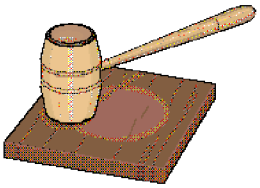
President's Message

Kristine K. McCall
President
Sudekum Planetarium
Nashville, TN



I ve only been President for three months, and already a lot of things have happened. My predecessor, Richard McCo lman (Chapel Hill, NC), warned me about the slings and arrows that came with the job. Let me put it this way: so far, I have not considered abdication as a solution to any of the challenges placed before me.

Several of you may be wondering about plans for our 1995 conference. It s June 20 24 in Macon, Georgia. Hosts will be Carole Helper and Jim Greenhouse, Mark Smith Planetarium, Macon Museum of Arts and Sciences. HPS President Philip Groce is also assisting with planning for SEPA 95. A tentative agenda appears later in this issue of the journal. If you haven t received the pre conference mail ing, drop this newsletter and call Macon right away.

This should be a good, relaxed meet ing. Everyone will be able to steal a few ideas, share good stories, and recharge the old batteries. I encourage all of you; from domes large and small, with budgets minuscule and enormous, volunteers, art ists, directors, jacks and janes of all trades, close by or far away, to attend SEPA 95. You won t be disappointed.

According to our Constitution, changes to the Constitution and Bylaws must be presented to the membership in writing at least 30 days before the meeting. Jon Bell (Fort Lauderdale, FL) and his com mittee of Dave Hostetter (Lafayette, LA) and Cyndi Zeger (Salisbury, NC) have put forth only minor revisions to our governing documents. Please look for this informa tion elsewhere in this journal, and give it some thought before you come to Macon. I m interested in hearing what you think of the proposed changes.

In the last issue of Southern Skies, Linda Hare announced that she had to relinquish duties as editor because of her duties as Executive Director of the Inter national Laser Display Association (ILDA) even after all the nice things I said about her last time. The next time you see Linda, be sure to hassle her about that, and then thank her for all the years of service to SEPA, both as Secretary/ Treasurer and Editor of our wonderful journal.

So began the search for a new journal editor. Two colleagues stepped forward and volunteered: Paul Trembly (Orlando, FL) and Duncan Teague (Memphis, TN). Both had good credentials and enthusiasm, but in the end Council chose Duncan. It s his handiwork you hold now. I hope you re not disappointed.

As always submissions are welcome and encouraged. Duncan has requested that all materials come to him by email or on disk. Whether Mac or PC, he can translate your articles directly to the journal. He may not be as obnoxious as Linda was, but I am sure he will be out twisting arms and soliciting each and every one of you.

Since I have this soapbox on which to stand, I d like to ask everyone if they have ideas or suggestions for future conference hosts. Rick Greenawald (Greenville, SC) and John Hare (Bradenton, FL) wrote a set of conference guidelines about a year and a half ago. I think that future confer ence hosts like myself could use more information and advice from past hosts in addition to the membership.

There s been past debate about whether field trips are desirable during conferences as well as the balance between astronomy, education, and technology. How many shows would you like to see during a typical four day meeting? (Take into ac count that someone has to install those programs.) Are speakers important to you or is more free time preferred?

I ask these questions mainly for selfish reasons. Since my staff is currently plan ning for 1996, I d like to assist those who follow so SEPA can continue our tradition of great conferences. Please share your thoughts, concerns, complaints, and brainstorms with me soon. I would really appreciate it.

After the journal, the annual confer ence is one of the main reasons people join groups like SEPA. Your participation at the conference and in the journal make the Planetarium community as strong as it is. It s this communication that helps each of us to do our jobs better and to survive the slings and arrows that school groups, immovable administrations, and mother nature throws at us.

Farewell, SEPA

Rick Grenawald
President-Elect
Roper Mountain Sci. Center
Greenville, SC

It is with both joy and regret that I inform you of my resignation as President Elect of SEPA. As I will be undergoing a change of status, shortly after you receive this issue of the journal, I must step down according to Article Three, Section 1E of the by laws. I will no longer be eligible to be a voting member of the Association and must therefore vacate my office.

The regrettable part of having to resign is that I am going to miss very much all of you wonderful colleagues and friends. SEPA is one fantastic organization, and the members are responsible for its greatness. It was just last June you honored me with election to a very important post in guiding the future of SEPA. Having taken office in January, I will have only served in my position for five months before resigning. I regret the time was so short, and I will not be able to fulfill my term. If I could have foreseen my upcoming change of status with absolute certainty, I would not have accepted the nomination in order to have spared the Executive Council and the Association from having to deal with this situation.

I know by now you are probably wondering what this change of status is. This is where the joyful part comes in. If you have not already heard through the grapevine, I have accepted employment as the Planetarium Manager of the Faulkner Planetarium at the College of Southern Idaho s Herrett Center in Twin Falls.

This is a brand new facility still under construction. The facility will be a 50 foot horizontally oriented Astro tec dome housing a Digistar II and automation and equipment from Sky Skan. Seating capacity will be in the area of 150. If you have been to the Buhl Planetarium in Pittsburgh, you have a good idea of how this new theater is laid out and how it will look.

Theater systems will include dissolvable pans and all skies, 12 animation array projectors (Ektapro 7000s), a slew zoom with a 17:1 zoom lens, a very fine five channel digital audio sound system, various special effects, and video. The video is very interesting, consisting of two Sony projectors and one Barco projector (for that huge image). Probably the most interesting part of the video system is that one of the Sony projectors will be on a Conic pan tilt head if proposed changes are approved; yes, that means slewable video.

There is also going to be a great support system in place with resources much greater than what I have been accustomed to. I view this as a great career move. I look forward to opening another new planetarium and working with the very fine people out there. We are also hoping to add another staff position in the planetarium in the very near future.

I know that this may come as a shock for some of you. For others, I know that my departure from the Roper Mountain Science Center is hardly a shock. Let me say that the facility here at Roper Mountain is a very fine planetarium equipped quite nicely. There is now an opening here for a talented individual. If you have an interest in the position, you should contact Mr. Darrell Harrison, the Director of the Center.

As for me, I will be starting at my new job on June 5th. If you wish to contact me after I am out there, I would be happy to hear from you. The address and phone number is as follows:

Rick Greenawald
Planetarium Manager
Herrett Center
College of Southern Idaho
P.O. Box 1238
Twin Falls, Idaho 83303 1238
Phone: (208) 733 9554, ext. 2355

I also hope to have an Internet address soon after I begin work.

Once again, I will miss being a part of SEPA. I will be thinking of all of you during the time period of the upcoming conference. However, I rush forward to meet my future with open arms. I invite any of you who may find yourselves passing through southern Idaho to stop in for a visit; you will be welcome. If you need an excuse, let me give you one, world class skiing is just 90 minutes north of Twin Falls at Sun Valley.

So, farewell, SEPA; it has been fun.

Things Are Gonna Be Different Around Here...

Duncan R. Teague
Secretary/Treasurer
Southern Skies Editor
Craigmont Planetarium
Memphis, TN

All of us owe a tremendous debt of gratitude to Linda Hare for her service to our organization both as Secretary/ Trea surer and as editor of Southern Skies. Due to the demands on her time required by her new position as Executive Director of ILDA, Linda has reluctantly given up both positions. I m delighted to be given another opportunity to serve SEPA, this time as Secretary/ Treasurer, and coincidentally to have been appointed by SEPA s Executive Council to edit this journal.

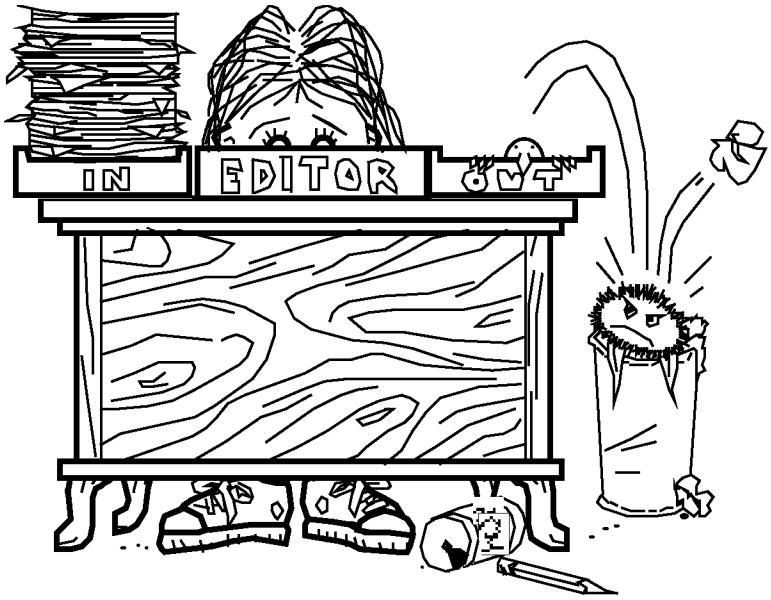
Contributors have become complacent in working with a colleague who was so nice that she re typed the articles you mailed to her. Those days are gone. I m your editor but not your clerk typist. [;>(] Future submissions to Southern Skies may be forwarded in the following formats: on 3.5 inch Macintosh or DOS diskettes or via email.

If you use a Macintosh, pat yourself on the back. [;>)] Then save your document in a form I can open. First, save a copy as you normally do in your word processor s proprietary file format. Second, do a Save as... , and re save the document as text or text with line breaks. Finally, if your word processor allows, do a Save as... in the latest WriteNow file format. Give each of these copies a different name, e.g., Document.WORD and Document.TEXT.

If you use DOS or Windows, you have my sympathy. [:>(] Please save one copy of your document as above in your word processor s proprietary file format and a second copy as ASCII text. My MacLink translators can likely convert your docu ment into a form my computer can use.

If you have any artwork to submit, please do so. Mac users should send graphics preferably as PICT or EPS files. DOS/ Windows users can submit files in the BMP, GIF, PCX, or TIF, formats for best results. I can also handle CGM, GEM, WMF, and WPG formats, but results may be less desirable when I convert to Ma cintosh PICT. If you have a photograph, please send a black and white glossy print I can scan.

Send email to my America Online ac count. AOL subscribers can send their text as part of an email or as an attached file to the screen name StarManTNG. Subscribers to other online services such as CompuServe, Prodigy, Delphi, or Genie and those with Internet accounts through other service providers must append the appropriate domain suffixes. Send text to the address StarManTNG@aol.com.



Thanks to those who have already forwarded articles and art via one of the above methods. Now if I can just get you to use typographer s quotes instead of foot/ inch symbols, em dashes instead of double hyphens, and single spacing after all punc tuation my job will be even easier. Come to my Design, Typography, and Graphics workshop and to Richard McColman s and my session on Online Astronomy when you get to the Macon conference.

The Reports of His Demise...

Richard McColman
Past-President
Morehead Planetarium
Chapel Hill, NC

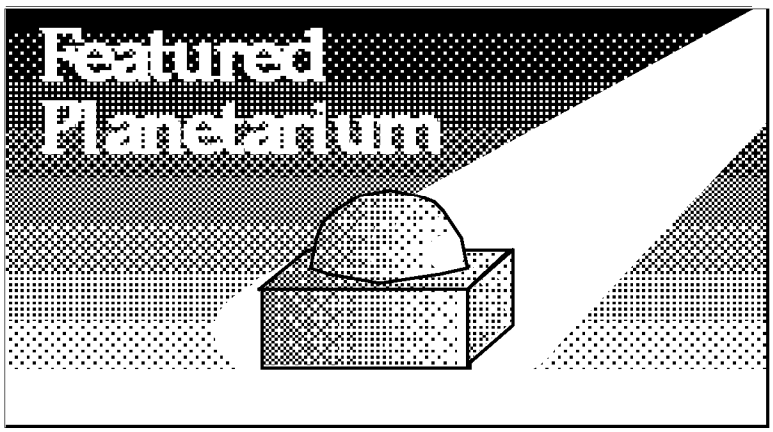
In the previous issue of Southern Skies (Winter 1995), I wrote a piece entitled A Natural Meteor Shower Effect, in which I cryptically referred to former Morehead Planetarium Director Tony Jenzano as the late Tony Jenzano. It turns out that Tony is, however, still very much alive as of this writing. I regret the error.

