

# SBSE NEWS

U  
M  
M  
E  
R

2  
0  
0  
1

# SOCIETY OF BUILDING SCIENCE EDUCATORS



photo: Robert Marcial

SBSEers, distorted by the good ideas mined at Redfish Lake, as seen through Robert Marcial's fisheye lens (with an assist by Photoshop).

## RENDEZVOUS AT REDFISH INSPIRES

FULL DETAILS: [HTTP://WWW.AA.UIDAHO.EDU/BLDGVITAL/SBSE2001/](http://www.aa.uidaho.edu/blgdvital/sbse2001/)

Thirty-seven SBSEers gathered in rustic quarters at Redfish Lake (ID). The crisp mountain air fueled many energetic exchanges of teaching and research resources. The full scope of the retreat exceeds newsletter limitations, so details are revealed on the retreat web site.

For openers, SBSEers introduced themselves and shared *omiyage*—awe-inspiring teaching gifts that ranged from Ed Allen's signed and numbered booklet, *Notes to Myself*, to Martin Gold's acoustics software as everyone strained to hear in the acoustically challenging din of the lodge dining room. [*Who put the din in dining?—ed.*] SBSE's gift to all, a solar mosquito guard [*given a year too late?—ed.*], didn't receive the expected field testing as low pest counts and good weather prevailed until Monday's rain sent the salmon bbq diners inside and Tuesday's air snow delighted our Hong Kong contingent.

Scheduled concurrent sessions were held in the morning quiet of the lodge dining area and the intimate Lake Cabin living room. We were all delighted by the shared insights, techniques, and theories of the presenters. Paul Clark led our search for the missing HVAC gene. Cris Benton and Rob Marcial showed us the world through fish eyes. Martin Gold opened our ears to the world of acoustics. John Reynolds and Ed Allen fielded questions about the UO Technical Teaching Certificate program. Mark DeKay made us crunch numbers aided by *Sun, Wind, and Light 2*. Long afternoon breaks provided welcome networking opportunities. Ed Allen showed a few of us how Eiffel designed the tower based on its lateral load diagram. Five intrepid SBSEers experienced mountain microclimates from horseback while others floated discussions about next summer's China workshops in a Redfish Lake canoe.

The evening sessions featured Amanda Miller's editor's view of the book publishing world and the Agents of Change project evaluators' (Bruce Matsui and Jennifer Rachford) insights on research evaluation. Wish you were there! █

—Bruce Haglund & Alison K wok

## SBSE CALENDAR

### 2001

- Jun 23-27 ASHRAE Annual Mtg.; Cincinnati, OH
- Jul 14-17 ACSA Technology Conf.; Austin, TX
- Nov 1 ASES Solar2002 abstracts due

### 2002

- Jun 15-19 ASES Solar2002 Conf.; Reno, NV █

## STUFF THE BALLOT BOX!

Your ballot and dues notice are enclosed. Please fill out both, and send them to our Secretary/Treasurer, Terri Meyer Boake. █



Photo: Bruce Haglund

Norbert leads sun path modelers in the Lake Cabin.

## LETTERS TO THE EDITOR

Loved the latest newsletter—sure am glad you remain willing to put so much love into this time-sink!! (How's that for a mixed meta-something?) Who/why are the folks from Claremont? Where IS Claremont? Who ARE the Living National Treasures (website didn't name them, this AM when I checked)?

—John Reynolds, Oregon

[Finally, questions about content. To clear things up: Claremont is next to Harvey Mudd; AOC evaluators hail from Claremont; and you, dear reader, use your imagination to note the glowing nature of the LNTs' names in HTML.—ed.]



After 10 years of work on our "Big Sur Sun Station" village, we sold it a few months after we retired from Cal Poly last year and are now in Australia. The Big Sur project was off grid and passive solar in all 12 buildings—house, cabins, library, and barn.

We are now in the middle of a new passive solar home construction in a very different climate. We have grid interconnect here and sell solar power to the utility at twice the purchase price!! Yes, not net metering, but 14 cents to purchase and 28 cents to sell. How could we miss out on that deal?

Thanks for following up on my slackness on the address change. I really have enjoyed the newsletter but do not want you to bother to send it over here. I will let you know if/when we return to USA!!

—Donald Woolard, Wildwood Farm

• continued next page

SBSE News is published quarterly by the Society of Building Science Educators, a not-for-profit corporation. Material for publication should be submitted to Bruce Haglund, Editor; Department of Architecture; University of Idaho; PO Box 442451; Moscow, ID 83844-2451; phone 208.885.6781, fax 208.885.9428; e-mail <bhaglund@uidaho.edu>; before the first of March, June, September, or December. Membership and mailing list inquiries should be directed to Terri Meyer Boake, Secretary/Treasurer; School of Architecture; University of Waterloo; Waterloo, ON; Canada N2L 3G1; phone 519.885.1211 x6647; fax 519.746.0512; e-mail <tboake@uwaterloo.ca>. Join the SBSE list server by sending **subscribe sbse** to <majoromo@uidaho.edu>. Visit our home page <<http://www.polaris.net/~sbse/web/>>. ■

## INSIDE THE BEAST

[I've invited Bill Burke, our correspondent from PG&E's Pacific Energy Center, to explain what is really going on in California. Bill is speaking for himself, not the Energy Center.—ed.]

