



photo: Bruce Haglund

Curious SBSEers want to know, “How will Biosphere 2 (our retreat site) compare in scale and biodiversity to Grimshaw’s biomes at the Eden Project?”

RETREAT 2014 CALL FOR PARTICIPATION

>Adaptation Retreat at Biosphere2, Oracle, AZ (1 hour from Tucson International Airport), focuses our conversation on “adjustment in natural or human systems (the built environment and infrastructure) in response to actual or expected climatic stimuli and their effects, to moderate harm or exploit beneficial opportunities.” [*Intergovernmental Panel on Climate Change (IPCC)*] We call on faculty, practitioners, content experts, and students to share tools, case studies, and innovative studio exercises that address adaptation with attendees. We invite proposals for presentation, workshop, activity, or discussion on any of the sub-themes below. Proposals must include innovative pedagogical content that relates to teaching (and learning) for design studio and lecture/seminar courses.

- Biomimicry, Ecology, Greener Pastures—natural systems, biomimetic models, patterns or systems that inspire design processes to advance solutions to human issues.
- Education, Pedagogy—building interdisciplinary curriculum; experimenting with shifting lecture time to participatory activities designed to boost critical thinking; building peer-to-peer learning frameworks; exploring ways to integrate technology and using tools to embed intuitive understanding of concepts/principles.
- Regional Climates and Strategies—analysis of weather and climate in your region and impacts on design; strategies to address potential building and socio-economic impacts of climate; establishment of local 2030 neighborhoods.
- Innovations—tools, methods, techniques, or design strategies that enhance adaptation and resilience in building design and planning.
- Roundtable Discussions and Working Groups—“Hot topics” like garnering support for research and scholarship; getting your first job; administration; infusing research into teaching; focusing leadership on climate change; starting a competition, etc.
- Workshops—on energy modeling and implementation (1 hr each)

• continued pg 2

SBSE ELECTION RESULTS

Congratulations to our new President-Elect Alfredo Fernández-González with 68% of the vote and Secretary/Treasurer Alexandra Rempel with 58% of the vote. Thanks, too, to all the candidates for tossing their hats into the ring! Further gratitude to Leonard Bachman who rotates off the board as Past-President emeritus as well as to Troy Peters who has served multiple terms as our Secretary/Treasurer (and has graced our contact page with the most profound mug shot). Ihab Elzeyadi steps into the Board role of Past-President where he can continue to serve the SBSE community well. 🖐

—Bruce Haglund

2014 RETREAT SCHEDULE

Sep 30, 2013	Retreat Announced
Jan 6, 2014	Call for Proposals
Mar 21, 2014	Proposals Due @ 5p PST
Mar 31, 2014	Notification of acceptance
May 1, 2014	Registration closes (or until retreat spaces are filled)
Jun 19–22, 2014	>Adaptation Retreat
Jun 22–23, 2014	Post-Retreat Tour 🖐

SEE [HTTP://WWW.SBSE.ORG/RETREAT2014](http://www.sbse.org/retreat2014)

LETTERS TO THE EDITOR

I've been Chair of the ASES Solar Buildings Division for the past couple of years and will become Chair of the ASES Board of Directors starting in January. Thus, we need a new chair for the division, and I'd appreciate any suggestions you might have for division chair. Let's take advantage of this good opportunity for SBSE and ASES to work together in the Buildings Division. [See next column.—ed.]

—David Panich, ASES Board

[I'm sure there are many qualified and motivated SBSEers out there. Jump in, folks!—ed.]



I just finished reading the new book, *Let It Shine*, by John Perlin. It is an excellent history of solar energy, and it shows that there is a long history of its use. You can find some of the material in the book from a web article written for *National Geographic* at <<http://energyblog.nationalgeographic.com/2013/09/23/seven-of-the-greatest-solar-stories-over-the-millennia/>>.

—Norbert Lechner, Emeritus, Auburn

[Thanks for the tip. How about writing a review? OK! See page 8.—ed.]



The recording and slides of the ISES Webinar: Solar Powered High-Rise Buildings on Nov 15, 2013, is available at <<http://www.ises-online.de/what-we-do/events/webinars/webinar-15-november-2013/>>. It plays well in Google Chrome. Please share with SBSEers.

—Liliana O. Beltrán, TAMU

[Done!—ed.] 🖱

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SOLAR 2014 AFTER ALL!

SOLAR 2014 COMES TO SAN FRANCISCO, JULY 6–10, 2014

The American Solar Energy Society is very pleased to announce the National Solar Conference (SOLAR 2014) will be held in conjunction with Intersolar North America, in San Francisco, July 6 to 10. See <<http://www.intersolar.us/en/intersolar.html>>.



A call for papers will follow shortly, along with details of the program and registration process. Stay tuned to the new *Solar Today* web site <<http://www.solartoday.org>>.

—Seth Masia

SBSE GOES TO SOLAR 2014?

I'm optimistic about the chances for "Solar 2014" in San Francisco. It will be held adjacent to InterSolar North America, but will have its own, independent program. Despite a very short organizing period, I am happy to see that ASES will have its conference this coming year. Architect David Panich is the new Chair of the ASES Board, and he is a friend of SBSE.

