

SOCIETY OF BUILDING SCIENCE EDUCATORS SBSE NEWS



photo: Sandy Starnard

Copenhagen, site of Right Light 4, basking in the MIDDAY November sun.

THE CONFERENCE SEASON IN REVIEW

SUSTAINABLE BUILDING NORTHWEST: SEATTLE, OCTOBER 27-29

In Seattle sustainability is growing. Architects are getting on board. The excitement is reminiscent of the personal computer revolution ten years ago. Remember how one day we woke up and knew we needed to be computer literate?

Sustainable Building Northwest was crowded with professionals—suits and ties, politicians, building officials, designers, builders—looking for information and ideas. And their curiosity didn't originate solely from client requests or marketing ploys. There was a sense of urgency, a realization that the predicament we're all in is terrifying. Our only choice is to change our ways.

Public Technology Inc. organized a rich conference. Paul Hawken rang the bell, frightening us, challenging us to find a shared moral, spiritual, emotional, and economic model to take us into the next millenium. Ray Anderson of Interface Carpet brought tears to our eyes as he disclosed how he's come to understand the failures of the Industrial Revolution. He then inspired us with his company's plan to reinvent industry. The panels and technical sessions focused on how the Pacific Northwest is defining and attacking the problem. There are a number of exciting projects taking big steps toward sustainability. Delightfully, the common ground is good architecture and design.

One building took me completely by surprise. The C. K. Choi Center for Asian Studies at the University of British Columbia in Vancouver is remarkable in its simplicity. There is no sewer hookup; the toilets are composting and the lavatory water is recycled on-site. There are no air ducts; passive stack ventilation does the work. Daylight supplies most of the ambient lighting requirements. More than half of the timber-frame structure was reclaimed from the building next door. The exterior skin is recycled street bricks. Rainwater is collected and used for landscape irrigation. Cheers to the Vancouver firm of Matsuzaki Wright for an enchanting piece of architecture, their first foray in the world of sustainable design.

—Judy Theodorson

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SBSE CALENDAR

1998

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|-----------|---|
| Jan 31 | Borah Symposium abstracts due |
| Feb 2 | SBSE Retreat proposals & deposits due |
| Mar 13-14 | ACSA Technology Conference; Cleveland, OH |
| Apr 14-18 | ARCC Research Conference; Raleigh, NC |
| Apr 15-18 | Borah Symposium; Moscow, ID |
| Jun 13-18 | ASES Solar '98; Albuquerque, NM |
| Jun 18 | Annual Meeting; Albuquerque, NM (noon, Thursday, June 18) |
| Jun 18-21 | Summer Retreat; Taos, NM |
| Jul 7-12 | Vital Signs Summer Training; San Francisco/Berkeley, CA |

ACADEMY WEB PAGE

Finally, <http://www.archsci.org> is up and running. It presents some of the basic ideas of the Academy (in fact, it is text of the proposal I sent to FIPSE last October). Some of the older browsers will find it at <http://www.archsci.org/archsci/>. Alert prospective Academy students! ||

—Murray Milne

LETTERS TO THE EDITOR

I just received my fall newsletter and it looks GREAT as usual ... but I was NOT promoted to associate professor and granted tenure at Oklahoma State as stated. I have been an "asso prof" for twelve years and tenured here for eight. I was promoted to Professor.

—Eric Angevine, Oklahoma State

[Oooooooooops! I knew that! Cut-and-paste editing sometimes renders unexpected results. Page 5 illustrates the consummate full professor. Oh, uh, congratulations!—ed.]



We are seeking a good Master's student for our Technology program for a specific area of research with possible funding. Can we use the SBSE News or the list server to access SBSE?

Thanks for the nice remark about Moji's looks *[scary!—ed.]*. Who took that picture? *[Stealthy Bill Burke.—ed.]*

—Moji Nawab, Michigan

[The SBSE listserver and SBSE News are intended to serve SBSE members, so don't be shy about using them to help advance your research agenda as well as your scholarly and creative efforts. Other advice—stay outta airports with your spot pyranometer!—ed.]



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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; 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, Ontario; Canada N2L 3G1; phone 519-885-1211 x6647; fax 519-746-0512; e-mail <tboake@cousteau.uwaterloo.ca>. Join the SBSE list server by sending **subscribe sbse** to <majordomo@uidaho.edu>. Visit our home-page at <<http://www.polaris.net/~sbse/web/>>. ■

SIGNIFICANT INNOVATIONS IN ARCHITECTURE

Here is a brief summary of the survey to which many of you graciously contributed. A more comprehensive analysis will follow. Thank you to all who responded: you made it possible to have an international conversation that is timely, informed, and relevant.

