

# SOCIETY OF BUILDING SCIENCE EDUCATORS SBSE NEWS

---

## SPRING 1997



*View of the Washington Monument from deep inside the Viet Nam Memorial.*

photo: Bruce Haglund

## CALL FOR NOMINATIONS

It's time again for the SBSE elections. Nominations are sought for:

President-Elect

Secretary/Treasurer

The positions are for a two-year term beginning November 1, 1997. Please forward your nominations to Mary Guzowski <guzow001@maroon.tc.umn.edu>. All nominations will be discussed and finalized at the SBSE Annual Meeting on Sunday, April 27 from 5:00–7:00 pm. A ballot with the final candidates will be sent to all SBSE members with your summer statement for membership dues. Nominate your colleagues or yourself.

### CURRENT SBSE OFFICERS

President: Mary Guzowski, University of Minnesota; President-Elect: Margot McDonald, Cal-Poly, San Luis Obispo; Past-President: John Reynolds, University of Oregon; Secretary/Treasurer: Leonard Bachman, University of Houston.

Margot McDonald begins her two-year term as President in November 1997. ||

—Mary Guzowski

## SBSE SUMMER RETREAT 1997 UPDATE

A capacity crowd of 41 SBSEers has been selected for the Santa Barbara retreat. The dawn-til-dusk agenda includes AIA continuing education workshops and the usual SBSE stuff (working sessions, discussion topics, field trips, networking, and good food). The final schedule will be mailed soon to participants; Mystery guest speakers will be revealed. Contact Murray Milne for more information. Stay tuned. ||

—Bruce Haglund

## SBSE CALENDAR

- Apr 25-30 Annual Meeting; Washington, DC (5 p.m., Sunday, April 27)
- Jul 11-15 Summer Retreat; Santa Barbara, CA
- Aug 5 Vital Signs Equipment Workshop; San Francisco, CA
- Aug 6-10 Vital Signs '97 Training Session; Berkeley & San Francisco, CA
- Nov 1 Ascension of officers ||

## SBSE ANNUAL MEETING

1. Treasurer's report (Leonard)
2. Peer review update (Walter)
3. ARCC update (Walter)
4. ACSA developments (Mary)
5. Summer retreat (Margot)
6. "The Academy" (Murray)
7. Nominations (Mary)
8. Retreat plans for 1998—Taos, NM (Mary)
9. Other news (Vital Signs, Bellagio updates)
10. Adjourn to ASES Emerging Architecture

We'll have to be efficient to complete all this business in 1½ hours! If you want to eat dinner during the meeting, I'm ordering take-out. Then we can make it to Emerging Architecture. ||

—Mary Guzowski

## LETTERS TO THE EDITOR

Bravo to David Lee Smith and whomever is responsible for his review of UC's recent "blessed event." David's piece has become a necessary and permanent reference in my library on the topic, "Will we ever learn?" Peter E. recently could be heard on NPR talking up his scheme with something like, "It is for the younger generation, in the hope that it will blow them away . . . then they will grow up and blow us away too." Is that what it's all about? Fade to background of Bob Dylan singing, "The answer, my friend, is . . ."

—Don Watson, RPI

[I confess. I egged on David, but it was Halloween! I, too, am always amazed that architecture schools inhabit such terrible buildings (the worst on campus), often designed by "prominent" architects.-ed.]



Congratulations, SBSE. Our newsletter is finally being read by the professional press. The February issue of Architectural Record quotes David Smith's review of the Aronoff Center from our winter newsletter.

—Harvey Bryan, not-UCLA



• continued page 4

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 Leonard Bachman, Secretary/Treasurer, University of Houston, College of Architecture, 4800 Calhoun, Houston, TX 77204, phone 713-743-2372. Join the SBSE list server by sending subscribe sbse to <majordomo@uidaho.edu>. Visit our homepage <<http://brick.arch.vuw.ac.nz:85>>. ■

