought fledgling laser companies to Miami," said Dunn.



It was a good idea to drop into the planetarium in Miami whenever you could, as Jack shamelessly enjoyed celebrating even the most insignificant astronomical event. Once when I visited I saw a flyer in the community that announced you could "walk on Mars" if you came to the Miami Planetarium. I thought, "How is he going to do that?" I should have known: a Martian meteorite was housed under a Lucite platform and you could walk across it! Dave Hostetter, planetarian from Lafayette, La., says he still has the "walk on Mars" souvenir card

which he and planetarians Patrick McQuillan and Kris McCall got when they showed up during that time. He remembers Jack as a gracious host who loved planetarian visitors

John Hare of Ash Enterprises in Bradenton, Fla., spoke at a memorial service in Miami for Jack in mid-September. John said, "Upon moving to a dome in Florida in 1979 I discovered a very active community of planetarium theaters. As a region they were producing the most dramatic and most successful body of planetarium productions anywhere, and Miami was the epicenter. Jack is gone but he will live on forever as one of the true innovators in this special community of domed theaters, the planetarium."

Log 4: Mission Accomplished

"Greetings, greetings, fellow stargazers!" So began each weekly episode of "Jack Horkheimer: Star Gazer." This 5-minute show was produced at WPBT2 in Miami, and distributed free to PBS stations and other venues around the world. The program, for almost 40 years, has kept viewers informed about upcoming sky events, using simple graphics and Jack as "explainer" walking among the planets or sitting on the rings of Saturn. Previous to that show, in the 1970's, Jack had a weekly 5-minute Astronomy "What's up in the sky" show at radio station WKAT-AM in Miami. He would arrive in the studio with the latest copy of Guy Ottewell's Astronomical Calendar and use it to figure out what to say about objects visible in that week's sky.

An outgrowth of the radio show was a 5-minute TV show, called "Star Hustler" which aired each week and was available for free distribution to ETV stations. It was a hit; many stations put it at the end of the broadcast day, and some aired it every night. As time went on, the name was changed to Star Gazer, as internet hits for "hustler" turned up some questionable links. The show is currently running with guest hosts; WPBT hopes to keep this starry topic going.

Many of Jack's shows, in one-minute and in five-minute formats, are still found by going to this web site: www.jackstargazer.com. When you get there,

(Continued on page 12)

Jack Horkheimer (Continued from page 11)

you can also scroll down to watch three of Jack's special 30-minute shows from the 1970's.

The weekly show is very popular; through the years, ancillary products have appeared. Tapes, cds, books, planispheres, sun dials, bumper stickers, are all designed to assist a novice sky gazer. At one point, a "Star Gazer" comic strip appeared in "Odyssey" magazine.

The following commentary appeared in the September 2010 Roanoke Valley Astronomical Society (RVAS) newsletter. From comments I have read through the years, it sums up the feelings of the many people who watched Star Hustler(Gazer):

"A favorite part of many RVAS meetings was watching Jack Horkheimer do his thing. It was a relaxing way to get into the "business" of the evening. We generally started off each night with Jack, laughing at his corny demeanor ... but still paying close attention to what he said. His presentations were not aimed at those with expensive equipment. Rather, he focused on how to enjoy the night skies with little or no equipment. For a few minutes we were like children, like beginners amazed at the simple beauty of our universe. For that infectious gift to us, we will be forever grateful."

Betty Wasiluk, planetarium from Hedgesville, West Virginia says, "I have copies [of his TV show] on video and will probably use them with my astronomy classes long after he is gone. There is no replacing him. We would take a break from the cold when observing to catch his program."

Jack became somewhat of a celebrity during the run of the TV show. In 2001, Asteroid 1999FD was named 11409Horkheimer by the International Astronomical Union. Jack embraced his popularity as an opportunity to further his vision of introducing people to the real sky.

At the Prairie View Astronomical Society meeting in 1993, Jack Horkheimer said, "The purpose of 'Star Hustler' is to get people to go outside to watch the stars. I contend that once you get someone hooked on watching the stars, they make the mental leap themselves after awhile, and they find their own reasons for wanting to observe the heavens."

Jack continued, "Stargazing is all about where you are in time and space. The reason people get out their telescopes and attend star parties is because they are trying to peer out over the horizon to find their place in the universe. And if I can help them find that, that's all that matters."

He gave talks during solar eclipse excursions, sponsored and participated in star parties, was a guest speaker at planetarium conferences, astronomical league conventions, and many other venues.

Rik Hill, of the Lunar and Planetary Lab at the University of Arizona tells us:

"Jack Horkheimer and I were guest speakers for an eclipse trip in 1992 to Hawaii. One night when everyone was dead tired we all took the boat back to our rooms at the Waikoloa Hotel in Kona. The boat let us off at a landing near our rooms. There was a bar there, and Jack said he was going in for a drink. I said I'd join him after I took my exhausted wife and young daughter to our room. It takes little time to go up a couple floors, see them safely in and then return, but by the time I returned to the bar Jack had everyone making planisphere star finders! They were having a ball and he clearly, in the space of a few minutes, controlled the crowd and had them eating out of his hand. That was Jack Horkheimer!!"

Log 5: Young Amateurs

Jack used his planetarium to tell the stories he envisioned, and he used his TV show to get us outside. Several years ago, he went one step farther. He was again inspired by Arthur Smith in the initiation of the Young Astronomers' Awards to encourage students' interest in the stars. He worked with the Astronomical League to set up and personally fund four annual awards. As reported in the September 2010 issue of the Astronomical League's newsletter, "The Reflector," "Jack Horkheimer's 'Award for Exceptional Service'" is for high school age League astronomers. Entries were judged by members of the Astronomical League. The winners were announced in this issue along with a description of the activities for which the awards were given. There are actually three service awards; each winner received a plaque and \$1000. A fourth Youth Jour-

(Continued on page 13)

Jack Horkheimer (Continued from page 12)

nalism award of \$1000, which was open to writers ages 8-14, was also announced in this issue.

Epilogue:

Laurent Pellatin, planetarian from Alachua, Florida, writes, "The Seminoles of South Florida say that when a great and good warrior dies, the Milky Way shines brighter to guide his steps into the afterlife. Jack was the ultimate great and good warrior for astronomy education. The Milky Way, and all of the heavens will be shining bright for many, many nights to come... all you have to do is keep looking up!"

In preparation for his death, Jack Horkheimer had his tombstone erected several years ago, in Wisconsin. It says:

““Keep Looking Up’ was
my life’s admonition
I can do little else
in my present position.”

So, whenever the SEPA People gather and drink a toast to him (preferably champagne, his favorite), we will raise our glasses and say, "Keep Looking Up!"



Eulogy

John Hare
ASH Enterprises
Bradenton, FL

"Winter...an astronomical fact...a season of astronomical wonder...for with the shortening of the days comes a sky of uncommon beauty, a sky of wonder past, a sky of wonder present, the season of the Hunter, Orion the great hunter, called by Homer the tallest and most handsome of men, who can now carry modern man and his imagination to a distant place, reminiscent of his very origins...in the dust of space...a far off spot...1400 Hundred Lightyears Beyond."

Spoken so passionately by actor Bill Hindman, these are words from Jack Horkheimer's production of *1400 Lightyears Beyond*.

Such eloquent prose not only engaged Miami audiences beginning in the late 60s but helped in the creation of a new genre of planetarium programming. Jack was among the first to use well-known actors and TV personalities to bring drama and melodrama to the domed theater.

His critical and box office successes with his Miami audiences soon spilled over into the planetarium world in general. Jack impacted and inspired a whole generation of planetarium directors and producers worldwide.

He was among the founding members of Southeastern Planetarium Association and the International Planetarium Society, IPS, and was a major editor of the IPS Journal for several years.

My first encounter with Jack was at the 1974 IPS conference in Atlanta. I remember Jack sitting on a sofa with his waist length hair, a wig of course, holding court to a group of attentive planetarians. He was giving us all insight on his philosophy on script writing and show production. I was enthralled as were the others.

(Continued on page 14)

Jack Horkheimer (Continued from page 13)

Jack hosted his second SEPA conference in 1975, which on demand turned into a Jack Horkheimer planetarium show festival. I remember leaving Miami anxious to get back to my humble dome inspired to begin working on new productions.

Upon moving to a dome in Florida in 1979 I discovered a very active community of planetarium theaters. As a region they were producing the most dramatic and most successful body of planetarium productions anywhere, and Miami was the epicenter.

Over time we became friends and shared a very pleasant relationship. He was not only a good friend, but a mentor who had a significant impact on my planetarium career.

A tireless writer, star of his own PBS show, planetarium director, socialite, fundraiser, fill in the blanks, Jack would always be available whenever I visited Miami, which was often. Sometimes we would see each other for only a few fleeting minutes, and other times we enjoyed more than a few drinks over dinner, or nothing more than conversation.

Jack is gone but he will live on forever as one of the true innovators in this special community of domed theaters, the planetarium.

Thank you Jack for what you have done for all of us!

Eulogy

Phil Groce
Helping Planetariums Succeed

I have known Jack Horkheimer for more than 36 years as both a colleague and a friend.

Jack has had a profound influence on planetarium producers and directors throughout the US and on me, personally.

Jack was the first director of a planetarium to apply

fundamental concepts of theater and drama to the American planetarium genre. Where most of the persons directing planetariums were teachers or professors of Astronomy, Jack was a master playwright who understood that the greatest stage in the universe was the night sky.

I have often quoted a description of the theater as “a place where people go to sit in the dark to watch other people perform in the light, all to learn what it is to be human.” Jack taught us that to get the public as passionate about the wonders of the universe as we were, we needed to humanize science...that we needed to celebrate the poetry of the sky and the souls of the gods placed among the stars. Jack used the playwright’s tools of clever dialogue, irony, and unbridled emotions to challenge his audiences. To say the least, I was very jealous of his talent.