Two questions were posed and broadcast via the internet to various list-servers (including SBSE and ARCC).

1. What are the two or three most significant improvements and/or innovations in architectural practice since 1982?
2. What are the best examples of improvements and/or innovations that can be credited to research?

A total of 18 individuals responded in the short time frame, each with from one-to-four citations. 48 nominations were submitted in response to the first question. Only 13 nominations, including a doleful "very little," were attributed to the second.

While the total number of respondents represents a relatively small sample, those who did respond are both well-known and well-placed architects and researchers, so I consider the results to represent the opinions of "informed experts" in the field of architectural innovation. Respondents included: Ed Arens, Jim Bradburn, Dana Buntrock, Jeff Cook, Randy Croxton, Larry Degelman, Harry Gordon, Glenn Hill, Tom Hopper, Alison Kwok, Tang Lee, J. Owen Lewis, Vivian Loftness, Margot McDonald, Murray Milne, Jennifer O'Connor, Edward Steinfeld, Steve Szokolay.

- 29% were related to Computer-Aided Design and Electronic Information including: CAD, internet communication among research/design/build team, computer simulation (*Energy 10, Solar 5*), expert systems, fax and e-mail, virtual reality simulation, *DOE2.1*.
- 29% were related to Energy and Environment Technologies, including: HVAC integration, environmental health issues, IAQ, resource efficient building materials, sustainability, climate-responsive design, increased insulation standards, photovoltaics, compact lighting (T-8s).
- 17% were related to glazing technologies and/or passive solar/daylighting including climate-smart glazing, heat mirror.
- 25% were miscellaneous, but very important, items including the rise of design/build, design interest in systems integration (Foster, Rogers, Piano, ARUP), land planning and new urbanism, global practice, universal design, PoE, earthquake mitigation, rapid prototyping, and tensile fabric structures.

The 13 responses to Question 2 cited LBL's role in developing DOE2 and also glazing technologies, electronic industries in CAD and electronic information systems, advances in adhesives and synthetics (private sector), National Research Council of Canada and UBC (building performance evaluation), EPA and COTE in developing environmental awareness and the ERG, and the architect's insistence that manufacturers supply test data of their products.

From these submissions and in the summary presented at the ARCC meeting in DC, Don Watson posited three areas or "best picks" for their current innovation potential:

1. Building performance evaluation that combines energy and environment, health, human factors, PoE, and building commissioning.
2. Instantaneous and concurrent team design that integrates architecture, structures, HVAC, lighting, and other expertise at the earliest schematic design stage made possible by electronic simulation, rapid prototyping, and telecommunications.
3. Concept of building as part of the natural system including improved water, waste recovery, and air quality along with climate- and human-responsive technologies.

Your further comments are welcome. ■

—Don Watson

THE CONFERENCE SEASON IN REVIEW [CONT.]

ARCC/ACSA RESEARCH FORUM: WASHINGTON, NOVEMBER 7

This forum presented the opportunity for federal funding agencies and architectural education interest groups to become better acquainted. The first half of the meeting allowed federal agencies (DOE, NIA, NIST, NSF) to describe past, present, and future research projects for architecture faculty. In the second half professional and academic architectural associations (ACSA, AIA, ACADIA, EDRA, SAH, SBSE) spoke about their organizations (membership, purpose, publications). *[Grotesquely, most federal agency reps left before our presentations!—ed.]* In addition to outlining past accomplishments of SBSE members (e.g., Vitals Signs), I identified four fundamental questions plaguing faculty in our teaching and research areas:

1. How can research methods become part of the architectural curriculum so we can compete for research funds?
2. How can we strengthen the teaching of the scientific method *[To address even "wicked" problems.—ed.]* in architectural education?
3. Are there other research methods particular to architecture, an applied field? How do these methods rank with traditional research methods?
4. How do we more effectively communicate the value of architectural research to the scientific community and associated funding agencies?

The Initiative for Architectural Research (IAR), sponsored by AIA, ACSA, and ARCC and headed by Michelle Rinehart <rinehart@acsa.org> is taking a leadership role in creating a web site <<http://www.architectureresearch.org>> that begins to link architectural research opportunities. A flyer on this effort was mailed to ACSA members last week. We will look for ways to further our dialogue about this important topic through the *SBSE News* and our list server and website.

