The 1997 SBSE Annual Meeting was held from 5:30–7:00pm, April 27, at the Renaissance Hotel, Washington, DC. The 25 empty stomachs in attendance were:


1. **Treasurer’s Report** (Leonard Bachman) SBSE is fiscally sound. Our balance is around $12,000.

2. **Peer Review and ARCC Updates** (Walter Grondzik) There are now 35 volunteer peer reviewers on the list. Last year names of appropriate reviewers for 5 people were provided and, using our list server, non-SBSEers were solicited for a structures candidate’s review. ARCC requests SBSE’s input and help in reviving the ACSA/AIA/ARCC research council. An SBSE representative (preferably our president) will be involved in the initial meeting for the newly formed council in Washington, DC, November 14–16. Walter and Bruce Haglund are on the ARCC Board of Directors.

3. **ACSA Developments** (Mary Guzowski) A letter introducing SBSE and our peer review network was mailed to all deans, directors, and chairs of ACSA schools. ACSA desires SBSE involvement in the Technology Conference in Cleveland next March—as reviewers, session moderators, paper presenters, and panel discussants. SBSE has the opportunity to propose more significant involvement in the future when we could put together a really great program. Mary needs your comments, thoughts, and suggestions for an ACSA Technology Conference proposal—perhaps for 1999.

4. **Summer Retreats** (Mary Guzowski) The plans for the 1997 retreat at Santa Barbara are nearing completion. Margot McDonald and Murray Milne are finalizing the schedule that features professional workshops on Friday, July 11, SBSE working sessions on Saturday and Sunday, and tours of the Fielding Institute, the Atascadero house, and Cooper and Haggard’s home/office on Monday. [See page 8.] Rob Peña and Alison Kwok will develop a retreat in New Mexico following the ASES Conference in Albuquerque, June 13–18, 1998.
LETTERS TO THE EDITOR

An item for your juicy tidbits column. I have been elected to chair the Department of Architecture at UWM. I view this assignment as a step into the void. Wisconsin operates under the system of chairs serving at the pleasure of the faculty. As all but Jim Wasley are tenured, I have no power and many potential headaches. The real question—why were four of us fighting over the position? I plan on featuring green architecture in our lecture series next year. Suggestions for people to invite are welcome.

—Michael Utzinger, UW Milwaukee

[op ed stuff]

I will soon be undertaking an evaluation of the British Petroleum BP–40 4kW inverter battery charger. This new, pure sine wave model with microprocessor is capable of remote monitoring and control. If anyone has information on the product, any previous testing done on this model, or any comments, I would appreciate your e-mail, <dwoolard@calpoly.edu>.

—Donald Woolard, Cal Poly San Luis Obispo

[I’ll bet everyone has the answer to your question at their fingertips. Stand by for an avalanche of fact and opinion!–ed.]

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://www.arch.vuw.ac.nz/sbse>.

DEJÀ VU ALL OVER AGAIN!


“The study recommends that regional consortia of schools and professional organizations be formed to sponsor Institutes of Advanced Studies. Such institutes should be set up to attract gifted teachers who need time away from the classroom and laboratory to develop new levels of understanding and ability. The institutes should also open the way to an alternative career for talented people in practice who have not been motivated to teach.

The work of the institutes should be based on research and scholarship in a broad range of disciplines. By exploring the frontiers of knowledge, theory, and practice, the men and women at the institutes can forge the pattern for a more closely knit and effective environmental design team in the future. The support of industry, government, and foundations should be sought in order to make appointment to one of the institutes a compelling opportunity for the most able people . . . . This system of bringing together teachers, researchers, and practitioners who are pioneering in important new areas of professional competence in short-term, intensive, working sessions can greatly speed the spread of useful innovation in education.”

Jeff Cook
More than 350 students contributed over 100 entries to the 1996 Vital Signs Student Case Study Competition. The top three winning entries and three honorable mentions can be viewed on the Vital Signs web site, <http://www.ced.berkeley.edu/cedr/vs/bld/cs.html>. The Vital Signs staff is happy to announce that, thanks to support from The Educational Foundation of America, we will conduct a second student competition during the first half of 1998. Entries will be due by June 30, 1998. The competition program will be available in September 1997. We want this event to support and strengthen SBSE teaching efforts. If you have thoughts or suggestions for the second competition, please convey them to Bill Burke or Gail Brager at <bburke@ced.berkeley.edu> and <gbrager@ced.berkeley.edu>, respectively.