It may be tempting to write off InterSolar North America as a PV-obsessed, German sales event. It is, after all, an effort to convince U.S. entities that they should buy German products! But I found it much better than that in my two years of attending that conference.

The last time I attended InterSolar, the BIPV session featured worthwhile speakers. I particularly remember architect Lisa Petterson from SERA (Portland, OR) showing how the clients of a proposed new Sustainability Center would be asked to reduce electricity use in order to stay within the abilities of the new building's largest-possible on-site PV array, producing at today's PV efficiencies. It was a lot more about human behavior and energy conservation, and much less about the latest, greatest PV discovery.

I'm encouraged about this development. It is temporary; I hear that ASES plans to get back to an independent conference as soon as finances allow. But I remain willing to contribute some funds so our students can attend this 2014 summer event, July 6–10 in San Francisco. See ASES' old web site <<http://www.ASES.org>> for details. 🖱

—John Reynolds

[John's support of Solar 2014 is encouraging, but it's not clear at this time if SBSE will hold its Annual Meeting as usual at Solar 2014. The SBSE Board will meet in January to discuss that possibility. Currently Plan B, to hold the Annual Meeting at the retreat, is in place.—ed.]

RETREAT 2014 [CONT.]

Your proposals should include:

- Name(s) of session organizer/presenter
- Contact information (institution, e-mail, telephone, url)
- Theme addressed by your proposal
- Title of your presentation, workshop, demonstration, or hands-on activity
- Description of presentation (250 words max)
- Objectives, questions raised, and/or activities implemented
- Intended outcomes and deliverables
- Take away (if any) for attendees
- Indicate 30-minute activity or 60-minute workshop

E-mail your proposal to Alison Kwok <akwok@uoregon.edu> by Mar 21, 2014, 5:00p PST. More web site and registration information coming soon.

Over three days at the retreat we'll share lessons, exercises, and experiences; listen to each other's stories; and mentor students interested in teaching and research—all the while enjoying the views and wildlife of Arizona's Santa Catalina foothills. Formal presentations will be scheduled during the morning and afternoon, with ample open time for cool morning desert walks, informal networking, evening programs, and impromptu gathering of work groups. SB-

• continued pg 3

STUDENT RECOGNITION OPS

AUTODESK TRANSFORMATION 2030 AND EXCELLENCE IN ANALYSIS

As the fall semester closes for many, I wanted to send a quick note to remind you all about two Autodesk-supported opportunities for your students to attain awards, prizes, and recognition for their work.

Design Competition: Transformation 2030

See <<http://www.aias.org/transformation2030>>

Prizes: Paid internship at Perkins Eastman in NYC; \$10,000 in cash prizes (whoop!)

Deadlines: Registration Feb 1; Submission April 20 (extended based on SBSE feedback!)

Description: Competition in partnership with Architecture 2030, AIAS, Majora Carter Group, and Perkins Eastman. The building program is a large, mixed-use development in the South Bronx. The competition is in two parts: (1) an early conceptual design for the entire site; (2) more refined designs for an event space and commercial kitchen on one corner of the site. Student submissions may help inform and shape what actually goes on the site in the future (always cool to have a real-world tie-in).

Excellence in Analysis Awards

See <<http://sustainabilityworkshop.autodesk.com/excellence-analysis-award>>

Prizes: Recognition and an educational case study on Sustainability Workshop web site

Deadline: January 31, 2014

Description: Students can submit any project (studio projects and class projects are great fodder). Judges include an MEP engineer from Stantec, my colleague Stephanie Egger, and our good friend Alison Kwok.

My colleagues and I look forward to continued positive interactions with SBSEers. Keep in touch <adam.menter@autodesk.com> or 315-663-6238.

—Adam Menter

HAMMER & HAND PERFORM 2014 COMPETITION

Here's a quick update about the perFORM 2014 house design competition, presented by Hammer & Hand with guidance from Rob Peña. We hope you'll consider sharing the competition with your students during the coming term, perhaps including it as part of a design studio. See <<http://hammerandhand.com/perFORM-design-competition>>. The purpose of this student/intern competition is to demonstrate that building performance and aesthetic design are inherently complementary and that by fusing the two we can create houses of unsurpassed beauty and efficiency. The deadline for registration and submission of entries is March 24, 2014.

The contest is shaping up well. We've received dozens of registrations already, representing fifteen colleges and universities.

Entries will be judged by Daniel Friedman (University of Washington), Jim Graham (Graham Baba Architects), Sam Hagerman (Hammer & Hand), Gladys Ly-Au Young (Sundberg Kennedy Ly-Au Young Architects), Rob Peña (University of Washington Integrated Design Lab), Jeffrey Stuhr (Holst Architecture), and Daniel Thomas (Hammer & Hand).

Winners will be announced on Earth Day (April 22, 2014) with winning entries unveiled and exhibited at the Bullitt Center in Seattle. Winning entries will also be published online. We plan to share the exhibit at AIA and Cascadia GBC/Living Futures Institute locations throughout the Pacific Northwest as well (details pending).