—Margot McDonald

RIGHT LIGHT 4: COPENHAGEN, NOVEMBER 19–21

What better place to hold a conference about light than a place with so little daylight during the meeting! Copenhagen was the site of *Right Light 4: The 4th European Conference on Energy Efficient Lighting*. It was an international gathering with nearly 300 representatives from across Europe, Asia, Africa, Australia, South America, and North America. With the charge to address "quality lighting and energy efficiency," the participants represented academia, utility companies, energy agencies, manufacturers, architects and designers, energy consultants, and researchers. Session topics were varied and included workshops on energy efficient systems, photovoltaics, computer tools, visual quality, and lighting education.

I learned about "Daylight Europe," a three-year project involving twenty research institutions that monitored and reported on daylighting performance of sixty European case-study buildings, including schools, office buildings, churches, residences, airport terminals, libraries, and hospitals. Publications of project results (*Daylight Design Guidelines for Europe* and *Daylit Buildings in Europe—Case Studies*) are forthcoming in spring 1998 from James+James Science Publishers.

A refreshing inclusion in this year's conference was a section on lighting education, which included well-received presentations from three SBSEers: Lucie Fontein (Carleton), Marietta Millet (Washington), and Sandy Stannard (Idaho). The conference organizers look forward to continuing and strengthening the discussion with academicians about teaching lighting.

—Sandy Stannard

[I also asked Marietta Millet to comment on Right Light 4. She agreed with Sandy and added, "Being in Denmark at midwinter was wonderful. Now I understand why the Scandinavians design so beautifully with light—it is simply precious! I think the Danes buy the most candles and candleholders per capita. Those beautiful Poulsen fixtures—suspended upside-down saucers with red and blue interiors to color the light—are sold in almost all the department stores and softly illuminate apartments come the dusk. And prominently displayed in the windows of travel agencies are ads for airfare to Saudi Arabia—wonder why?"—ed.] ||

SBSE PEOPLE

Architects for Social Responsibility featured **Harvey Bryan** and Ambrose Spencer's presentation of "Environmental Assessment Systems for Buildings" on November 18 at *Build Boston*. Their presentation highlighted different rating systems for building performance in terms of energy use, embodied energy, indoor air quality, and recycled materials.

At the ARCC Annual Meeting **Walter Grondzik**, **Bruce Haglund**, and **Allison Kwok** were elected to the ARCC Board as President, Vice-President, and Treasurer, respectively.

Dean Heerwagen is working to correct the acoustical environment of University of Washington classrooms (20% are considered dysfunctional) with the goal of improving speech intelligibility and hearing conditions for both students and faculty *[Dean, can you help me with my mumbling?—ed.]*

Marietta Millet's Lighting Fixture Design Studio was awarded an Honorable Mention in this year's AIA Education Honor Awards Program. It will be one of ten courses published in the 1997 Honors Program Monograph.

The University of Michigan took a calculated risk and promoted **Moji Navvab** to associate professor with tenure.

Veronica Soebarto received an award for "outstanding early achievements in the science of building simulation." The award, given by the International Building Performance Simulation Association, was presented at the *Building Simulation '97 Conference* in Prague, September 8–10, 1997.

Last year's P&T procedures at the University of Houston affirmed **David Thaddeus** as associate professor with tenure. ||



Gunnar Hubbard, Adam Jackoway, and Rob Peña toast John Reynolds at Solar '97.

LETTERS TO THE EDITOR [CONT.]

Reading the *SBSE News* is almost like meeting with old friends. Really! I miss my SBSE friends and the interactions we used to have, even though we still can interact through e-mail.

My first two days at the university were full—I was invited to be a design jury for a fourth-year studio. I saw good work; many students really thought about thermal comfort and passive design, and they were very innovative. Yesterday was exciting, too, as we also had a guest jury from Pei, Cobb & Freed's office.

I'm planning to go back to Texas A&M this December. We're going to have the 9th Energy Software Seminar, and Larry Degelman is inviting me to present part of it. (I shouldn't say "we" because I am no longer officially connected with Texas A&M.) We have been modifying *Ener-Win* for international users. [See story on page 7.—ed.]