## CENTERED IN DESIGN—INFORMED BY TECHNOLOGY

I recently reviewed the packet of material from Fuller Moore on last summer's ASCA-sponsored Summer Technology Conference, Teaching Structural Creativity. It's full of good stuff (presentations and class notes in various states of repair or completion) and conveys the vitality of current structures teaching. Similar exchanges of class syllabi and papers are what SBSE is all about, isn't it? Put this high level of interest alongside the increasing technological sophistication of architectural practice throughout the world (evident in large-scale transportation architecture, such as railway stations and airports) and you have a core of interest centered in design and informed by technology. Add the considerable work from the behavioral sciences (represented by EDRA) and research (represented by ARCC). Extend that expertise and interest to the entire body of knowledge that we loosely call "architectural science," the natural correlate of design. Small steps, easily taken. I've got one dictionary that defines architecture as "the art OR science of building design." I am looking for the one that has the definition as "the art AND science of design."

It is time for SBSE and its collegare—ARCC, ACADIA, EDRA—to come together. My suggestion is simple: the leadership—better yet, the entire community of individuals—of organizations committed to the disciplines of architectural knowledge, research, education, and practice form a consilium (run to the Latin dictionary! ["with silliness?"-ed.]) and create one address, one forum, one set of publications as a locus for development of the discipline of architectural science. The trend in practice, towards sophisticated technology and explicit building performance measurement, plus the word "knowledge-base" bandied about since the Boyer/Mitgang opus, suggest the time is right. Those most involved in developing that knowledge base—the researchers, scholars, and teachers of architecture and technology—could form a coherent umbrella organization to promote architectural science that includes the human sciences, building sciences, and design research largely defined to include rigorous design. There has been discussion that ACSA and AIA assume this role. Fine. They will get around to it eventually, but they are larger organizations, with vested interests and much slower change capacity. Let the model be defined by the smaller, more vigorous, and responsive organizations who have held their place at the table for decades. Let's show how it can be done and how to do it. Then take it to the larger organizations—grassroots and bottom-up development at its best. The idea is very simple. It can be accomplished by two, three, or four of the organizations saying to one another, "Let's do it." And do it today, not at next year's conference. Figure out how to do it today—by fax, e-mail, or conference call. There will be a meeting of ARCC in April, chance number one. There will be a meeting of SBSE in July, chance number two. Someone out there is connected to EDRA and ACADIA and all those other organizations (remember the structures teachers!).

What to do when the consilium is formed? Joint conferences, joint task forces formed around critical and strategic issues, joint publications, joint research funding. Follow ASHRAE's model. It works. Adjust it to architecture. Make it better.

A modest suggestion, quietly put forward. ■

—Don Watson

## THE LATEST ACSA TECHNOLOGY CONFERENCE

In the February 1997 ACSA News, Executive Director G. Martin Moeller, Jr. acknowledged that, "While some members adamantly felt that the Technology Conference should be separated from the Annual Meeting [count me among them -ed.], others felt it was quite important that the two be held in tandem." [Apparently, fence-sitting is environmental.-ed.]

My quick survey of the contents and contributors to the new Technology Conference reveals that of the 13 sessions, 5 are germane to SBSE interests, yet only 8 SBSE members are represented as presenters and only 2 SBSE members are moderating sessions. Our involvement is a mere shadow of our former presence. Clearly, we need to find more effective ways to gain some clout in this important interchange of ideas on architectural technology. What to do? ■

—Bruce Haglund

## ECOLOGICAL DESIGN EDUCATION NETWORK

As the demand for ecological design education builds, students are looking outside their classrooms for support. Unfortunately, very few university programs specifically and comprehensively teach or direct careers in ecological design. At the Ecological Design Institute a program has been developed explicitly to address this issue. The Ecological Design Education Network (EDEN) was established to create a supplement to the current system while supporting long-term change. EDEN is an intern placement program providing architecture students with the opportunity to learn ecological design through hands-on experience. Our interns are all outstanding students, active in pursuing their own education with an interest in furthering ecologically responsive design as a professional option.

EDEN provides paid internships in architecture and design-build firms practicing socially responsible and environmentally-conscious design. Current expansion is aimed at involving "green" businesses both as program sites and sponsors. To apply, students must either be in an M.Arch. program or have completed at least two years in a B.Arch. program. Interns must return to school for at least one semester after their internship to inspire other students and faculty to address issues of sustainability in design.