If you read the national press, you might have the impression that California has an unreasonable demand for power and is draining resources from across the Western states. However, California ranks 49 of 50 in per capita energy consumption. The Title 24 Energy Standards, originally adopted in response to the energy crisis of 1973 and updated on a regular basis, have had an enormous effect in reducing electrical demand. Rather than speak of energy efficiency and conservation efforts as a "personal virtue," Federal officials would do well to develop a nationwide energy standard based on the California Title 24 model. Nevertheless California finds itself in the midst of an energy crisis rife with rising costs and blackouts. What happened? I've spent the past eight months trying to get a grip on the complex details and continue to learn new things almost daily. Put as simply as possible, California traded state regulation, a bureaucratic planning process, comparatively high but stable prices, and staid utility companies for the promise of lower prices in an open market with little organized planning or state regulation. As everyone knows by now, the promise has proven to be empty. The benefits of the market have yet to appear, while the benefits of regulation have disappeared. Electric rates in California recently increased by 40%, and further increases are inevitable. At the same time, rolling blackouts testify to the decline in service reliability.

The architects of deregulation had a naïve faith in the positive power of markets, predicting that new power generators would increase supply and that competition would guarantee low prices. In fact, as events of the past two years have shown, markets are amoral. Markets don't inherently make good public policy decisions. They simply set prices based on supply and demand. And the dream of a competitive market may be just that. The past ten years have seen mergers, acquisitions, and a concentration of market power by major energy industry players. As Consumers' Union reports, "In 1992, the year the Energy Policy Act was passed, the largest ten utilities owned one-third of the national generating capacity, while the top twenty owned sixty percent. By 2000, the top ten had grown to control half of all capacity, the top twenty to three-quarters." <<http://www.consumersunion.org/telecom/deregdc1100.htm>>

With deregulation new players did enter the California market. But rather than build new power plants, they purchased existing plants from California's regulated utilities. The utilities were required to sell many of their power plants under the deregulation plan to lessen their power in the market. The result is that a small number of generators, no longer bound by the regulatory "obligation to serve," can make more money by limiting, rather than maximizing, the amount of power provided during periods of peak demand. Collusion between the players isn't required. In a tight market it's in the interest of all generators to limit the amount of power they supply to the grid. While the State of California has issued permits for construction of a number of new power plants, many generators are now suggesting that because of "uncertainty" they may choose not to build these plants. The interests of the power generators and the people of California are at odds. Power generators have an interest in maintaining a perpetual power shortage. Why build a new plant when it would result in a drop in prices? Generators could reduce their profits by building new plants. In a situation where the State has relinquished regulatory control over generators and the Federal Energy Regulatory Commission (FERC) refuses to use the regulatory authority it does possess, the State may be forced to become a generator itself to assure reliability and affordability of power.

While I've focused on power generators, it's important to remember that the deregulation plan was initiated by members of the California Public Utilities Commission appointed by Governor Pete Wilson. It was passed overwhelmingly by both parties in the California legislature. Governor Gray Davis was slow to respond when prices exploded last year and

• continued page 8

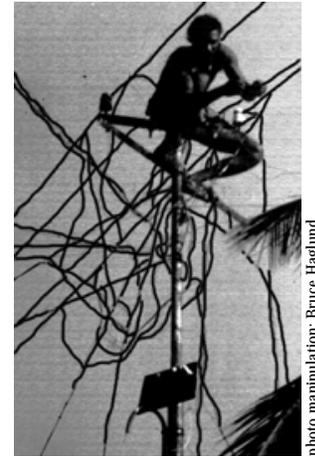


photo manipulation: Bruce Haglund

The electrical grid has problems?

## ANNUAL MEETING MINUTES

APRIL 23, 2001, WASHINGTON, D.C.

Attending: Harvey Bryan, Eddie Cazayoux, Yelena Chenchik, Chungyoon Chun, Larry Degelman, Stephen Dent, Alfredo Fernandez-Gonzalez, Walter Grondzik, Bruce Haglund, Norbert Lechner, Robert Marcial, Margot McDonald, Murray Milne, David Ogoli, Nick Rajkovich, Jonathan Reich, Jennifer Rennick, John Reynolds, Bob Schubert, Suvira Shyamlee, Sandy Stannard, Greg Thomson, Mike Utzinger, Hofu Wu.