—Veronica Soebarto, Indonesia

[I don't recall my first two days at Idaho as being so exciting. I think I imitated a deer caught in headlights. If you keep this up, you just might get tenure.—ed.]

FACULTY POSITION

TECHNOLOGY AND DESIGN AT RPI

Candidates shall demonstrate strength in teaching and research in construction technologies and computer-assisted design integration. Faculty are expected to take the lead in teaching the technology and design studio sequence in the school's architecture and building science degree programs and to undertake significant research and scholarship with potential to attract funding and national/international pre-eminence, in support of RPI's strategic initiatives for information technology, globalization, and interactive learning.

Candidates should submit a résumé, statement of professional interests, as well as three references' names/addresses to: Chair, Faculty Search Committee; School of Architecture; Rensselaer Polytechnic Institute; Troy, NY 12180.

Review of applications began November 20 and will continue until the position is filled. Applications from women and minorities are particularly encouraged. An EO/AA employer. ■

RESEARCH NOTES

SUSTAINABLE DESIGN RATING SYSTEM

HOK of San Francisco, the Hennepin (MN) County Department of Public Works, and John Carmody and Mary Guzowski of the University of Minnesota College of Architecture and Landscape Architecture are working together to develop a Sustainable Design Rating System for the Hennepin County Department of Public Works. The rating system will provide guidelines, criteria, and assessment tools to assist designers in achieving favorable environmental performance through design. Hennepin County has committed to using (and testing) the system in all their new construction and building renovations (offices, hospitals, libraries, and correctional facilities) during the next five years. The rating system will be completed by fall 1998.

—Mary Guzowski

ARCHITECTURAL REGISTRATION EXAM DEBUNDLING

One of the areas NCARB is considering for further discussion and investigation is debundling the Architecture Registration Examination (ARE) so parts of it can be offered to candidates immediately after graduation from an accredited degree program. As a writer for the ARE for the past four years and now Vice-Chair of the writing committee, I would appreciate any thoughts SBSEers have on the topic. E-mail your perspectives on pros, cons, subjects to include or exclude, and any other feedback to <kprigmore@fac.howard.edu>.

—Kathryn Prigmore

MULTIPLE CHEMICAL SENSITIVITIES (MCS) ON TRIAL

Tang Lee, University of Calgary, was a key, expert witness at a precedent-setting court trial in Canada on the topic of environmental illness. Several teachers and students at a high school in Regina, Saskatchewan, became ill as a result of the air contaminants in the school. While seven teachers launched the lawsuit, only one teacher's case went to trial.

In 1996 Tang Lee conducted the air quality investigation, on behalf of both sides (teachers and school board). The results showed that there were sufficient air contaminants to cause illness in some occupants.

At the trial, the school board tried to terminate the trial because they claimed that MCS and environmental illness are psychosomatic. The judge had to dismiss the jury and bring in an expert witness to convince him that MCS is not "junk science" (his words). With some convincing arguments from Roy Fox, M.D., from Nova Scotia, the judge conceded that there was sufficient evidence that MCS and environmental illness exist. At the end of the three-week trial, the six-person jury determined that the environment at the school had caused the teacher's illness. However, they also decided that the school board was not negligent. With this decision, the teacher cannot recover damages and will have to pay court costs. The two decisions are contradictory. During the trial, the judge refused to let the jury hear that six other teachers and a student were also ill and had sued. Without this knowledge, the jury may have thought the one teacher was an exceptional case. If they had heard about the other teachers and student, the verdict may have been different. An appeal is being considered.

—Tang Lee

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Steven Holl's exquisite St. Ignatius chapel graces the Seattle University campus.

RESEARCH NOTES [CONTINUED]

HELPING ARCHITECTURE STUDENTS DESIGN ENERGY-CONSCIOUS BUILDINGS

Tons of carbon dioxide gases leak into the atmosphere each year as a result of energy produced to power inefficient buildings contributing to the greenhouse effect. With that in mind, the U.S. Department of Education (USDE) has enlisted researchers at the University of Oregon and three other universities to help architectural students learn how to build more energy-efficient buildings. The department has awarded a grant to the UO's Energy Studies in Buildings Laboratory, the University of Minnesota, Virginia Polytechnic Institute, and Washington University to develop curricula that will teach energy-efficient design to the next generation of architects. "We can incorporate energy analysis and strategies in the earliest stages of building design," says UO researcher G. Z. Brown, "and that's one of the easiest ways to reduce energy use and improve the environment." The four universities will work together over the next three years to develop course materials in both traditional and electronic formats for use in studios, seminars, and lecture classes. As part of the project the researchers will evaluate the effectiveness of the program.