We're looking forward to seeing your students' work as part of the competition! 🖐

—Zack Semke

JEFFREY COOK STUDENT TRAVEL AWARDS TO PLEA

This year SBSE was pleased to present three Jeff Cook Student Travel Awards to PLEA 2013 in Munich in September.

Eric Carbonnier, University of Oregon, "Alvar Aalto's Daylight Devices: A Retrospective Daylight Analysis on Mount Angel Abbey Library."



photo: Astrid Eckert

Eric Carbonnier gets congratulatory flowers and a handshake from Paula Cadima, PLEA President, at the official award ceremony.

Tania Sharmin, University of Cambridge, "Effect of Canyon Geometry on Outdoor Thermal Comfort: A Case Study of High-Density, Warm-Humid Climate."

Mingwei Sun, University of Nottingham, "Applicability of the Bio-Climatic Façade in a Hot and Humid Climate Zone: A Study of Geoffrey Bawa's Architectural Works." 🖐

[For more on PLEA see page 7.-ed.]

—Walter Grondzik

RETREAT 2014 [CONT.]

SEers will stay on-site in rustic but comfortable casitas (with open kitchen/large living spaces conducive to group discussions) and partake in catered, restaurant-, and self-prepared family-style meals. The tentative retreat budget (\$350 double/\$450 single) includes lodging, meals, and retreat materials. To help keep costs down, we may ask [or help] participants to get to Biosphere on their own by carpooling. [You can reserve a car for 5 days (including the post-retreat day) for about \$200, excluding gas and extra insurance.]

We're also arranging an optional extended post-retreat stay that will include tours of Taliesin West, Cosanti, and other significant Phoenix- and Tucson-area sites that engage whole-systems approaches with an emphasis on water scarcity. Stay tuned! 🖐

—Alison Kwok

SBSE PEOPLE

♁ **Leonard Bachman** served as a juror for the American Institute of Architects (AIA) Upjohn Research Initiative awards.

☆ Maternity leave has been rewarding for **Martha Bohm!** 🙋



photos: Martha Bohm

SBSE welcomes its new assistant web master Basil Alexander. Mom Martha says, "It's a whole new flavor of busy. But worth it!"

SITE ENERGY



PLDC 2013 was held at Copenhagen's Bella Center, which is powered by a 50-meter diameter, 3.0MW wind turbine. Inside Osram served joe and showed LEDs (more on page 6).



photos: Bruce Haglund

DAYLIGHTING NEWS

NEW TAMU 360° ROTATING LIGHTING LAB



photos: Liliana O. Beltrán

A new daylighting lab, funded by an EPA P3 Phase II grant and several manufacturing companies, has been built at Texas A&M University College of Architecture. This lab represents a workspace that's 20' wide, 30' deep, and 8' high with 3' high ceiling plenum. The façade has two windows, 9' wide by 5' high. The lab has a weather station and exterior horizontal and vertical illuminance sensors on the roof. A removable central partition can divide the lab into two identical spaces with windows to compare different building technologies or conditions in a location that is predominantly hot and humid. The lab is elevated from ground level and is supported by four pivoting axle casters over a concrete donut. It rotates to any bearing, simulating rooms with different façade orientations. No building obstructions are around the lab, and the annual percentage of sunny and partly cloudy days is 85%. These favorable conditions allow us to conduct daylighting tests year-round.

The current testing configuration includes two external automated louvers with dual slat adjustments, energy-efficient electric lighting, lighting controls, DALI system, air-conditioning, automated controller, HDR photo equipment, and a data acquisition system. The entire configuration is remotely controlled and accessed via internet. Energy consumption due to A/C and electric lighting is collected to evaluate the performance of the integrated building systems.

This rotating lab will be used to conduct a comprehensive assessment of lighting and energy performance as well as occupants' preferences of building envelope and lighting technologies. We've been using it to evaluate the lighting and energy performance of our horizontal passive solar light pipe designs throughout a year for different latitudes and building orientations. Recently, we have collected occupants' preferences between static or automated external louvers for different sun positions.

This lab is a powerful educational tool for students and faculty and will serve as a research facility for the scientific community to evaluate complex envelope and lighting technologies. We aimed for a low-cost experimental facility that can serve as a research tool as well as an educational facility to train future architects, lighting designers, and engineers. This lab serves as an extension of the classroom to provide a more practical understanding of lighting and its interactions with several building components. These facilities are also demonstration rooms of energy-efficient building technologies. Several undergraduate, master's, and doctoral students from architecture, construction science, and electrical and civil engineering participated in the construction of many of the lab components. For more information about the lab see <<http://research.arch.tamu.edu/daylight>>.

—Liliana O. Beltrán

LIGHT AND HEALTH ALLIANCE

The Lighting Research Center (LRC) at Rensselaer Polytechnic Institute has launched a new collaborative initiative—the Light and Health Alliance—to bridge the science of light and health to practical applications and to provide objective information based on basic and applied research. The alliance is led by Mariana Figueiro, LRC Light and Health Program director and associate professor at RPI.