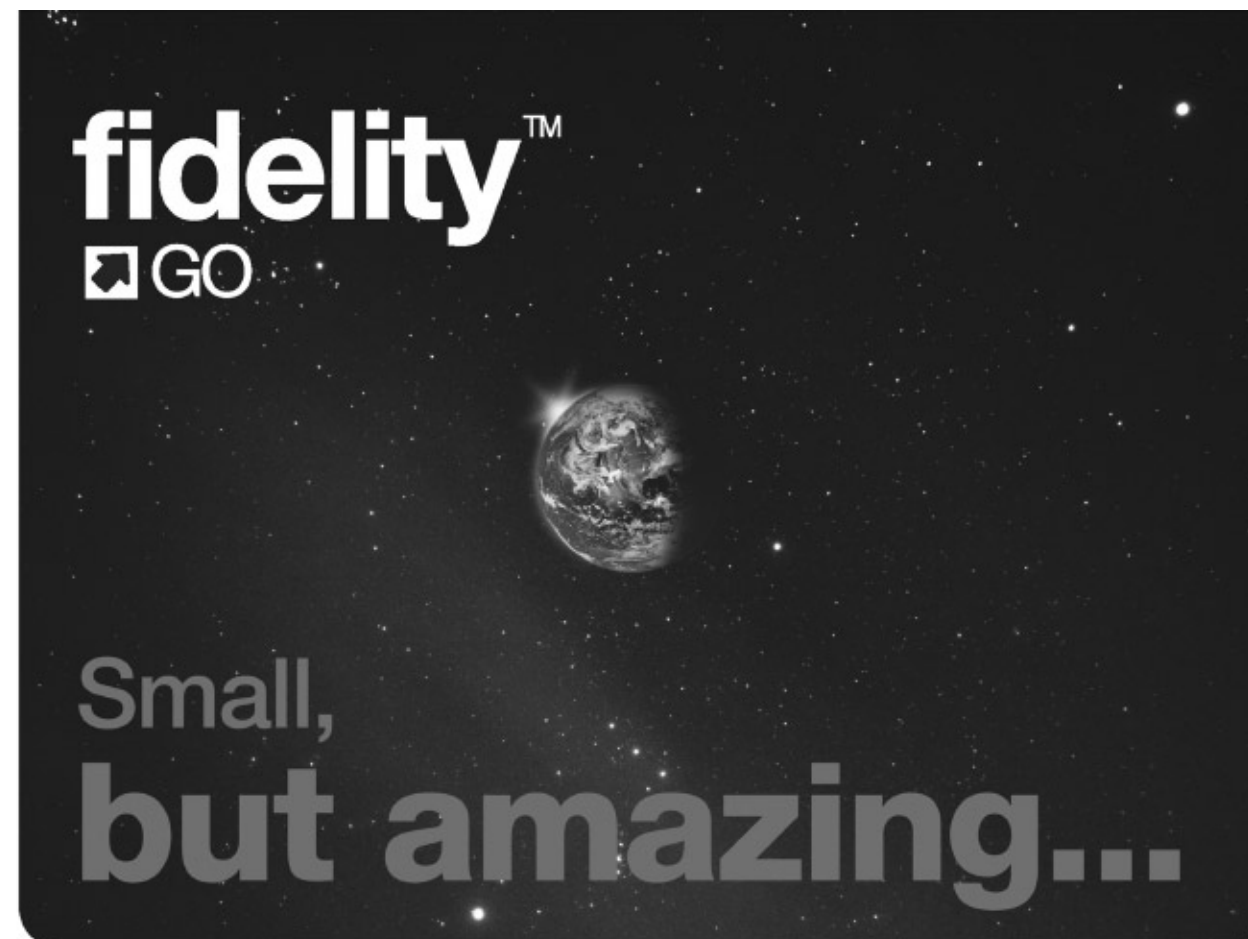
Only Jack could write a show called “Child of the Universe” and make us cry. Only Jack could end a show about the Apollo missions to the Moon with Peggy Lee’s rendition of “Is That All There Is?” That question is more profound today than it was when he asked it more than 37 years ago.

For more than a quarter of a century, Jack stretched his planetarium techniques to television with his award-winning “Star Gazer” series. Most of you should know that Jack invented the “Star Gazer” (“Star Hustler”) over-the-top persona to evoke enthusiasm. Jack taught us that the best way to get people excited about any subject was to express our own sincere excitement and passion. No man or woman in the history of the planetariums has reached so many people and done more to popularize “looking up.”

It is obvious that Jack loved talking about the wonders of the sky and that he loved planetarium people who work so hard to do the same. I know that I am joined by thousands planetarium people around the world with just one grateful thought: “Thank you Jack Horkheimer.” We are glad that in your long dying, you stopped long enough to live, and show us the way.

Thank you.

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Small Talk

Elizabeth Wasiluk
Berkeley County Planetarium
Hedgesville, WV

Hi Gang. I just got back from the Buffalo Broadcasters Hall of Fame Awards Dinner for 2010, in Buffalo, NY. (For more information go here: (http://www.buffalobroadcasters.com/hof_2010.asp) What has that got to do with my planetarium?

Well, if you listen to National Public Radio, a gentleman named William Siemering is the guy who came up with the concept of the program, "All Things Considered." He at one time was the general manager of radio station WBFO, located in Buffalo, NY, associated with the University of Buffalo. He eventually moved on to work developing programs at the NPR network in Washington, DC. He later moved on to work at WHYY in Philadelphia with Terry Gross, of "Fresh Air" fame. Terry Gross started out at WBFO as well. Other notable figures who one time worked at WBFO were Ira Flatow of "Science Friday" fame and Clifford Stoll who wrote books such as Cuckoo's Egg and Silicon Snake Oil.

While I was in college, from 1977 to 1979, I was a volunteer programmer at WBFO, producing programs for "This is Radio," another program that Bill Siemering created. He was long gone by the time I got to WBFO, but in his honor the station invited people back to the station to take part in several activities over a two day period. It was kind

of like a 40 year reunion of people who worked at the station since the sixties. We toured the station to c o m m e n t s from the alumni as, "Wow, the

music library is bigger than the whole station when I worked there." "Hey, this is a music library? Where is the vinyl?"



Wozniak at the control board during "All Things Considered" at WBFO on our Tour.

WBFO was important, because it was in their studios, which are no longer in Norton/Squire Hall, on the University of Buffalo campus, that I produced and edited (on a metal block with splicing tape and razor blade) tape from huge hubs for the sound track for my very first planetarium program which was called "Skytour." I presented it at the Williamsville North High School planetarium in Williamsville, NY because the planetarium I worked at in Buffalo State College was destroyed by fire.

Having access to a real recording studio and editing facilities really helped me when I worked in tiny planetarium facilities with no sound studios of their own. Now everything is digitized. Perhaps the local radio station would help you develop an audio track for your planetarium program. The worst they can

(Continued on page 17)

Small Talk (Continued from page 16)

say is no. Often local talent will develop a piece for free for you. When I worked at the J. M. McDonald Planetarium in Hastings, Nebraska, a couple of dee jays took on the challenge of doing a funny opener to a program I wrote on the planet Venus, capitalizing on the many people who mistook it for a UFO. Radio talent often look for creative outlets to break the monotony of producing commercials and playing records. If you are a non-profit organization, they might just help you out. I have had the local television station edit a video tape for me for free. Radio and Television Stations are supposed to document community service that they do. So try and see if you get success. Report it back here.

Also receiving an award at the very same ceremony in Buffalo was Brian Meyer who writes now for the Buffalo News. It was he who gave me my first job, writing a column for his little mimeographed paper called The Elmwood Currier. I was music columnist and I got a raise from \$.50 a column to a whole dollar.

Anyway, this brought back many memories and reminders of what I used to do to produce programs way back when. It was worth the eight hour drive to New York. One highlight of the trip was catching the beautiful sunset on my way there.

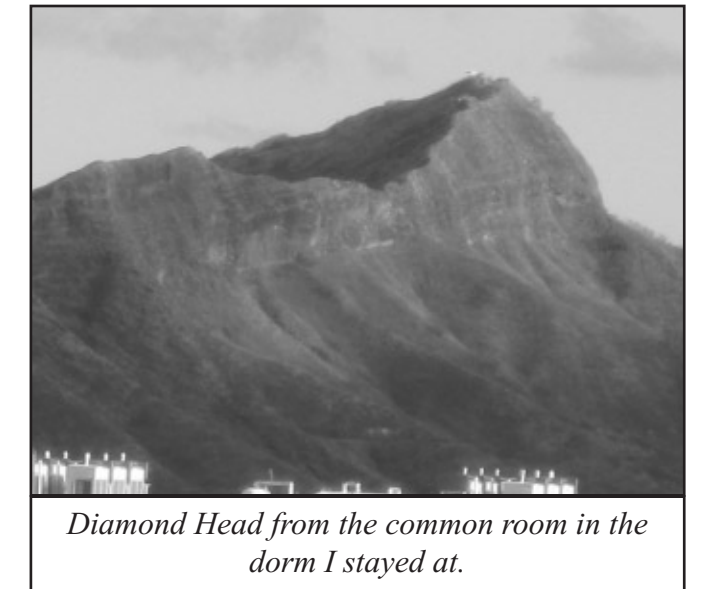
In July, I had the opportunity to take even a longer trip to Hawaii to take an astrobiology workshop for teachers at the University of Hawaii at Manoa.