Brown is director of the UO Energy Studies in Buildings Laboratory, which developed an energy evaluation software tool called "Energy Scheming." The program performs energy calculations on building designs from simple graphic data, avoiding the need to enter tedious numerical data. The software features thermographics (color images in shades of red and blue) that reflect rates of heat gain and loss. These images vividly show the user where the building is losing or gaining heat. The thermographics are augmented with an expert system called the "infrared professor" that tells the user which parts of the structure—windows, walls roofs—need to be redesigned to make the building more efficient.

At the UO, the project investigators will produce a self-paced set of "Energy Scheming" exercises students can use without the guidance or assistance of an instructor as well as a series of web pages with links to notes on energy concepts, explanations of the algorithms used in "Energy Scheming," case histories, and material on how to incorporate energy considerations in architectural design. The UO-developed course materials will be available to architecture schools around the world.

The \$288,616 grant from the USDE Fund for the Improvement of Post-Secondary Education will cover 49.8% of the project cost. Participating universities will pay the remaining costs.

For more information contact G. Z. Brown, University of Oregon, 541-346-5647; Lance LaVine, University of Minnesota, 612-624-5814; Mark DeKay, Washington University, 314-935-6282; and Paul Clark, VPI, 540-231-5329. ■

—Terry B lomquist

EVENTS

COLD CLIMATES

Renewable Energy Technologies in Cold Climates '98, sponsored by the Solar Energy Society of Canada, will be held in Montreal, **May 4-6, 1998**. For information e-mail <RETCCC.98@sympatico.ca> or check the website <<http://www.newenergy.org/newenergy/sesci.html>>.

HOT AND HUMID CLIMATES

The eleventh symposium on *Improving Building Systems in Hot and Humid Climates* will be held in Fort Worth, Texas, **June 1-2, 1998**. For information contact Dawna Rosenkranz, 409-847-8950 or <drosen@esl.tamu.edu>.

LUKEWARM CLIMATES

The ACEEE Summer Study on Energy Efficiency in Buildings is scheduled for **August 23-28, 1998** at Asilomar Conference Center in Pacific Grove, CA. For conference info e-mail <ace3-conf@ccmail.pnl.gov> or check the website at <<http://aceee.org>>.

GREEN BUILDING CHALLENGE

Green Building Challenge '98 will be held in Vancouver, BC, **October 26-28, 1998**. Poster proposals are due February 16, 1998. For information contact Nils Larsson <larsson@greenbuilding.ca>.

UIA BEIJING 1999

The *XXth UIA Congress of World Architects* will be held in Beijing in **1999**. Abstracts for academic treatises on "Architecture and the Environment" are due January 31, 1998. For info contact Treatise Group; Scientific Committee; The XXth UIA Congress Beijing '99; c/o Architectural Society of China; 9, Sanlihe Road, Beijing 100835, China; phone 0086-10-68393659; fax 0086-10-68393428. ■

E DESIGN ONLINE UPDATE

e design Online, electronic journal of "best practices" in energy efficiency and sustainability, continues to publish articles, interviews, reviews, and editorials of potential interest to SBSE members. Published by the Florida Design Initiative, *e design Online* is attempting to positively influence building and community design through example and commentary. Recent additions to a growing collection of information include the on-going series "Cars vs. Cities," reports from Florida cities on their efforts to promote sustainability, opinions on ASHRAE's recent decision to lay low on Standard 62, publisher Larry Peterson takes on the North Florida architectural establishment, and Editor-on-Sabbatical Walter Grondzik [*aka Quixote-ed.*] takes on the North American architectural establishment. *e design Online* publishes on a rolling schedule so it is advisable to check the "What's New" page <<http://edesign.state.fl.us/fdi/e-design/online/whatsnew.htm>> often or sign up for the e-xpress [*cutesy, eh?-ed.*] automatic notification service. ■

—Walter G rondzik

 BOOK REVIEWS

Relativity Visualized, Lewis Carroll Epstein, Insight Press, San Francisco, 1981, \$17.95.