Since the program began in January 1996, over 1,100 students have requested applications. Applications are reviewed in the fall, spring, and summer. Participating sites are located all over the country. Some sites afford the occasion to work with alternative energy sources, materials, and systems while others focus more heavily on sustainable community planning or ecological land-use planning. Interns may be skilled in drafting, design, model building, construction, graphic design, research, analysis, computer-automated-design, and word processing. EDEN functions as the matchmaker, trying to find the best fit for each applicant and office.

The first group of EDEN interns are now having a variety of experiences. At CAPA (Chicago Associates Planners & Architects) an intern is working on the design of a housing project to be named "the sacred place," researching alternative materials and coding the paths of surrounding nature trails. At E<sup>2</sup> (Environmental Enterprises) in Los Angeles an intern is working with clients on energy-efficiency assessments for commercial buildings. The Ecological Design Institute's intern drew interior elevations for a residential project involving active solar design, rammed-earth walls, radiant floor heating, and gray-water systems.

One intern observed that the greatest assets he has encountered are the resources available in the office: the people, publications, library materials, and communal philosophy regarding sustainable design practices. Inevitably, each EDEN intern will complete her or his experience with a deeper understanding of what initially brought her or him to EDEN—the desire to learn and understand ecological design.

If your firm, business, or school would like to participate or know more, visit our web site <www.ecodesign.org> or contact Jill Rosenblum; EDEN; c/o Ecological Design Institute; 245 Gate Five RD; Sausalito, CA 94965; 415-332-5806; fax 415-332-5808; <ecodes@aol.com>.

Student application deadlines are June 15 (fall placements), October 15 (spring placements), and February 15 (summer placements). ■

—Jill Rosenblum

## SBSE PEOPLE

† This year's Pietro Belluschi Visiting Professor of Design at the University of Oregon is Edward Allen. He'll be teaching a studio and seminar winter quarter.

The 1996 AIA Education Honors Awards program has recognized the Vital Signs Curriculum Materials Project and Cris Ben ton by publishing the project's description among those of "additional courses selected for publication." [The AIA recognizes the leading edge when they see it!—ed.]

• Last fall Dale Brentrup began developing an upgrade for the UNCC Lighting and Building Energy Technology Laboratory, adding a classroom and seminar room to the facilities. "Build it, and they will come," says our intrepid colleague.

☆ Under the auspices of the Smithsonian, Jeff Cook is guiding an April tour of Arizona architecture. He hopes to deliver a message about "green architecture" to the elite while augmenting his paltry university salary. Remarkably, the New York Times (12 Jan '97) highlighted the affair!

★ Mary Guzowski has been named a juror for the 1997 Hopes Eco-Design Arts Conference at the University of Oregon.

Dean Heerwagen has been appointed Visiting Scientist at Battelle-Seattle Research Center to evaluate the performance of the new "green" Herman Miller SQA Manufacturing Facility in Holland, MI.

Peripatetic J.J. Kim is not only completing the Architectural Compendium for Environmental Education project, but has led University of Michigan administrators, alumnae, and alumni on a collaboration-seeking tour of South Korea.

▲ The Boston Society of Architects' 1997 annual Elanor Raymond Lecture was given by Jacquelin McBride. She discussed the pros and cons of design standards for public buildings in Boston, citing case studies of public libraries, schools, hospitals, and fire stations.

☁ Sandra Leibowitz and Therese Peffer have won the AIA's DOE Millenia House Design Competition. Their submission was a design for a solar-electric duplex in Corvallis, OR. ■

## LETTERS TO THE EDITOR [CONT.]

A great job with the SBSE newsletter! It's great, even with that little piece on Eisenman. I always enjoy reading the newsletter and seem to get renewed by it. Thanks for a job well done.

—David Lee Smith, UCincinnati

[Don Watson even "enjoyed" your editorial piece. And it gained a bold, jaundiced headline—"Harsh Words for the Arnoff Center"—in the "Architectural Press Roundup" column (SBSE—too legit to quit!) of the February Architectural Record. Thanks for the frank insights. SBSEers take note—send me an article, send me a follow-up letter, enjoy your 15 minutes of fame (in a supportive arena)!—ed.]