Light has a profound effect on health and well-being, including sleep, alertness, and performance. Humans need to be exposed to a sufficient amount of light of the right spectrum, for

• continued next column

SOCIETY NEWS

BOARD ACTIONS

Congratulations and welcome to the SBSE board to newly elected Alfredo Fernández-González (Pres-Elect) and Alexandra Rempel (Secy/Treas)! [*Yes, and a VERY BIG thank you to Ihab and Troy for their service.—Pablo*]

In our October meeting, the SBSE Board unanimously supported the following two items:

1. NAAB Response: Per Walter's earlier message to the list serve, the board has approved a response drafted by Walter and solicited members comments/endorsement. It was sent to NAAB by the December 1 deadline.

2. SBSE Membership Fee: SBSE membership fee hasn't changed since the organization's inception in 1984. To adjust for inflation, 1984's \$25/year membership is equivalent to \$56.31 today. We've signed up for a new web-portal (Wild Apricot) that will automate and keep track of membership dues, provide a searchable data base for members, and allow us to upload documents and share resources much easier. The increase in membership fees will provide needed funds to maintain our recurring expenses and allow for reserves to support student scholarships.

The membership fee structure for SBSE starting June 21, 2014, will be Full-Members \$50/year; Student-Member \$15/year (unchanged); Developing Country Members free (\$15 donations suggested for scholarships); Five-Year Membership \$200; Life-Time Membership \$500.

—Ihab Elzeyadi

PILKINGTON SUN ANGLE CALCULATORS (SAC) PRICE INCREASE

On January 1, 2014, the SAC prices will increase at the following price structure:

- A. Quantities of 1 to 5: \$28 each
- B. Quantities of 6 or more: \$24 each
- C. Bookstores only: \$20 each (with your institutional account number for UPS or FedEx or a pre-paid shipping authorization.)

Prices include shipping and handling via USPS within the continental U.S.

Please call CERES at 765.285.1135 to arrange Alaska, Hawaii, international, expedited, or bookstore orders. SBSE cannot process returns or replacement parts. If ordering for a class, faculty are requested to place a single order to expedite the process. 🖱

—Alison Kwok

LIGHTING NEWS [CONT.]

a sufficient amount of time, as well as at the right time, for the circadian system to remain synchronized with the 24-hour day. The LRC is researching light as a treatment for a variety of conditions, including jet lag, Alzheimer's disease, insomnia and other sleep disorders, seasonal affective disorder and depression.

“Through this collaborative initiative, we will conduct evaluations, demonstrations, and research projects to develop practical devices and applications using light to improve people's lives,” said Figueiro. “We will also hold seminars and present at conferences to educate key audiences and advance attention to light and health.”

The Light and Health Alliance is a collaboration among manufacturers, government organizations and NGOs, codes and standards bodies, along with architects, specifiers, medical facility managers, and physicians—all working to enable the broad adoption of lighting for human health by producing factual information based on basic and applied research and by visualizing future applications. Acuity Brands, Ketra, Osram Sylvania, and Philips are current members. Figueiro is seeking interested organizations to join this innovative program. For details about becoming a member please contact Figueiro at <figuem@rpi.edu> or 518.687.7142. 🖱

—Rebekah Mullaney

JOB OPS

CALIFORNIA STATE POLYTECHNIC UNIVERSITY, POMONA

The Department of Architecture at Cal Poly Pomona invites applications for a tenure-track position at the rank of Assistant Professor to begin Fall 2014. Primary teaching responsibilities will be in First-Year Design, with a secondary area of responsibility in Digital Technology. For more information <http://academic.csupomona.edu/faculty/position.aspx?p_id=BDSCSDSDXDDSWYUEUFSMJGHKJHKHK>.

—Pablo La Roche

RYERSON UNIVERSITY

The Department of Architectural Science at Ryerson University in Toronto is looking to fill two faculty positions that may be of interest to SBSE members. See <https://hr.cf.ryerson.ca/ams/faculty/preview.cfm?posting_id=501201>.

—Hitesh Doshi

SHEFFIELD UNIVERSITY

We have exciting opportunities here at the Sheffield School of Architecture in the UK for talented designers who have a passionate concern for the environment.

The first post, Environmental Design <https://jobs.shef.ac.uk/sap/bc/webdynpro/sap/hrrcf_a_posting_apply?PARAM=cG9zdF9pbN0X2d1aWQ9NTJBRUI0NjYyRUU4NTQ5REUxMDAwMDAwOEZBN0ZEMTgmY2FuZF90eXBIPUVYVA%3d%3d&sap-client=400&sap-language=EN&sap-accessibility=X&sap-ep-themeroot=%2fSAP%2fPUBLIC%2fBC%2fUR%2fuos#>>, is aimed at someone who has experience in architectural practice as well as some expertise and research in the area of thermal comfort/building science.