Okay, thanks for indulging my obsession with relativity, but now I've found a tome for all you visual thinkers. *Relativity Visualized* really does provide graphic descriptions of the proof and principle of relativity. These should convince even the Ludites among you that not only is the earth a sphere (kinda), but that space and time are curved! It also assures us that we are not slowing down with age. Even though you can't travel faster than light, you can't go slower. "Everything, including you, is always moving at the speed of light. How can you be moving if you are at rest in your chair? You are moving through time."

Not only are the graphics convincing, but the text is witty. You'll enjoy stretching your understanding and delight in pondering relativity's role in the Big Bang cosmology, worm holes, black holes, and curvy space-time. Also, find out your shadow's color—a must for daylighters.

—Bruce Haglund

Erik Asmussen, Architect, Gary Coates, Byggforlaget, Sweden, 1997, cost: 595 SEK.

The man behind the anthroposophical community's distinctive architecture in Jarna, Sweden, is Erik Asmussen. He is a man of some eighty years, still actively running his own office in an old storehouse. Asmussen's life-work is presented in an excellently illustrated volume by [SBSEer] Gary Coates, who studied his subject for ten years. Through over 40 illustrations, color photographs by Max Plunger, and drawings by Susanne Siepl-Coates, the highly individualistic architecture with its organic shapes and subtle, yet bold, use of color is portrayed. The work reveals extraordinary daylighting technique in a Nordic climate.

—Jeff Cook

Light Revealing Architecture, Marietta Millet, Van Nostrand Reinhold, NY, 1996, \$59.95.

This book is about architecture—revealed through light. The theme is the richness of the architectural experience. Thus, it is really a treatise on the phenomena of architecture. Photons are not mentioned. [Eeeeew! I wanna hear about photons.—ed.] The scintillating cover

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 VITAL SIGNS

 NEW RESOURCE PACKAGE

This fall Mike Utzinger and Jim Wasley (Wisconsin–Milwaukee) completed a new resource package, *Building Balance Point*. They present methods, at two levels of complexity, for examining building energy flows. If you haven't seen this excellent package, download it as a PDF file from the Vital Signs web site, <<http://www.ced.berkeley.edu/cedr/vs/inf/rps.html>>.

 TOOLKIT LOAN PROGRAM

Each winter Vital Signs will issue a toolkit loan RFP for the following academic year (available at our internet site on February 2, 1998). **Proposals are due Friday, April 3.** Start thinking of ways your students could benefit from the use of \$25,000 worth of building measurement equipment for either a term or an academic year. To inspire you, here are two examples describing how University of Texas students have used the Vital Signs toolkit. Jeff Ryan, teaching a second-year drawing class, wanted his students to produce section and plan drawings illustrating both the quality and quantity of light. Using the toolkit's light meters, the entire class took measurements of light levels in the architecture building. Beginning with isolux contours, they produced a series of pencil and ink drawings that were both beautiful and informative. A team of grad students recorded baseline conditions for a high-tech manufacturing facility in Ft. Walton Beach (FL). After these conditions were established, the local utility, Gulf Power, funded a lighting and HVAC retrofit. The Hobo data loggers were used to record the facility's "before" and "after" lighting performances and will be part of a worker productivity evaluation.

Full year equipment kits loans were made to: Virginia Cartwright, Diane Armpriest, John Reynolds (Oregon); Michael Garrison, Lance Tatum, Robert Mugerauer (Texas at Austin); Jane Greenwood (Mississippi State); Jeff Haberl, Larry Degelman (Texas A&M); Richard Kelso, Shailesh Jain (Tennessee at Knoxville); and Michael Utzinger, Jim Wasley, Gerald Weisman, Jeff Lackney (Wisconsin at Milwaukee). Fall 1997 only to: Alison Kwok (Cornell) and Carol Praefcke (North Dakota State). Spring 1998 only to: Rula Awwad–Rafferty, Nigel Jones, Eric Angevine (Oklahoma State) and Terri Meyer Boake (Waterloo).