I suppose Tony can now invoke the old Mark Twain quote, The reports of my death have been greatly exaggerated!

Mark Smith Planetarium Macon, Georgia

Dave Hostetter
Featured Planetarium Ed.
Lafayette Natural History
Museum & Planetarium
Lafayette, LA

If we understand the stars, then we are not so small in comparison to them...
Armand Spitz
at the dedication of the
Mark Smith Planetarium



Mike Cutrera

Carole Helper
Author
Mark Smith Planetarium
Macon, GA

The Mark Smith Planetarium is named for Dr. Mark A. Smith, local school superintendent for 17 years, and first chairman of the advisory committee that established the Macon Youth Museum. Dr. Smith died in October, 1958, just as the Museum was beginning to look for a new and larger facility. Bibb County teachers established a memorial fund in his name to go toward the erection of a planetarium at the proposed new museum site.

The new museum building opened in November 1964, and the Museum changed its name to The Museum of Arts and Sciences. The new museum was described as a complex of buildings on 14 acres of rolling, wooded land a planetarium and exhibit hall, a classroom building, a wild life area, a transportation section, a rustic cabin used by Harry Stillwell Edwards, and an arboretum.

The Mark Smith Planetarium opened on January 17, 1965. With a new Spitz A3P projector under a 40 foot dome, the planetarium was trumpeted as the second largest planetarium in the southeast, the only public planetarium in Georgia, the largest planetarium in the world south of Chapel Hill, NC, and the largest one in America to serve a public school system.

The dedication ceremony was held at 4 P.M. the following Sunday. Dr. Armand N. Spitz conducted the first public showing. As the 40 foot dome darkened gradually and stars were seen, Dr. Spitz began, the meadows of heaven blossom with forget me nots of the angels. As Dr. Spitz announced he could make the audience dizzy, a young voice shouted, I m dizzy already.

November 11, 1965, Dr. Spitz returned to Macon to give The Christmas Story. The show had been planned for the year before, but the opening of the planetarium had been delayed. Dr. Spitz was also at the dedication of the Foucault pendulum, which he had designed, on December 1.

Public shows were scheduled Sundays at 4 P.M. and Wednesdays at 8 P.M. to make it possible for Maconites to attend shows after church. Mornings were reserved for Bibb County schools; afternoons and evenings, for out of county schools, special groups, and museum classes. Since the Museum lacked a large meeting space, meetings, films, and lectures were held in the planetarium until an auditorium was finally built in 1984.

The first scheduled public program was Meet the Stars, an introduction to the planetarium for those who had never been in one previously. Other shows that year were We re on the Move and How!, Land of the Midnight Sun, The Sun s Family, Vacation Skies, and Beyond the Milky Way.

The first curator of the planetarium was Angus B. Domingos, Jr. In the first two years of operation, 50,000 people attended planetarium shows. For fiscal year 1967, planetarium attendance was 25,143.

Macon newspapers published a flurry of articles about the Gemini missions and the Mark Smith Planetarium. As record breaking crowds came to see A Walk in Space in March 1966, the Macon News reported Mark Smith Planetarium Like One Used To Train Astronauts. The newspaper remarked, The well educated man of tomorrow will be conversant on such astronomical terms as: sidereal and synodic periods of the planets, eccentricity of the allopticity [sic], [and] quasi stellar

objects.

Planetarium attendance has leveled off to about 25,000 visitors annually, although the Museum s exhibit D iscover D inosaurs in the summer of 1993 with the accom panying showing of 95 star shows each week pushed attendance for fiscal year 1994 to an all time high of 38,000.

In its 30 year existence, the Mark Smith Planetarium has seen nine directors or head curators: Angus Domingos, Jr., Mike Hood, Ken Guyton, Bill Stallings, Lee Golden, Bill Peck, Jeff Guill (now at Gibbes Planetarium), Doug Oetter, and Jim Green house (current planetarium curator).

Philip Groce joined the Museum staff in 1987 as D irector of Science. He added weekday afternoon shows to the plan etarium schedule and embarked upon an ambitious planetarium renovation. Under his direction the Museum bought a Minolta MS 10 star machine from the Alexander Brest Planetarium for $14,000, and persuaded Minolta to update and custom build it. The good as new machine produces 7,000 bright, twinkling, pin point stars.

Other improvements during the reno vation included complete replacement of electrical wiring, addition of a Clearlight Automation System, a satellite dish, a new sound system, a 3 VCR/ 3 video projector system, a 12 projector panorama system that rotates 360 , relocation of the con sole, new carpeting, and new seats. Mr. Groce also brought many of his originally produced star shows to the Mark Smith Planetarium, such as The Weather Ma chine, The Amazing Universe, The Gods Themselves, and Futures.

The automation was replaced in 1993 by one from East Coast Control Systems. Future plans include additional automa tion and an all sky system.

You are cordially invited to visit the Mark Smith Planetarium at any time (Just give us a call!), but especially during the 1995 SEPA conference. Registration packets have already been mailed. If you haven t received one, call Jim Greenhouse or Carole Helper at (912) 477 3232.

[Next issue: Planetarium at the Edge of the Universe, Richmond, VA]

Read Me: Proposed Bylaws Changes

The Bylaws Committee of Jon Bell (Chair), Dave Hostetter, and Cindy Zeger recommend a change to SEPA s Bylaws as follows:

Article Two (Members and Dues), Section 1A

Change to:

A. Full membership may be extended to persons [who reside in Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia, and all U. S. territories off the southeastern coast of the U. S. and are] engaged in the administrative, professional, educational, or techni cal activities at a planetarium, or who provide substantial support services to planetariums[.] ~~in Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia, and all U. S. territories off the southeastern coast of the U. S.~~

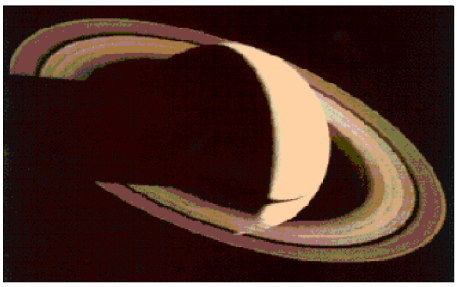
(Added text is shown in brackets. Deleted text is shown in the strike through style.)

Mythology of the Moons of Saturn

Dennis J. Cowles
Louisiana Nature Center
New Orleans, LA

This is a follow up to my previous article on the mythology of the moons of Jupiter. This article, like the last one, is not meant to be comprehensive or exhaustive, and many variations on the stories related here exist.

If you do not like a story that is included here and want to use a variant, please do. Mythology is as much an art form as any other and may be interpreted in exactly the same way. The stories are not given in any particular order, but I have tried to weave them by a continuous thread.



Titan, meaning lord, was a general appellation given to those beings who ruled the world before the gods. In many cases the Titans were the parents of the gods, e.g., Zeus was the child of the Titans Cronus and Rhea. (Incidentally, Saturn is the Roman equivalent of Cronus.)

When Zeus and his mother tricked Cronus into drinking an emetic potion and Cronus threw up his children, the gods asked Zeus to lead them in a war against the Titans.

The Titans chose mighty Atlas as their leader. Two Titans, Prometheus and Epimetheus, didn t fight on the Titan side, as Prometheus had wisely predicted the eventual outcome and persuaded his brother Epimetheus to join him.

The Olympians won the war after ten years of hard fighting. The Titans were exiled to a British island in the far west (some say confined to Tartarus) except for Atlas who was ordered by Zeus to carry the entire world on his shoulders as punishment. Brother of Prometheus and Epimetheus, Atlas was father of both the Pleiades and the Hyades.

Prometheus created mankind by forming them from clay and water, and Athene breathed life into them. He was very helpful to his creations, teaching them skills necessary for survival: medicine, architecture, navigation, mathematics, astronomy, metallurgy, etc.

Zeus grew angry at the growing talents of mankind and only spared them due to Prometheus pleas. Prometheus stole fire from the Sun and gave it to mankind. This angered Zeus greatly. Zeus decided to retaliate, and he created Pandora.

Pandora was the most beautiful woman ever created, but she was also foolish, mischievous, and idle. Zeus gave her as a gift to Epimetheus. His brother Prometheus told him not to accept any gifts from Zeus, so he declined. Zeus became so angry he ordered that Prometheus be chained to a pillar in the Caucasus mountains. Each day a vulture tore out his liver, which grew back at night. Prometheus stayed chained and tortured until freed by Heracles.

After Zeus punished Prometheus, Epimetheus married Pandora who opened a jar Prometheus told Epimetheus to keep forever closed. She released all the things that plague mankind: old age, sickness, insanity, vice, greed, etc.

Hyperion was a Titan who ruled over the Sun along with the Titan Theis. Hyperion and Theis are the parents of the Sun god Helios. Phoebe was a Titaness and was grandmother to the gods Apollo and Artemis. Iapetus was the father of the Titan Prometheus.

Dione was one of the Pleiades, daughters of Atlas. She and Zeus are the parents of Aphrodite. Mimas was one of the Titans who fought the Olympians. He was wounded by Hephaestus, who poured red hot metal on him. (Moral: never do battle with a blacksmith!)

Enceladus didn t have fun fighting the gods, either. When the Titans were retreating from battle, Athene threw at Enceladus a great missile, which squashed him. The missile became the island of Sicily.

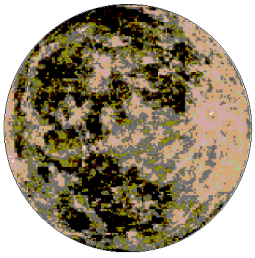
Tethys was a Titaness, and she is the mother of the children of Oceanus, from whom all gods and living things were born.

Calypso was a daughter of Atlas. She lived alone on the island Ogygia. The hero Odysseus, in his many wanderings after the Trojan War, drifted to Ogygia. There Calypso promised him eternal youth and

(continued on page 19)

Lunar and Planetary Science Conference

Dennis J. Cowles
Louisiana Nature Center
New Orleans, LA



Did you know there were at least four supernovae that contributed to the pre solar nebula? Did you know it s possible Venus once captured a moon a retrograde capture, interestingly enough which can explain the retrograde orbit, the unusu ally slow rotation, and the recent global resurfacing of that planet? Did you know there s a proposal to use a water well at an Antarctic base as a micro meteorite collec tor? You would have, if you had attended the 26th annual Lunar and Planetary Sci ence Conference in Houston.

There were some sessions about the new Discovery class missions like NEAR (Near Earth Asteroid Rendezvous), Lunar Prospector, Mars Pathfinder; proposed missions, such as Eugene Shoemaker s INTERLUNE 1, a robotic traverse across the lunar surface, or the Suess Urey Mis sion to Return Solar Matter to the Earth.

There were many session involving meteorites (which is where I learned there were at least four supernovae that con tributed material to the pre solar nebula. There is a tremendous amount of research being done in the field of meteoritics. When all is said and done, we will have a very comprehensive picture of the history and evolution of the solar system, built mainly upon the evidence that we have garnered from meteorites.

The meteorite session covered minerals, parent bodies and asteroids, interstellar dust grains, supernovae, the chemical composition of the pre solar nebula, the mechanics of delivery of meteorites to the Earth, tektite formation, the Tunguska event, the K/T boundary layer, and the history of collisions in the solar system. Heady stuff! Incidentally, now I know what characteristics we should find when and if we discover a meteorite from Mercury.