This was my first trip to Hawaii. Usually I cannot afford trips that do not pay for food, lodging and



Me on the beach at Waikiki.

travel expenses; however, I had to go to this workshop, because it included a trip to the Mauna Kea Observatory and a trip to Volcano National Park. To cut costs, I stayed in the dormitory and did not rent a car. I still had a lovely view of Diamond Head from the common room in my dorm, and I could see Alpha and Beta Centauri from that same window at night.



Diamond Head from the common room in the dorm I stayed at.

During the class we talked about meteorites and got a chance to view them through a polarizing microscope. We had lectures from an evolutionary biologist about nature's dead ends and microbes that are extremophiles.

We searched for asteroids using the Faulkes remote controlled telescope. What was amazing to me was that we could take the images and blink them via the computer, all within an hour or so. If you would like to learn more about this telescope, you can go here: <http://www.faulkes-telescope.com/>

We also worked with a gentleman named Donn Starkey, who is an amateur astronomer who has an observatory in Alburn, Indiana, called DeKalb Observatory. Donn works with students and educators in Hawaii via remote control using Skype. The reason for this is because of the time delay, students can access the telescope during the school day. Colleague and friend, Conrad Jung of Chabot Observatory in Oakland, California, does something similar to this with students in Ireland for the same reason.

While working with Mr. Starkey, I took three images of spiral galaxy, M101, using different filters, but

(Continued on page 18)



Small Talk (Continued from page 17)

haven't combined them to make a color image. It was a very pleasant activity to sit and chat with Mr. Starkey while the computer and telescope did all the work. If you would like to learn more about the observatory, you can go here for more information: <http://www.starkey.ws/donspers.html>

Finally the highlight of the trip was a visit the observatory at Mauna Kea and tour the Gemini North and the University of Hawaii 2.2 meter or 88 inch telescope. While there we also took in the Keck Telescope Visitor Center where we could view the telescope from beneath, in a glassed in room and view exhibits about the telescope.



Here is the Gemini North Telescope with its "lips" open ready to gather up some photons.



One of the Keck domes is open, ready to observe.

Mauna Kea, known as "white mountain" in English, is sacred to native Hawaiians. The observatory itself is not on the summit, but you can see it from the observatory. We had a Hawaiian teacher give us

some background on the site and later, a group of teachers walked to the summit. We had lunch at the astronomers' residence, at mid-level and then went up on our tour, so that we could be acclimated to the altitude at mid-level, 9,000 ft. I took Sean Laatch and Ken Miller's (planetarians who live in Hawaii) advice and drank lots of water before going up to the observatory and that was very good advice indeed because several of our group did get altitude sickness, since the observatory is at over 14,000 feet in height.

A small group of us headed back up to the observatory to the peak after dinner to watch the sunset and the place was crowded with tourists who had the same idea. We visited the control room of the United Kingdom Infrared Telescope as their observing night began and watched them observe galaxies in the Hubble Deep Field. Seeing was a remarkable 0.5 arc second.



Me on the Catwalk of the 88 inch University of Hawaii Telescope, Keck I & II in the distance.

Then we headed down to the public star party held at mid-level and were treated to spectacular views of the Milky Way and Southern Cross and I was able to see the Jewel Box, a star cluster in Crux, the Southern Cross, in binoculars as well as the Omega Centuari Globular Cluster in an amateur sized telescope. It was a first to see Omega Centauri for me, having heard tales about it from folks who had seen it. It definitely lived up to expectations. The Jewel Box is very pretty, but I saw it before from Aruba, one evening while visiting the island for the 1998 total solar eclipse.

(Continued on page 19)

Small Talk (Continued from page 18)

We overnighted in Hilo and got to tour Volcano National Park. We walked through a lava tube, saw steam rising from vents and craters and miles and miles of lava fields. All in all, it was an amazing trip and one really worth the price I had to pay for it.



Erupting for the first time since 1982, an ash-laden plume rises from a crater that formed in 2008, within the main crater Halema'uma'u at the summit of Kilauea.



This little guy is a Mongoose. When I first saw one in Hawaii, I had no idea what it was. I was told that they were brought over to take care of the rat problem in Hawaii. But since rats are nocturnal and mongoose diurnal, this did not work.

Later in August, I attended a teacher workshop at Penn State on telescopes which dovetailed nicely into the adventure I had earlier in the summer in Hawaii. Besides learning about telescopes in space

and on Earth, participants in the workshop built Galileo telescopes and I got to see the rings of Saturn with it, so I guess, maybe, it should be called the "Better Than Galileo" telescope.



Dr. Chris Palma using a frame of "bathing suit material" fabric and a shot put he borrowed from the track team to demonstrate the gravity well of a black hole.



Dr. Chris Palma demonstrates to us that you can record an infrared image from your remote using your cell phone at Penn State last summer.

We have been back at school for over a month as of now and I am gearing up for maybe a program on the upcoming Lunar Eclipse in December, for

(Continued on page 31)

Archeo- astronomy

Cross-Referenced: Cross-quarter Days Then and Now

Part I: Samhain

Woodrow W. Grizzle III
Jonesville, VA

The world quiets. As the Sun slides farther south



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

of the celestial equator, Earth grows colder and the living things of this world begin final preparation for winter's darkness. As I write, the autumnal equinox is now 10 days behind us. The leaves outside begin to reveal their brazen secrets, the air is crisp with chill breeze, and heavy gray clouds hang overhead. Autumn has come.

Though the equinox has passed, shortly ahead of us is Samhain [‘sah-win], cross-quarter day of autumn and the moment marking the traditional beginning of winter in the British Isles. The word Samhain comes to us from the ancient Irish for “summer’s end.” Samhain occurs between the 5th and 10th of November; it is not to be confused with the beginning of astronomical winter, which, for the Northern Hemisphere, occurs in December when the Sun reaches its minimum declination of approximately $-23^{\circ}26'21''$ (-23.439°). For each cross-quarter, Earth’s position on its orbit (and therefore the sun’s position on the ecliptic), is exactly half way between an equinoctial (dec 0°) or solstitial point (dec $\pm 23.439^{\circ}$). The Sun’s declination at any cross-quarter day can be expressed as follows.

$$\pm 23.439^{\circ} (\sin 45^{\circ})$$
$$\text{dec}_{\square} = \pm 16.574^{\circ}$$

The ancients were less concerned with the Sun’s exact declination. They were people of the Moon, determining their festivals by a lunar calendar, with festivals occurring at the beginning of the lunar cycle nearest the midpoint between the equinox and solstice or vice versa.

Samhain, which will be near by the time you read this, was once a great harvest festival held by the polytheistic peoples of the British Isles since probably the 8th century B.C. It is a time of transit between the light and the darkness-between prosperity and fear-that shaped the superstition of humankind from time immemorial. It is no surprise, then, that the mood around Samhain is at once joyous and ominous, and that our modern tradition of Halloween finds its roots in this last pagan huzzah before the Sun stills in December.

With the introduction and growth of Christianity in the British Isles from the A.D. 4th century, the festival of Samhain gradually metamorphosized, and by the

(Continued on page 22)

Archeoastronomy (Continued from page 21)

A.D. 8th century, it had virtually become the observances of All Saints and All Souls Days. These feast days were important to Christians as annual remembrance of martyrs and passed-on relatives: a practice believed to give strength to the faithful in preparation for winter’s coming trial. All Saints and All Souls Days are held annually on November 1st and 2nd, respectively. The night before was known as All-Hallows-Even(ing), a term that shortened over the years to become our modern holiday of Halloween.

To say that Samhain influenced the development of Halloween is a colossal understatement. Dressing in costume, attempting to communicate with the dead, bonfires, and carved vegetable lanterns all descend directly from the pagan festival.

Samhain is a spooky time. As the Sun’s warmth fades, plants and animals begin to wither and die as the earth grows ever darker. Celtic people believed that this occurred because the barrier between the world of the dead and the world of the living grew perilously thin during this time. The dead were given license to reach into this world and siphon



Traditional Irish samh nag or Jack-o-lantern. Early A.D. 20th century. Carved turnip root bulb. Museum of Country Life, Ireland. 2009.

away life, of which they were gravely starved, from the unwary. To dissuade the spirits of the dead, great bonfires were built and the bones of dead animals were thrown into the flames in an effort to cleanse the region of death’s taint. Fire also played a repellent role in the form of small lanterns carved from turnips called *samhnag*, which were left by the doorstep to ward off the spirits. Today’s jack-o-lanterns, though carved from pumpkins, are the direct descendents of *samhnag*.

Costumes and trick-or-treating have their roots in Samhain, as well. Young men employed masks and body paint to confuse the spirits into thinking that the living were comrades. Celts and Gaels would leave treats along with the vegetable lanterns by their doorsteps in hopes of warding and bribing the spirits, lest an awful trick of plague befall the house. Today, we offer candy to the little “spooks” that show up at our doors and that seems to placate them. Tricks are often of greater appeal to older “spirits,” who have been known to leave a flaming

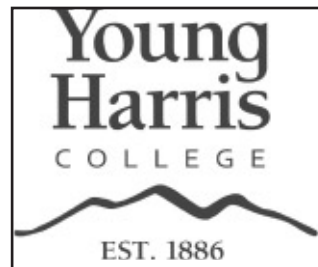


“Hallowe’ en Time” c. 1920. Linen postcard. Public Domain.

SEPA 2011 Conference Update

Steve Morgan
O. Wayne Rollins Planetarium
Young Harris, GA

O. Wayne Rollins Planetarium on the campus of Young Harris College is pleased to be your host for the 2011 SEPA Conference. Conference dates are June 21-25, so mark those calendars



now! You don't want to miss an incredible conference in a beautiful location offering a great opportunity to reconnect with fellow planetarians from the SEPA region.