 CASE STUDY/TEACHING SUPPORT GRANTS

We received 30 proposals for our \$5,000 Nathan Cummings Foundation-sponsored Case Study/Teaching Support Grants for Spring 1998 student investigations. Encouraged and excited by the quality of the submissions, we had great difficulty making the selections, so there were many deserving proposals that we were unable to fund. Thanks to everyone who took the time and effort to apply! Our grantees, who should produce many interesting case studies, are:

Donald Dougald, Michael Bednar (Virginia): Four Buildings on the UVA Campus
 Bruce Haglund, Sandy Stannard (Idaho): Four Daylighted Seattle Buildings
 Alison Kwok (Cornell): Audubon House
 Carol Praefcke (North Dakota State): Buildings in an Extremely Cold Climate
 Wolfgang Preiser, David Lee Smith (Cincinnati): Aronoff Center for Design and Art
 Peter Stone, Thomas Pugh (Florida A&M): Earth-Coupled Houses in Florida
 Gordon Wittenberg, Mark Oberholzer (Rice): Menil Gallery and Twombly Gallery

 VITAL SIGNS STUDENT COMPETITION

The second Vital Signs Student Case Study Competition, made possible by the Educational Foundation of America, will be judged this spring—**entries are due June 15, 1998.** Student field investigations may take place during fall 1997 or spring 1998. First prize in both the undergraduate and graduate student categories is \$2,000 for the student and \$1,000 for the school. The competition program is available at the Vital Signs website. We have assembled an excellent jury of William Bruder, Architect; Nancy Clanton, Clanton Engineering, Boulder, CO; Charles Davis, Esherick Homsey Dodge & Davis; Gail Lindsey, Design Harmony, Raleigh, NC; Nadav Malin, *Environmental Building News*; John McRae, School of Architecture, Mississippi State; and an AIAS Representative. Consider a case study assignment in one of your courses so students can develop a competition entry. If you didn't get a poster (mailed in November) and would like one, contact Bill Burke <bburke@ced.berkeley.edu> or 415-972-5931. ||

—Bill Burke

NEW VERSION OF ENER-WIN

ENER-WIN is an hourly energy simulation software package for predicting energy use in buildings. It can estimate peak heating and cooling loads, annual energy consumption, monthly utility bills and demand charges, life-cycle costs, and annual thermal comfort. It has been used as a design tool for evaluating shading devices, daylighting strategies, and alternative building envelope designs. The output is expressed in terms of energy consumption per unit area, so use can be compared to energy codes or other regional energy targets. The software is also being used by architecture students to evaluate alternative design approaches.

Features: User-selected units—SI or Inch—Pound. Operates under all versions of Windows. Improved sketching interface. New Windows interface for the weather data base—easy to add cities. Able to read hourly weather data from TMY2 or WYEC2 files. Permits changes in default data for HVAC system parameters and thermal properties of the building skin. Compatible with *ENER-WIN 96.04* files. Permits 15 HVAC zones per floor instead of 10.

HOW TO OBTAIN *ENER-WIN*

Distribution is simple—you obtain a full-featured, no-cost version of *ENER-WIN* for a trial period and you get a perpetual license by paying the registration fee.

Over the Web—download a full version of *ENER-WIN* from our website, <<http://archone.tamu.edu/~energy/enerwin.html>>. Click on the red button, "Download Now *ENER-WIN 97.01*," for the pop-up dialog box; then click on "Save File" to see the file called "EWIN.ZIP." Download this file to a temporary directory on your computer. Use PKUNZIP to unzip about 68 files including the setup program, "SETUP.EXE," which will install *ENER-WIN*.

By FTP—access our anonymous FTP directory, "/pub/enercalc," and download directly to your PC. Our Host Name is <archtwo.tamu.edu>; your user i.d. is "anonymous" and your password <guest@tamu.edu>. Download EWIN.EXE to a temporary directory. When you execute this file, it explodes into installable files including "SETUP.EXE," which installs *ENER-WIN* on your computer.

By Mail—order through the mail for a one-time fee of \$250. In this case, the software is provided on a diskette included in the user's manual.

By Seminar—Annual training seminars are conducted at Texas A&M. The seminar fee is \$250 (\$50 for students) and includes a registered version of the software, identical to those ordered by mail. The advantage of attending the seminar is that you are fully trained in 1½ days, and your questions can be answered. Download the software in advance, and bring it with you on your notebook computer.

Through Vital Signs—Vital Signs is a curriculum development project centered at the College of Environmental Design at UC Berkeley. Under this program, each North American school of architecture has access to a single copy of *ENER-WIN* for a fee of \$20. This fee does not include updated versions. Access to additional Vital Signs information can be made through our web site, <<http://archone.tamu.edu/~energy>>. ■

—Larry D egelman

BOOK REVIEWS [CONT.]

showing the floor of the west-facing stairwell of the Carpenter Center for the Visual Arts communicates the tactile brilliance of spectral daylight across architectural materials, but not the spatial and spiritual revelations of the book.