Happy New Year! Another BEAUTIFUL job on the newsletter. It's getting sooooo long [you should see it before ed.'s ed. subjects it to the thighmaster for verbosity!—ed.]—lots of great news and events!

—Mary Guzowski, Minnesota

[Credit all the good news to your reign of inspired leadership.—ed.] ■

## VITAL SIGNS UPDATE

## TOOLKITS AVAILABLE

Eight equipment toolkits are available to architecture schools for semester- or year-long loan intended to enable faculty and students to gain first-hand experience with the measuring devices and their application in field investigation of buildings. The toolkits contain hand-held, portable instruments, such as an illuminance meter, sling psychrometer, infrared surface thermometer, hot-wire anemometer, and CO<sub>2</sub> monitor as well as laptop computer, data acquisition system, and micro-dataloggers. With this equipment students will be able to undertake studies of building energy performance, lighting conditions, thermal comfort, air movement, and indoor air quality. In return for access to the equipment, the borrowing schools provide insurance, pay for repairs, and document equipment use (including sample case studies of building performance, descriptions of new investigative techniques, evaluations of the equipment, and the kit's role in the curriculum).

The RFP is now available and proposals are due no later than April 1, 1997, with notification by April 18, 1997. For more information about the Vital Signs project and equipment sets, browse our web site <<http://www.ced.berkeley.edu/cedr/vs/>>.

Address inquiries to Charles C. Benton; University of California, Berkeley; 390 Wurster Hall #1839; Berkeley, CA 94720-1839; 510-642-0669 or 415-973-2487; fax 510-643-5571; e-mail <[cris@ced.berkeley.edu](mailto:cris@ced.berkeley.edu)>.

## SUMMER TRAINING SESSION &amp; EQUIPMENT WORKSHOP

The Vital Signs 1997 Summer Training Session and Equipment Workshop will be held August 5-10, 1997, at the PG&E Energy Center in San Francisco. Application and summary proposal must be submitted by May 1, 1997. Notifications of acceptance will be mailed by May 16, 1997.

The Training Session takes place Wednesday-Sunday, August 6-10, and will focus on the relationship between building performance and design decision-making and how to guide students in making this connection. We will explain the use of field evaluation and Vital Signs resources in a variety of class formats—lecture, seminar, and studio. The program will include sessions led by architecture faculty who developed Vital Signs Resource Packages and field protocols or have used them to produce building case studies. There will also be structured discussion sessions to provide ample opportunity for participants to contribute their ideas. The training session is designed for faculty who plan to apply the Vital Signs teaching materials during the 1997-98 academic year.

This year a one-day equipment workshop on August 5 will precede the Summer Training Session, kicking-off the loan program for the Equipment Toolkits. Participants will gain hands-on experience in field measurement protocols using various instruments contained in the toolkit.

The 1997 Vital Signs Summer Training Session and Equipment Workshop are supported by The Energy Foundation and Pacific Gas & Electric Company. This support covers meals, lodging, and material costs for Training Session participants. Travel costs and arrangements are the responsibility of each participant. Faculty attending only the one-day Equipment Workshop must make their own lodging arrangements.

In reviewing applications for acceptance to the training session, we will evaluate the individual's clarity of purpose, potential for contributing to the event dynamics and exchange of ideas, and likelihood of applying the Vital Signs material during the 1997-98 academic year. We will also consider the applications as a group—to include participants who are either experienced or new to the Vital Signs project, achieve a balance of junior and senior faculty as well as ECS and design faculty, and ensure geographic diversity.

For more information visit our web site <<http://www.ced.berkeley.edu/cedr/vs/>> or contact Gail Brager; University of California, Berkeley; Department of Architecture; 232 Wurster Hall #1800; Berkeley, CA 94702-1800; 510-642-1696; fax 510-643-5571; e-mail <[gbrager@ced.berkeley.edu](mailto:gbrager@ced.berkeley.edu)>. ■

—Bill Burke



photo: Marc Schiller

Mary Guzowski—our inspired leader.