The second post, Sustainable Design <https://jobs.shef.ac.uk/sap/bc/webdynpro/sap/hrrcf_a_posting_apply?PARAM=cG9zdF9pbN0X2d1aWQ9NTJBOUUYQUQwRDIwNTRBQUUxMDAwMDAwOEZBN0ZEMTgmY2FuZF90eXBIPUVYVA%3d%3d&sap-client=400&sap-language=EN&sap-accessibility=X&sap-ep-themeroot=%2fSAP%2fPUBLIC%2fBC%2fUR%2fuos#...@SSoA_news>, is aimed at someone with expertise in sustainable urban resilience and humanitarian assistance, again preferably with practice experience.

The closing date for these posts is 16 January—not great over the Christmas holidays, but the best we can do! 🖱

—Fionn Stevenson



photo: Bruce Haglund

LEDs were on display at PLDC including these RGB-based park benches. They're programmed to change color!



photo: Judy Theodorson

More bare architecture than bare flesh on display, Judy's group of tiny men prepare to take the plunge from a platform at the Kastrup Sea Baths.



photo: Astrid Eckert

Architect Barbara Otter and Ulrike Passe prep for the gala PLEA conference dinner.

CONFERENCE REVIEWS

4TH PROFESSIONAL LIGHTING DESIGN CONFERENCE (PLDC 2013)

A field report from the PLDC 2013, Copenhagen, Oct 30–Nov 2, 2013.

Fifteen hundred highly motivated and talented designers, artists, educators, researchers, students, manufacturers, and industry professionals gathered in Copenhagen to share research and creative work and to discuss emergent issues of practice and education. It was truly a global gathering with participants from 60 countries. SBSE attendees included Jim Benya, Bruce Haglund, John Mardeljevich, Werner Oesterhaus, and Judy Theodorson.

So much excitement in lighting! First, the LED paradigm shift. They are here, they are good, and they can do it all. I was delighted by the offerings at the manufacturers show, which included everything from luminous benches to track lights, to linear ambient lighting, to street lights, to ... well, you get the picture. Additionally, we took in some very interesting research on white LEDs, interactive public space LED installations, and so forth. Next, a lively discussion among lighting educators around standardizing curricula, emergent models of course delivery, forming a professional educators group, and industry partnerships. Finally, there was much talk about impending growth in the profession, light-inspired architecture and art, light and biology, light and color, environmental issues, human factors, and just enough daylighting to keep Bruce and me happy.

The event, put on by VIA-Verlag, was quite elegant with fine foods, tours, parties, inspired keynotes (shout out to James Carpenter!), and of course, wonderful Copenhagen as a backdrop. I arrived a couple of days early to look at daylighting in the new Danish Maritime Museum by the brilliant BIG and in the iconic Louisiana Museum. And, I confess that I skipped out the last afternoon, borrowed a bike, and rode out to Amagar Strand on the coast. It was a dark and stormy nordic day, and I was pretty much alone in this glorious place ... until I reached the Kastrup Sea Baths. Suddenly, a group of men showed up, disrobed, and jumped into the sea. Delightful!

The PLDC is a biennial event. The next is Oct 21–24, 2015, in Rome.

—Judy Theodorson

PLEA 2013: SUSTAINABLE ARCHITECTURE FOR A RENEWABLE FUTURE

This year the PLEA community congregated in Munich, Sep 10–13, for their 29th conference <<http://www.plea2013.de/>>. While the Bavarian capital was gearing up for its annual world famous Oktoberfest, the PLEA 2013 participants received not only their portion of research exchange, engaging debates, and challenging conversations, but also their share of Bavarian hospitality, food, music, and ... beer. The organizers from the Technische Universitaet Muenchen (TUM) led by Werner Lang, developed an engaging program and provided an excellent venue, magnificent food, social activities, and context—the city of Munich unfolded at the doorstep of the conference. Munich's historic and contemporary architecture was there to explore with a handy architecture guide provided among the conference materials.

Let's start with *the program*. The keynotes from three continents connected research and practice, while the panel debate session focused on sustainability and building culture, agreeing that good architecture is sustainable. The panels' most prominent speakers Matthias Sauerbruch and Thomas Herzog, accomplished German architects, showed how to do it well in a developed country, while Francis Kéré beautifully addressed the basis for his success in his home country Burkina Faso—his education. But he does more, he uses his position and education to empower others to create their environment, an effort very rarely thought of in more developed circumstances. Li Xiaodong's *Iconic or Reflexive Regionalism* showed beautiful projects, while Matt Santamouris' presentation focused on our most pressing issues—climate change and heat island effect mitigation in dense urban environments and, thus, pointed at the huge challenges ahead for architects, planners, researchers, and policy makers—how to live sustainability in urban agglomerations, in a warming climate, while reducing resource consumption, and to do it all in an affordable manner for all.

• continued next page

CONFERENCE REVIEWS [CONT.]

The venue. The first evening reception took place in the Oskar von Miller Forum (a great example of current energy-efficient German architecture) designed by Thomas Herzog and Partners as an independent education forum for the Bavarian construction industry. The conference itself was held in the Audimax, in the heart of the lively inner-urban TUM campus.