There are only four generous chapters, each followed by a monograph on a daylighted building. The chapters subdivide architectural examples into experience, form, space, and meaning. Thus, building types, chronologies, styles, and architects are dispersed as a spectrum across each subjective chapter.

There is no scientific reading of light levels or any other measurements to prove anything. But, scaled plans and sections are provided. This book's definition of architectural success from light depends only on verbal descriptions of luminous quality, intimately observed, richly and densely written, and engagingly directed. Everywhere the photographs are in color, many by the author, but a variety of collegial sources add to the diversity of perception. Most revealing is the temporal mix that deliberately juxtaposes shots from different times of day, different seasons, and different voyeurs, illustrating the rich multiplex of conditions and responses to architectural stimuli.

Critics who seek inclusive and comprehensive coverage will discover that not all building types are included: the workspace, the office, the school, and hospital, among others, are absent. This elitist selection of buildings is based on architectural quality, disciplined by light. That the extraordinary and inspired examples happen to be churches, museums, and libraries—the traditional public functions of great architecture—may also be a cultural lesson of evocative values, not lost in our time. ■

—J eff Cook



photos: Marc Schiller



Eric Angevine and Harvey Bryan caught in post-parandial dreams in Pomona.



photo: Mark DeKay

Lance Lavine sucks caffeine at the Majestic in St. Louis. Given his administrative duties, he'll need megadoses.

SBSE WWW NEWS

The new and improved SBSE website, <<http://www.polaris.net/~sbse/web/>>, is up and running. Some areas need more development, some need member input, but the structure is there. The keys to success will be use of the site and sharing of resources among members.

—Walter G rondzik

Help us assemble our website's curriculum materials directory for building science courses at North American architecture schools. The list represents an effort to collect a sampling of descriptions of both required and elective building science courses.

If you want to provide information to SBSE, please send the following: building science course titles and descriptions, course length and credit hours, the year-level(s) for the course, and links to copies of course materials [when available] to Alison Kwok, <agk9@cornell.edu>. ■

—Alison K wok

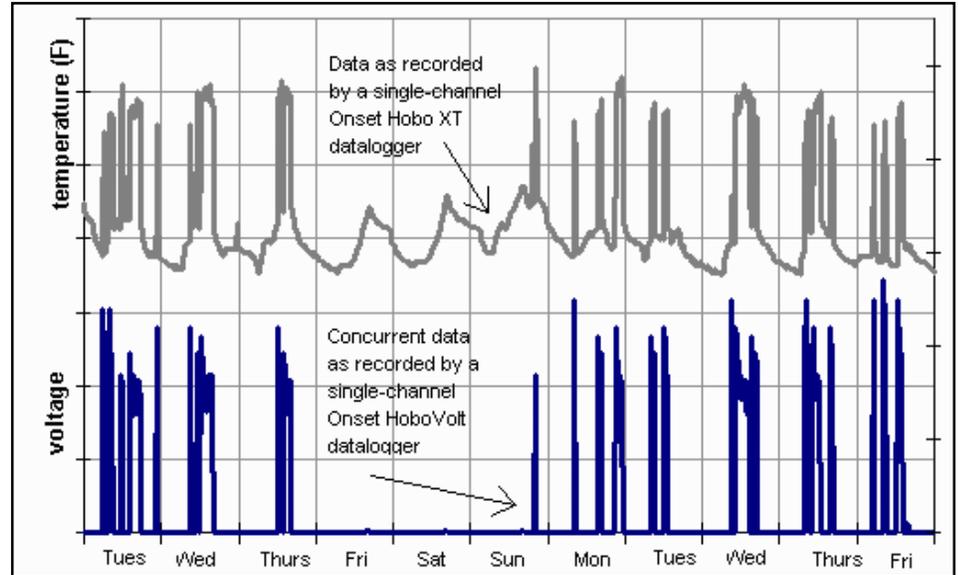


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MYSTERY PLOT—WHATDUNIT

Cris Benton challenges SBSEers to identify the culprit in the Hobo plots below. Send your Columbo-esque hunch to ed., <bhaglund@uidaho.edu>, by March 1. The top sleuth(es) will have to write a guest column for the Spring *SBSE News*. [*Not as cool as matching wits with Wool Shorts live on NPR, but we are, after all, a volunteer organization!—ed.*] ■



SPRING ISSUE SUBMITTAL DEADLINE—MARCH 1