## LIGHTING RESEARCH CENTER NEWS

### NEW PUBLICATIONS

The LRC and McGraw-Hill just published *The Outdoor Lighting Pattern Book* by Russ Leslie and Paula Rodgers. This 232-page, beautifully illustrated book describes generic lighting patterns for 31 outdoor spaces, ranging from parks to schools, to multi-story buildings. Each design chapter provides information about how to improve the appearance of the site and the sense of security provided by the lighting. The book also describes lighting technologies and applications and provides information about energy use. The LRC and McGraw-Hill also just re-issued *The Lighting Pattern Book for Homes* by Leslie and Kathryn Conway. This 232-page book, first issued 3 years ago, examines lighting patterns in residential settings with a focus on energy efficiency.

### LANDSCAPE LIGHTING INSTITUTE

On October 4-8, 1997, the LRC will host the Landscape Lighting Institute, a week-long intensive course covering all aspects of landscape lighting. Jan Moyer, author of *The Landscape Lighting Book*, will be the instructor. The LRC plans to limit course enrollment to 30. The class finale will be a meeting at the home of Rensselaer President, R. Byron Pipes, where lighting installed by the class will be critiqued.

### HELLMAN CHAIR AND ROLLER FELLOWSHIP

As director of the Lighting Research Center, Mark S. Rea, has just been named the first recipient of the Wayne R. Hellman Chair. Hellman, president and CEO of Advanced Lighting Technologies in Twinsburg, Ohio, endowed the chair at Rensselaer's School of Architecture in December 1996. At the same time, Robert S. Roller, Director of Marketing and Development for Advanced Lighting Technologies, endowed the Roller Fellowship in Lighting to be awarded annually to an exceptional student in LRC's graduate education in lighting program. Roller declared, "The LRC seemed a logical choice for this gift as they play an increasingly important role in redefining the lighting industry." ■

—Kevin Heslin

## THE ACADEMY: BAD NEWS/GOOD NEWS

The bad news is that our proposal to FIPSE (the Fund for the Improvement of Postsecondary Education) for three-year funding to launch the Academy was not selected for round two. About 1900 other proposals were also rejected. The good news is that we now do not have to write the 75-page proposal for the next round, from which only about a third are funded. More good news is that we can use the current version of the proposal to submit to 10 new foundations we have identified that seem more likely to be interested in the idea of the Academy. The funding cycle for many of these foundations is shorter than FIPSE would have been, even if we had won, so we are still on our timeline, using the next year ('97-'98) for planning, program development, and launching the basic courses, graduating our first students in 2000. ■

—Murray Milne

## EVENTS

### HOPES ECO-DESIGN ARTS

The third annual HOPES conference, Cultivating Communities and Healing Environments, will be held at the University of Oregon, April 11-13, 1997. For information contact HOPES at 541-346-0719, <hopes@aaa.uoregon.edu>, or <<http://gladstone.uoregon.edu:80/~hopes/>>.

### ARCHITECTURAL RESEARCH

ARCC's annual conference will be held April 25-26, 1997, at Georgia Tech in Atlanta. The conference theme is "Recent Research in Architecture and Planning." Selected papers will be published in the conference proceedings and the author(s) of the outstanding paper will be honored at the ARCC annual meeting.

### SUMMER LIGHTING WORKSHOP

IESNA/IALD are sponsoring a summer workshop in Durham, NH, during the 2nd and 3rd weeks of July 1997. It will be an intensive, two-week session intended for educators in engineering, architecture, technology/building science, theater, and interior design. If you have questions, contact Dee Ginthner, 612-624-3293, fax 612-624-2750, or <[dginthner@che2.che.umn.edu](mailto:dginthner@che2.che.umn.edu)>.

### GREENING OF THE CAMPUS REDUX

We encourage you to participate in our sequel, *Greening of the Campus II: The Next Step*, scheduled for September 18-20, 1997. For more information contact Becky Amato; University College NQ 323; Ball State University; Muncie, IN 47306-0220; e-mail <[00rfamato@bsuvc.bsu.edu](mailto:00rfamato@bsuvc.bsu.edu)>; 765-285-2385; fax 765-285-2384; <<http://www.bsu.edu/events/>>.