One of the best sessions concerned Mars, since the Red Planet is the major focus of robotic exploration for the next two decades. There was a very nice summary of the Mars Pathfinder mission and the Mars Global Surveyor. Many options for future Mars missions were discussed, since NASA is apparently going to launch two missions at every launch window (every 26 months) well into the next decade.

It was nice to learn that instruments on the ill fated Mars Observer mission will be carried to Mars on board other space craft. I heard all of these things from the principal investigators and project leaders themselves, not from a NASA Public Affairs bulletin.

We were given specific information about the instrument capabilities and limitations and what information would probably be gained from them. There were even papers presented about the exobiology of Mars, including information about the types of biologically formed minerals that might be found there.

I learned about the geology of asteroid Ida, sat in on the continuing post mortem of the impact of Shoemaker Levy 9 with Jupiter, saw a very good summary of our current knowledge of the Moon and the outstanding questions of lunar science, and I almost got a CD ROM full of Clem entine data. (I arrived too late at the poster session. Next time I ll arrive sooner.)

I talked with Larry Lebofsky (from the Lunar and Planetary Laboratory) about Project ARTIST. I got a neat U.S. Geological Survey poster commemorating the comple tion of the initial reconnaissance of the solar system.

Most importantly, I made friends with people in the planetary sciences com munity. I look forward to renewing sev eral friendships during the conferences to come. Next year I m going to try to present a paper myself about the Kuiper Belt.

One thing lacking at the conference was other planetarians. I did meet one, Clyde Simpson of the Cleveland Museum of Natural History, but I didn t meet him until the end of the conference. (We sat next to each other on the conference shuttle after the conference had been adjourned).

I think that the lack of planetarians at this conference is a shame. I gained a completely new outlook on the solar system from it, learned more than I can possibly relate, and made some interesting new friends. It s so nice to find other people who like to talk about the solar system as

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365 Starry Nights

Patrick McQuillan
Book Review Editor
Alexander Brest Planetarium
Jacksonville, FL

I often enjoy the fact that I m not a world renowned book critic. If I were, everyone I talk to would expect me to have read and have an opinion on every book mentioned in conversation. They also wouldn t forget that I m book review editor for Southern Skies and need to review at least one book each issue.

Forgetting can be a bad thing. Case in point, I received a letter just two weeks before the deadline for this issue informing me of the deadline and asking for my column. Yikes! I thought. I haven t had time to read any books lately and I sure don t have time to read one in two weeks. So I thought I would call around and see what other folks were up to.

My first call was to Dave. In the course of catching up I casually asked him if he had read any good books lately, particularly any good astronomy books. Much to my delight he replied, Yes! I asked What book? and What was it about? He proceeded to tell me.

I then yanked on the hook, and asked if he wouldn t mind writing all that down on one page and emailing it to me. Lucky for me, and you, Dave didn t mind at all. In fact that book was one I was meaning to read. But, with the little time I ve had to read lately, the title kinda scared me off. I certainly didn t have that long to read a book. But I hear it is one to have on your shelf. I ve already ordered mine. Maybe I ll have time to read it, some day.

365 Starry Nights:
An Introduction to Astronomy for Every Night of the Year

Text and Illustrations by
Chet Raymo

A Fireside Book
Published by
Simon and Schuster
Rockefeller Center
1230 Ave. of the Americas
New York, NY 10020
ISBN: 0-671-76606-6

Reviewed by
David Maness
Peninsula Planetarium
Newport News, VA

If any of us were asked to write a diary of a year of night sky observing in words that could be easily understood by the non professional astronomer, we might have come up with a book similar to this one. Few of us have the time, not to mention a whole year of clear skies even under planetarium skies, if your theater is as busy as mine. Fortunately, we don t need to write it, as Chet Raymo has already done it for us and quite well.

As the title suggests, the book is a month by month and day by day accounting of objects visible in the night sky throughout the year. Each chapter (which corresponds to a calendar month) opens with a map of the night sky and ends with an Earth diagram showing the nighttime shadow across North America.

With the exceptions of May and December, which feature northern views, the maps look due south in early to mid evening. November includes both north and south views. In January he begins with constellation basics using the bright stars of winter. With Orion as the model, he teaches the reader to measure angular distances the old finger and fist method.

The diagrams are clear and to the point. From the start we learn the importance of building on that knowledge as we go. He then carefully blends a brief historical background into the exercise as he talks about the Babylonian origin of the 360 circle. All through the month the discussion conveniently refers to visible objects, much as each of us does in the theater.

In writing a book that you want to have read and useable of years, Mr. Raymo understandably idealizes the sky to some extent. He assumes each night is clear and moonless. He refers only briefly to the moon and planets but explains clearly that they will all be found at different points near the ecliptic.

Chet has a talent for making it sound easy whether it s a discussion of apparent magnitudes in January or the HR diagram in March. Later he explains how the motions of the Earth cause the apparent motion of the Sun, spectral classification, and the precession of the equinoxes. These are things we in the field know from years of repetition, but I think I have never seen what we do every day written down so well.

I liked the simplicity of the book. The home drawn pictures with stippled shading certainly will not replace the planetarium. At the same time, they are far less intimidating than the often pompous diagrams found in many dry college textbooks.

(continued on page 19)

Home is Where the Wind

Home Is Where the Wind Blows

by Fred Hoyle

University Science Books
Mill Valley, CA
ISBN 0-935702-27-X
$28.50
443 pages with maps, photographs, and index.

Reviewed by
Gary M. Lazich
Russell C. Davis Planetarium

Some years ago a friend of mine ob jected violently to a planetarium show we had seen which portrayed the Big Bang as established fact. I thought of him as I read this autobiography of Sir Fred Hoyle, whose derisive nickname big bang took such hold that even a recent Sky and Tele scope contest failed to dislodge it.

Hoyle s personality has suited him both to cosmology and to controversy. (To achieve anything worthwhile in research, it is necessary to go against the opinions of one s fellows.) Already an observer of the world and a ponderer of its problems as a toddler, he displayed a stubborn ob stinacy to get... into trouble. A visit to the top of a wall on a perfect starlit night led him to deciding [to] find out what those things up there were.

Home Is Where the Wind Blows takes us on a richly rewarding tour of Hoyle s life, his studies and work at Cambridge, and twentieth century astrophysics. Through Hoyle we meet such notable characters as Sir Arthur Eddington, Paul Dirac, Richard Feynman, and Wolfgang Pauli. Hoyle worked with Hermann Bondi and Tommy Gold (on the steady state theory), Geoffrey and Margaret Burbidge (on stel lar nucleosynthesis within red giants and supernovae), and Chandra Wickramas inghe (on comets as the source of organic molecules on Earth).

Hoyle expresses a wide range of inter ests and insights. He notes the transience of personal relationships and ponders the interplay of physics, mathematics, and the universe. His several science fiction books include The Black Cloud, which Hansen Planetarium produced as a public feature in the 1970s.

Hoyle s asides reveal an active, inquir ing, and critical disposition. Bureaucratic establishments, especially in science, evoke special criticism for their unproduc tive activity, contradictory practices, con servatism, and evasion of responsibility.

The final chapter of the book treats Hoyle s major concerns: cosmology and theology. In both areas he criticizes prevailing thinking and suggests alterna tives.

Rejecting the big bang theory as a form of religious fundamentalism, Hoyle proposes intermittent creation of mat ter around black holes as the cause of cosmic expansion. The resulting universe oscillates in 40 billion year cycles with a Milky Way galaxy at least 300 billion years old. In the face of disagreement verging on ridicule, Hoyle and his supporters propose alternative explanations for most verified big bang discoveries. (See A Catalog of Quasars Far and Near in the December 1994 Sky and Telescope and the Newswire section of the January 1995 issue for examples.)

The exquisite complexity of physical laws and the incredible chain of subtlety behind biochemistry leads Hoyle to doubt the nineteenth century denial of a pur posive universe as well as the crude breaking of physical laws that occurs in big bang cosmology. Hoyle sees the Uni verse of physics as a set of restrictions on mathematical quantities... optimized for their consequences with God as the chap who thought up the restrictions. Reject ing prayer as too prone to self deception, Hoyle suggests consciousness itself as a means to extra Universal communica tion with God.

Despite his uncertainties, Hoyle maintains his optimism. After a lifetime of crabwise thinking, I have gradually become aware of the towering intellectual structure of the world... . [W]hatever the end may be for each of us, it cannot be a bad one.

I enjoyed this book on several levels: as the story of an interesting character; as a glimpse into the workings of twentieth century astrophysics; as a stubborn de fense of an apparently disproven theory of cosmology; and as the retrospective of an individual who has spent his life at tempting to make sense of the universe, of human existence, and, ultimately, of himself.

Planetarium educators, who contem plate the universe with their audiences, should find this book especially thought provoking. At over 400 pages, Hoyle s story is not a quick read, but those with the time and patience to accompany him on his sometimes crabwise excursions will

What's New with Voyager II 2.0?

Mike Cutrera
Digital Cosmos Editor
Bishop Planetarium
Bradenton, FL

Mike Cutrera

The following article reviews the latest version of Voyager II, the popular desktop planetarium program for Macintosh from Carina Software. It was cheerfully sub mitted by Vic Menard, president of the Local Group of Deep Sky Observers, local astronomy club in Bradenton, Florida. Vic purchased this new upgrade early in the year, and he gives it a good testing every time he observes. He also owns a PowerBook, which accompanies him on stargazing nights.

I look forward to learning how the software holds up to the workout I m sure it will get. Vic s a very knowledgeable astronomer, and he s a great asset to the astronomical com munity in Florida. My heartfelt thanks to Vic for submitting this article.

This marks two consecutive issues re views have come from Bradenton. Many of you use computers in your work. Please share what you know. If you have a com peting desktop planetarium program, or use one in a novel way, let us know.

As computers work their way into our daily lives, we can add new capaabilities, like a CCD to a telescope. If you use your computer just to maintain a projector lamp inventory, tell us. We can all benefit!

Next issue, I ll be discussing some neat stuff found online and offline. If you know of neat software, clip art, computer tech niques and implementations, or anything dealing with the digital cosmos, drop me a line! May your pointers be bright!

Reviewed by
Vic Menard
President
Local Group of
Deep Sky Observers
Bradenton, FL

What s new with v2.0?

How about a Dual Sky Chart display (the SkyView window), enhanced print ing, and optional telescope control? Add the Sky Gallery CD, and you can include the complete 200 megabyte Hubble Guide Star Catalog (HGSC), double and variable star catalogs, complete (known) comet and asteroid tables, and a huge 300 megabyte color gallery of 800 astronomical images.

Along with the Hubble Catalog, Image Gallery is the most impressive new feature of v2.0. Picture formats are full screen on my 13 inch color monitor. With custom palettes selected, the striking color images are sure to please any astronomy picture book browser. With 800 images on the Sky Gallery CD, each with its own information window, there are hours of edutainment awaiting each point and click.

Planet images have been moved from the Planet Gallery, (a separate window in v1.0), back to the display chart where they belong, though you can t click on Jupiter s moons and bring up a dialog box, (e.g., about Io). The bug that caused v1.0 to lose its memory when shut down and returned you to somewhere other than home when you restarted has been fixed.

With the SkyGallery CD loaded, Voyager is capable of displaying 19 million HGSC objects (mostly stars), 22,000 deep sky objects, 5,400 asteroids, 1,400 comets, 32,000 variable stars, and 22,000 double stars (including binary star orbits when available). That s a hefty bill of fare.