Located in the Enchanted Valley, Young Harris is nestled in the midst of the north Georgia mountains, just a few miles from Brasstown Bald, the tallest peak in the state. We're also at the top of Georgia geographically, being just a few miles from the North Carolina border and not far from Tennessee and South Car-



olina. We're about a two hour drive- and a scenic one at that- from Atlanta GA, Asheville NC, Greenville SC, Chattanooga and Knoxville TN.

In keeping with the lofty location, our conference theme is "Creating Mountaintop Experiences." In topography, a mountaintop is a point that is higher in elevation than all points immediately adjacent to it. Terms such as summit, pinnacle, peak, and zenith are synonyms. With that in mind, how can we as planetarium professionals take our facilities to the mountaintop, the highest place possible? What can we do to create mountaintop experiences for our clientele, the public and/or students we serve? What have been the mountaintop experiences of our own careers in the planetarium field, and how can those experiences benefit others in the profession?

Planning is well underway for a fantastic lineup of events, including interesting speakers, great vendor exhibits, delicious meals, a Thursday excursion to the new Tellus Museum & Planetarium in Cartersville GA- not to mention the fantastic paper sessions and workshops you SEPA members will be contributing! Conference registration is expected to be in the \$250 range.



Young Harris College is a private, liberal arts college with a current enrollment of just over 800 students. Traditionally a two-year school, YHC became a full-fledged four-year college in 2008, and enroll-

(Continued on page 23)

SEPA 2011 (Continued from page 23)

ment is expected to nearly double in the next few years. Our planetarium theater has been in operation since 1979, with 109 seats under a 40-foot diameter dome. One of our claims to fame is that we are the site of the world's first installation of the GOTO CHRONOS Space Simulator star projector, installed in 2002. A Sky-Skan definiti DLP 6-PLUS full dome digital projection system was added in 2008, giving us "the best of both worlds" in terms of projection capabilities.

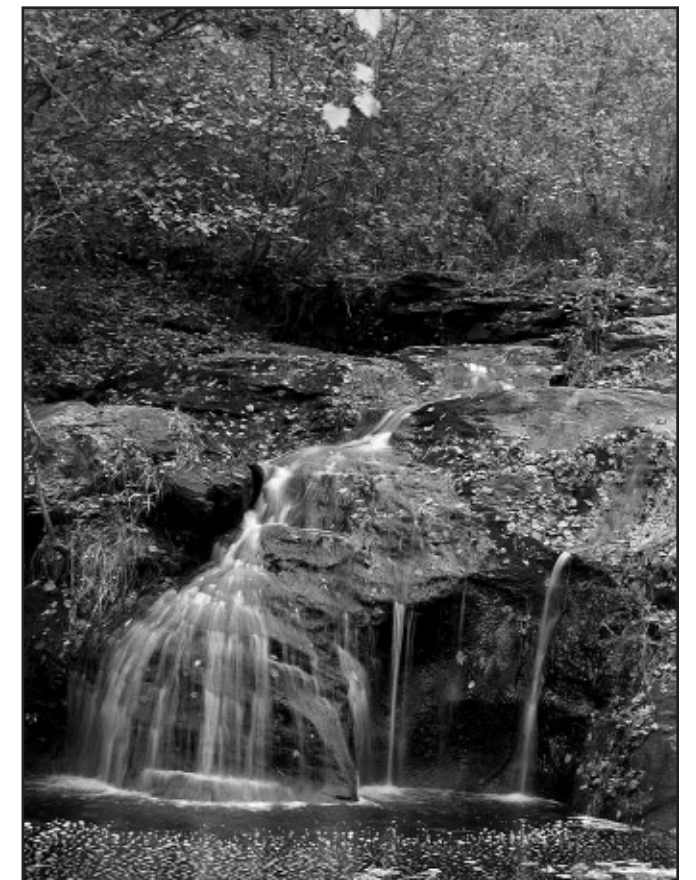


For those of you interested in taking advantage of our relatively high elevation and low light pollution to do some actual stargazing, we are planning an optional observing session at the 4,784 ft. summit of Brasstown Bald Mountain, weather permitting of course! Speaking of weather, June is on average one of the drier months of the year in north Georgia, so there's definitely hope for clear skies. Typical daytime high temps in Young Harris are in the mid-80s, with nighttime lows dropping to about 60. And of course, it's even cooler up on Brasstown Bald!

Our conference hotel will be the Brasstown Valley



Resort & Spa <www.brasstownvalley.com>, a spectacular mountain lodge resort featuring the area's largest conference center with over 14,000 square feet of lodge style meeting space. The resort is offering SEPA room rates of \$143/night, single or double occupancy (plus taxes and fees). Located only a mile or so from the college campus, but deep in the heart of the Chattahoochee National Forest, this 503-acre mountain resort offers the perfect retreat from the hustle and bustle of city life. The resort was constructed in 1995 and is owned by the Georgia Department of Natural Resources.



(Continued on page 29)

Theremin

Jon Bell
Hallstrom Planetarium
Fort Pierce, FL

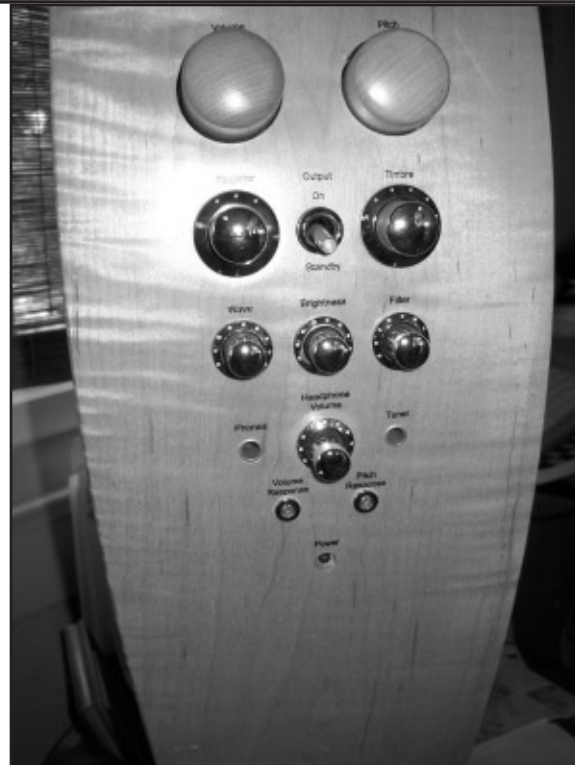
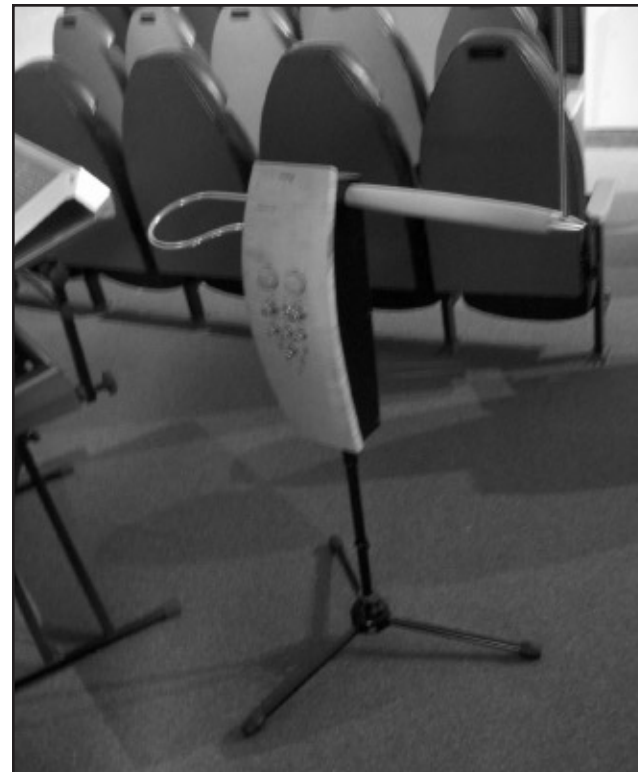
The following is a synopsis of the Theremin workshop conducted by Jon U. Bell at the June 2010 SEPA conference in Kingsport, TN.

Biographical Sketch: Jon U. Bell

Jon Bell interned at the American Museum-Hayden Planetarium, operated the Virginia Living Museum Planetarium and Observatory for 14 years and since 1993 has served as Hallstrom Planetarium Director and Astronomy Professor with Indian River State College in Fort Pierce, Florida. With a professional background in music (in addition to serving as a cantor and Latin Mass choir director, he has performed with the Virginia Opera Company, the Paradise Hotel Rooftop Garden Orchestra, St. Richard's Court and the Doorway Singers,) Bell is "the Singing Astronomer." He has presented musical "Space Songs" programs to planetarium audiences, and has served for several years as the singing Master of Ceremonies for the Treasure Coast Science Fair Awards programs. His *Astronomer's Songbook* is the most comprehensive collection of space and astronomy-related songs in the world, many of them written by him.

Introduction and a Note of Thanks

I had heard the Theremin, of course, when I saw "The Day the Earth Stood Still." (The original, really good version with Michael Rennie and Patricia Neal, of course, scored by Bernard Herrmann, not that modern remake with what's-his-name.) When I was a college student I had also heard Robert Klein's "Oooh-eeee-aaaa-oooo!" creepy Theremin sound effect he vocalized during his comedy routines and I incorporated it into my own goofy conversations. But I'd never seen a Theremin until I attended a Christmas party at a friend's house last year. William McNeely is not just a friend, but like



A Moog Etherwave Theremin in the Hallstrom Planetarium and closeup.

his colleague and fellow SEPA member and associate Jonn Serrie, an electronic musician who has written and performed original compositions at the Hallstrom Planetarium, both in recordings and in live concerts.