1. Treasurer's report (Bruce Haglund for Terri Meyer Boake):  
As of 31 March 2001—\$15,333.20 and 250 members.
2. Newsletter (Bruce): We continue to produce a tolerable newsletter available by mail and online. Bruce handed out spring newsletters to new members and visitors.
3. WWW site (Walter): Another call to add course descriptions for ECS and related courses. Send Walter a short paragraph and a link to your web site—he will translate to HTML. Only six schools have information on the SBSE web site.
4. Peer review network (Walter): SBSE's peer review system for promotion and tenure is working well. Review letters are well thought out. If you want to take advantage of this service, contact Walter Grondzik.
5. Nominations for officers (Walter): Nominations prior to the meeting: President-Elect: Jim Wasley and Secretary/Treasurer: Martin Gold, Sandra Mallory, Sandy Stannard. Nominations from the floor: Alison named Sandra Mallory for President-Elect. [*Sandra consented.*—ed.]
6. 2001 Summer Retreat (Bruce and Alison): The summer retreat is fully subscribed at 38.
7. 2002 Summer Retreat Proposal (Bruce for Mary Guzowski): Content includes ecoliteracy, David Orr, Malcolm Wells, and Marv Rosenmann plus a work up of the Environmental Studies building at Oberlin. Everyone agreed that this topic is compelling. Bob Koester and Alfredo Fernandez-Gonzalez (BSU) have discussed coordinating logistics. [*Not to be. See sidebar.*—ed.]

Florida Solar Energy Center (FSEC) was suggested as a possible site for the retreat when ISES/ASES meets in Orlando in 2005. We've heard that the ASES conference (and SBSE annual meetings) cities will be: Reno in 2002; Austin, 2003; and Portland (OR), 2004.

8. Sharing Educational Resources:
  - Images (Alison): Jeff Culp and Bob Koester at BSU have produced web descriptions of the SBSE Slide Collections on CD-ROM. Old slides have been "archived" and current slide collections are indexed on 13 CD-ROMs, \$12 each, including domestic shipping and handling.
  - Fuller Moore has donated his entire ECS slide collection to SBSE. Alison will review it and select images for the SBSE Slide Collection.
  - Look for our annual call for new slides. It will include instructions for sending the slides, annotations, and copyright.
  - LOFSACs: Alison distributed information about LOF Sun Angle Calculator reproduction and investment by SBSE for a quantity over 1,000. It was agreed that SBSE would buy an amount and sell them to universities. Additional information could include illumination overlays from Fuller Moore and Harvey Bryan (LBL). Alison will look into costs for producing an expanded packet. Other ways of funding the costs were discussed: charging a student price vs. a faculty price; charging institutional SBSE memberships.
9. Other business:
  - Norbert Lechner demonstrated the heliodon model. [*At 1:5 it's cute!*—ed.]
  - Alfredo Fernandez-Gonzalez suggested we record the experiences of retired faculty.
  - Suggest to ASES that digital projectors be made available to presenters (subsequently, ASES promised digital projectors in Reno). [*SBSE power!*—ed.]
  - Tool Day at the National Building Museum: SBSE members, students, and practitioners participated. Martin Moeller, Executive Vice-President of NBM, expressed interest in collaborating with SBSE faculty about future exhibits and encouraged us to contact him. ■

—Alison Kwok

## RETREAT 2002 NEWS

### NEW DIRECTION

Spurred by Mary Guzowski's decision not to coordinate the 2002 retreat (sabbatical conflict), we held a brainstorming session at Redfish Lake to reorganize the planning. During the session Sandra Mallory stepped forward to act as content coordinator and Mark DeKay as co-coordinator. With new leadership the venue of the retreat has shifted as well. It may be associated with the ASES conference in Reno in June or the ACSA Technology Conference in Portland in July or August. Robert Marcial and Harvey Bryan are looking into sites near Reno and the Oregon gang is exploring webfoot sites. Falling Leaf Lodge at Tahoe and Sleeping Lady Lodge in Washington were deemed possibilities. The theme of the retreat may still be ecological literacy if that feels appropriate to Sandra and Mark. We'll update everyone via the SBSE list server and the fall *SBSE News*. ■

—Walter Grondzik

### LETTERS [CONTINUED FROM P.2]

[*Seems like you bailed out of California too early to remind the skeptical neighbors, "I told you so!" The SBSE News will track you into the outback or all over the globe. We treasure you good readers!*—ed.]

/\ \ \ \ \ \ \ \

The Ecodesign web site, including the Teaching Architecture+Energy (Energy Scheming) and Climatic Design Resources projects, are no longer housed at Washington University. To access Ecodesign go to <<http://dell2002.cap.utk.edu/ecodesign/>>.

—Mark DeKay, Tennessee

[*Update your link to this info-packed web site!*—ed.]