### ENVIRONMENTAL BALANCE

The AIA and U.S. Green Building Council are co-sponsoring "Environmental and Economic Balance: The 21st Century Outlook," November 7-9, 1997, in Miami. Papers should focus on energy, indoor ecology, life-cycle performance, planning, social equity, or waste and recycling. Abstracts are due April 4, 1997. For more info call 800-242-3837 or e-mail <[pia@aia.org](mailto:pia@aia.org)>.

### ENERGY-EFFICIENT LIGHTING

The 4th European Conference on Energy-Efficient Lighting will be held in Copenhagen, Denmark, November 19-21, 1997. For information contact Conference Secretariat; Association of Danish Electric Utilities; Rosenørns Alle 9; DK-1970 Fredriksberg C; ATTN: Gert Nielsen; fax +45-31-39-5958. ■

## YOUR MONEY WORRIES ARE OVER!!!

I found a treasure map! It shows you exactly where to find money for your research, class projects, and even off-beat ideas like the Academy (actually Cris Benton told me about it). Over \$500 million is given away every year in the 'environmental' area alone, by over 700 foundations. It is a phonebook-sized directory called, Environmental Grantmaking Foundations, published by the Environmental Data Research Institute (800-724-1857), for about \$90. It will be available on CD-ROM soon, but I like the paper version; it's now covered with marks and post-its. I identified 10 prime candidates that look like they might be specifically interested in funding innovative projects like the Academy, with another three dozen on my backup list either because of deadlines, small grant size, or having funded projects in areas remote from our interest. Most of the foundations are interested in doing hands-on kinds of projects, but many are also interested in supporting research projects that develop new knowledge focused on their particular area of interest. The bad news is that I never saw the word 'architecture' or 'buildings' anywhere, so you will need to frame your issues in a broader environmental context. Happy Hunting! █

—Murray Milne



photo: Bruce Haglund

Pei's East Wing, basked in light.

## BOOK REVIEWS

### TECHNOLOGY ATLAS SERIES

E Source, Boulder, CO, 1994-1996, \$950.

For years E Source (an offshoot of the Rocky Mountain Institute) has provided timely and technically astute energy-efficiency information to its members. However, membership in E Source, an expensive proposition, tends to limit distribution of their impressive information compendia to a relatively few, large, industrial, commercial, or institutional clients. Fortunately, these clients demand the best, resulting in a fine collection of energy-efficiency approaches that affect virtually all aspects of building design. The introduction to the Technology Atlas Series as a stand-alone product now places this information in the reach of a wider audience. Not cheap at \$950, the adage "you get what you pay for" is applicable to the Technology Atlas Series—it is clearly a valuable resource.

The five richly illustrated volumes cover Lighting, Cooling, Heating, Drivepower, and Appliances. A holistic view is the hallmark of the E Source approach to building efficiency. Thus, each volume typically places a "technology" in its social, economic, and whole-building perspective; identifies and discusses key components of systems and their effects on efficient building performance; and paints a picture of the current state-of-the-art (including specific product types and lines). From this perspective the term "technology" takes on a broad meaning akin to Webster's, "the totality of the means employed to provide objects necessary for human sustenance and comfort." Although there is no building envelope volume, this critical element of building design is addressed in the Lighting, Cooling, and Heating volumes; the Cooling volume aggressively provides information on reducing loads and on passive cooling.

The complete Technology Atlas Series consists of five softbound volumes and a CD-ROM with the contents of those five volumes in PDF, Acrobat Reader included. The print volumes are eminently readable and the CD-ROM version (the ECD) is intriguing. Although it took a while to adapt to the ECD's on-screen format, its full-text search capabilities provide another level of use. For evening reading, choose the hard copy; for topic-specific research, nothing beats the electronic copy. For more information contact E Source, Inc; 1033 Walnut ST; Boulder, CO 80302; 303-440-8500; fax 303-440-8502; e-mail <esource@esource.com>. Detailed information on the Technology Atlas Series (including full tables of contents and sample PDF pages) are on the web <<http://www.esource.com/atlas>>.