(Continued on page 25)

Theremin (Continued from page 24)

So when I saw the Theremin, I had to, had to play it. William let me do that - thanks! At that time, William didn't know much about the classic method of playing it, but he was using it as an additional sound effect in his compositions. So I started going through various web sites on my own, and found a treasure trove of examples and actual lessons available on the Internet, especially on YouTube. And you can do it too!

At some point I'd like to get serious and perhaps take some actual professional instruction (and purchase a more expensive and versatile Theremin - I keep checking E-Bay); but for now I'm just having fun working on my own. Still, my hope is that at the next SEPA conference, I won't be the only one with a Theremin in hand. And then perhaps we can start a Theremin orchestra! (Not a new idea, by the way - Carnegie Hall had one back in the '30's... go to http://www.oddmusic.com/theremin/theremin_carnegie.html.)

My great source of inspiration for launching a new career as a Thereminist is the fellow who did the music for all those Hollywood movies. It wasn't Clara Rockmore, but Dr. Samuel Hoffman, a chiroprapist (that's a foot doctor) who owned a Theremin and happened to be able to read music - but he was the only Thereminist listed in the Los Angeles yellow pages, so he got the gig! (He probably could have done more with the Theremin, but his patients came first.)

Theremin History

The Theremin is the only musical instrument you play without touching. It was invented in 1919* by Lev Termin (Leon Theremin), an electronics technician AND a classically trained musician, who discovered that when he brought his hand near a radio tube, he could alter the pitch. Theremin called his invention the "ether wave" or "etherphone." Gradually it gained acceptance and within a few years composers were writing symphonies for it. The Soviet Union's dictator Vladimir Lenin was a big fan, (Theremin even gave him lessons!) and he ordered hundreds built so that the world could **The following year, Walther Bauersfeld would invent the modern electric planetarium for the Carl Zeiss company!*

(Continued on page 26)



Above: Set-up for practicing the theremin in my office: my Theremin hooked up to two boom boxes: A Burns B3 Deluxe Theremin (about \$200) with volume and pitch control knobs. You can get cheaper, but if you're serious about learning, start with something like this that gives you a bit more control. I discovered early on that if the volume antenna on the left gets too close to the wall, the wall damps down the sound. Make sure your antennas swing free and clear!

Below: plug-ins for the Moog etherwave theremin



page 25

be made aware of the USSR's technical prowess. Theremin himself performed to sold-out audiences throughout Europe.

Theremin found fame and fortune when he brought his marvel to the United States in the late 1920's. Charlie Chaplin bought one of his instruments. With his violin, Albert Einstein played a duet with him. Clara Rockmore, probably the best Thereminist ever, made suggestions that helped improve the instrument, and she developed a method of playing known as "aerial fingering" which is still used today. RCA soon built and sold his etherphones, and it seemed as though the Theremin would soon replace the piano as the most popular home instrument.

But it was a lot harder to play than folks initially thought - no anchor points for the notes, for instance; and it really needed another musical instrument to accompany it. So the Theremin slowly faded away - except in the hearts and minds of a handful of die-hard aficionados, and it eventually was used in all those sci-fi and horror movies of the '40s and '50s.

When Theremin came to the U.S., the Soviet government ordered him to spy for them. In 1938 he was grabbed by the K.G.B., labeled anti-Soviet, and sent to a labor camp in Siberia. Later he was released so that he could create listening "bugs" for the government. After he was set free, he taught music at Moscow's Music Conservatory until his death in 1993.

How it Works

I'm not a technician, so I'll put this in terms that even I can understand, but which could be improved upon by quite a few of you. If you've ever put your hand on the "rabbit ears" of an old TV set in order to improve reception, you've experienced the same thing as Leon Theremin; he simply took it a step further and figured out how to modulate the sound.

The Theremin has a couple of high frequency oscillating circuits. Putting your hand into the electrical field surrounding the device makes a connection between the two. The tones that are produced sometimes sounds a bit like whale song, sometimes like a violin, sometimes like a cello, sometimes like an oboe - with a Theremin, it's all in the sound reproduction circuitry!



(Continued on page 27)

Left: Various SEPA members try their hands at playing the Theremin at SEPA workshop in Kingsport, June 2010

Below: *It's so simple a child could do it, Jim!*
- Dr. McCoy



Basic Tips On How To Play It

1. Watch a lot of Thereminist videos on YouTube, including the lessons with Thomas Grillo.
2. The volume is controlled in two places: a control knob on the body of the Theremin, and a loop of metal, usually on the left side of the instrument. Set the volume with the knob, then adjust the volume as you play by placing your left hand on the loop, then lifting it off: the farther your hand is from the loop, the louder the volume.
3. The vertical antenna, found on the right side of the Theremin, allows you to adjust the pitch. Many Theremins have pitch knobs on the instrument as well. You want the pitch to go higher as your right hand approaches the antenna. (It's possible to adjust the knob so the pitch drops as you get closer to it, but I don't know anyone who does it that way, so until you know what you're doing, it's probably best to "go with the flow.")
4. Get into a comfortable standing position; don't sway or rock or breathe irregularly, as all of your small body movements can affect the pitch.

5. Try playing a musical scale and then do some warm-up exercises like ones used in singing. As you go up the scale, you'll find that the distance you need to move your hand gets smaller: each successive octave requires less movement, until as you come close to the antenna, a tiny movement of the fingers makes a lot of notes!

6. If you want to jump from one note to another without any of the notes in between being heard, you can drop your left hand, silencing the Theremin; then lift up to hear the next note. But sometimes, glissandos sound good.

7. When you shake or oscillate your pitch hand a little bit, you can create a vibrato!

8. When being used to play a tune, the Theremin sounds best when accompanied by other instruments; all by itself, it's best as a special effects sound (flying saucer takeoffs and landings are a specialty!)

9. Try using karaoke discs, so that you can use the Theremin to supply the melody.

10. Choose a few pieces of music that you like, and practice playing along with them. Make sure the music isn't so loud that you can't hear your Theremin!

11. Actively listen to the accompanying tune while playing, and try to play both the same notes as the tune, but also try various harmonies.

12. Practice, practice, practice!

13. Warm up before you start, then RELAX!

Some Theremin Videos on YouTube Et Al

Leon Theremin demonstration
<http://www.youtube.com/watch?v=w5qf9O6c20o>

Clara Rockmore - later years
<http://www.youtube.com/watch?v=pSzTPGIa5U&feature=related>

Clara Rockmore - early years

(Continued on page 28)

http://www.youtube.com/watch?v=jEl4zCQBv2c&a=qQWwwBuzWj8&playnext_from=ML

Lydia Kavina - Claire de Lune
<http://www.youtube.com/watch?v=Xn4TgYkqdi8>

Carolina Eyck - Sting's "Fragile"
<http://www.youtube.com/watch?v=X6lImGpk0wE>

Theremin travesty - Fair Warning: this one is pretty disgusting, especially if kids actually were present when this person "made love" to his Theremin during his act. Probably the most telling statement is when he proudly declares that he never had a lesson. Yeah, and it shows. http://www.youtube.com/watch?v=vyF_UN8g9f0

Thomas Grillo lesson #1
<http://www.youtube.com/watch?v=cd4jvtAr8JM&feature=related>

Make a Theremin
<http://www.youtube.com/watch?v=cl78K8kU-SY>

Make almost anything into a Theremin
http://www.youtube.com/watch?v=Pv_w38ldZaE&feature=related

Beach Boys' "Good Vibrations": Strictly speaking, not a true Theremin, since it has to be touched
<http://www.youtube.com/watch?v=CeIV7EbuV-A>

Theremin and Dog
<http://www.youtube.com/watch?v=7SJ811YkS14>

Theremin and Cat
<http://www.funnyordie.com/videos/8fe484208e/cat-plays-theremin>

Celia Sheen plays Midsomer Murders
<http://www.youtube.com/watch?v=YTZK9FNgK74>

Theremin Websites (Products and History)

<http://www.soundlikeburns.com/>

<http://www.moogmusic.com/>

http://www.moogmusic.com/history.php?cat_id=2

<http://www.moogmusic.com/theremin/>

Websites to look at if you're trying to master the Dr Who Theme on the Theremin

http://www.youtube.com/watch?v=Y0itrVT_SMs&feature=related

<http://www.youtube.com/watch?v=3bWG6w6Cok8>

<http://www.youtube.com/watch?v=cOLry3GEeio&feature=related>

<http://www.youtube.com/watch?v=SUMNgHMdIQM&feature=related>

The Theremin at the Movies

(For more movies, go to <http://www.thereminworld.com/films.asp>)

Spellbound

The Lost Week End

The Day the Earth Stood Still

Ed Wood

Mars Attacks

Theremin: An Electronic Odyssey

lantern of their own on many an unsuspecting doorstep on Halloween night.

In addition to the business of repelling malicious spirits, there was a great deal of effort spent on divination, particularly among young women who desired to learn of their future lover. Bobbing for apples is an ancient game handed down from the Samhain festival. The apple was the Celtic symbol of fertility and love. Apples successfully bobbed were prized for far more than their luscious fruit, as sleeping with the apple was said to induce dreams of future lovers. So strong was the cultural "DNA" of this practice that it remained popular through the Victorian era and into the early 20th century.

Samhain is not the only cross-quarter festival that lives on in contemporary culture. After Samhain, Earth continues its orbit steadily onward to the December solstice. Beyond lies Imbolc, the next cross-quarter. When next we meet, furry creatures will have just begun to stir and perhaps occasionally leave their dens in what is the greatest meteorological spectacle on Earth. Die-hard SEPA folk will not want to miss next issue when our favorite woodland creature enjoys a starring role.

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Young Harris College is also pleased to offer a limited number of its college dormitory rooms as a less expensive lodging option for SEPA attendees. We can offer \$50.00 per night charges for a single room, but guests will have to furnish their own linens (twin bed sheets and towels, etc.). Some residence hall rooms will have private baths, while others are designed "suite style" to serve two or more rooms.

