President's Message

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I am extremely proud of the work of volunteers in the International Planetarium Society. As I see it, our work will continue to be supported primarily by the extraordinary volunteerism that exists in this organization today. This volunteer network not only gets the work done, it also provides members with a strong sense of influence and ownership in the organization. The work of three vital IPS committees is highlighted below. Perhaps you will be inspired to contribute to their efforts in some way.

Education Committee

This is an extremely important committee to the future of IPS and its members. The committee has been operating without a chair for some time now and as a result little progress has been made recently. I am pleased to announce that Dr. Brock Schroeder has volunteered to serve as the new chair of this committee. As a member of this committee in the past, he is familiar with the job at hand and has some specific projects in mind. I am familiar with his fine work at the Strickler Planetarium and Observatory and his passion for facilitating support for colleagues. Thank you, Brock, for accepting this challenge.

The Education Committee fosters the development of academic programs in planetariums, encourages student pursuit of science education, and supports the continuing professional education of both staff members and other educators. Education encompasses technical, creative, and developmental studies in curricular areas affecting planetariums. The mission of the committee is to improve the quality of educational programming in planetariums at all levels: pre-school, grades K-12, pre-college, college, adult, and the general public.

Brock is full of ideas and is ready to lead the work of this committee. He writes, "As the new Education Committee chair, I am interested in pursuing the development of work in the following areas of planetarium education:

"1. Planetariums as learning environments

"2. Research in the use of the planetarium in education

"3. Education/inspiration: educating the general public

"4. Enhancing teaching and learning in the traditional classroom

"5. Working with local astronomy clubs

"6. Compiling the sources of research in the use of the planetarium in education

"7. Professional development of planetarians as science educators

"The Education Committee should be a tremendous resource to the planetarium community in providing meaningful information on the role and purpose of the planetarium in the educational community, as well as its role in the communication of the vision for space exploration."

Please contact Brock with any suggestions you may have for this committee or to volunteer your time and expertise. There are many small and large tasks associated with this committee's objectives. If you can take ownership of just one small segment, you could provide an invaluable service to IPS and to your colleagues. How about something like just being in charge of keeping an up-to-date list of professional development opportunities posted on the IPS Education Committee web page? Think small and specific...many hands make light work!

There has been some concern that the Education Committee would duplicate efforts of the Outreach Committee. There is some crossover between the two committees, but only in distribution and connection to other educational organizations. I think the two committees can work together on that, without duplicating efforts, by setting up procedural boundaries. Jon Elvert and Brock agree that they are ready to do that.

Contact information: Brock Schroeder, PhD, Strickler Planetarium and Observatory, Olivet Nazarene University, One University Avenue, Bourbonnais, Illinois 60914 USA; phone (1) 815-939-5361; fax (1) 815-939-5071; email: bschroed@olivet.edu; website: www.olivet.edu.

Outreach Committee

Jon Elvert, chair of the Outreach Committee, graciously agreed to send the following update about this newly reorganized and powerful committee. Past IPS presidents have exerted a great deal of effort to solidify professional relationships with a varied assortment of relevant organizations. Jon is working hard to sustain existing relationships and to build an even bigger network that provides essential support for our work. Please contact Jon with any suggestions you may have for this committee or to volunteer your time and expertise. For example, you could be the liaison between a specific organization that you already belong to and the Outreach Committee. You can be instrumental in bringing more needed resources and information to IPS members by making that kind of connection!

Jon writes, "The primary purpose of the Outreach Committee is to facilitate, or make connections to available sources of information, recommend partnerships with which planetariums can collaborate on activities or events, and provide media resource contacts. This committee update is intended to share some of the current resources available, or that will be available to our membership. I hope that future partnership opportunities and resources can be posted on the IPS website to be accessed when needed.

"Regarding the 2007-08 International Polar Year (IPY) and International Heliophysical Year (IHY), the message for both the IPY and IHY focuses on linking the Earth with space itself, particularly solar processes that impact Earth's outer atmosphere (and auroras, solar variations, polarizations of the cosmic microwave radiation). Both the IPY and IHY are setting up sites to encourage organizations like the IPS to become involved globally by teaching or supporting these linkages in local schools, science museums, and planetariums programs.