—Walter Grandzik

### RESIDENTIAL WINDOWS

John Carmody, Stephen Selkowitz, Lisa Hescong, W.W. Norton, 1996, \$22.

[For a complimentary review copy (one per school) write, fax, or e-mail Pat Ross; Building Technologies Program; Lawrence Berkeley National Laboratory; Bldg 90-3111; Berkeley, CA 94720; fax 510-486-4089, e-mail <PLRoss@lbl.gov>.—Steve Selkowitz]

The title is misleading. John, Steve, and Lisa have collaborated to craft a book that reveals the mystic properties of windows for every architectural application. The text and graphics combine to give clarity to a complex set of issues that the authors fastidiously explore in depth without being dull and anal. Chapters 2, "Energy Performance Characteristics of Windows," and 3, "Window Glazing Materials," survey the basics of window performance from mundane glazing to cutting-edge, high-tech glass. This material unmuddies the content of one of my most dazzling slide lectures on glazing technology. It's nice to have a reference of exquisite clarity as a back-up—I tell my students, "Read the book; that's what I meant to say!" Moreover, the authors discuss at length the design implications and selection considerations for windows. Environmental Building News asserts that Residential Windows is "one of the best books on energy to come out in recent years ... quite technical, but also highly readable—making it appropriate for both building professionals and homeowners," not to mention students, mystified by our ravings on glazing. As Ellen Degeneres says, "Buy the book!" █

—Bruce Haglund

## CREST AND SUNTECH

### CREST

The Center for Renewable Energy and Sustainable Technology (CREST) is a not-for-profit organization specializing in the use of computer and communications technologies to promote sustainable development. CREST develops original software titles on environmental issues for clients in business, nonprofit, and public sectors.

CREST produces educational multimedia CD-ROMs and operates Solstice, an internet service for the sustainable energy field. CREST consists of two organizations: a Washington, DC, program that is part of the nonprofit Solar Energy Research and Education Foundation (SEREF), and a San Francisco, CA, small business. SEREF was incorporated in 1978, CREST was formed in 1993, and the San Francisco office opened in 1996.

For more information on CREST, see Solstice at <<http://www.crest.org>>.

### SUNTECH

SunTech is an educational web site that focuses on how renewable energy technologies work and will provide a single source of quality, up-to-date information. This site is being created as a resource for the public and supplemental material for college-level energy courses. It is being produced by the Center for Renewable Energy and Sustainable Technology (CREST) with funding from the US Department of Energy.

We are interested in receiving comments and suggestions from the public, and we would especially like to hear from people who teach courses with a renewable energy focus. Comments relating to either renewable energy technologies or multimedia learning are helpful!

Stage 1 will be released this May, though some sections may be available earlier. SunTech release information will be available from Solstice, the CREST web site <<http://www.crest.org>>.

A quick preview of the contents:

- Energy Fundamentals—electrical engineering basics + heat transfer and thermodynamics basics + astronomy/geology, the big picture of energy on the planet
- Solar Technologies—history, fundamentals, operation, manufacturing, system designs, use statistics, case studies, video/photo tours, current events, and interactive exercises + passive solar building design + solar thermal heating + solar thermal electric + photovoltaics
- Related Technologies—covered in a similar manner to the topics above, depth will vary according to suggestions from professors + hydrogen and fuel cells + energy storage
- Appendix—electronic mailing lists + glossary + references + symbols, basic equations, and frequently used numbers + links/addresses to companies, institutes, news sources, relevant web sites + index.

For more information contact Kate von Reis; <[suntech@crest.org](mailto:suntech@crest.org)>; 415-284-6403; fax 415-284-6404; 350 Townsend ST, Suite 100; San Francisco, CA 94107. ■

—Kate von Reis

## AVAILABLE [CONTINUED]

### DAYLIGHTING TIPS

Tips for Daylighting with Windows: The Integrated Approach (Jennifer O'Connor, Eleanor Lee, Francis Rubinstein, and Stephen Selkowitz, Building Technologies Program, Lawrence Berkeley National Laboratory, 1997) is a practical, "how-to" guide for applying daylighting strategies in commercial buildings, with a systems integration perspective. Chapters include Daylight Feasibility, Envelope and Room Decisions, Glazing Selections, Shading Strategy, Mechanical Coordination, Lighting Coordination, Sensors and Controls, Calibration and Commissioning, Maintenance, and Cost-Benefit Analysis.