Your families are more than welcome, so why not extend your stay before or after the conference and enjoy what Brasstown Valley has to offer! It serves as a key draw to the area through an array of activities, excursions and avenues to relax, including:

- * Horse stables with six miles of riding trails
- * Championship golf course named among Golf Digest's top places to play
- * Tennis
- * Stream or pond fishing
- * Outdoor and indoor heated swimming pool
- * Fitness center
- * Over 9 miles of interpretive hiking trails
- * Rock climbing
- * Proximity to more hiking trails including the Appalachian Trail
- * White water and tube rafting, kayaking, guided lake tours, canoeing
- * Mountain biking, horseback trail riding, bird watching, and botany excursions

Mark your calendars now to join us in the beautiful north Georgia mountains for SEPA 2011!



ium in Kingsport, TN rotates off Council as David Dundee from the Tellus Science Museum in Cartersville, GA comes on as our President-elect. Patsy Wilson of the Margaret C. Woodson Planetarium in Salisbury, NC returns to Council as Secretary/Treasurer and replaces Mickey Jo Sorrell from the Morehead Planetarium & Science Center in Chapel Hill, NC. John Hare of Ash Enterprises in Bradenton, FL retains the position as our IPS representative. I look forward to working with April. I particularly want to thank Adam for his six years on Council and all the work and dedication he invested in SEPA. After four years of keeping SEPA business in order, as well as keeping Council on track, kudos go out to Mickey Jo for doing a great job as Secretary/Treasurer and enhancing the requirements of this position. Again, it's been a delight to work with Council, but I also need to say thanks to Drew Gilmore as our web master and James Sullivan as our editor. Our journal's associate editors need to be recognized as well. Elizabeth Wasiluk from the Hedgesville High School Planetarium in Hedgesville, WV has written her *Small Talk* articles in *Southern Skies* for as long as I've been a SEPA member. Robert Cruz from the Miami Space Transit Planetarium in Miami, FL writes the *Technical Column*. In all, SEPA remains in good standing, well organized, productive, and remains financially sound.

I want to remind everyone to mark your calendars for next year's conference at the Rollins Planetarium on the campus of Young Harris College in the mountains of northwest Georgia. Dates again are 21-25 June, 2011. The conference theme is **Creating Mountaintop Experiences** and our host, Steve Morgan, will be keeping us updated. Since IPS2012 will be held in Baton Rouge, Sunday - Thursday, 22-26 July, the SEPA Council decided to hold our annual conference that year in conjunction with the IPS. Remember that SEPA membership was surveyed for preferences for combining conferences or having a separate SEPA conference and most respondents preferred a combined conference. Although a search committee was formed to solicit an alternative host site, none was found. Tentative plans call for the SEPA mini-conference to begin the evening of Saturday, 21 July with a reception. A pre-business meeting and a paper session will be held Sunday and conclude well before the IPS reception

Sunday evening. The SEPA business meeting will be held the following Thursday during the break out session for regional meetings. At Bays Mountain, it was proposed that vendors interested in attending our meeting might offer to have both the reception and any registration fee waived making the meeting essentially cost free (except your hotel). SEPA members would not need to be IPS members to attend our mini-conference Saturday/Sunday, although all SEPA members are encouraged to attend the IPS meeting. 2012 will be an election year for SEPA, so your vote during our business meeting will be important. The Belle of Baton Rouge Hotel (formerly Sheraton) will be our conference hotel. More detail will be presented next summer.

As recommended at our summer conference, April Whitt renamed our Scholarship Fund which is now the SEPA Professional Development. April is in charge of redefining this program.

Please continue to submit articles for our *Southern Skies* journal. Thanks to all of you for making SEPA a great professional organization. I'll end by saying we'll miss Jack Horkheimer as a fellow colleague and dear friend. See Jane Hastings article in this issue on the passing of Jack.



ovated and includes a Zeiss Mark IX optical-mechanical projector and a Sky-Skan, 8K digital projection system.

The 18-m *Digital Space Theater* was opened in 2004 and contains 200 seats. It includes an ADLIP digital laser projector with an SGI visual workstation.

The *4D Popular Science Theater* has 200 seats and the *3D Dynamic World* has 48 seats. These theaters present exciting experiences utilizing 3D projection, audio spatial effects, atmospheric and motion effects.

The world-famous *Beijing Zoo* is across the street from the planetarium!

Post conference tours would take place June 28, 29, and 30, and would include:

- o The Great Wall.
- o National Astronomical observatories and the famous Chengde Summer Villa.
- o Tour to Xi an.
- o Tour to Shanghai.

Further details are available at <www.ips2014.org>



A celestial globe at the Ancient Beijing Observatory. Image Credit: John Hare

the general public. The pulsar search group is back, one of my students; Josh went to attend a summer program at the National Radio Astronomy Observatory in Green Bank, WV and has been training his little brother, Nick to analyze data from the telescope. Will we be able to capitalize on the tremendous win last year? Only time will tell.

Besides the upcoming Lunar Eclipse in December, other events to watch for are the EPOXI mission to comet Hartley and the Great World Wide Star Count. Go here to learn more: <http://eclipse.gsfc.nasa.gov/OH/OHfigures/OH2010-Fig04.pdf> <http://epoxi.umd.edu/> and http://www.windows2universe.org/citizen_science/starcount/ Do you have any activities planned for these events? Do share them with me.

Also, did you know that the famous radio horn that detected the microwave background radiation is in danger of being scrapped? For more information and what you can do about it, you can go here: <http://www.hornantennatoday.com/>

The photography class was working on making images in the dark with glow sticks and asked to use the planetarium. I said fine, but when I came back there was one of the red light lenses on the floor. My old 20 foot dome has little red lights that look like red lights on school buses. The O rings on the lights are crumbling and need to be replaced. They measure about 12 inches in circumference and about 3 1/2 inches in diameter. Does anyone have any ideas about prices to replace them and/or a good source for O rings? What about scrapping the whole thing and going new? Some vendors have some prices? Contact me with ideas.

Well, that is all that is going on in my tiny dome, what about your place? Any issues that would be of interest to people of small planetaria? You are free to define "small" any way you would like to. Send me your ideas and contributions.

Legends Of the Night Sky
Perseus & Andromeda



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 407-859-8166
 joanne@av-imagineering.com
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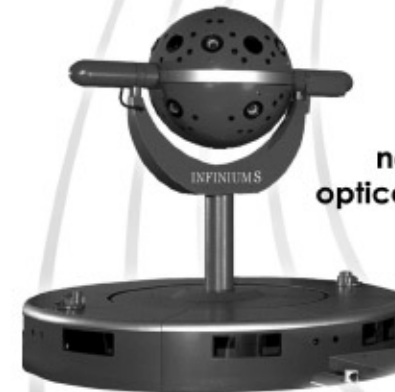
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News From SEPA Region

FLORIDA

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Florida Planetarium Association (FLORPLAN)

Contact George Fleenor for details.

Buehler Planetarium Broward College Davie, FL

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

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.

Alexander Brest Planetarium Jacksonville Museum of Science and History Jacksonville, FL

Brett Jacobs reports: The Alexander Brest Planetarium will now be known as.....The Bryan Gooding Planetarium Alexander Brest Space Theater. Can anyone make a good acronym from that? The name change is for our lead donors, The Bryan Family Trustees of the Henry & Lucy Gooding Endowment, to purchase a Konica Minolta Super Media-Globe II.

Other donors have added to the capital campaign to renovate the theater. We will be cleaning and repainting the dome with Astro-Tec. New carpet and 200 new seats (Greystone Seating). East Coast Control Systems Pleiades LED cove light. JBL digital 5.1 surround sound system, AVI Skylase system. We are doing a light lock entrance and exit hallways. There will be a new entrance area with the Zeiss projector on display along with our original Spitz A-2 and some interactive displays.

We will closing our doors on August 24 to start the renovation and plan on opening October 23.....2010. I think I might just live in my office for that time frame.

Well, needless to say I'll have a lot of stuff to find homes for. I would rather not throw them away if it still works. 13 SAV, 8 ELMO, and 12 Ektagraphic 3 slide projectors (that are working and about 15 assorted projectors in various states of dismemberment). 15 Chief stackers (holds 3 projectors), 4 Chief Stackers that hold 2, and about 50 Sky Skan effects projectors (most are in good shape). I was thinking of having a FreeForALL day near the opening date of October 23. Yes that is free if you come and get it. I, unfortunately, do not have the time to ship them out. But I do have enough storage area to keep them until I find new homes or it's off to electronic recycling. I'll be trying to keep a photo log of the deconstruction/reconstruction. I'll have a better idea for my FreeForALL date by mid September. Thanks!

(Continued on page35)

News from SEPA Region (Continued from page 34)

GEORGIA

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



Planetarium Tellus NW GA Science Museum Cartersville, GA

David Dundee reports: Tellus Planetarium had a very busy summer. We are approaching 75,000 visitors for the year through the planetarium. We have installed a separate video projector in the planetarium for power point and pre-program information images to promote happenings around the museum and current sky information. We have hosted a sixth sold out astronomy workshop in our observatory. We are working on producing our own sound track to the Spacepark 360 program using local musicians and our sneak previews to the public have a huge hit. We starting showing *Zula Patrol: Down to Earth* and continue to run *One World One Sky* along with our *Live Sky Show*, *Extreme Planets* and *Saturn: Jewel of the Heavens*.