We’re in the process of initiating a refereed, internet-based Journal of Building Performance Case Studies. We encourage faculty and students to submit well-executed case studies to Vital Signs for review and possible inclusion in the journal. Studies of varying length and scale of investigation are encouraged. Several case studies performed by student teams have already been submitted for review. In fall 1997 we hope to publish a round of case studies on the internet.

Several case studies have recently been added to the Vital Signs web site and may be of interest to SBSEers. These include studies of three libraries undertaken by students of Don Watson in a research/design studio at RPI, and a study of the Museum of Anthropology at the University of British Columbia, performed by students in a seminar led by Marietta Millet. To see these studies, go to <http://www.ced.berkeley.edu/cedr/vs/bld/cs.html>.

There are also two new links to web sites at other schools. One site includes work done by students of Brooke Harrington at Temple University. The other site showcases work done at the University of Idaho under the aegis of Bruce Haglund. Links to these two sites are at: <http://www.ced.berkeley.edu/cedr/vs/bld/other_schools.html>.

Your comments about the Vital Signs site are always welcome.

MORE FACULTY GRANTS

In fall 1997 Vital Signs will offer a number of $5,000 grants to individual educators or teams of educators to support classes or studios during spring term 1998 that weave the student evaluation of existing buildings into the curriculum. These grants are made possible through the support of the Nathan Cummings Foundation. More information regarding the awards and application process will be available in September.

VITAL SIGNS DISCUSSION

There is now a discussion page on the Vital Signs web site. The technical problems which meant many of you couldn’t leave a message have been ironed out. You are encouraged to leave questions and comments on the discussion page, accessed directly from the Vital Signs home page.

OTHER NEWS

The 1997 Vital Signs Training Session is scheduled for San Francisco and Berkeley from August 5–10. This year’s training begins with a one-day measurement tool workshop, followed by a series of training exercises linking design intent and building performance, using the San Francisco Main Library as a model.

Vital Signs has relied on the interest of SBSE members to nurture our efforts. The staff has greatly appreciated your support. A discussion on the future of Vital Signs and its relationship to SBSE and and SBSE members is scheduled for this year’s SBSE Retreat in Santa Barbara. We look forward to your participation and will value your comments.

Finally, we are both happy and sad to report that Alison Kwok, graduate research assistant on the Vital Signs Project, has completed her Ph.D. and accepted a position at Cornell University beginning this fall term.

—Bill Burke
I suggest re-printing the Connector article “The Connector Talks to ACSA Tech Conference Chair Dominique Bonnamour–Lloyd, AIA” (ACSA Treasurer-Elect) and “What Happened in Dallas?” with a specific focus on page “OH!”—“The Next Technology Conference—Soup-ed-Up and Unplugged: Perspectives on Architectural Technology” (that is if we can get the publisher’s permission). It might prove to be interesting reading if it culminated in an SBSE telephone interview, conducted by ed., with Kelley Carlson–Reddig, next year’s Technology Conference Chair.

On the other hand, SBSE should request a focus session and debate the issue from our various positions. I think so!

—Dale Brentrup, UNC Charlotte

[Thanks for volunteering me for even more work, Dale! The piece in Connector is quite revealing and worth the perusal of SBSEers. I’ve asked Ed Allen, the editor, to post it on the SBSE listserver, but you all should subscribe to Connector (it’s free after all!). Also, we need to form a task force to chair or co-chair a future Technology Conference—right, Mary?—ed.]

After a few very late nights I did get an application for the Bellagio Retreat to the Rockefeller Foundation. They confirmed receipt and asked for a list of participants. So I wrote up a conference summary (similar to what I sent you) and got it out to 20 people worldwide in a mass mailing. In the meantime, I have heard from the three references listed that each has been contacted. So, let’s keep our fingers crossed. Will get back to you when I hear, if positive, regarding whom we might invite from the USA, though it must be very limited as we should have equal representation from builders, solar component manufacturers, and solar experts; and that from at least 5 countries for a total of only 24 people. Till the next news, please cross your fingers!

—Robert Hastings, ETH–Zurich

[Great news, Robert, I’ll bet we can coerce some SBSEers to confer at Bellagio.—ed.]

5. The Academy of Building Sciences (Murray Milne) Due to lack of success in funding the Academy, Murray’s developing grant proposals for a second tier of sources. The Fielding Institute has been supportive of our idea.

6. SBSE Nominations President-elect—Walter Grondzik and Rob Peña (Murray Milne declined). Secretary/Treasurer—Terri Meyer–Boake (Mark DeKay declined). Leonard Bachman has mailed out ballots along with the summer dues announcement.