The optional SkyPilot software (available in January 95?) and a serial cable will enable Voyager II v2.0 to be hooked up to digitally encoded telescopes.

You can print full page star charts to magnitude 16 with HGSC loaded. Watch out for spurious grid lines and deep sky symbols that change without warning. Star charts print to the resolution of the printer, and, on my LaserWriter Select360, they look mahvelous.

The stellar magnitude legend that prints with the star chart doesn t match the star symbols on the chart. Double and variable stars don t print with a slash or concentric circle demonstrating magnitude range but are instead indicated with a letter d or v. Voyager has trouble identifying double and variable stars like Albireo and Algol. I couldn t find PAs, separations, or magni tude ranges another bug?

(continued on page 25)

A Brief History of Time

Reviewed by
Duncan R. Teague
Craigmont Planetarium
Memphis, TN

A Brief History of Time is the least read best seller of all time. Publishers were quite surprised when this thin book with weighty subject matter went to the non fiction best seller list and stayed there for a year.

Author Stephen Hawking is Lucasian Professor of Physics at Cambridge Univer sity. He occupies the chair once held by Isaac Newton. Crippled by ALS, the motor neuron disorder known as Lou Gehrig s disease, he is paralyzed and confined to a wheelchair. For years a student had to ac company him and interpret his practically inaudible and nearly incomprehensible mumblings to audiences and colleagues. Today Professor Hawking is unable to speak at all without the aid of an electro mechanical device. Trapped in a disabled body is the mind of the ablest theoretical physicist since Albert Einstein.

Creative Labs has collaborated with Professor Hawking to produce an astound ing CD ROM, a hybrid disk which works on both PCs and Macs. Included on the disk is the complete text of his book plus myriad movies and animations which help explain some basic and not so basic ideas of physics and cosmology.

The disk is a study in contrasts. Art work which has the whimsical flair of an elementary school child accompanies such esoteric theories as the evolution of stars, the Big Bang, and black holes. Stephen Hawking s own mechanical sounding voice is juxtaposed against a stereo soundtrack. Throughout the interactive adventure, humor helps explain difficult concepts.

A cartoon sun hitchhikes with an empty gasoline can in a discussion about what happens to stars when they run out of energy. Marilyn Monroe explains one aspect of the Theory of Relativity to Albert Einstein and gets it right. During a lecture Bertrand Russell is heckled by a woman who explains that the world is flat and resting on the back of a giant turtle.

The user/ explorer can elect to take a linear path through the material or can travel wherever whim dictates. Professor Hawking s study is the starting point for the adventure. From here you can look through a microscope to study quarks or through a telescope to view quasars. Take a journey to the Cygnus X 1 black hole on the imaginary Hawking spacecraft, learn about Professor Hawking himself by clicking on his wheelchair, or read the text of the book. Icons at the bottom of each screen return you to the starting point or take you to related topics.

The disk runs well both on the double speed Apple CD300i Plus in my Quadra 660av at home and on the quad speed Toshiba 3501 mechanism from APS Tech nologies connected to my IIfx at work. Transitions such as fades, wipes, and dissolves proceed a little smoother on my 040 based Quadra. Disk access to load successive sections of the program is much quicker on the faster Toshiba drive. The disk has two applications, an 8Mb and a 16Mb version.

A Brief History of Time is available direct from Creative Labs and nowhere else I can find. They ll charge $39.95 to your credit card, a $10 savings over their suggested list price. Call (800) 998 5227. If your brain is able to travel at relativistic speeds for even limited periods of time, this experience is not to be missed. What better way to engage Professor Hawking in conversation than to have him a mouse click away on your computer screen.

From this room you can travel to a black hole, study relativity, learn about Professor Hawking, or peruse the text of his book.

HST CD ROM Archive

Reviewed by
Lisa F. DuFur
Craigmont Planetarium
Memphis, TN

We requested a review copy of this disk because we are producing a star show about the Hubble Space Telescope. People wonder just what the telescope is doing. You ll see everything you wanted to know about the launch, deployment, and repair of HST on this wonderful CD ROM. Most of all you ll see images taken before and after the telescope was repaired. What a comparison!

This CD ROM comes with both Mac and PC versions so practically any one can use it. The PC version requires a 386 running at 25 Mhz or better, a sound card, and 4 mega bytes of RAM. It prefers a 486 or a Pentium. The Macintosh version requires System 7.0 or newer, 3 megabytes hard disk space, and 8 mega bytes of RAM. You need eight bit color on a 13 monitor, but a 14 monitor capable of 16 bit color is better. Both versions require a double speed CD ROM drive, but this is the standard on new computers.

The images on the disk are excellent for planetarium use because of the dark backgrounds in most of the pictures. It has a combination of slide show presentations and QuickTime™ movies. This CD ROM brings back memories of when the events actually happened. Now you can have them to keep forever.

The main menu leads you down six in teresting paths. Instruments has a variety of slide show pictures with detailed de scriptions of Hubble instruments. STS 31 contains QuickTime™ movies of STS 31 from launch, deployment of HST, and landing. Oops! is my favorite. It compares before and after images from Hubble.

STS 61 has more QuickTime™ movies of the STS 61 repair mission. Net Tutorial tells you where to get more images through the Internet. Library has not only a won derful picture of Edwin Hubble, but also a great biography of him as well. A glossary of terms and references used in the pro gram are valuable tools to any user.

I didn t like having to change my hard drive s name when I installed one program. The change appears necessary, since the program can t remember the path to an application for viewing JPEG images. A quick click let me change it back to what it was before. I could probably live with that minor detail.

Considering the number of movies and the enormous number of images on the HST CD ROM archive, its $29.00 price tag is a ~~steal~~ deal!

Contact Brentwood Interactive, Suite 106, 31344 Via Colinas, Westlake Village, CA 91362.

(Lunar and Planetary Science Conference, continued from page 7)

This conference cost less that $400.00 for registration, airfare, and motel. If you are flying in from points more distant than New Orleans, you will pay more in airfare, of course, and I didn t rent a car or anything. They provide a very good shuttle service for the conference. The actual reg istration for the conference was $50.00!

This conference was worth every penny I spent, and I will definitely continue to go in the future.

If you have it in the budget and can get the time off, I urge you to go to the Lunar and Planetary Science Conference. It s a great way to learn about current solar system research from the researchers themselves.

The hospitality of the people in Houston is outstanding, and you get to hang out at Johnson Space Center for a week. Seeing a Saturn V rocket every day is worth the registration fee.

If you can t make it to the conference, get on the mailing list for the Lunar and Planetary Information Bulletin. It always has useful information.

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Planetechnica: In the Clouds of a Giant

Richard McColman
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This article was originally published in The Planetarian, journal of the International Planetarium Society.

Imagine being immersed within the vast expanse of Jupiter s atmosphere a wind blown palette of belts and bands of clouds which swirl past the eyes like a massive, inexorably marching swirl of multicolored oceanic turbulence. Now imagine project ing such a vivid and awesome simulated environment in such a way that it fills the dome during your next planet show. It turns out you can create such imagery in your theater with a simple, easy to build effect. No longer will your audience be limited to gazing at gas giant worlds from a vantage point thousands to millions of kilometers from those planets. You can now transport them into the cloudtops of those worlds using the Jupiter Clouds effect.

Morehead s Chief Technician Steve Nichol has dubbed this design Jupiter Clouds. He first built it for the Jupiter sequence of New York Hayden s Seven Wonders of the Universe. You could easily use it to depict the atmosphere of most any gas giant planet, real or imagined. All that s needed are a cheap 1 RPM AC gearhead motor, a little hobby paint, a few odds and ends from the local hardware store, and a little suitable space near the center of the dome. The device requires only a smidgen of time and mechanical prowess to fabricate.

The basic layout of the Jupiter Clouds effect is shown in Figure 1. The main working parts of the device are limited to the motor, a clear light bulb and socket, and a clear, six inch diameter glass globe for a ceiling fan light fixture. The motor and lamp socket are each mounted about four inches above a plywood baseboard via cut sections of aluminum angle and bar in such a way that the motor shaft and lamp socket face one another. The distance between the motor and socket are deter mined by the final length of the globe once a suitable spin hub is attached to it.

We fashioned the hub in our version of the effect from a special metallic cabinet door/ drawer pull knob. When making our selection, we made sure that the threaded

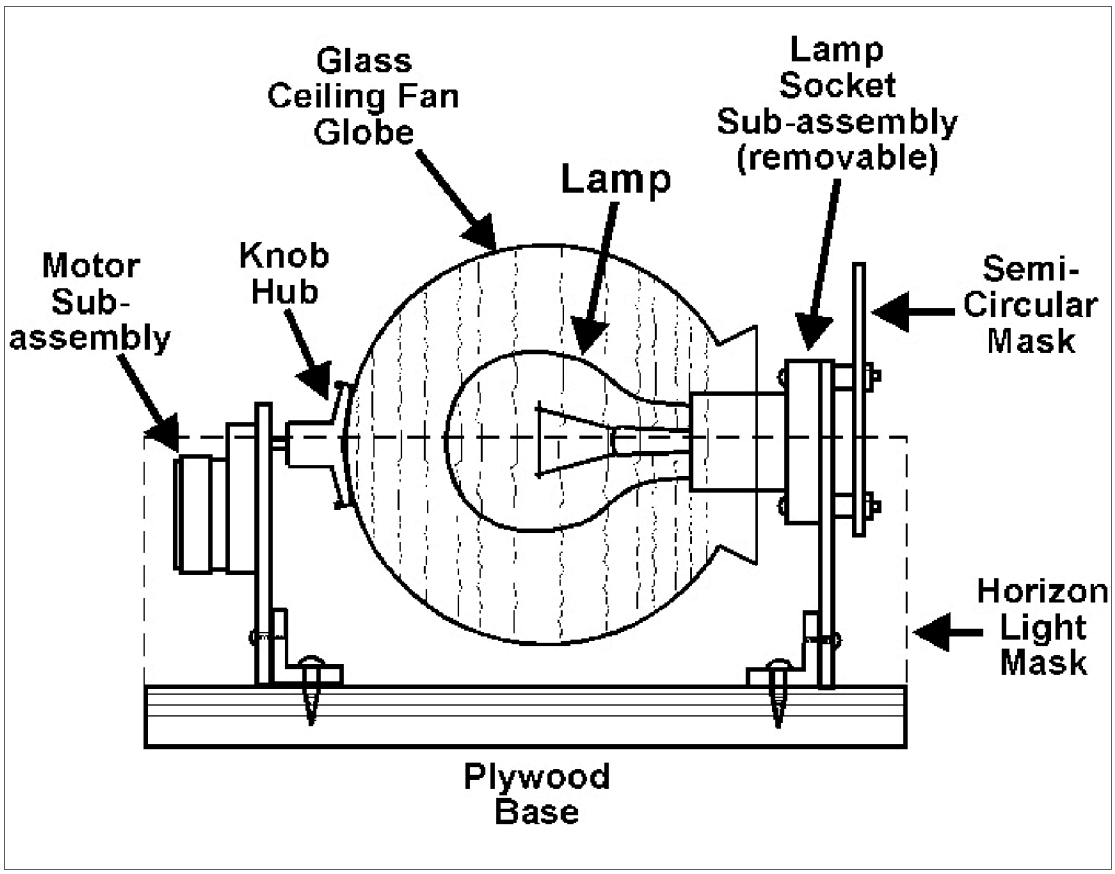

Figure 1:
Basic layout of the Jupiter Clouds effect

screw hole in the knob was a little smaller than the motor shaft diameter, and the face of the knob had a concave surface that would allow it to be readily epoxied onto the outer curved surface of the glass light fixture globe.