Georgia Southern Planetarium Georgia Southern University Statesboro, GA

Becky Lowder reports: The fall semester is in full swing and very busy with university classes and astronomy labs in the planetarium. We have two awesome planetarium Intern I students and a brilliant Intern II student returning. Our planetarium is a teaching planetarium where our university students learn how to operate the planetarium and teach astronomy and space science for all ages. We schedule field trips for all grade levels of schools, home school groups, and private groups during class time for our interns. It's a win-win situation where everyone has fun learning with hands-on activities under the dome and outdoors with solar telescopes.

Currently we are still using our original Spitz A4 star projector with video/lab Power Points/presentations

being projected in rectangular form with an LCD projector and two working 35 mm slide projectors for constellation pictures. We are hoping to bring our planetarium into the current digital age so we can teach our university students on the latest technology available.

We also give monthly public evenings, taking part in the *International Observe the Moon Night* in September. We'll be taking part in the *Georgia Southern Family Weekend* and *World Space Week* in October presenting Autumn Skies. Our Intern II student will be presenting our November public evening on *Jupiter, King of the Planets*. We'll end our busy semester with our annual huge *Holiday Skies* show with holiday music, lights, refreshments, and what to enjoy over the holidays with family and friends in the sky. Our interns, astronomy lab students, volunteers, and physics faculty/staff support all our public events by helping with the presentations or running our telescopes on the observing deck. We wouldn't be able to do it all without them and we are so grateful for all they do to help us share the wonders of astronomy and space with everyone. Clear skies!

Rollins Planetarium Young Harris College Young Harris, GA

Steve Morgan reports: Our 2010-11 public schedule opened in August with Sky-Skan's "Awesome Light: Discoveries from the Telescopes of Maunakea." Yes, the one-word spelling of the last word in the title is correct. The 'Imiloa Astronomy Center of Hawai'i, for whom the show was produced, chose the "Maunakea" spelling to reflect the proper Hawaiian usage. Maunakea is a proper noun-the name of the mountain on the Island of Hawai'i, while "Mauna Kea" spelled as two words is really referring to any white mountain - it is a common noun (vs. the proper noun).

In October, we'll bring in AVI's SkyLase system for a series of "Fright Night" Halloween-themed laser concerts, which are always very popular with the college students and surrounding community. In early November, the younger crowd will invade the planetarium for Kids' Night, featuring the laser-

(Continued on page 36)

animated “Legends of the Night Sky: Perseus & Andromeda.” Then we’ll finish out 2010 with the perennial holiday favorite, Loch Ness’s “Season of Light.”

In addition to public and school groups, a number of faculty in other science disciplines are bringing their college classes to the planetarium to take advantage of the multidisciplinary capabilities of the latest version of the DigitalSky software. For example, this week we’ll be hosting a physical geography class studying global wind patterns and a chemistry class studying atomic orbitals in the planetarium!

In other news, we recently installed a new main telescope at our college observatory, a 14-inch Celestron CGE. The observatory is located just a mile or so from campus adjacent to the Brasstown Valley Resort. Speaking of which, don’t forget to mark your calendars now for the 2011 SEPA conference to be held right here in Young Harris with Brasstown Valley as our conference hotel! The dates are June 21-25, 2011.



YHC astronomy students using the new Celestron CGE-1400.

LOUISIANA 

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

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

Dave Hostetter reports: The Lafayette Science Museum will host the traveling mega-exhibit *Star Wars: Where Science Meets Imagination* from October 21 through January 17. We expect to be overrun by school groups, the general public, and assorted princesses and nerfherders.

The big news in the planetarium itself is our upcoming conversion to full dome. Plans are being made and specs are being written. It’s going to be an interesting autumn.

Autumn programs include *The Sky Tonight*, *Bear Tales*, and SEPA’s *The Planets*. Five nights of sidewalk astronomy are planned at area festivals and events; if the weather is good about 800 people should get a look through our telescopes.

Technician Dexter LeDoux remains on leave, but a picture we call Virtual Dex seems to be keeping things working. Plus, we cross our fingers a lot.

NORTH CAROLINA 

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

**Morehead Planetarium and Science Center
Chapel Hill, NC**

Morehead Planetarium and Science Center recently
(Continued on page37)

celebrated our first state-wide science festival with the theme “Life is Your Lab.” On our University of North Carolina campus this included a one-day Expo with open lab tours, speakers, demos, and a telescope “petting zoo.”

At the planetarium we are continuing to explore our new digital projection system, learning to take our audiences on tours of the Solar System, the Milky Way, and the Universe.

As our fall field trip season begins, our new digital shows “Earth, Moon, and Sun” and “Magic Tree House Space Mission” are being well received.

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

Ken Brandt reports: The Robeson Planetarium and Science Center has gone ‘all in’ with the USA Science and Engineering Festival! We are one of the ‘first 50’ partner institutions along with PARI who are attending the USASEF on the National Mall in Washington D.C. on October 24th & 25th.

We demonstrated the orbital alignments of Earth and Mars using Red (7) and Blue (4) cones and had kids do the ‘orbit walk’ to demonstrate why we only launch missions to Mars every 2 years and 2 months.

We also participated in the NC Science Festival, holding a “Galileo for an Evening” night of telescopes and planetarium programs about Galileo, his telescope and what we’ve learned in 400 years. The Crescent Venus was seen, along with the Galilean moons, and the Lunar ‘Maria.’ Congratulations and a hearty thank you are due the Morehead Planetarium and Science Center for pulling this event together, which featured over 200 institutions all over NC.

In other news, I am still adjusting (ohh, ahh!) to the mirrordome and new speakers recently installed, and purchased using a CIPAIR grant from NASA, through Robeson Community College.

We are currently the proud borrowers of a 1/3 scale model MER, a 1/10 scale Phoenix, and a full scale Sojourner model-all on loan from JPL!

Coming events include participation in the Mars Visualization Working Group, and presentations at the NC Science Teacher’s Association meeting in November.

We also have two new staff members, Secretary/Bookkeeper Joy Goodyear, and Bus Driver Cleveland Oxendine. Welcome aboard!

Finally, go into your dome, turn out the lights, and enjoy the wonder of a clear, star-filled sky.

What a cool thing we get to call ‘our job’!

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

Patsy Wilson reports: We held a successful International Observe the Moon Night Event. The evening started with a planetarium program, *Our Next Door Neighbor in Space*. Following the show, visitors were invited to make a moon finder and to view the moon through a telescope

We will feature AVI’s *Fright Light* and *Laser Vinyl* during our October Saturday public openings.

In a few weeks, fifth grade students will come to the planetarium for *Rocket Science*, an interactive, center-based, exploration of force and motion. This program incorporates the basic laws of motion and investigates various applications of these laws. The program draws from “Engineering is Elementary”, a product of the National Center of Technological Literacy at the Museum of Science in Boston.

SOUTH CAROLINA

contact: Gary Senn
DuPont Planetarium, Aiken, SC
SennG@sc.edu



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

Gary J. Senn reports: The DuPont Planetarium at the Ruth Patrick Science Education Center (RPSEC) on the campus of the University of South Carolina Aiken (USCA) enjoyed a successful International Observe the Moon Night on September 18. The Astronomy Club of Augusta held its monthly meeting at our facility, and then set up telescopes in the lawn for our visitors to view the moon. Of course, the club members did not limit viewing to the moon, so the patrons were able to see a number of other objects in the sky. The 16" Meade LX-200 Bechtel Telescope was available in the RPSEC Observatory. This was the first special event since the grand reopening of the observatory after the previous instrument was fried in a lightning storm. We recently received an insurance claim check, which was quite a relief in these difficult fiscal times.

At the end of August, Darlene Smally, Monica Dainer and Gary Senn attended the annual Carolina Association of Planetarium Educators (CAPE) conference at the Natural Science Center of Greensboro, NC. A wonderful time of networking and sharing was had by all. Please consider coming to CAPE in 2011! More details will appear in future News From SEPA Region reports.

Gary Senn had the pleasure of attending the Annual Digistar Users Group (DUG) conference in Phoenix, AZ in September. The conference was a wonderful time to network, participate in some training and see the wonderful work done by planetarians around the world. The annual DUG demo contest was a great success, and all of the demos are available for DUG members on the DUG website. The next DUG meeting will be in Auckland, New Zealand November 2 - 4, 2011.

In September, the planetarium presented a local production, *Mission to Mars*. *Mission to Mars* begins with a live night sky presentation followed by a taped show that is a follow-up dialogue between a "member of the audience" and the show presenter. The show explores past missions to mars and discusses future human visits to the Red Planet.

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

November will feature our newest addition to the planetarium show lineup, *Worlds in Motion* from the New Sudekum Planetarium.

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

I.P. Stanback Museum and Planetarium South Carolina State University Orangeburg, SC

Elizabeth Mayo, Ingrid Owens & Ellen Zisholtz report: The first phase of renovations to the Planetarium at the I.P. Stanback Museum on the campus of South Carolina State was completed this summer, updating and enhancing the control system and programming capabilities available at the facility. The control electronics of the Minolta Series IIB star projector were completely replaced with a modern system that allows for both manual and automated configurations. This includes a computer core, which allows for system configuration and automation of both the star projector and other theatre systems that will be added in later renovation phases. The control console was also replaced and is now capable of operating in both manual and full automation mode. The final addition to the Minolta IIB star projector will be four constellation projec-

(Continued on page39)

tors which will bring the total to six available on the machine and will allow the constellation outlines to be aligned with and overlaid on the star field.

The renovations have been completed just in time for the opening of the next exhibition at the I.P. Stanback Museum and Planetarium, Partnership in Social Justice, a four part exhibition featuring Beyond Swastika and Jim Crow: Jewish Refugee Scholars at Black Colleges, created and circulated by the Museum of Jewish Heritage - A Living Memorial to the Holocaust; and Transcending History: Moving Beyond the Legacy of Slavery and the Holocaust an art exhibition organized by the Idea Coalition.