7. Ecological Design Institute (EDI) and EDEN (Rob Peña and Gunnar Hubbard) EDI is a nonprofit, educational organization with programs designed for K–12 as well as professional audiences. They see SBSE as a collaborator at the university and professional levels with participation in workshops, access to the EDI materials, summer design/build projects, and advisory roles in EDI. Gunnar is the EDI program director and EDEN project coordinator. He reported that 1,500 students were interested in EDEN internships and that only 14 could be placed. He also proposed that SBSE participate in the two-week summer design/build “boot camp” for EDEN interns. Sim van der Ryn, founder of EDI, will discuss their programs at the SBSE retreat.

8. Minnesota Science Museum Project (Patrick Hamilton) The downtown St. Paul museum is host to 80,000 visitors per year. Their exhibit, The Real Life of Buildings, that focuses on science in building, will be a large traveling exhibit, showing from Oct ’98 to Feb ’99 and traveling to Boston, Columbus, Ft. Worth, Chicago, and LA. Part of the exhibit, germane to SBSE, is about energy use in buildings. MSM is interested in involving interested SBSEers and is open to ideas and suggestions. The museum previously mounted a display entitled Green Streets—Energy in Urban Settings and is planning a new building on the banks of the Mississippi.

9. Other News Robert Hastings has submitted a Rockefeller Foundation grant proposal, Innovative Solar and Energy-Saving Solutions for Ecological Mass-Produced Houses, for the Bellagio retreat/conference. Sim van der Ryn is currently a scholar in residence at Bellagio and has sent glowing reports to EDI. Annie Young, Associate Director of the Green Institute, is beginning a low-income, sustainable building project, an eco-industrial park in the Philips Neighborhood in Minneapolis, and is looking for consultants/advisors. Harold Hay is seeking Rockefeller Foundation funding and involvement for a proposed visiting professorship in passive design at a western university (Cal Poly SLO) and international exchange positions in solar design. Alison Kwok announced that SBSE website improvements are close to implementation. Walter Grondzik has agreed to edit a new SBSE electronic journal.

—Mary Guzowski, Bruce Haglund

**JOBS OPPORTUNITY**

**ENERGY EDUCATION SCHOLAR**

Contract position available August 22, 1997, for an academic year. Responsibilities include:

1) Teaching in energy-related area of specialty in undergraduate- or graduate-level professional degree program(s) or allied areas such as technology, environment, or community outreach; and
2) Development and pursuit of energy-related research. Appointment will be made through the Center for Energy Research/Education/Service; academic rank will be established in an appropriate academic department. Minimum Qualification: Master’s degree in energy-related field by date of appointment. Preferred Qualifications: Professional registration in architecture, landscape architecture, or urban planning; experience in teaching and/or professional practice; evidence of scholarly and professional contributions. Nominations welcome. Review of applications will begin immediately and continue until the position is filled. Send letter of application, curriculum vitae, three letters of reference, and evidence of teaching and research to: Robert J. Koester, Director; Center for Energy Research/Education/Service; Room AB 018; Ball State University; Muncie, IN 47306–0170; phone 765–285–1135; fax 765–285–5622.

—Robert Koester
CONFERENCES & EVENTS

ASES PASSIVE SOLAR ’97

The air is always thicker when ASES invades DC. The conference was well-attended by SBSEers and the growing solar community, in general. A large contingent of SBSEers—Jeff Cook, Polly Cooper, Walter Grondzik, Mary Guzowski, Ken Haggard, Bruce Haglund, Alison Kwok, Owen Lewis, Margot McDonald, Rob Peña, and Jennifer Rennick—as well as Lawrence Halprin avoided the dismal conference hotel and took up residence in the intimate Tabbard Inn, which afforded funky rooms, great dining, and comfortable camaraderie. Alison provided inspiration for our stay in the friendly confines. The conference proceeded as usual with a great deal of enthusiastic SBSE participation at the distant venue.

—Bruce Haglund

ACSA TECHNOLOGY

Well, I was one of the few SBSE people who attended the ACSA Technology conference. The call for next year’s conference in Cleveland is out. SBSEers, submit something! We can’t bitch about something we don’t attend—how can we change it by our absence? The topic list includes sustainability, absent the past two years.

I understand from John McRae’s talk at the conference business meeting that SBSE is involved in the Technology Conference next year. How will we be involved? I don’t know of any official SBSE involvement. I know some of our members are always involved at some level—abstract or paper review, paper presentation, session chairing, or organizing—so, perhaps we should formalize our organizational involvement by becoming an organizing co-sponsor. The ACSA Executive Director, Martin Moeller, will be available at the August Vital Signs session—let’s make him aware of our concerns and ideas. Also see Dale Brentrup’s letter and the SBSE annual meeting minutes for more on this issue.—ed.