We then drilled out the screw hole of the knob to the diameter of the motor shaft and side drilled and tapped another hole for a set screw. A knob made of solid brass is probably the best selection, rather than the type which is merely a cheap, soft metal coated with an imitation brass finish. The cheaper metal is often so soft that it won t machine very well.

After marking the point opposite the hole and circular mounting flange on the glass globe (which can be done by spin ning the globe, centered, on a phonograph turntable and holding an indelible felt tip marker to the top [Figure 2]), we epoxied the hub at that position. This placed the spin axis of the globe through both the hub point and through the center of the globe s hole at the other end affording proper geometry for the stationary lamp socket inside the hole of the spinning globe.

The only other major consideration in our setup of the mechanical components was to fashion the aluminum lamp socket support in such a way that the socket and lamp could be easily withdrawn from the globe when the lamp needed changing.

Getting an Image

After assembling the major mechanical components, we constructed a horizon light mask to keep the effect from project ing below the base of the dome. We did this by fashioning a curtain to surround the effect. This extends from the outer edge of the baseboard and up the level of the lamp filament (Figure 1).

Though we made our light mask of thin aluminum flashing used in roofing ap plications, it could be constructed using cardboard or another thin, pliable sheet material.

It is important to note here that we made our light mask in two sections: one removable and positioned behind

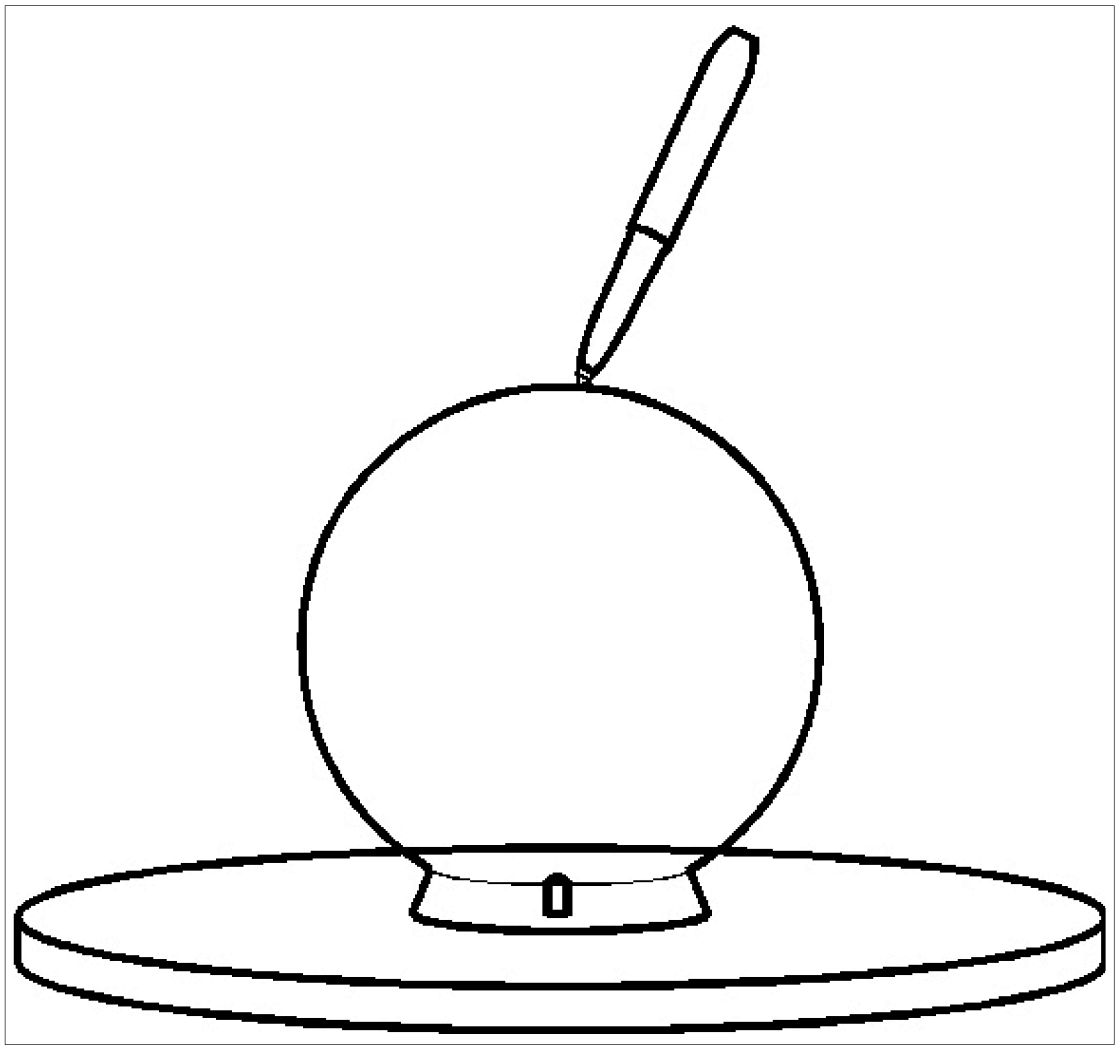

Figure 2:
Spinning the globe on a phonograph turntable to assist in marking the point opposite the hole and circular mounting flange

the lamp socket and bracket to facilitate lamp removal; the other, designed to be permanently attached around the rest of the effect.

We sized these two pieces in such a way as to make the removable piece overlap the rest of the light mask at both adjacent edges. The overlap prevented light leaks from emanating from the effect during operation.

In addition, we attached a semi circular sheet aluminum light mask to the lamp socket subassembly to prevent white light from spilling out of the globe open ing and onto the dome. While this creates a sizable semi circular shadow area at one polar region of the effect, aiming the projector to position this area behind the audience a particularly useful tactic in a unidirectional theater minimizes the visibility of the shadow.

We also spray painted the partially as sembled effect minus the lamp and glass globe flat black, both inside and out. We masked the electrical screw terminals and the inside of the lamp socket before paint ing to keep those areas uncoated. Once the paint was dry, the globe and lamp were installed.

The images of the cloud belts and zones are created as light passes through cor responding colored belts and zones which are applied to the outer surface of the globe. We made these belts and zones by brushing on textured transparent glass paints we picked up at the local hobby/ craft/ art store.

The belts extend roughly along lines of latitude around the globe, referenced to its spin axis. The easiest way to manage consistent latitude positions of the belts all the way around the globe is to apply the paint with the effect s motor turned on.

In the case of Jupiter we used orange, red, and brown glass paint and used a Voyager image of the planet as a rough guide for the belt positions.

To create the other gas giant planets, you could simply change the color selec tions of the glass paint. We also left a few thin areas unpainted to represent some of the white cloud belts contained in the Jovian atmosphere.

In order to make the projected patterns appear more interesting and realistic, we applied the paint in a sort of lumpy, splotchy manner. To get a suitable depth of color, multiple coats of the glass paint were also required.

It s important to detail some specifics on lamp selection. As this is a brute force style of effect, we chose a lamp with a clear glass envelope. Since we needed it nice and bright, we chose a standard 120 volt lamp. This simplified wiring the effect to the control system, as no transformer was needed. The wattage of lamp will depend upon the size theater in which the effect is used. We found a 75 watt bulb works well in our 68 foot dome.

We also discovered the most realis tic images came when we used a lamp with a single, straight length of filament stretched perpendicularly to the lamp s line of symmetry. With this lamp posi tioned on its side within the globe, the resulting orientation means that the fila ment is parallel with the painted belts, or perpendicular to the globe s spin axis.

That serves to accentuate the sweep ing or windblown character and natural appearance of the simulated cloud forma tions, as well as creating subtle changes in the shapes of the clouds as they move along. Using a lamp with a more zigzag filament orientation creates an unnatural looking herringbone pattern within the clouds.

To get the least distortion in the shape of the cloud belts and most even illumination, we placed the finished Jupiter Clouds effect near the center of the theater. To minimize any silhouette cast by our Zeiss instrument, we actu ally mounted the device up on the star machine itself, just outside one end of the latitude axis. The effect is used only when both north and south star balls are in a low profile orientation positioned level with the latitude axis.

The effect should work very nicely in Digistar theaters, as those machines would provide virtually no blockage of the projected image.

Spitz A3P and 512 users may have to get creative with their use of the device, perhaps through lowering the instrument out of the way of an effect mounted near the base of the machine.

In any event, the addition of the Jupi ter Clouds effect or, through paint color variation, Saturn, Neptune, etc., can help spice up that planet presentation in your theater. Not only is the projected imagery natural looking and convincing as a gas giant atmosphere, but also it s big and pretty. It s low tech, easy to build, and dirt cheap to boot.

News from SEPA States

George Fleenor
Bishop Planetarium
Bradenton, FL

Bishop Planetarium, Bradenton

George Fleenor reports Bishop is still running Just Imagine, an original production of the Sudekum Planetarium. The next star show won t open until the first of June. Loch Ness Production s Hubble Vision will open June 1 and run through November.

On January 1st, the planetarium and museum expanded its programming. We offer two additional laser shows during the week, and we expanded the educational format. The Sky Tonite, a live seasonal star walk, is offered four times during the week, and response has been pretty good.

The matinee laser shows are doing great. In January the featured music was Cool Oldies, a tribute to the early days of rock and roll. Attendance was okay but nothing to brag about.

In February Big Band Boogie opened. This show features classic big band music. A local radio station which formats this type of music exclusively promoted the presentation. The radio station format is typical elevator music and has an extremely large listening audience.

The attendance has been so good the show has been running for three months. This has also given John Hare a lot to smile about and the staff is enjoying his happiness! Remember, Bradenton is the seasonal home to many snowbirds. This new market has proven to be very beneficial. The next scheduled matinee show is Classical Kaleidoscope.

Activities have been planned for Astronomy Day May 6th. Activities include a large display of telescopes and associated observing equipment, hands on desktop planetarium demonstrations, solar observing, and a free star show for the first 220 people.

The day will conclude with nighttime observing on the museum s front lawn. Several large Dobsonian telescopes (≥20) and large refractors are scheduled to be on hand.

Another important event also occurred April 8th. Staff Astronomer George Fleenor and Stephanie Heintz tied the knot! After a lengthy engagement, the two were wed in St. Lucia at 13 north latitude. (Some observing did occur but only a little!)

Alexander Brest Planetarium, Jacksonville

Patrick McQuillan reports that the Alexander Brest Planetarium at the Museum of Science and History is busy with many new projects. Sandy, Pepper, and the Eclipse opened April 1st as the public children s show and will run until September 10th. Lifetide opened April 22nd on Earth Day and will run through July 21st.

Lifetide, by Jon Bell, focuses on the connections between Earth and the universe at large. Jon even put in an appearance on opening day to introduce the show.

A new JHE VC 12 video automation system was installed in early April. This unit allows VHS and laser disk images to be programmed in shows.

Special activities were scheduled for Astronomy Day May 6th. Activities included planetarium shows, solar viewing, and Rob Landis of the Space Telescope Science Institute rambling about some of the neat stuff being discovered by the Hubble crew.

The highlight of the day was an evening Landis combination lecture/ sky tour/ museum roof observing session/ drinks/ munchies. Spaceweek planning has begun. We re as busy as a black hole suckin a galactic core!

John Young Planetarium, Orlando

Paul Trembly reports the John Young Planetarium will be running To Worlds Beyond starting in June. This program was an original production of the Ruben H. Fleet Planetarium in San Diego. Also Hayden Planetarium s UFO will invade Orlando in September.

Laser shows are still running strong with AVI s system. Current shows featured are Laser Fusion (also known as Laser Jazz), Laser Zeppelin, and AVI s new Country show. Of course popular shows such as Laser Grunge and Pink Floyd Shines On, still continue.

The site for the new Orlando Science Center has been cleared, and construction should begin soon.