/\ \ \ \ \ \ \ \

Thanks to both you and Alison Kwok for your individual and collective efforts that made the Redfish Lake retreat so enjoyable and profitable. As always, SBSE, through you, managed to set just the right tone. Thanks for inviting me—it was a pleasure to be there and to participate!

—Ed Allen, Author

[*No, no, no! Alison and I thank you and everyone else who participated. SBSEers set the tone and provide the substance!*—ed.] ■

---

**SBSE PEOPLE**


---

👉 **Mike Donn** is a grandfather again. Thorndon was born at 2:30 a.m., 20 March 2001. 3.7kg. (slightly smaller than his sister).

🏠 Texas A&M University Assistant Professor of Architecture **Anat Geva**, is one of the 2001 recipients of the TAMU's Scholarly and Creative Activities Enhancement Awards. Anat will receive the maximum award of \$7,500 in support of her research project, "Frank Lloyd Wright's Sacred Architecture: Faith, Form, and Building Technology."

🐟 Hardly of consuming interest [*Owen's words, not mine!—ed.*], but **Owen Lewis** was recently elected Dean of the Faculty of Engineering and Architecture at University College Dublin—a first for an architect!

🏠 You can find Managing Editor **B.J. Novitski** at <<http://www.ArchitectureWeek.com/today.html>>. She's primary acquisitions person for this online magazine for design and building, with news and features on architecture, construction, digital media, and building culture.

★ **John Reynolds** is one of eight Board members of the new, independent, nonprofit Energy Trust of Oregon (ETO). Created by Oregon's utility re-structuring legislation, the ETO will oversee an annual budget of ~\$40 million for energy conservation and renewable energy projects. Funding comes from 3% of the rates charged by the Oregon investor-owned utilities.

♫ **Dave Scheatzle** has joined the ranks of the emeriti.

✦ **Sandy Stannard** was honored with a \$20,000 Nuckolls Fund for Lighting Education grant to establish a new lighting seminar+studio at Cal Poly San Luis Obispo.

⚡ **Christine Theodoropoulos** has been named the chair of the next ACSA Technology Conference scheduled for Portland, OR.

▲ Married on June 5, **Jim Wasley** still managed to attend the Retreat and sleep with the bears.

✿ Judith, wife of **Don Watson**, died on October 8, 2000 (born August 13, 1939) of an aggressive cancer. While working together in Jerusalem in July, she fell and they discovered the cancer that had spread from a remote part of her hip to her lungs. Don says she was young and beautiful to the end. ■

---

**PRICELESS OPPORTUNITIES**


---

**ECOLOGICAL DESIGN IN SPAIN**


---

An ecological design course at the Polytechnic University of Catalunya, Barcelona, Spain, offered for the first time in Fall 2001 for locals and University of Calgary students studying in Barcelona, will be taught by three Calgary faculty members. Mary-Ellen Tyler will teach "Ecological Roofs and Rainwater Harvesting Calculations;" James A. Love, "Energy Efficiency and Natural Lighting;" and Tang Lee, "Solar Energy and Solar Aquatic Systems." Catalunya Professor Ignassi Perez will conduct the associated studio.

—Tang Lee

**GREENING OF THE CAMPUS 4**


---

Greening of the Campus 4 provides a new opportunity to further explore the critical issues, problems, and solutions we still face on our campuses and in our world in the new millennium. We invite and encourage your participation in this global gathering, September 20–22, 2001. Keynote speakers include David Orr, Oberlin College Environmental Studies; Janine Benyus, author of *Biomimicry*; and Mathis Wackernagel, developer of the "Ecological Footprint." Full conference info is at <<http://www.bsu.edu/greening/>>.

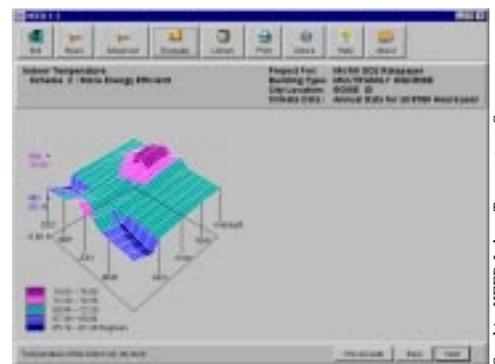
—Bob Koester

**MORE HEED**


---

We just (finally) had our contract signed for the follow-on version of *HEED*. There will be a lot of new graphic bells and whistles in the final version, due for release next May. In the meantime we are scheduled to have phase one out this month with the new California 5-Tier rates built in. (If you use more than 3 times your basecase energy, your rate is almost doubled from 13.0 to 25.9 cents/kWhr).

You can download *HEED* from the site <<http://www.aud.ucla.edu/heed>> and use the method described in the <[readme.usa](#)> file to load the same converted TMY files that we use in *SOLAR-5* or *ClimateConsultant*. If anyone has any problems, please email <[milne@ucla.edu](mailto:milne@ucla.edu)>. I would love to have as many people as possible try it out and give me their feedback.