"The Burke-Baker Planetarium in Houston has a pending grant that will, if accepted, develop a planetarium show emphasizing global linkage between polar regions and the rest of the globe, and the processes controlling these links. If fully developed, this show will be distributed to planetariums for free, or for a minimum fee. The IHY will have an International Open Doors day in June and will encourage coordinated collaboration in which planetariums worldwide could be useful. I will communicate more on this after that IHY event."

"In recognition of the International Year of Astronomy and the 400th year of the invention of the telescope in 2009, the IPS, along with partners in Canada and Mexico, the Hub-

ble Space Telescope Institute, *Sky & Telescope* magazine, the Astronomical Society of the Pacific (ASP), the Harvard-Smithsonian Center for Astrophysics, and representation from the International Astronomical Union, are in the planning process of developing worldwide participation in outreach programs to engage the public in astronomical activities and events that include dark skies awareness, telescope making and sky observations, lecturers, and possibly a five-minute mini planetarium show emphasizing the invention of the telescope. A 25-minute "traditional" and full-dome planetarium show on the history of the telescope, Galileo, and ways the public can explore the universe with telescopes is currently in the works by a consortium of planetariums (Adler, Buhl, Imiloa) and is intended to be distributed through the IPS to its members. (See story on page 12.)

"Since the 2001 Sri Lanka conference, the IPS is becoming involved in a project to do more for planetariums in developing countries. Dave Weinrich, Joanne Young, Dale Smith, and April Whitt are currently formulating plans to develop ways to reach out more to planetariums in developing countries. One idea is to use the international recognition of the IPS, in particular its contributions to space science education and alliances to projects worldwide, with media coverage as lending support and recognition to planetarians in third world countries. Another idea for reaching out to planetarium-interested folks in developing countries is inviting non-IPS people to conferences where they could participate in events such as vendor sessions, some selected paper sessions, and hear guest speakers. These offerings may also apply to inviting the general public.

"The ASP will host their annual conference this year in Chicago, 5–7 September. At this meeting, the IPS will co-host a panel session with the ASP. I will encourage the ASP to co-host future workshops at IPS meetings or regional conferences, as well as co-sharing materials with our members.

"One particular opportunity to develop meaningful partnerships and provide resources is to involve scientists and workshop facilitators, especially from NASA. Within the United States, there are a series of NASA "Brokers/Facilitators" whose specific focus is to create partnerships between space scientists and educators to carry out activities and facilitate the dissemination of space science materials that are normally free. Listed below are regions of the US and their designated Broker/Facilitator. Contact the Facilitator in your area for available guest speakers, workshop presenters, and materials. New England: Cary Sneider (nessie@mos.org), Mid-Atlantic: Stanley Jones (ossbroker@cet.edu), Southeast: Cassandra Runyon (cass@cofc.edu), Upper Midwest: Lynn Narasimhan (cnarasim@condor.depaul.edu), Lower Midwest: Stephanie Slipp (ship@lpi.ursa.edu), Upper Northwest (Julie Lutz (s2n2@u.washington.edu), Upper Midwest: Sherri Marrow (camorrow@colorado.edu).

"The European Space Agency (ESA) and NASA offer a multimedia gallery that can be used to help build presentations and planetarium shows from some of the best images taken during the past four decades, especially of solar system exploration. Here are three topics and their sites: structure and evolution of universe (cfa-ww.harvard.edu/sentform), the Sun-Earth connections (sunearth.gsfc.nasa.gov/) and solar system exploration (solarsystem.nasa.gov/educ/). Both NASA's and ESA's multimedia sites now contain video galleries, podcasts, animation downloads, and interactive features that are accessible and should be eventually listed on the IPS web site. These two multimedia sites are: www.nasa.gov/multimedia/highlights/index.html and www.esa.int/esaSC/index.html.

"Future Outreach Committee updates will appear on Dome-L, in the *Planetarian*, and, hopefully, on the IPS website."

Contact Information: Jon Elvert, Irene W. Pennington Planetarium, Louisiana Art & Science Museum, 100 South River Road, Baton Rouge, Louisiana 70802 USA; phone (1) 225-344-5272.

Full-Dome Video Committee

I am also so grateful to have this committee available for our members. Ryan Wyatt, chair, and his committee members have developed a valuable and easy way for members to network with knowledgeable people in this new field. The pace of change has accelerated faster than I would have ever imagined and there are hundreds of planetarians getting involved with this exciting new technology. I appreciate the discussions on Dome-L as we struggle to get a grip on how to use our new and old tools to the best advantage. I am excited by questions that are arising with regard to the effects that 3D imaging has on the learner.