WSKY: Radio Station of the Stars still receives good response from visitors. The

program is a production of the Boston Museum of Science.

Calusa Nature Center and Planetarium, Fort Myers

The Calusa Nature Center and Planetarium offers a number of programs that entertain and educate visitors to our facility, reports Doug Lozen. Recent planetarium programs include More Than Meets The Eye and Galaxies.

The short version of More Than Meets The Eye is presented with a brief look at the night sky of southern Florida. Seasonal telescope viewing will end in May, as we are not equipped with an observatory.

Florida residents know that winter and spring are the best time for celestial viewing. We use an ancient pair of Zeiss binoculars for scanning the night sky. This historical instrument was donated a few years ago after many dormant years at Rollins College near Orlando.

The individual components (monoculars) are *f*12 refracting telescopes. Each one is equipped with a rotating turret which provides magnifications of 36x, 72x, and 144x. Unfortunately, only one telescope can be used at a time, due to a slight misalignment.

Laser light shows continue, with moderate attendance. We receive free advertising on two stations, marketed to audiences between the ages of 15 and 50.

Laser light hows such as Metallica and Ministry/ Nine Inch Nails do well with the teenagers. Other shows such as Floyd and Zeppelin appeal to and draw in the older crowd.

Our family laser matinees have expanded in scope. Recent additions include Peter and the Wolf, Country Lights, and The Great Space Chase. We hope to have a general science show later.

The Saunders Planetarium, Tampa

Al Pesche reports The Saunders Planetarium is continuing operations with nearly 40 shows per week. Numbers are expected to increase dramatically as the MOSI moves closer to opening its new addition.

In February everyone got a taste of what the inside of the new addition will look like when Star Trek Federation Science opened in the new traveling exhibit area that was finished early just to accommodate the exhibit.

On March 15 Al Pesche was promoted to be manager of not only The Saunders Planetarium, but also MOSI s new IMAX DOME (formerly OMNIMAX) theater the MOSIMAX! The two theaters are on opposite sides of the museum.

Together, there will be 100+ show offerings per week. The grand opening for the entire facility is scheduled for early July.

On Saturday March 18th author Bob Berman visited the museum for an astronomy talk, book signing, and star party. Mr. Berman, who writes the astronomy column in Discovery magazine, hosts a radio show, and directs two observatories, recently published a new book Secrets of the Night Sky The Most Amazing Things in the Universe You Can See With The Naked Eye.

On April 15 Colonel Fred Gregory (Ret.) of NASA will be giving three presentations at MOSI. Now serving as Associate Administrator in the Office of Safety and Mission Assurance, Colonel Fred has flown on three shuttle missions: STS 51B (Challenger), STS 33 (Discovery), and STS 44 (Atlantis).

Finally on May 13 and 14, James Doohan Scotty from the original Star Trek series will be visiting MOSI for a Star Trek convention.

Buehler Planetarium, Davie

The Buehler Planetarium is currently running a wide variety of programs. The Zeiss Theatre star show is Orion Rendezvous: A Star Trek Voyage of Discovery. It will run through May 5th.

The Planet Patrol will begin May 12th. Children s matinees include Loch Ness Larry Cat in Space and The Little Star That Could.

The staff also presents special live educational programs geared towards ages 12 and older. Program titles include the following: The Outer Limits, Jupiter King of Planets, Wild Winds Killer Storms, and coming in July, UFOs, ETs, and LGMs.

In addition to these programs, Buehler also offers Saturday Science programs. These programs are a series of hands on, minds on mini courses, designed for all curious youngsters. Topics include: Electricity, Magnetism, Rocketry, Telescopes, and Sound.

The Buehler is also running several different laser shows. Pearl Jam, Alternative Laser Static, and Pink Floyd are featured Friday and Saturday evenings at 9:00 p.m., 10:30 p.m., and midnight. (Sound familiar?)

George Fleenor
Bishop Planetarium
Bradenton, FL

The Freeport McMoRan Planetarium and Observatory, Kenner

Michael Sandras reports his theatre is currently running The Sky Tonight, Bear Tales, and several customized school programs. As reported in earlier issues of Southern Skies, progress continues to be made on the Martin Marietta Space Station mockup. November 1995 is still the planned opening date.

City officials of Kenner continue to show their support for a planned 50 planetarium/ film theatre facility. If all goes well, construction can begin by this upcoming summer. Plans are currently being made to expand the capabilities of the observatory to allow solar viewing.

Our facility is also working with the University of New Orleans Metropolitan College in presenting both non credit Astronomy courses and workshops in astronomy for children.

Michael Sandras
Freeport-McMoRan
Daily Living Science Center
Kenner, LA

Louisiana Nature Center Planetarium, New Orleans

Mark Trotter and Dennis Cowles premiered Planet Patrol on March 25. They are currently debating what the theme should be for the next laser rock concert, which is due to premiere sometime this summer. For the public they are currently running The Sky Tonight, Planet Patrol, and The Oldies Laser Show. On Friday and Saturday nights they show laser rock concerts, which include Aerosmith, Rush, Pink Floyd, Led Zeppelin, Metallica, and a selection of alternative music. Visits by school groups increased as the school year ended.

Dennis has steadily added new specimens to his meteorite collection, and spent most of his time at the Lunar and Planetary Science Conference at the sessions involving meteorites.

Mark has been doing research on the theft of the Apollo samples from the Nature Center. (This occurred before Mark or Dennis was there.) Mark has also been working on a voice mail system for his planetarium.

St. Charles Parish Library Planetarium Luling

According to Gary Meibaum of the St. Charles Parish Library in Luling, the sounds of jack hammers and pile drivers are heard under our planetarium country skies due to expansion of the library facility. Since we re a part of the St. Charles Parish Library, we must endure their construction. This summer, back by popular demand, we will be re showing Lock Ness Cowboy Astronomer.

We ran this show last summer for two months and watched the crowds grow as time went by. Since our facility is in a rural area, (I like to call it the planetarium in the swamp.) the folksy humor and flavor of the show went over well with the audience. Later this year I ll be teaching a community education course on basic astronomy and telescope observing. This will be offered free.

Lafayette Nat. Hist. Mus. Planetarium, Lafayette

Dave Hostetter is still not certain of the future whereabouts of his facility. Recently the city council passed legislation to move the planetarium facility to a new downtown location. This move, however, was vetoed by the mayor. There s now talk of destroying the current facility and building a new museum on the same site.

In the meantime, Dave continues to soldier on, giving presentations both in classrooms and with a Starlab. He continues to have teacher workshops and gets involved in local science fairs. Plans are also being drawn up for his facility in cooperation with several other cultural and community organizations to plan a Russian cultural program in Lafayette during the first half of next year.

Louisiana Arts & Sci. Cent. Planetarium, Baton Rouge

David Mayeux reports that LASC continues to give star gazes at least twice a month through summer. Sungazes, on the other hand, are only offered once a month.

LASC Challenger Center public missions started at the beginning of the year, and the school missions have been running since October 1994. Missions have been well received by everyone participating.

LASC public space shows are still shown on a flat screen on weekends. The current show is The Martians Are Coming!, a show dealing with early ideas about life on Mars through the possible emergence of modern Martians. This presentation is being shown along with Sky Watch, a flat screen version of Sky Tonight.

David is also working in connection with the Baton Rouge Astronomical Society, which has been giving telescope viewing

Russell C. Davis Planetarium, Jackson

Jackson s Russell C. Davis Planetarium premiered LaserDome: The Dark Side of the Moon on April 1st (No fooling!) with all original choreoGRAPHICS images by artist Rick Robertson and spectacular effects by technician John Williams. The Voyager Encounters also opened for a return engagement with both programs playing through May.

That same month the Planetarium joined five other Jackson area sponsors to host Dr. Laurence Marshall, who presented Harlow Shapley lectures sponsored by the American Astronomical Society on binary stars, supernovae, and the age of the universe. In late April, storyteller Lynn Mo roney and Star Hustler Jack Horkheimer entertained Planetarium Foundation mem bers at their spring gala. The summer gala in June will feature a preview of Hansen Planetarium s Cosmic Catastrophes and a visit by author Gerrit Verschuur.

Rainwater Observatory & Planetarium, Fench Camp

The Rainwater Observatory and Plan etarium in French Camp hosted its third Mid South Regional Stargaze in late April. Guest speakers Lisa DuFur, Craigmont Planetarium in Memphis (on Project SPICA activities for teachers), NASA s Jim McMurtray (on the future of NASA space astronomy), Gerrit Verschuur (on an al ternate cosmology based on intergalactic magnetism rather than gravitation), and Jack Horkheimer (on The Comet that Killed Cleopatra) entertained the largest Star Gaze gathering yet. (French Camp accommodations sold out in February!)

Gary M. Lazich
Russell C. Davis Plan-
etarium

(365 Starry Nights,
continued from page 8)

At first glance it looked like a book that would be fun to read, even in small seg ments. I was not disappointed. It reminded me of The Cartoon History of the Universe by Larry Gonick (which I highly recom mend to anyone who wants to catch up on the high school history lessons you slept through the first time). It contains little of the gratuitous humor, however, of the Gonick book. There is gratuitous nudity though, as in the depiction of Gemini the Twins. Every drawing of a female is shown fully clothed. I checked. Then again we ve all seen worse in medieval star maps.

I found 365 Starry Nights useful almost immediately. I do a weekly live radio talk about the current night sky on local public radio and was able to open it to the date and quickly find several topics to choose from in preparation for my talk.

I like this book. I found it to be an easy going synthesis of science, nature, and history much like an ideal live current night sky star show. It doesn t bog you down with the technical but encourages that childlike sense of awe we all had when looking through a telescope the first time.

It is a fine guide for the layperson and professional alike. I will use it to remind me that the spectacle of the heavens should be presented not as a specimen under clini cal analysis, but as one might stand in a gallery appreciating an artist s ultimate masterpiece.

The Cartoon History of the Universe: Volume 1 7, copyright 1990, ISBN: 0 385 2620 4

The Cartoon History of the Universe II: Volume 8 13, copyright 1994, ISBN: 0 385 42093 5, published by Doubleday,

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(Mythology of the
Moons of Saturn,
continued from page 6)

immortality if he would stay with her.

Odysseus enjoyed her company for a time, but he became homesick for Ithaca and his wife Penelope. He spent his days sitting on the shore, despondently looking out to sea. Zeus finally ordered Calypso to release him, and she complied.

Pan was the son of Cronus and Rhea and brother to Zeus. Pan had horns, a tail, and goat legs. He spent his time seducing nymphs and being taken advantage of by Olympian gods. Apollo gained from Pan the ability of prophecy, and Hermes took credit for the invention of the pipes.

Pan is the only god to have died. A sailor in a ship bound for Italy was told by a divine voice that called from across the sea to proclaim once ashore that the great god Pan is dead.

Once again, I would like to thank the Planetary Society for their assistance in researching this article. When in doubt, dial (800) 9WORLDS. Note I didn t cover all of Saturn s moons in this article because I

Rick Greenawald
Roper Mountain Sci. Center
Greenville

Dupont Planetarium, Ruth Patrick Science Center, Aiken

We have some big news coming out of South Carolina this month!

We would like to welcome Jim Mullaney to the family of planetarians here and to the land of SEPA. Jim is the recently hired director of the new Dupont Planetarium at the Ruth Patrick Science Center in Aiken.

The Dupont Planetarium is a 30 dome which will house a Digistar II and Spice automation. Jim reports that they expect to take delivery of the Digistar somewhere around mid to late May and that Sky Skan will be in the facility immediately upon completion of E&S s work.

Those of us who know that Jim formerly worked for Spitz can certainly find irony in the fact that he will now be running a Digistar facility. Jim says that they are planning for a September 1st opening with a program that will be approximately 20 minutes long, will demo the facilities ca pabilities, and will be followed by a sky tonight tour.