*HEED features Solar-5's eloquent graphic output fused with a GUI that caters to Windows users.*

Graphic: HEED Indoor Temperature Screen

—Murray Milne

**SOLAR DESIGN STUDIO FOR WIN2K**


---

The initial release version of the *Solar Design Studio v5.0* CD-ROM uses Sandia's Photovoltaic Performance Model in *PV-DesignPro*, *IVTracer*, and *ModuLab* to bridge the gap between a research model and commercial implementation. The model requires dozens of specific module test-result parameters acquired through testing at Sandia National Labs PV Department. Test result information for modules not currently in the module database will be available soon for download from the Maui Solar Energy Software web site <<http://www.mausolarsoftware.com>>.

The audio tutorial has not yet been re-recorded for the new version, although 98% of the buttons and windows are the same. Look for slight differences in the Array form, Wind has been added, a couple of new results windows have been added, and parametric analysis is now 3-axis instead of 2-axis. And of course, the program results will be slightly different because of the new version. Old version system files will not work with this version.

An older, non-Win2k-compatible version is available at a deep educational discount. [*Thanks to Mike's generosity it's virtually free! E-mail me <[bhaglund@uidaho.edu](mailto:bhaglund@uidaho.edu)> for your copies; first come, first served.—ed.*] ■

—Michael P. Elosi

## BOOK REVIEW:

*HEATING, COOLING, LIGHTING: DESIGN METHODS FOR ARCHITECTS*,  
BY NORBERT LECHNER

Writing an environmental systems textbook is, by all measures, a daunting task that has stumped many experts. Critics have questioned the merits of such books—castigating their cumbersome prose, lack of clarity and editing, crude illustrations, and particularly their complete misunderstanding of the architectural audience.

Where many have failed, the second edition of *Heating, Cooling, Lighting* can be hailed as a textbook exemplar that can motivate the non-initiated and entice the informed into further insights. With this book, Norbert Lechner challenges the hypothesis that architects and architecture students are resistant to knowledge about environmental issues and design techniques. Clearly acquainted with how they think, he refuses to settle for the accumulation of disjointed, unrelated facts and concepts. Instead, he skillfully outlines disciplined procedures for the design of environmentally sound buildings. Staying clear of the long-winded technical jargon that usually turns off the architectural community, he employs linguistic precision, attractive illustrations, and concise interpretive drawings to give potent explanations that strike parity between the rigors of science and the practicality of environmental design applications.

His talent as an educator is revealed in the methodical organization and the flow of the book's content, which I've categorized into four main sections. The first section, comprehensive analysis of a series of architectural precedents, leads the reader to understand the intrinsic value given to environmental concepts as design genesis. He further promotes the notion of sustainable design as the necessary framework to [re]conceptualize design that manifestly considers threats facing our fragile planet. The second section is devoted to the necessary fundamentals of heat flow, moist air, thermal comfort, climatic patterns, solar geometry, and lighting. With outstanding simplicity, Lechner easily communicates the principles underlying each topic. For instance, the segment on solar geometry merits particular mention because it is so well developed and graphically enriched that it ought to be recommended for anyone interested in this subject. Also highly endorsed is the enlivened discussion in the third section about the deployment of active, passive, and mechanical systems in buildings. For each of these, he lays out the design choices that could be made in reference to the prevailing climatic conditions, efficiency, cost, and so on. In the last section he comes full circle in his advocacy for a holistic design approach. Reporting on a number of successful building case studies and their salient characteristics, he argues for inclusiveness that bridges the polarity between architecture and environmental imperatives. A feature that binds the four sections is the constant reference to the overall theme of load avoidance achieved by the proposed three-tier approach. The first two tiers, intended for load minimization, are respectively achieved by: 1) building design and 2) considering the synergy between natural energies and building design. As a result, the third tier implicates smaller mechanical equipment to provide required comfort.

*Heating, Cooling, Lighting* is well-crafted and lively in both word and image. Professor Lechner's writing impresses me with its clarity and striking practicality in providing ways of understanding, interpreting, and manipulating the environmental forces. However, bringing down the cost incurred by students enrolled in related courses is an issue that influences textbook selection. Should fire protection, plumbing, and transportation topics be included in future editions, such a book would definitely gain, in the eye of the academic audience, legitimacy as a primary reference for environmental technology courses. Although offered to architecture students and architects, a much wider audience could benefit from the book; it could rekindle interest in learning about environmental forces and further promote environmental consciousness in architectural design. ■



## CALL FOR PAPERS

**ARCC/EAAE Research Conference,**  
**Carleton University School of Architecture,**  
**Ottawa, Canada, May 22–26, 2002**

The primary objective of this conference series is to provide a focused forum for the dissemination and discussion of architectural research findings, approaches, philosophies, and potentials. Typically about 100 educators, researchers, and practitioners in architecture, landscape architecture, and planning attend ARCC/EAAE research conferences, providing a rich diversity of issues and concerns within the confines of a comfortable small-group atmosphere. Contents from several recent conference proceedings are available online to provide a sense of issues addressed at ARCC/EAAE conferences.