—Terri Meyers-Beake

THE COURTYARD HOUSE AND THE URBAN FABRIC

I was among the invited luminaries—the lone SBSEer—at the recent MIT symposium sponsored by the Aga Khan Center for Islamic Architecture. My talk, “Adaptation Strategies of Hispanic Courtyards,” was about how successfully they change as their urban context changes. Examples were primarily taken from my favorite haunts of Colima, Mexico and Cordoba, Spain. Changes of function were common as residential areas went commercial—some fell victim to the auto and were demolished to become parking lots; another is just about to see cars parked in the courtyard. Others saw their courtyards covered over, usually with unpleasant results. On the brighter side, restaurants, small hotels, and medical offices proved to be particularly successful transformations.

[How did our favorite EBS curmudgeon, Amos Rapoport, react to your presentation, John? Just curious.—ed.]

—John Reynolds

EVENTS

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 <po0rfamato@bsuvc.bsu.edu>; 765–285–2385; fax 765–285–2384; <http://www.bsu.edu/events/events2/green1.html> (which now includes full detail on speakers, papers, and scheduling, along with registration info).

ENVIRONMENTAL BALANCE

The AIA and US 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, and waste & recycling. Call 800–242–3837 or e-mail <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; Rosenløns Alle 9; DK–1970 Fredriksberg C; Attn: Gert Nielsen; fax +45–31–39–5958.

AVAILABLE

RAINWATER CATCHMENT GUIDE


WORLD POPULATION VIDEO

A dramatic simulation that uses a digital clock and lights to represent population growth from 1 AD to the present and projections to the year 2020. The VHS video is 6½ minutes long and costs $30. Great for discussions on sustainability—very dramatic, highly recommended. Available from ZPG; 1400 16th Street NW, Suite 320; Washington, DC 20006; 202–332–2200.
**BOOK REVIEW**

_towards zero—we become photons and no record exists of the consequent to decelerating sentient photons as light is absorbed by dark surfaces. If the prospect of paranormal definitions of time intimidates you, simply gain vicarious stimulation by viewing IQ, in which Meg Ryan portrays Einstein's niece and Tim Robbins' main squeeze—and enjoy. (But the book is a better read!) [Well, duh!—ed.]_ —Bruce Haglund

_Einstein's Dreams_ holds thirty precious scenarios depicting alternative theories about the relationships among time, space, light, and matter. I theorize that when we approach the speed of light, time travel becomes possible, but our dimensions diminish toward zero—we become photons. And no record exists of the consequence to decelerating sentient photons as light is absorbed by dark surfaces. If the prospect of paranormal definitions of time intimidates you, simply gain vicarious stimulation by viewing IQ, in which Meg Ryan portrays Einstein's niece and Tim Robbins' main squeeze—and enjoy. (But the book is a better read!) [Well, duh!—ed.] —Bruce Haglund

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**RESEARCH ON THE EDGE**

_HAMBURGER HEAVEN EXPOSED_

Researchers at the Department of Architecture, Texas A&M University—Larry Degelman, Anat Geva, and Veronica Soebarto—have been working on a one-year funded research project to investigate the energy penalty of maintaining a national image in chain-operated buildings. The results of this research, sponsored by Texas A&M’s Energy Resources Program of the Center for Energy and Mineral Resources (SBSE News, Winter 1996), was reported by Anat Geva at the ARCC Research Conference in Atlanta, April 25–26.

The study used ENER-WIN—a computerized energy simulation—to assess the energy performance of McDonald’s fast-food restaurants in several Texas cities representing different climates (hot humid, sub-humid, semi-arid, hot arid, and cold). In addition to the Texan locations, simulations were performed on the McDonald’s prototype designs in Los Angeles (site of the original McDonald’s) and in Chicago (McDonald’s headquarters). Several existing McDonald’s buildings were also studied. A series of measurements were taken using HOBO dataloggers to monitor the indoor temperature settings to verify the HVAC operating schedules. Monthly utility records were also used as a basis to calibrate the simulation models.

Interestingly, the results showed that the McDonald’s prototypes, including the newest one designed by the Chicago office in the 1990s, are more compatible with warm climates than with cold climates. Some of the components that influence the McDonald’s energy penalty are standardized designs of ventilation rates and schedules (regardless of occupancy patterns), window sizes and types, overhang sizes, and wall material assemblies. Among those, ventilation accounts for the largest heating and cooling loads. The results also showed that in hot locations, less insulation in the kitchen walls would help release the internal heat and thus reduce the cooling loads.