By the time World War II began, Germany had purged itself of its Jewish professors, scientists and scholars. Some of these academics found refuge in the United States. Beyond Swastika and Jim Crow: Jewish Refugee Scholars at Black Colleges exhibition tells the story some of these recent escapees from persecution in Nazi Germany, who, facing discrimination and an uncertain future, were welcomed by Black Colleges in the American South. There they came face to face with the absurdities of a rigidly segregated Jim Crow society. In their new positions, they taught, mentored and marched for civil rights with students who had grown up in and struggled with this racist environment. This exhibition explores the unlikely coming together of these two groups, each the object of exclusion and hatred, and examines the ongoing encounter between them as they navigate the challenges of life in the segregated South.

Beyond Swastika and Jim Crow: Jewish Refugee Scholars at Black Colleges contains photographs, artifacts, and documents loaned by the refugees and their families, students who were at the Black colleges, and the colleges' archives. This exhibition was made possible in part by the Helen Bader Foundation; the Lupin Foundation; the Blanch and Irving Laurie Foundation; public funds from the New York State Council on the Arts, a state agency; the Alpern Family Foundation; and the Charles and Mildred Schnurmacher Foundation.

Transcending History: Moving Beyond the Legacy

of Slavery and the Holocaust organized by the Idea Coalition, based in Philadelphia, PA; features the artwork of Black and Jewish artists from around the country, reflecting Slavery and the Holocaust and the effects on the collective psyches of the two communities. The exhibition explores through reactive expression, the history and experiences they both shared.

Images of the Unimaginable: Art features images by artists who share their visual interpretation of Jim Crow, Civil Rights and the Holocaust.

Images of the Unimaginable: Science, presented on the dome of the Stanback's State-of-the-Art Planetarium, showcases the scientific contributions of Jewish scientists who escaped the Holocaust and their influence on African American scientists.

Partnership in Social Justice opens October 22, 2010 at 6:00 pm, and continues through January 4th 2011.

TENNESSEE

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Bays Mountain Planetarium Kingsport, TN

Adam Thanz reports: Winter '09-'10 has been quite an unusual season for us at Bays Mountain. You may remember from my winter '09 TN News article that Mother Nature created a breach in the double fencing surrounding our wolf enclosure by knocking down some trees due to a large snow and high winds. Of the eight wolves, seven returned or were brought back safely. The eighth is considered well beyond the park's boundary and has not been seen for months. The park is open to the public now after two months of being closed. This was for the safety of the wolves as they would not return if there was a commotion going on at the park. This strategy

(Continued on page 40)

did work. Then in spring, a limb fell, breeched the fences again, and the wolves got out again! This time, all but one returned within the first day. The last one was the same wolf that was the last to return during the winter. That wolf did make it back within a few days. Unfortunately, about two weeks later, that wolf passed away. No physical reason was found, but stress of being in changing environments may have been the cause. Those of you who attended the SEPA conference got the chance to see these incredible creatures up close during a wolf nature program led by our Senior Naturalist.

Show production takes a large percentage of our time. We are in the midst of five shows as I write this. One show is slated to open very soon. Called "Planetary Visions," it is an exciting, adventurous tour of our Solar System! It is written and produced by Jason Dorfman, the artwork and 3-D work by Allen Davis, music and sound effects also by Jason and I'm doing some final compositing. We are very excited about this show and I know you will be too. We are planning on distributing the program as it is a lot of fun, is completely educational and accurate, is visually stunning, and has great adventure. There are many surprises, so the audience will be really thrilled. It is unlike any other planetarium show I've seen. We showed a preview of this during the SEPA conference and it was met with great enthusiasm.

We are currently in the midst of producing a very cool Halloween show that is slated to premier this Halloween! It is part of a huge extravaganza event held here at Bays Mountain. There is a haunted forest, a scary barge ride, lots of storytelling, and this new planetarium production. Everything is on a 30-min. rotation, so the show is designed to be about 12-15 minutes. Once completed, it will be available for distribution. The Park uses dozens of volunteers to help run this event and is always great fun.

Production for another show is well under way. It is still under wraps, but is being written by Heather Fries (pronounced "Freeze") and myself. You met Heather as our intern during the 2010 SEPA conference. We are using mostly students and professors from East Tennessee State University (ETSU) for this production. Heather is a student there. We have

voices for characters from their drama department set and artwork by students from their art department. I think this will be another great show for us.

Our premier presentation that we created, "Connections," was shown as part of the 4th Jena Full-Dome Festival in May. It was shown along with 25 other programs from throughout the world. It was also shown during the SEPA conference. We're very happy with the response it received and glad we could share it with our colleagues.

We are currently finishing "IBEX: The Search for the Edge of the Solar System" that ran during our spring-summer season. We added a short, live segment at the end to update our audience to the status of the IBEX mission.

We are starting up our public StarWatch night observing programs this October. These events have experienced an increase in attendance in the past year. We now average about 50-60 for each one. They are the Saturday nights of March, April, October, and November. They start at dusk and are free. We also had a nice Astronomy Day back in April. Paul Lewis, NASA Solar System Ambassador from UT Knoxville was our keynote speaker. He spoke about the sun and always provides an excellent presentation.

On October 9-10, we will be hosting our 27th annual StarFest regional star party. We have lots of great activities and presentations slated. Our keynote speaker will be Michael Smith from the Oak Ridge National Laboratory. He'll speak of supernovae based on their modeling at the Lab. Another highlight, albeit unplanned, will be the viewing of Comet 103P/Hartley known as Hartley 2. It should be around 5th magnitude by our event. We'll see how good it gets. Robin & I have been able to definitely spot it with 8x40s on Sept. 28, 0 UT. A week prior, it was barely viewable in the binoculars with averted vision. We're going to try to get a pre-maximum photo this weekend (Oct. 2) if the weather stays clear.

(Continued on page 41)

VIRGINIA
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**Abbott Planetarium
Virginia Living Museum
Newport News, VA**

Kelly Herbst reports: Fall is almost here, and as I write this, Virginia is enjoying those final, beautiful weeks of summer when the temperature and humidity have come down, and it's a genuine pleasure to be outside. So what am I doing? I'm spending my days in the theater, cleaning, fixing, and show-producing! We're closed for the rest of the month, to give us some time to make some repairs, update our system, and start production work on some upcoming new shows. Already finished the system updates...thank you, thank you to the fine folks at Spitz, who've given us a new control in the Scidome system that lets me make my sky even more beautiful and just a tad more realistic! I love it!

Starting the first Saturday in October, it's back to business as usual. *Kaluoka'hina: The Enchanted Reef* returns as our preschooler program, and we expect many of our littlest guests to be happy to see Jake and Shorty back again. With our changing exhibit gallery standing idle for use in various upcoming special events, we'll be featuring The National Space Centre's wonderful program, *Astronaut*. Truly, this is one of our favorites, and always popular with the public. Everybody do the Chad dance! Finally, our live sky show, *Virginia Skies*, rounds out the offerings for the Fall. School program sign-ups are depressingly low this year, as many of our school districts were hard-hit in the most recent budget cycle. We're planning on offering a variety of new public events in the hopes of replacing some of that lost income. We'll let you know if anything raises millions overnight (don't hold your breath!). By the time you read this, though, our schedule will already be featuring two of our most popular programs of the year: *Star of Wonder: The Mystery of the Christmas Star*

and *Laser Holidays*. Always well attended, we even offer nighttime showings of both shows on selected weekends around Thanksgiving and Christmas Break.

Finally, let me repeat an offer I've made before...if you ever find yourself in the southeastern Virginia area, please don't hesitate to stop by! We're always happy to welcome fellow planetarians. And if it happens to be the second Saturday of the month, plan to stay late and enjoy a star party! Wherever you are, we wish you clear skies and high attendance!

**Pretlow Planetarium
Old Dominion University
Norfolk, VA**

Declan De Paor reports: I had a photograph published as the Earth Science Photo of the Day on Aug 25th:

<http://epod.usra.edu/blog/2010/08/boston-sunset-and-.html>



Feel free to reproduce!

Cheers.

**Radford University Planetarium
Radford University
Norfolk, VA**

Rhett Herman reports: The Radford University Planetarium continues to experience a growth in

(Continued on page 42)

numbers both with our public shows and through our Science Day visitors. In our Science Days the lab sciences at RU host K-12 classrooms for a day-long field trip of science activities. These activities include a planetarium show, a physics show, a tour of our geology museum, a chemistry show and a tour of our greenhouse. Typically an entire grade from a school will visit, rotating through all of these activities (plus lunch!) throughout the day. I schedule these visits and have been pleasantly surprised at the number of schools interested in these events. In fact our Science Days have become so popular in the surrounding school systems that our spring semester days are almost completely booked.



In calendar year 2009 the planetarium went over the 3,000-visitor mark for the first time, with over 1,200 of those visitors coming in our Science Days. So far in 2010 we have had over 2,300 visitors with over 1,500 of those being Science Day visitors. For the remainder of the year more than 400 Science Day visitors are scheduled. We also anticipate about that same number of general public visitors with RU's Family & Alumni Weekend coming up and our Christmas show in December.

**Thomas Jefferson HS Planetarium
Richmond, VA**

Leslie Bochenski reports: The school year is off to a good start, and requests for programs from teachers have been overwhelming. I'm attributing this to the fact that funding for field trips has been cut, but classes can still visit the Planetarium free of charge.

Right now, I'm up to my starball with scheduling, trying to fulfill all those requests!

I'm planning my usual roster of classes for grades 3, 4, 6, 8 and 9; and adding a new program for 1st grade. I hope everyone else is looking at a busy school season, and the budget cutting demons haven't bit you.

***Remember your
State Coordinator!***

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