The upcoming conference, chaired by Lucie Fontein (Carleton), solicits papers that address research in:

- education in architecture and related disciplines
- design and culture: architecture as a medium of cultural identity
- building science: materials, components, systems, and methods used to design, construct, and operate the built environment
- the practice of architecture, landscape architecture, and related disciplines
- digital media

as well as

- reviews and analyses of trends, approaches, opportunities, and/or impediments to architectural, landscape architecture, or planning research
- questions that encourage debate on the nature of research/scholarship in architecture and related disciplines.

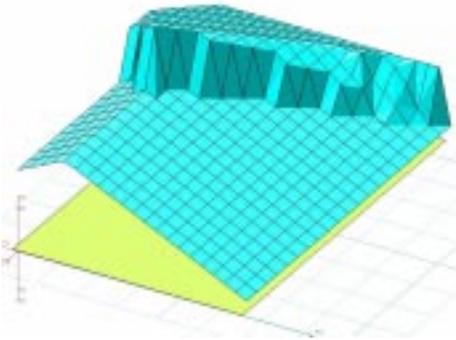
Paper proposals from graduate students engaged in research in these areas are especially encouraged. A reduced fee for student registration will be available.

**Abstract Deadline: 15 October 2001**

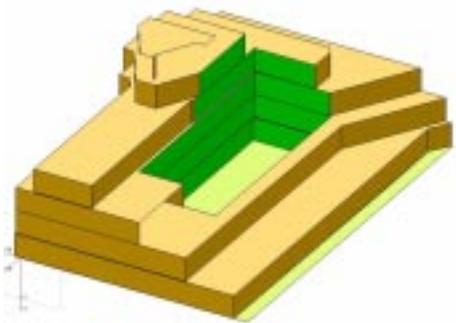
**Full Paper Deadline: 1 February 2002**

For abstract and paper submission formats in addition to other conference information, see the ARCC web site <<http://www.polaris.net/~arcc/web/>>. ■

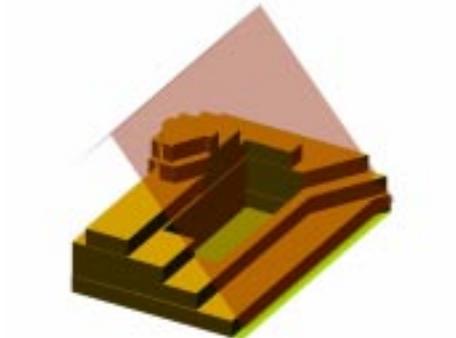
—Lucie Fontein



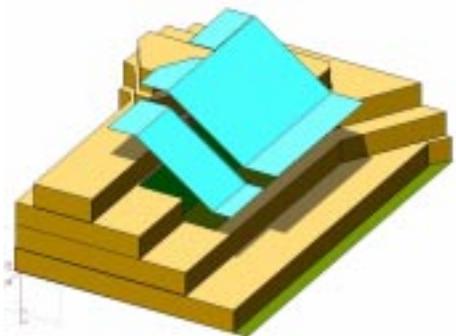
Winter solar envelope over a corner site establishes the basic building volume.



Largest building massing with open courtyard exposed to winter sun.



Higher summer envelope provides space (interstitium) over the basic building massing in which to extend adaptive structures.



Images: Ralph Knowles

Sun/wind screens erected within the interstitium to catch cooling west winds in summer while shading the courtyard from hot sun.

## RESEARCH NOTES

### DYNAMIC SOLAR ENVELOPES

Pierre Koenig and I are working with students in the USC Natural Forces Laboratory to test dynamic sun/wind adaptations for courtyard buildings under the solar envelope. The solar envelope can actually change size and shape at different seasons, expanding in summer and contracting in winter, while maintaining the same period of solar access. We are taking advantage of the interstitial space between the low winter and higher summer envelopes to employ flexible structures that adapt with the seasons. This idea was presented at PLEA 2000 in a poster paper titled, "The Interstitium," authored by Karen Kensek and me. Pierre and I are employing wind tunnel, sun machine, and computer modeling in studies which this past year have looked at four different sites in Los Angeles aligned with the cardinal directions. This coming year we will look at diagonal orientations to fill out a range of conditions and responses.

The images in the sidebar depict development of a corner site, viewed from the southeast.