The social aspects. The Bavarian food experience started with leberkaes semmel and highlighted in beer-simmered schweinebraten (pork roast), while for non-meat eaters, staples from every cuisine imaginable. The social highlight was the conference dinner in a traditional ballroom of a Munich brewery with alphorn music, schuhplattler, and polkas. The longer the evening lasted, the more beer was brought to the tables, and the louder the international crowd conversed—to unheard of decibel levels. [*Pun or oxymoron?—ed.*]

The conference. The program consisted of oral and poster presentations, split into sessions about buildings, cities, and systems focusing on evaluations, tools, processes, and performance. We still don't seem to know enough about how buildings work and how they work in the urban context, that's the challenge of the future. While participants originated mainly from European institutions (very few U.S. participants), every continent [*except Antarctica?—ed.'s ed.*] was present with colleagues from North America, South America, Japan, Africa, Australia, and the Middle East, especially Israel. PLEA needs to cherish this wealth of knowledge and diversity. SBSE was represented by Pablo La Roche (Cal Poly Pomona) with his students, Ulrike Passe (Iowa State), as well as the Jeffrey Cook PLEA scholars Eric Carbonnier (Oregon), Tania Sharmin (Cambridge), and Mingwei Sun (Nottingham) who were recognized on stage by PLEA director Paula Cadima at the closing event and awards ceremony.

We are all invited to Ahmedabad, India, in December 2014, a tantalizing location with a challenging theme, “Sustainable habitat for developing societies: Choosing the way forward” <<http://www.plea2014.in/call-for-abstracts-plea-2014-conference/>>. The call for papers is already open. Don't miss it!

—Ulrike Passe

ISES SOLAR WORLD CONGRESS 2013

The Solar World Congress 2013 in Cancun <<http://www.swc2013.org>> was great! More than 800 delegates from 66 countries attended. We had 70 oral presentations in the Solar Buildings Theme. There were several SBSEers at the congress, including Susan Ubbelohde, the Plenary Speaker for the Solar Buildings theme, who gave an excellent presentation about her daylighting work. 🙌

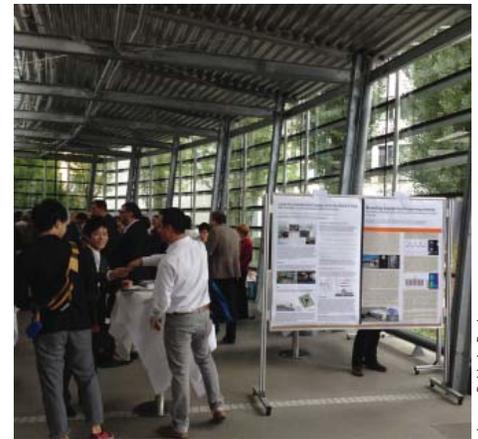
—Liliana O. Beltrán



Sue Roaf (Heriot-Watt), Edna Shaviv (Technion), and Liliana Beltrán (TAMU) at the World Congress closing ceremony.



Mario Cucinella's keynote presentation at PLEA 2013.



PLEA posters on display in the entrance foyer of the Audimax, the heart of the lively inner-urban TUM campus.



PLEA-goers enjoyed the conference dinner in a traditional ballroom of a Munich brewery with live alphorn music, schuhplattler, and polkas.

LET IT SHINE: THE 6000-YEAR STORY OF SOLAR ENERGY

Let It Shine, by John Perlin, is a fully revised and updated version of *A Golden Thread: 2500 Years of Solar Architecture and Technology*. *Let It Shine* has a substantial foreword by Amory Lovins explaining the value of this book in terms of renewable energy. In Amory's own words, "*Let It Shine* shows how today's renewable revolution builds on the tenacious efforts of countless generations of innovators whose vision we may finally be privileged enough to bring to full flower."

One of the lessons learned by reading the very long history of solar energy is the fact that good ideas are often ignored or forgotten. When a man like Socrates explains and promotes solar architecture, one would assume that this most beneficial strategy would become as fundamental part of human technology as the wheel. Unfortunately, as Perlin demonstrates, solar energy has had to be rediscovered over and over. One might almost assume that there was a conspiracy against the use of solar energy. Actually, Perlin documents one such conspiracy, when under one administration the United States government completely suppressed a report it had funded because it documented the logic and many benefits of solar energy.

The book describes the history of solar architecture, solar planning, greenhouses, solar powered motors, solar hot water, and solar electricity. I found the chapters on solar architecture and planning especially interesting. Perlin shows that solar architecture and planning were popular in both ancient Greece and China. In Europe, the term "enlightenment" referred not only to the illumination of knowledge, but also the illumination of buildings by the sun. A major re-discovery of solar architecture and planning occurred at the turn of the 20th century as a by-product of the social movement for improving the lot of the masses.

In America, solar architecture predates the arrival of Europeans. The Native Americans in the Southwest built their towns to capture the winter sun. Early New England colonists made use of the winter sun in their saltbox houses whose two-story façade faced south. Solar buildings became popular again from the 1930s to the 1950s. Then cheap energy caused another bout of societal amnesia. These cycles of re-discovery and re-forgetting continue to the present. Today, photovoltaics are all the

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AIA UPJOHN RESEARCH INITIATIVE AWARDS

The jury for the American Institute of Architects (AIA) Upjohn Research Initiative, a joint program of the College of Fellows and the Board Knowledge Committee to support knowledge sharing between practitioners and academicians, has announced the five projects selected to receive grants.