Check out the table of contents and sample chapter under publications at <<http://eande.lbl.gov/BTP/>>. Single copies of the PDF document can be downloaded. If you are interested in printing additional copies, contact Steve Selkowitz via e-mail <[SESelkowitz@lbl.gov](mailto:SESelkowitz@lbl.gov)> or fax 510-486-4089. ■

—Steve Selkowitz

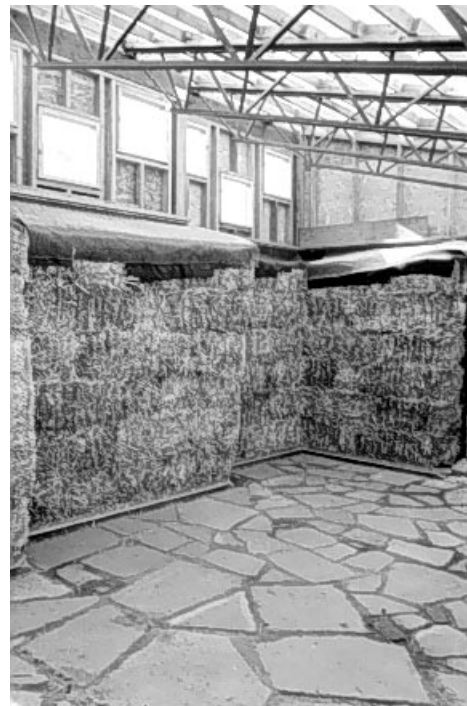


photo: Kurt Rathmann

Kurt Rathmann's recycled building in Moscow.

## AVAILABLE

### LIGHTING SOFTWARE

Lightscape 3.0 for Windows NT and Windows 95 lighting modeling software has recently become more accessible to those of us on scholastic budgets. Gone is the \$3,000 pricetag. Lightscape now retails for \$495 on the open market. An academic version is available for \$249 from Journey Education (800-874-9001) with proof of status. If the program is intended for university use, you can purchase copies for \$95 each or 15 for \$1000. For more information contact Megan Stewart at Lightscape, 408-342-5151. Happy simulating!

—Sandy Stannard

• continued next column



photo: Bruce Haglund

*The National Building Museum Atrium*

## INDIRECT LIGHT, DIRECT SOLAR GAIN—A STORY

I thought you might enjoy this interpretation of environmental technologies understanding. Recently I received a phone call from a young project architect from a large midwestern city who was interested in what references I might be able to cite (especially from DNNA) regarding “indirect lighting” in atrium spaces.

With a little coaxing I was able to determine two important aspects driving her query. First, it seems her firm has been touting the luminous “qualitative” benefits of horizontally-glazed, multistory atrium spaces in office buildings. Apparently, their database was created from work the firm had designed in the region. It represented, in their opinion, a reasonable sample, drawing some conclusions from their clients’ comments that were focused toward the positive aspects of the “indirect light” in these spaces. Second, as I understand it a new client, a newspaper company, was interested in finding more information about this unique concept of “indirect lighting” before venturing into it as a solution for their office needs. Hence, her call to the last known survivor of the DNNA [You’re not a lone. We’re all still a live and well, Dale.—ed.] before its absorption into the SBSE.

Of course I cited all the appropriate authors: Reynolds, Moore, G. Z., ed., & Loveland to name most. I also stated that scanning through the proceedings of ASSES conferences would be the most useful source for a variety of case study assessments on atria and “daylighting.”

Then, I could no longer resist. I had to ask if the engineer was paid a percentage of mechanical equipment costs and if she or he was pleased with their approach. (I thought a dialogue with them might result in a refined definition of indirect light, the impacts associated with solar radiation, and the subjective sense of light vs. more a/c, but I didn’t pursue it any further.) One can only hope the newspaper has a research staff! ||

—Dale Brentrup



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

---

SUMMER ISSUE SUBMITTAL DEADLINE—JUNE 1

---