Here's one thoughtful question posed by Matt Linke on Dome-L: "I have read a lot on the subject of whether or not very young children can recognize the fact that celestial bodies, like the Moon, are spherical three-dimensional objects-balls, if you will. I saw something recently that makes me wonder if they in fact can make that distinction under certain circumstances...

"I recently visited the Gates Planetarium in Denver, and saw a lot of shows. In one, a huge 3D model of the Moon came rolling into the scene, moving up and over, then toward the audience as if dropping on them. I was told that what I saw next has happened before, but in my nearly 30 years with slide projectors, I'd never seen this. Maybe I lead a sheltered dome life.

"A little girl in front of me, about 4 years old, reached up with both arms, hands open, as if to catch a ball, maybe a beach ball. I thought that was pretty cool at the time, and it sat in my mind for some days. I thought about the ability of a child her age to accept the Moon as a ball, and how I'd never seen that response before when showing flat, 2D images of the Moon. Then I got to wondering about why she reached up as if to catch the Moon. Could it be that she saw the 3D effect (hard to miss at that size and it was dramatic) and recognized the shape as a ball, which she has undoubtedly caught before. Did she really see the Moon as a sphere?

"If she did, then what did that say about an all dome system's ability to help a young child reach the perception of a sphere in the sky? Is there a way to develop that functionality to reach younger children than many think possible and get them to recognize that the sky is full of 3D objects?"

Reprinted with permission of author; contact Matt Linke at Exhibit Museum Planetarium, University of Michigan, 1109 Geddes Avenue, Ann Arbor, Michigan 48109-1079 USA; phone (1) 734-764-0478: email: mlinke@umich.edu.

Another fascinating aspect of this revolution is the increasing interest in immersive technologies for an unending variety of topics under a dome. What does that imply for planetariums? Will there be "planetariums" and other "virtual reality chambers" side by side, or will they become one?

If you are contemplating an upgrade or would just like to gain further insight into this technological revolution, keep reading Ed Lantz's column "Digital Frontiers" (see page 32) and also go to www.ips-planetarium.org/or/comms/fulldomecom.html to connect with what is happening in the Full-Dome Video Committee.

Contact: Ryan Wyatt, California Academy of Sciences, 875 Howard Street, San Francisco, California, USA 94103; phone (1) 415-321-8156; rwyatt@calacademy.org and ryan@ryanwyatt.net.

The Universe in the Classroom

The ASP has announced that its free online publication, *The Universe in the Classroom,* will soon be available in many different languages and distributed around the world. It is currently available in English, Spanish, and French. To access it just go to www.astrosociety.org and scroll down to the section titled "For Educators" and click on "*The Universe in the Classroom*." To read the Spanish or French version, click on "Around the World" in the left column and then click on the preferred language.

ASP is asking asks IPS members to help. They ask, "Would you like to write an article for *Universe in the Classroom*? Translate the newsletter? Suggest a topic for an upcoming issue? Do you have some other question or suggestion?" If so, contact Anna Hurst, the editor of *Universe in the Classroom*, at www.astrosociety.org/education/publications/tnl/contact.html. Also be sure to check Anna's article on page 15.

New Planetarium in Bangkok

I met Salin Weerabutra in Osaka, Japan at the 1996 IPS Conference and she told me of some of her work and new ideas. When I learned that, after all these years, Salin's dream finally came true, the most modern planetarium in Thailand was completed, I wrote to tell her how happy we all are.

Salin wrote, "Actually, I finished my role of managing Rangsit Planetarium after the opening in February. Now I let the Rangsit Planetarium's staff learn how to continue and manage themselves.

"As a new and a modern planetarium of the province of Pathumthani, close to Bangkok, it is very crowded with an average of 1,000 persons a day. Mainly children and students attend on working days and family groups on weekends. We hope that the new planetarium can stimulate young people to enter a scientific career.

"For a short period of two months now, two fulldome video shows have been presented, *The Infinity Express* and *Thai Astronomy*. After the staff has learned how to manage with the two systems of Starmaster and DigitalSky, I hope they can make more stories.