The purpose of this grant, now in its seventh year, is to provide base funds for applied research projects that advance professional knowledge and practice. The 18-month-long project grant qualifies recipients to have their findings and outcomes published both electronically and in a nationally distributed publication. The total award of \$105,000 will be distributed among the selected proposals. The jury felt the process and deliberations were fully consistent with the blind-peer review intent of the program that helps add an element of rigor to the process whereby proposals are debated on their own merits. The following five submissions were selected for funding:

Daylighting Design Performance Criteria for Alzheimer Care Facilities, Towards Evidence-based Best Practices for Improved Care

Abstract: The objective of this research is to establish empirical daylighting design requirements and performance criteria for assisted living facilities serving people with Alzheimer's disease.

Principal Investigator: Kyle Konis, University of Southern California

Tenant Engagement in High-Performance Buildings and Communities

Abstract: Design professionals have developed methodologies to predict and analyze post-occupancy energy performance in project-specific, high-performance design environments.

Principal Investigator: Julie Kreigh, Kriegh Architectural Studios

Learning Environments Design and Diversity

Abstract: The primary intent of this research is to provide learning space designers and educators with evidence of the link between classroom design and enhanced learning outcomes using subjects that accurately reflect future student populations.

Principal Investigator: James Determan, Morgan State University

Sustainable Transparency: Kinetic Building Façades

Abstract: This applied design research project advances two domains of architectural knowledge: Kinetic Façade Design and Sustainability Performance Assessment.

Principal Investigator: Kyoung-Hee Kim, University of North Carolina

Responsive Pneumatics: Prototypes for Biologically Inspired Air-Based Envelope Systems

Abstract: This proposal seeks funding to advance physical prototype-based research examining new performative, formal, and aesthetic potentials of cellular pneumatic foil-based envelope systems towards low-energy, light-transmitting building façade applications.

Principal Investigator: Kathy Velikov, University of Michigan

The jury for the Upjohn Research Initiative included: Leonard Bachman (University of Houston); Christine Barber, (Gensler); William Joseph Carpenter, Jury Chair, (Southern Polytechnic State University); Henry Hardnett (Indian Health Service); Marlene Imirzian (Imirzian Architects); Calvin Kam (Stanford University); Keith Diaz Moore (University of Kansas); Burton L. Roslyn (Roslyn Consultants), and William J. Stanley, III (Stanley, Love–Stanley). The Upjohn Research Initiative is named after Richard Upjohn, the first president of the AIA and a founding member. ✎

—Richard L. Hayes

PAPER OPPORTUNITIES

EUROSUN 2014—FIRST ANNOUNCEMENT AND CALL FOR PAPERS

Solar energy and solar buildings are fundamental pillars to achieve a transition to a renewable energy society. Europe is only six years from 2020 when the binding 20–20–20 targets* will be evaluated. At an important transition of the energy systems in Europe, the need for pioneering scientific and technical solutions to quickly phase out nonrenewable energy use is more urgent than ever. Given the latest climate change facts, smart use of solar energy is needed more than ever, thus we look forward to EuroSun in Aix-les-Bains in Sep 2014. To participate in this exciting event, we invite you to submit your two-page, extended abstract by Feb 28, 2014. See <<http://www.eurosun2014.org/cms/welcome.html>>.

EuroSun 2014 is organized jointly by ISES Europe and the French National Solar Energy Institute INES, France's center of reference in the field of solar energy. A rich program of "side" events—technical tours, workshops, and social events, will make your participation even more attractive and valuable. You can look forward to a lake cruise with cocktails and the conference dinner in the famous old-style casino in Aix-les-Bains.

In the name of the scientific and organizing committee we warmly invite you to participate in the ISES EuroSun 2014, and look forward to welcoming you in Aix-les-Bains!

—Elimar Frank and Philippe Papillon

* 20% improvement in energy efficiency, 20% share of energy from renewable sources, and 20% reduction in greenhouse gas emissions from 1990 levels.

PLEA2014

We are pleased to inform you that the 30th International PLEA Conference (PLEA2014 – Passive and Low-Energy Architecture) will be held 16–18 Dec 2014, in Ahmedabad, India. The conference will be hosted by CEPT University.

The Call for Abstracts is now open. Information on the conference goal, list of topics, and abstract submission process can be found at <<http://www.plea2014.in/call-for-abstracts-plea-2014-conference/>>. We look forward to your participation at this conference.

—PLEA 2014 Organising Team

MACDES 2014

Cuba has health and educational indicators comparable to many rich countries. The priority the revolution of 1959 has given to social justice was affected by the deep crisis provoked three decades later as a result of the changes in the former European socialist countries and the dissolution of the Soviet Union. The crisis precipitated need to find new and more sustainable ways of production and management, strengthening people participation. The current challenge for the Cuban economic model is how to achieve a viable economy, preserving at the same time social justice and the important human capital in our country, avoiding dependencies that could increase Cuba's vulnerability. In November 2014, professionals and academics from all over the world interested in debating the way the built environment could contribute to achieve these objectives will meet in Havana, Cuba.