—Ralph Knowles

### ENERGY CONSERVATION AT OREGON

Students from the University of Oregon's Ecological Design Center have won a campus-wide competition for \$100,000 to be spent on a project that "benefits the entire student body." (The money came from an unexpected surge in university enrollment and was collected as part of the "incidental fee" charged each student.)

Students Ben Gates (Architecture) and Jocelyn Eisenberg (Landscape Architecture), co-directors of the Ecological Design Center, proposed that the \$100,000 be spent on a three-part project that will:

1. Examine the Student Union Building (SUB) for ways to cut energy use and mount an educational campaign to encourage energy conservation by UO students.
2. Design a system of PV panels to be mounted on the SUB. The Eugene Water and Electric Board will donate their services as design consultants, saving 15% of the total project costs.
3. Construct the system. Students will seek grants and donations to expand the system's size.

If you wish to congratulate, suggest, or donate, please contact Ben Gates <bgates@gladstone.uoregon.edu> or Jocelyn Eisenberg <j Eisenbe@darkwing.uoregon.edu>.

I am proud of the initiative shown by Ben and Jocelyn as well as the judgment shown by the UO student government in awarding the funding for this project. (Competing proposals included a rock concert or an alcohol-free party for all students.) ■

—John Reynolds

## BEST STUDENT ASES PAPER AWARDS

What an impressive student turnout at the recent ASES Forum 2001! Their contributions via papers and presentations added greatly to the breadth and quality of the conference. Rather than being simply impressed and silent, SBSE decided to acknowledge these student contributions through a series of awards for Best Paper and for Best Presentation. [Wiley sweetened the prize with book awards to the winners.—ed.] There were at least 15 papers or presentations at the conference (on the passive side) with primary input from a student (either undergraduate or graduate). All were considered for the awards. SBSEers who attended ASES formed the jury.

- Best written paper: Ayona Datta (ASU), "Daylighting in Cambridge Libraries: Shifting Focus Over Time"
- Best presentation: Rebecca Shaeffer and Po-Chi Lu (UO), "Car"
- Honorable mention presentations: Ayona Datta (ASU); and Nick Rajkovich (UO), "Design Traces in Strange Places." ■

—Walter G. Rondzik

## NBM TOOL DAY

An enthusiastic group of SBSEers and practitioners descended on the National Building Museum on April 22 (Earth Day) for the Vital Signs Tool Day. It was an all-day affair during which participants became familiar with the NBM and gained hands-on experience measuring aspects of its performance, e.g. daylighting, thermal stratification, visual comfort, air movement. NBM Executive Vice-President Martin Moeller was our genial host. His tour revealed a fascinating building and set up participants to form hypotheses that they tested by analyzing all the quirks, nooks, crannies, and just-plain-oddities of the Civil War pensioners' building. NBM's staff, especially Barry Edmunds, were extremely helpful in guiding SBSEers through off-limits spaces, like the catwalks, and in turning the lights and fountain on and off to accommodate our scientific curiosity. Although the day started before the NBM was officially open, public interaction added delight to our work during the afternoon. Among our discoveries—the daylighting in the great hall is quite adequate on a sunny April day, but not all the HID lamps can be turned off; even on a warm (80°+) spring day cooling is accomplished by mechanical ventilation (the building was designed for natural ventilation); the central fountain offers a small, cool microclimate; it takes scores of helium balloons to air lift five HOBOS; and temperature stratification in the Great Hall is much less than we imagined. And, yes, the catwalks above the great hall are a scary place to conduct experiments.

The Tool Day site <<http://www.aa.uidaho.edu/bldgvital/NBMToolDay/>> has been updated to include five pages of highlight photos and a report of findings from Team 2, The Wanderers. The other teams intend to post findings over the summer months. Team 3 lacks only the proper dream-to-html converter to actualize their posting. When will Microsoft address our needs instead of wasting time on animated paper clips?

What a treat to be given free rein in such a rare and beautiful building! Our thanks to our sponsors—NBM, SBSE, and *Agents of Change*, a Department of Education FIPSE-funded project. Imagine (then propose) a Tool Day in a great building near you! ■

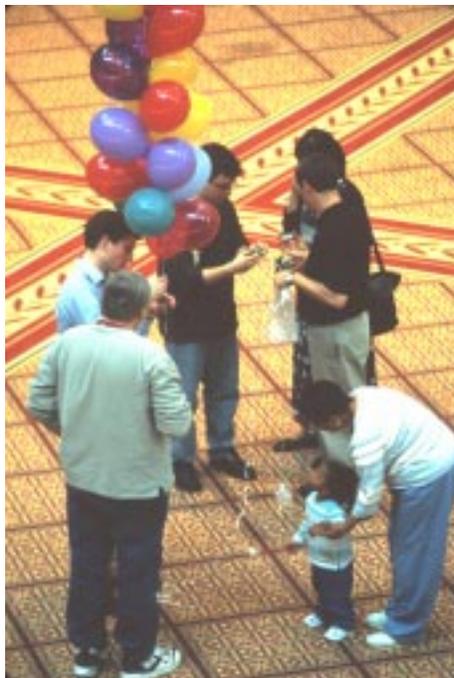
—Bruce Haglund



After a full day inside the NBM, SBSEers pause for a group photo, one of their inalienable rights!