"The project of Rangsit Planetarium took many years to be finished. As a member of IPS, I would like to give a deep thanks to Martin George and Dr. Dale Smith, the past presidents, who had given me lots of help. They gave me some comments and advice in answer to my requests on many points. Now I am happy to make the project of Rangsit Planetarium complete and to see it become popular to the public now. I appreciate the IPS's strength and friendship very much and hope that in the term of the First Lady's Presidency, the IPS will play an important role in the astronomical world."

Contact: Salin Weerabutra, Director, Science Centre for Education, Bangkok, Thailand; phone 662-7124256; email salin@loxinfo.co.th.

Keeping the Momentum

We are all pleased when a new facility opens and does well. Sometimes they continue to do well and other times they lose momentum and get into trouble. We must always keep light on our feet and think of new and interesting ways to capture people's imaginations.

Top: Inside the dome with 160 seats, six shows are given each weekday and eight shows on weekends. The average attendance is 1,000 people a day. Bottom: Salin Weerabutra (middle) and the projection installation team, Hansjurgen Thieme from Carl Zeiss (left) and Glenn Smith from Sky-Skan (right), in front of Rangsit Planetarium on the day of the opening ceremony. Photos by and courtesy of Rangsit Planetarium staff

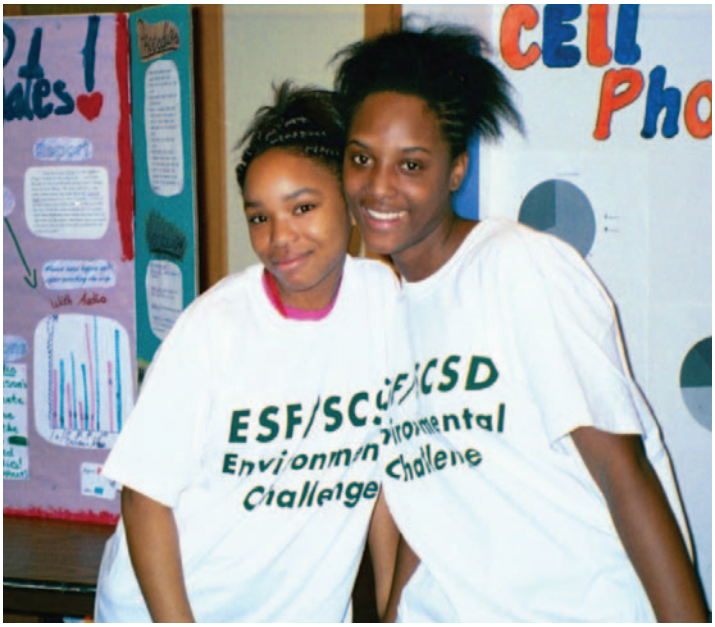
A planetarium director from Russia once told me, "Yes, we need materials and equipment but what is more important is ideas." So I will offer some ideas. Many of you already do all these things or at least some of them. So, take what you like and leave the rest! If you are doing something that is especially successful, please let me know. If it is mentioned below, write me a paragraph about what you are doing anyway. You may have approached one of those activities in a unique way that might interest someone else.

Planetariums and science centers need to become enmeshed in the community fabric through yearly events that people look forward to and we must continue to "blow our own horns" by being visible in the news every chance we can get. We can't wait for opportunities to arise; we must create them. The time is certainly ripe for us to "seize the day"; every nation in the world is trying to interest students in the serious study of science and mathematics. There is a dire shortage of

young scientists and mathematicians, and especially creative minds in those fields.

It takes enthusiasm, time, and sometimes money to incorporate this philosophy into your mission, but the payoffs are invaluable. Your institution will become a shining beacon in your community and if anyone tries to close you down, there will be a public outcry because you have made yourself indispensable!

It always shocks me when I go to a city or village and there is no advertising in tourist brochures or any signs on the street to direct you to the planetarium. Many times I go to the city site on the web and don't find the planetarium advertised as a wonderful place to visit. If I did not have the *IPS Directory* I would not even know if there was a planetarium in that place!