Sustainability issues to be addressed include regional planning and rural habitat, cities, architecture, conservation of built heritage, building materials and technologies, renewable energies and other ecotechnics, management, theoretical and methodological approaches, and capacity building.

Full papers for evaluation are due April 30, 2014. Notification of papers accepted will be June 27, 2014. Deadline to submit your final paper is September 30, 2014. Registration fee is 220CUC. For more info contact <dania@arquitectura.cujae.edu.cu>. 🖐

—Dania Gonzalez Couret



BOOK REVIEW [CON.]

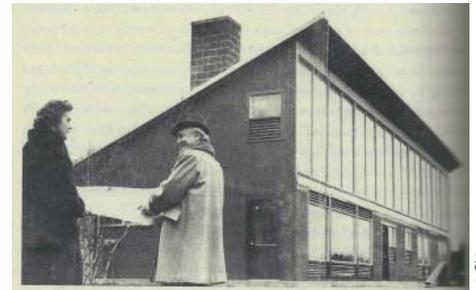


Figure 20-15. Dr. Maria Telkes, inventor of the solar desalinator, and Eleanor Raymond, the architect, check the plans for their Dover, Massachusetts, experiment.

Image: Let It Shine

rage while simple, inexpensive passive solar is mostly ignored.

Let It Shine is well-written and well-illustrated, clearly documenting solar energy as not just a recent fad, but with a long and distinguished history. 🖐

—Norbert Lechner

NEW POST-GRAD OP

Virginia Tech is excited to announce a new interdisciplinary PhD program focused on bio-inspired buildings, BioBuild, a collaboration among faculty in the Colleges of Architecture & Urban Studies, Engineering, Natural Resources & Environment, and Science.

BioBuild is designed to:

- change our resource-intensive building and community development paradigm through bio-inspiration
- transform the relationship between the biosphere and the built environment
- produce leaders for academia and industry through synergistic research and education in building systems and biological systems.

There are exciting opportunities to address today's challenges in building systems resource and energy efficiency by studying biological systems in micro and macro contexts. Paired with advances in material science and biotechnologies, there is vast opportunity for building science researchers to break new ground. We're seeking applicants to join in exploring this exciting new area where design, construction, engineering, and science intersect. We'll provide full financial support to highly qualified applicants.

Additional information and an online form of intent (for prescreening and providing feedback to applicants before they go through the full application process) can be found at <<http://biobuild.mlsc.vt.edu>>. Let students in your program who may have an interest know. 🖐

—Georg Reichard



The Pine sun space shows off its clear polycarbonate east and south façades and its double-mesh inner layer.

NICK PINE HOME SUN SPACE UPDATE

Nick's three-story, low-mass sun space has been cited as an inspiration in the Dec13/Jan14 issue of *Home Energy*.

"His three-story sun space provides most of the heat for his otherwise difficult-to-heat 1820s home in Philadelphia, PA. The south glazing is made from two thin sheets of clear polycarbonate with the space between filled with a low heat conductivity gas—all fabricated on site, providing clear glazing that's efficient for solar gain and reducing heat loss—at a fraction of what double-glazed glass would cost. Another innovative feature is the use of a mesh of two layers of 50% shade cloth just inside the glazing. Cooler return air from the house is introduced to the space between the mesh and the glazing and spreads over the face of the mesh while flowing into it, cooling the mesh and reducing heat lost through the glazing." 🖐

—Bruce Haglund



This third-story deck is half the depth of the sun space and provides a place for lounging in the sun.

photos: Nick Pine

SBSE CALENDAR

2014

- Jan 18–22 ASHRAE Winter Conference/New York, New York, United States
- Jan 22–24 International Conference on Sustainability/Split, Croatia
- Feb 12–15 ARCC/EAAE Conference/Honolulu, Hawai'i, United States
- Mar 6–7 iiSBE Rinker International Conference/Gainesville, Florida, United States
- Apr 10–13 Windsor Conference/Windsor, United Kingdom
- Jun 19–22 SBSE Retreat/BioSphere 2, Arizona, United States
- Jun 26–28 AIA Convention/Chicago, Illinois, United States
- Jun 28–Jul 2 ASHRAE Annual Conference/Seattle, Washington, United States
- Jul 6–10 ASES Solar 2014 Conference/San Francisco, California, United States
- Sep 16–19 ISES EuroSun 2014 Conference/Aix-les-Bains, France
- Oct 28–30 World SB14 Conference/Barcelona, Spain
- Nov 24–28 MACDES.2014 Tercer Congreso Internacional/Havana, Cuba
- Dec 16–18 PLEA 2014/Ahmedabad, India

2015

- May 14–16 AIA Convention/Atlanta, Georgia, United States 🖐

SPRING ISSUE SUBMITTAL DEADLINE—MARCH 1



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