Karen Butler and Hofu Wu of team 3 close in on the fountain's microclimatic parameters.



Team 1 prepares helium balloons to launch HOBOS into NBM space with the aid of a future SBSEer, intrigued by the science of it all.

## 2001 LEADING EDGE COMPETITION RESULTS

The national Leading Edge competition, sponsored by the California Energy Commission, seeks to support and enhance the study of sustainable and energy-efficient building practices in architectural education. For details about the competition see <<http://www.leadingedgecompetition.org/>>. Award winners for the university competition are given below. [The university section of the Leading Edge Competition was swept by students with SBSE advisors!—ed.]

### FIRST PLACE

Apurva S. Parikh, University of Texas at Austin  
Advisor: Michael Garrison

### SECOND PLACE (2-WAY TIE)

Dominik Starzycki, University of Tennessee  
Advisor: Mark DeKay

Chad Forsyth, University of Texas at Austin  
Advisor: Michael Garrison

### CERTIFICATES OF MERIT

**For Comprehensive Theoretical Analysis**  
Bimal Desai, Arizona State University  
Advisor: Harvey Bryan

**For Compact, Clearly Articulated Plan Organization**

Iwona Czerwinska, University of Tennessee  
Advisor: Mark DeKay

**For Site Development and Innovative Ventilation Strategies**

Mario Piccolo, University of Tennessee  
Advisor: Mark DeKay

**For Integration of Sustainable Materials and Systems Concepts**

Curtis Banger, Dan Rentsch, and Aaron White; University of Idaho  
Advisors: Wendy McClure and Ernie Lombard ■

—California Energy Commission

## ANZAScA 35

The Australia and New Zealand Architectural Science Association will hold its 35th conference, "Computer-Mediated Reality: Crafting Design Quality," in Wellington, NZ, 21–23 November 2001. For further information visit <<http://www.arch.vuw.ac.nz/activities/events/2001/anzas/index.html>>.

—Veronica Seobarto

---

**HAPPY TAILS TO -EDS.**


photo: Bruce Haglund

*The News, Redfish Lake, and the high altitude inspired Norbert Lechner, on behalf of SBSE, to offer faux coonskin caps to the editors to ensure future stewardship of the publication. We're mystified, yet honored!*



printed on recycled paper

SBSE NEWS  
C/O BRUCE HAGLUND  
DEPARTMENT OF ARCHITECTURE  
UNIVERSITY OF IDAHO  
PO BOX 442451  
MOSCOW, ID 83844-2451

---

**INSIDE THE BEAST [CONTINUED FROM P. 2]**

appears most concerned with how each move he makes during the crisis will affect his reelection chances in 2002.

California's utility companies, including Pacific Gas & Electric and Southern California Edison, share part of the blame yet also reveal the naïveté of even the big players. While informed debate has shifted to the power generators, until last year the focus was on the utilities and "stranded assets." The retail rate freeze, which many commentators in the press have ridiculed, was willingly agreed to by the utilities. At the time of the agreement, consumer groups complained that retail rates were being frozen at much too high a level. The rationale for freezing rates at this "high" level was to permit the utilities to recover their investments in expensive generating plants, such as the Diablo Canyon nuclear facility. Because it was widely trumpeted that wholesale prices would fall under the new system, utilities and consumer groups believed that facilities, such as Diablo Canyon, would not be able to produce power cheaply enough to compete in the deregulated market. Between 1998 and the summer of 2000, PG&E made close to \$3 billion, thanks to the rate freeze. It was only when wholesale prices spiked last year that the rate freeze suddenly lost its appeal to the utilities. Guaranteed a return on investment under the old system, they seem unable to accept that their agreement to a retail rate freeze entailed risk under the deregulation plan. Consumer groups insist the utilities shifted assets to their unregulated affiliates and that claims of financial duress and/or bankruptcy come from "cooking the books." The utilities' oft repeated concern for maintaining "shareholder value" has alienated many who believe these companies' responsibility to their customers equals that to shareholders. However, the vilification of the utilities has clouded public discussion. Many people in the state don't understand how the deregulated system works and lay full blame for the mess on the utilities. While the utilities are far from blameless, it was the unregulated power generators who drove the State into crisis. Of course privately owned power companies exist to make money. The mania for deregulated markets as a panacea for all ills, hardly challenged in public debate for two decades, needs to be reconsidered. ■

-Bill Burke

---

SUMMER ISSUE SUBMITTAL DEADLINE—SEPTEMBER 1

---