His next project will be to produce a Christmas show. Jim has an extensive background in astronomy. Many of us are familiar with his articles for various magazines and professional journals and his enthusiasm for the subject. I m sure he will be quite active in the organization. So once again Jim, welcome to South Carolina and SEPA. We are delighted to have you.

Gibbes Planetarium, Columbia

There is also some big news coming out of Columbia. On December 29th of 1994 Todd Slisher married the former Valerie Harrison.

We all had the chance to meet Todd for the first time at the conference last year and many of us had the opportunity to meet Valerie. So Todd and Valerie, we wish you all the best.

The other big news is that we won t be seeing Jeff Guill at this year s conference. He and wife Lani are expecting their second child about the end of June. To Jeff and Lani we also wish all the best as that time approaches.

As for the business end of things at the Gibbes, Jeff reports that both Starlab out reach and in house planetarium programs are going strong with great attendance. Jeff and Todd are also working to produce, with the assistance of Phil Groce, a new program on the weather for a summer public offering and a school show next fall. Jeff says the program will include live demonstrations, at least one using liquid nitrogen.

Settlemyre Planetarium, Rock Hill

The news out of the Settlemyre Plan etarium in Rock Hill is that they have their new video system installed and operating.

Glenn Dantzler also reports that their panorama system has arrived and they are looking for the free time to install it. They are also in the process of building constellation overlay projectors.

Glenn reports that they are also gear ing up for their last year of hosting the Winthrop Junior Scholars Program. This means that in the future the staff will be able to attend SEPA conferences.

Roper Mountain Science Center, Green ville

Finally, for the news out of Greenville. I am writing this report in my first week back to work after having spent five weeks out on family medical leave. Mackenzie, my 21 month old daughter, underwent open heart surgery at the Medical Uni versity of South Carolina in Charleston on February 23rd.

Surgeons repaired a VSD (a hole be tween the ventricular chambers) and a double chambered right ventricle. Surgery was a great success and her recovery was without complications. She could not be out in public, however, so dad stayed home with her during the recovery pe riod. I would like to thank all of you who, knowing of this situation, kept her in your thoughts and prayers.

Now that I am back to work, I m trying to get caught up, and you know what that s like if you take just one week of vacation. I can report that our school attendance is doing well. I project that once again we will see in excess of 28,000 students this school year.

For Your Information

Kris McCall has some astronomical goodies: a complete 6 mirror/ tele scope kit with all instructions and supplies and a C 14 with wedge, 12 Ash dome, and framework for moving the dome. Interested? Call her at (615)

Sudekum Planetarium, Nashville

The Sudekum Planetarium received two Certificates of Commendation from the Tennessee Association of Museums in March. One was presented in the area of audiovisual production for Just Imagine, a completely original planetarium show.

The second commendation was for educational programming for the Tennes see Sky Observer s Guide with Astronomy Activities. This 50 page workbook was created by Sharon Mendonsa and Shawn Laatsch, Sudekum s Astronomy Educa tors. It was presented at the December 1994 meeting of the Tennessee Science Teacher s Association.

Lastly, if you were to find yourself in Wollongong, Australia outside of Syd ney later this year, you just might be able to catch a production of Our Place In Space playing in the Wollongong Planetarium. Our Place In Space was produced by the Sudekum Planetarium making this their first international sale with several others in the works.

The Sudekum Planetarium is running Galaxies through June 2nd, and will pres ent Through the Eyes of Hubble, from the Buhl Planetarium in Pittsburgh, PA, starting June 3rd. Production continues on a new children s program called Rusty Rocket s Last Blast which should open later this year.

Craigmont Planetarium, Memphis

Lisa DuFur reports that Craigmont Planetarium was one of only a handful of sites in the Mid South which hosted the Private Universe Project sponsored by the Harvard Smithsonian Center for As trophysics from October 13th December 15th and also the Tomorrow s Astronauts teleconference from Fairfax, VA November 18th. Craigmont Planetarium does not own a satellite dish. These events were made possible by a generous donation of staff time and resources from Time Warner Cablevision.

Teachers who attended the nine Private Universe Project teleconferences developed a special camaraderie. They asked some difficult questions to the panel of educa tional experts at the broadcast site. They provided insightful feedback to questions posed at CfA.

Our Memphis site was singled out and invited to participate more than most of the other 180 sites around the world. PUP Site Coordinator/ Planetarium Instructor/ SPICA agent Lisa DuFur had excerpts of a letter she wrote read aloud during one of the sessions. There will be six programs made for PBS that will be aired next year to assist teachers in the difficult task of teaching science concepts. You ll probably hear comments from our Memphis bunch. Make sure you listen for our group.

Nearly 100 educators from city, county, and private schools and other local insti tutions viewed live satellite transmissions and provided feedback via telephone, email, fax, postal mail, and voice mail. We distributed a large quantity of materials relating to each teleconference to every participant. Memphis was thrilled to take part in the shaping of science education on a national level.

Craigmont Planetarium coordinated another teleconference, but this one was for students. Seventh and eighth grad ers from selected middle schools from all around the city attended the Tomorrow s Astronauts teleconference November 18th. They were thrilled to talk live with astronaut Robert Hauck and see physics experiments performed by other middle school students.

More than 100 ate hot dogs and chips in Craigmont s Hall of Flags and then attended the live session. Students at the Planetarium got two calls through to Fairfax a remarkable feat considering that there were 10,000 sites taking part in this event. The teachers were grateful that we were able to offer their students such an extraordinary opportunity, and their students left our facility with stars in their eyes.

These programs benefitted Craigmont Planetarium by allowing us to serve pa trons who did not regularly utilize our facility. We have received such a positive response from both students and educa tors that we would like to offer future teleconference opportunities. To that end we are now seeking funds to purchase our own satellite dish.

In addition to the live teleconferences, the planetarium scheduled a wonderful Mars Watch observing session for parents, teachers, and students. It turned out great! The Memphis Astronomical Society came out to the school, brought nearly a dozen telescopes and assisted everyone in seeing things they had never before observed. The public was astounded to get a look at the polar ice cap of Mars, the Orion Nebula, and the Moon s terminator.

Kristine K. McCall
Sudekum Planetarium
Nashville

Kristine K. McCall
Sudekum Planetarium
Nashville

The most recent program we have been involved in is the Rainwater Observatory 1995 Mid South Regional Star Gaze at French Camp Academy. Lisa DuFur gave a three hour SPICA workshop for them last year, and Observatory Director Jim Hill asked her back again this year. This year s workshop was a great success! Par ticipants went away with instruments to use in their classrooms and activities to try out. They also received many posters and pictures to display in their classrooms.

We received one 8 reflector and two 60 millimeter refractor telescopes donated to our program this school year by members of the community. We also had some cash donations and were adopted by the Memphis Space Center, a non profit orga nization coordinating the construction of a Challenger Center in Memphis.

Craigmont opened its new outdoor class room in conjunction with Earth Day activi ties April 21. The planetarium donated one of its telescopes to this project. It includes semi circlular seating for students, work stations for activities, flower beds, bird houses, new trees, and a pond.

The Planetarium staff has also produced and shown an abundance of star shows for all grade levels an all time high of 43,500 and prepared study guides for each show. Additional support to as tronomy education has been given to all Memphis, Shelby County, and surround ing counties public and private schools by means of our two newsletters, Twinkles (K 6) and Skylights (4 12). The final issue for the academic year is in the works.

This has been an exciting year, and it s not over yet! Ahhhhh!

Dave Maness
Peninsula Planetarium
Newport News

Virginia Living Museum Planetarium, Newport News

Virginia Living Museum Planetarium has been running Touch the Stars from the Strasenburgh Planetarium. It s a great show for kids. Beginning April 8th we will try another non traditional style program called WSKY: The Radio Station of the Stars from the Charles Hayden planetarium in Boston.

Laser shows, continuing through April, are doing about 10% above last year. We are making plans for public shows at the Hampton Schools Planetarium in May. In addition we do daily solar observatory sessions using a Hydrogen α filter and weekly evening observing through our 14 Celestron telescope on Thursdays, weather permitting.

We hired Mary Payton this winter as a new part time staff member. She has a degree in physics and has served as a substitute teacher in the local school system.

Thanks to all who called with Virginia news. Send email to Pegasus321@aol.com, a fax to (804) 599 4897, or postal mail to 524 J. Clyde Morris Blvd., Newport News, VA 23601 1999.

Portsmouth Planetarium, Portsmouth

Mike Nold reports that the Portsmouth Planetarium has made a successful move from Manor High School to the Children s Museum of Virginia, in Portsmouth. They are currently running Welcome to the Uni verse and will soon add JHE laser shows to their lineup for a limited time.

He has a new Spitz 512 ATM3 in a 30 dome and 67 seats. He has video projec tion, allsky, and panorama capabilities and is looking for new shows. The phone number at the new planetarium is (804) 393 8393. (Someone should hit him up for a SEPA membership.)

[Editor s note: I guess that s a hint directed toward me.]

Ethyl Universe Planetarium, Richmond

Eric Mellenbrink tells me that the Ethyl Universe Planetarium at the Science Mu seum of Virginia in Richmond is running an in house production of Skyfire through early June and then From Horoscopes to Telescopes from the Strasenburgh as well as an Omnimax movie.

The popular Laser Fantasy shows are continuing through the end of the year. He also says that beginning this summer tickets for planetarium shows and Omni max films will be included in the museum admission.

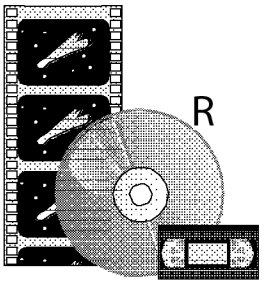
Hopkins Planetarium, Roanoke

Britt Rossi, Director of the Hopkins Planetarium at the Science Museum of Western Virginia in Roanoke says they are a busy bunch of folks. They are currently running WSKY: Radio Station of the Stars and Follow the Drinking Gourd.

They recently played host to the Virginia Association of Astronomical Societies. They are in planning for renovations of the

AstroVideo Review

Mike Chesman
AstroVideo Review Editor
Bays Mountain Park Planetarium
Kingsport, TN



Mike Cutrera

Planetarians like to pride themselves in staying current with the latest technology. The audio CD, 12 videodisc, and CD ROM were all embraced early on by our community. This issue I'm taking a break from my typical review format to bring you up to date on a new product development one that is sure to have an impact on the way we deliver video images in our domes.

Get ready to add new jargon to your vocabulary: digital video disc, or DVD. I'm not talking about the cute QuickTime™ movies or MPG 1 on today's CD ROMs. Manufacturers will soon offer a product that far exceeds today's best videodiscs.

The electronic giants in Japan, Europe, and the U.S. have been quietly waging a format war to bring this new product to market. Two viable systems have been demonstrated, but no one wants to see another VHS vs. Beta type battle out on the consumer market.

The best bet at this time is a standard proposed by Toshiba. Their format already has the backing of Panasonic, Pioneer, and Thomson as hardware developers, and boasts Warner, Universal, Turner, MGM, and others as software partners. If SONY and Phillips the other big players adopt this format, we should see consumer players at around $500 by Christmas of 1996.

In order to produce the high quality, digital video of a feature length film, discs must be able to hold at least 3.5 gigabytes of data. Capacities of 10 gigabytes have already been shown, allowing for multiple channels of surround sound and resulting in a disc with a variety of soundtrack mixes for international distribution. Each 5 disc will provide hours of super quality standard format or HDTV video.