The Environmental Challenge is a science fair and career exploration opportunity designed especially for all Syracuse City School District seventh and eighth grade students. These girls enjoyed sharing their projects with judges at the State University of New York College of Environmental Science and Forestry during this year's Science Fair. Photo by Susan Button

Once people know that you exist and where you are, you can entice them to visit and experience the planetarium and all the wonderful programs you have to offer. Here are a few events that can be replicated:

• **The Interplanetary Bicycle Ride** Every year the Lakeview Museum in Peoria, Illinois, holds this event. This year it is on 11-12 August.

According to the museum's website, "Lakeview Museum's Community Solar System is a model of the sun and nine planets, where size and distance are represented on the same scale. Since the space between the planets is enormous relative to the sizes of the planets, few models exist in the world which show the true scale of our solar system. In our model, the Sun is 36 feet across and the orbits of the planets span 60 miles of central Illinois. In addition to the planets, there are more than 150 unnamed comets located throughout the world." For more, go to www.lakeview-museum.org/iplanet/iplanet.html.

• **Science Club** Marc Rouleau mentioned recently on Dome-L that "I am going to start a Science Club for Girls this summer. It will be with our parent institution, Hibbing Community College. My goal will be to reach those girls who start out interested in science but lose interest during the teen years." Reprinted with permission; for more, contact Marc Rouleau at Paulucci Space Theatre, 1502 East 23rd Street, Hibbing, Minnesota, 55746 USA; email marcrouleau@hibbing.edu.

• **Other Club Programs** Your community probably has all kinds of clubs you can develop a relationship with, like Girl Scouts, Boy Scouts, Explorers, amateur radio groups, and amateur astronomers, to name a few. They could hold meetings at your location and/or you could provide special programs for them. For instance, you can provide activities that assist the Boy and Girls Scouts in fulfilling requirements to earn merit badges.

• **Webcasts** You can plan events around special events that repeat, such as the Hubble Public Talks at the Space Telescope Science Institute. If you're in the Baltimore area, then be sure to check for the availability of one of these public lectures, held the first Tuesday of every month at 8 p.m. in the STScI Auditorium, located at 3700 San Martin Drive on the Homewood campus of Johns Hopkins University in Baltimore, Maryland, USA. Admission is free and free parking is available in the lot across the street.

And even if you're not physically there, you can take part and share the lecture with your local audience. The lectures are typically webcast live, and the recorded webcast is made available for viewing online the following day. You might need to download and install software to view the webcast. More information can be found at hubblesite.org/about_us/public-talks.shtml. Thanks to Frank Summers at summers@stsci.edu for reminding us of these events on Dome-L.

• **Astronomy Topic of the Month** Steve Russo chooses an astronomy topic for the month at his planetarium. For instance, the topic for April was Earth, to connect with Earth Day. On his website Steve advertises the topic, gives some brief and specific information about the topic, and then says something like this for each month: "During April, the Suits-Bueche Planetarium live programs will show images of the Earth taken from space and spacecraft. Our NASA Space Place bulletin board will feature the Earth." Check out more at his website: www.schenectadymuseum.org.

• **Celebrate Special Days/Years** Some people say there are too many special days already. But you can make them each unique and your community can network with others around the world on the Day of Planetaria, Astronomy Day, Earth Day, International Polar Year; International Heliophysical Year, the International Year of Astronomy, and the 400th year of the invention of the telescope.

• **Contests, Competitions and Science Fairs** You can certainly think of ways to enable members of your community to compete and achieve recognition through yearly events that challenge them to submit and present projects of their own.

• **Teacher Training** Providing continuing education for teachers in your community will be viewed as a valuable service and help them to make science fun and interesting for students in their classrooms.

You can also and offer trainings to scientists and even businesses (corporate team-building training). Bring in experts from local educational institutions and businesses to assist you.

• **Community Forums** You can provide a venue for community forums to promote dialogue on controversial science topics or you can bring together business, industry, and educators to brainstorm how you can work together to further encourage young people to enter the fields of mathematics, science and technology.

• **Network with Community Institutions** Develop a relationship with the television weather person in you area. Some science centers actually have a weather station where a meteorologist broadcasts the weather from a studio to the local television station. Or you can host events featuring special speakers or music from the community.

• **Fund Raisers** Money can be raised for your institution or another's while you create good will with the community. The Indianapolis Children's Museum raises all kinds of money by having a giant party on Halloween. They provide a variety of entertaining activities for families in a safe environment.

Do you have more suggestions? Please email them to me while you are thinking about a successful event or approach that works for you! ☆