Planetarians will be interested to know that Toshiba has proposed an additional standard for pressing the discs in a new professional high density video format that will deliver unmatched video clarity at about one hour per side. The best part of all this is that manufacturing costs are only a few tens of cents per disc. That means initial movie discs should retail at about $25 to $30. Remember, this product is going to be targeted to compete with current videotape sales and rentals.

If all this sounds too good to be true, be aware that this new disc format will also be applied in computers to revolutionize multimedia capabilities. On top of that, all developers feel that a recordable version of the disc will be available for professional use before the year 2000. Wow! I can't wait to see what planetarium special effects disc

IPS Report

John Hare
IPS Council Representative
Bishop Planetarium
Bradenton, FL

Among the benefits of membership in IPS are The Planetarian and the Directory. These alone are worth the membership cost of $40 for one year or $70 for two.

The 1994 Directory was 178 pages in length and listed every known planetarium worldwide, along with equipment, personnel, and other information. It also included an alphabetical listing of all IPS members, email addresses, and more. The 1995 Directory should be available for distribution to current members sometime before June 30. IPS plans to publish future editions in odd numbered years, with supplements/errata in even numbered years.

The next conference is at Osaka, Japan in July 1996. Reports from Japan are that the host site and others to be visited before and after the conference, sustained little or no damage from the recent earthquake.

At the Conference in Cocoa, Florida in July 1994, Council selected London as the host site for 1998. Standing Rules call for conference invitations to be made five years in advance. Council will entertain proposals at this year's meeting scheduled for October 13 in San Diego. Facilities interested in submitting proposals for 2000 can contact me for information on IPS guidelines for making a bid.

ILDA '94 General Meeting

Jack Dunn
Ralph Mueller Planetarium
Lincoln, NE

In November of 1994 Mueller Planetarium hosted the annual General Meeting of the International Laser Display Association. Through a great deal of work and planning, Nebraska (and Mueller) has the distinction of hosting the largest ILDA meeting ever held. One hundred twenty nine registrants from 13 different nations came to Nebraska to exchange ideas and explore new technologies.

Developments in laser display technology not only are used in light shows in planetaria. Of course there are corporate shows and civic and entertainment uses, but few people know of the implications of laser display now on the horizon.

For instance, a representative from a large communications corporation s medical display technology group came to the meeting to view a volumetric display by one of our ILDA members who mainly is known for polychromatic acouso optic modulator technology.

PCAOMs are crystals used to control color in a laser projector. The volumetric display is a truly three dimensional representation which is produced via laser scanners. The device shown at ILDA was designed for air traffic control. Instead of seeing a flat radar screen, controllers could view a three dimensional stacking of aircraft in height, width and depth.

Contributing to air safety is certainly a worthy enterprise, but the future of volumetric display technology holds other amazing promises. The communications corporation mentioned earlier is investigating the use this technology in medical scanning and display.

In the future, doctors may examine a fully three dimensional representation of the human body, using input from medical scanners. This is just one more example of an industry born in art and entertainment having valuable benefits which affect everyday life.

Our new laser projector now uses PCAOM technology, and I can t wait for the day when those PCAOM designers will have a volumetric display we can project in our dome. Remember the Princess Leia effect from Star Wars, when our hero saw a three dimensional figure in full animation projected from R2D2. Movies and television have used the effect thousands of times and always refer to it as a hologram. Even Star Trek has holosuites and the holodeck. Well, the future is almost here, and it will not be a hologram!

The best and brightest artists, technicians, and industry leaders came to ILDA 94. The Planetarium staff worked literally around the clock with ILDA officers to create the best meeting possible.

As a result of the conference, several vendors brought laser equipment into the Planetarium for a special show. This new equipment has now been incorporated into the Planetarium, giving Mueller the ability for state of the art laser shows.

One of the most striking innovations are the gratings produced by Peter Mayer and technicians from Creative Laser Productions of Munich, Germany. Peter and Volker came a week early, stayed a week after ILDA, and helped us in many ways, from lending a hand in preparations and cleanup to installing their specially made diffraction gratings which can create dramatic beam effects around the dome.

There were many other contributions by our visitors from outside the United States. The crew from the Tycho Brahe Planetarium in Copenhagen always have something to contribute, and, despite their remarks about our toy planetarium (We are only 34 as opposed to their over 76.), we always enjoy the good natured approach by Lars and Martin two very talented characters. I might point out that these same gentlemen, pursuing advanced degrees in astronomy, also do outside shows for European discos!

All in all, we saw some very creative work from around the globe. What can you say about a unique three dimensional ad for a Swedish detergent that had everyone applauding its artistry?

Also present at the festivities were some of the visually impaired individuals we have worked with here at the Planetarium. The pleasure which comes from communicating and actually doing something for these people whether it s educational or merely entertaining is a tremendous reward. We have opened a door for them.

You may not know what is to come from this opening, but it is a start. We have a UNL student, Chelsea, who started com ing to our laser shows several years ago. Since we got the new, brighter system she has attended virtually every different show. Before this fall, in addition to her basic visual impairment, she had never experienced color. Now, thanks to our new laser and that PCAOM, we think she has. So we ve given Chelsea a permanent pass. You would too.

There are those who will ask, What has this got to do with astronomy? They may doubt the reasons for planetaria being involved with lasers. A number of years ago, I heard Max Ary, now Director of the Kansas Cosmosphere and Space Center and formerly director of planetaria in Ft. Worth and Hutchinson, KS, give a talk on the state of the planetarium industry. He ventured the comment that, saying the planetarium was only to be used for simple startalks was a bit like saying, God only invented trees to give us shade. It may have been one original purpose, but the gift turns out to have a multitude of uses.

Many of us grew up with the space race and the quest for humanity to better itself by exploration and research. Indeed there have been thousands of spinoffs to space and astronomical research. In today s planetarium we fit nicely into the role of exploring and teaching about technologies. Many of us use the Internet. In fact that s how I m delivering this article to Duncan. Computers are indispensable to our cur rent operations. We can tell the story of sci ence and technology, meanwhile pursuing both education and even entertainment.

I believe that there is an art to doing a good startalk, a good presentation, or a good recorded show. I still do approxi mately a hundred star talks every year as well as plenty of partially and fully recorded astronomy shows.

Even though I do laser shows, I still am heavily involved in communicating astronomy. We as planetarians are the communicators of astronomy, science, and technology. We are artists, all of us in our own individual ways. The artistic connection of laser display is a natural extension of what we do. As you have seen above, perhaps we may even be able to tell the story of new advances, new miracles of technology, and get to witness them firsthand at birth. Could anything be more exciting?

(Jack Dunn is a member of the Lased But Not Confused International Laser Display Association.)

The SkyView window, a smaller star chart window that floats on the larger display star chart, seems backwards in its implementation to me. It s used for closeup views of the area typically centered in the main display. It can be scrolled, but it feels awkward. Closeups should appear larger, not smaller, and the ability to select directly a high power zoom on the main display somewhat precludes the SkyView window s usefulness.

What s the same with v2.0?

Virtually everything else. The program feels the same as v1.0 menus, floating palettes, limited ephemerides (no rise and set times), and little printing glitches.

The basic configuration, with SAO stars to magnitude 9.5, still eats up about seven megabytes on the hard disk. Voyager II 2.0 runs with a minimum of 1.5 megabytes of free RAM with a monochrome display. It requires two megabytes for color. This version of Voyager II should have been released as v1.5.

With competitive desktop planetarium and astronomy software becoming more plentiful, you can t help but look at what the other guy s doing. I suppose with the limited market, the desire to invest time developing new stuff is directly propor tional to the return on the investment. But it bothers me when old features become recognizable by their omission.

Did I want more? You bet I did. Was it worth the upgrade cost? Absolutely. Would I recommend Voyager II v2.0 to someone else with a color Mac and a laser printer? Yup. And am I anxiously awaiting the re lease of v3.0? I wouldn t want to have to hold my breath for v2.1 either.

(What's New with Voyager II 2.0, continued from page 10)

THE DEADLINE FOR THE NEXT ISSUE OF SOUTHERN SKIES IS JULY 1. SEND SUBMISSIONS VIA EMAIL OR ON 3.5 DISKETTE. PLEASE SEE THE ARTICLE ON PAGE 3 FOR DETAILS.

Read Me: The Nominees for President-Elect of SEPA

The Nominating Committee of Dave Hostetter (Chair), Sue Griswold, and Bob Tate have nominated Mike Chesman and Dave Maness for President Elect due to Rick Greenawald s resignation. Their biographies follow:

Mike Chesman
Bays Mountain Park
Planetarium
Kingsport, TN

My first planetarium production for the public came at age 15. Some friends and I convinced our science teacher we could produce something better for his Saturday public sky show. I still have that tape and listen to it whenever I need to be humbled. Thanks, Mr. Carlson. Your encouragement brought me to a life long love for astronomy and planetariums.

As an avid amateur astronomer, through my high school and college years, I spent a lot of time volunteering in three plan etariums in the Hudson Valley. After col lege I spent two years working as a chemist before realizing planetariums had gotten into my blood. Through an internship at Andrus Planetarium in Yonkers, N.Y., I was baptized into the planetarium field a decision I ve never regretted.

My involvement with SEPA began in the mid 70s with Bays Mountain Planetarium in Kingsport, Tennessee. As a transplant from New York State, I quickly acclimated to the friendly South. A fond memory of that period was the convention hosted by Jim Seebach at the old Kelly Planetarium in Charlotte.

In my second year at Bays Mountain we hosted a mini convention for about two dozen SEPA ites. It was a contrived chance to get to meet a lot of fun folks. In 1977 I was fortunate enough to oversee the refur bishing of our theater and installation of a new Spitz/ Goto projector. I even installed a surplus black and white video projector and 1 reel to reel videodeck on which we created a first manned landing on Mars for one of our shows. By 1982 George Fleenor and I tackled a real SEPA conference along with Charles Ferguson, then at Knoxville s Akima Planetarium. Does you remember the hayride and mountain music with John McCutcheon?

Other major projects have included the design and construction of an observatory complex which features a video link to our planetarium. This fall we will host our 12th annual regional stargaze from the site. The event attracts attendees from astronomy clubs all over the Southeast. It s hosted by a volunteer group I organized in 1980 that has gradually grown to more than 50 people. It forms the core of the Bays Mountain Amateur Astronomers.

Currently, the most visible sign of my work in SEPA would be the steady stream of articles provided for Southern Skies. The most visible sign of my 20 years at Bays Mountain is my rapidly graying hair!

If elected, I would like to push for more shared projects among SEPA facilities and look for ways to provide additional services to the membership. SEPA has given me so much over the years. Thanks, for offering me this chance to give something back to all of you.

Dave Maness
Peninsula Planetar-
ium

I have been in the planetarium field since my freshman year of college in 1974. I volunteered to help at North Country Planetarium at State University of New York of Plattsburgh. I eventually became Assistant to the Director there. After graduating with a degree in Psychology and a minor in Planetarium Education, I continued study toward a Master s degree in Education. I have yet to resume and complete that course of study. I took a job in 1980 as Assistant Director of the Penin sula Planetarium under Jon U. Bell.

When Jon left for the Indian River Com munity College Planetarium a couple of years ago, I was fortunate to have been chosen to succeed him.

I have been a member of SEPA since about 1982, and I have published articles in Southern Skies. I am also a member of the International Planetarium Society, Middle Atlantic Planetarium Society, and the National Space Society. Closer to home I have served on my Condominium Asso ciation as Vice President and then Acting President until the end of my term.

Southern Skies

VOLUME 15, NUMBER 2 JOURNAL OF THE SOUTHEASTERN PLANETARIUM ASSOCIATION SPRING 1995

In This Issue

Southern Skies is the quarterly journal of the Southeastern Planetarium Association published for the purpose of communicating association news, reports, reviews, and resources to its members.

Officers

Associate Editors