As the project nears completion, several design scenarios are being examined as to their potential for saving energy. The summary report will contain regionalized design guidelines. It should be noted that, although this work deals particularly with McDonald’s buildings, the problems found and the proposed energy design strategies are not specific to them alone. Rather, this work brings an understanding of the energy impact of having uniformly designed buildings constructed in different climatic regions.

—Larry Degelman

**DESIGNING AND BUILDING FROM WASTE**

_What happens when you combine grant money, an open-minded building department, a supportive private business owner, recycled materials, agricultural byproducts, and the art of bricolage—a constant question during my research on the Recycling and Reuse of Building Materials for the National Pollution Prevention Center for Higher Education at the University of Michigan. To find answers, I designed and built a 450-square-foot plant nursery for Stookey’s Feed and Garden in Moscow, Idaho. The budget was approximately $15 per square foot for building materials. My labor and that of occasional volunteers and workshop participants was donated. [Kurt excelled at employing the Tom Sawyer method.—ed.]

The primary goal was to investigate the available and potential materials recovery network in order to design and build from a soft palette of salvaged, recycled-content, and byproduct-based local and regional materials. The hunting and gathering of the soft palette in addition to the life-cycle issues of embodied energy, recyclability, durability, disassembly, and adaptive reuse became the basis for the design. The secondary goal was to develop a discussion about these issues among public agencies, building inspectors, private businesses, design professionals, students, contractors, owner-builders, and members of the community.

To develop the soft palette, I identified regional and local material streams and potential wastes, including regional and local industry, manufacturing, reuse (salvage), and recycling operations. The two major regional industries, timber and agriculture, are significant generators of wood waste and straw residue, neither of which are currently being processed as local building materials.
Consequently, I chose a number of commercially manufactured building products that could potentially close these material streams, and significantly enhance the regional waste economy. These include *Faswall,* made from 90% wood waste and 10% cement molded into a low-density interlocking permanent wall-form “block;” a medium-density fiberboard called *WheatBoard,* made from straw and non-formaldehyde resins; and *Trex,* extruded from sawdust and recycled plastic into dimensional lumber and decking material. Although these materials were imported from other regions, they represent plentiful and underused local resources.

On the other hand, straw bales represent an immediate, locally available, inexpensive byproduct-based building material requiring very little manufacturing and processing. The bales for Stookey’s were collected directly from a farmer’s wheat field 10 miles from the building site. As an infill system, the straw bales were notched to accommodate the wood post and beam framework. A 3-coat cement stucco wall finish sprayed with a ferrous sulfate solution sets off a fascinating chemical reaction with the uncured cement to eventually produce a wonderful mottled red finish.

An investigation of local and regional job-site practices, demolition projects, recycling operations, and reuse (salvage) businesses yielded an ephemeral and unique supply of materials including: concrete shards for floor pavers; reusable lumber, timber, and plywood; salvaged open-web steel joists; single pane glass from a greenhouse renovation; vertical, clear-grained, solid fir doors hidden beneath years of varnish and paint; a small surplus of clear, corrugated roofing; and an unlimited supply of mixed glass cullet (processed post-consumer glass) and unmarketable green bottles from the adjacent recycling center.

The goal of engaging the community was met through a series of meetings with the building department, several building workshops, a community-wide openhouse, and media publicity. Before obtaining the building permit, I organized a presentation on strawbale construction and its importance within the realm of byproduct-based building materials. A group of about 40 to 50 members of the community showed up at this lively discussion, and later when I scheduled a “wall-raising” workshop, approximately a dozen people returned to help and learn. When it came time to stucco the walls, another impromptu workshop was held. A full-blown openhouse, publicized in the quarterly county-wide solid waste newsletter and “catered” by the local grocery, attracted about 100 people over the course of 5 hours. I had the pleasure of talking about materials and construction techniques with all kinds of people who were interested in the connections between resource consumption, the environmental impact of buildings, and alternative building materials that make use of local or regional wastes.

---Kurt Rathmann


First of all, this book fits my criterion for being useful—it is less that 150 pages in length. It’s an indispensable reference that will save you countless hours doing energy feasibility studies. The author shares with you his secrets for simplifying complex energy calculations, and shows you how to use his time-saving methods. He presents innovative decision-making tools to determine whether you should invest real time and money into developing the details of a project under consideration. He also presents numerous energy projects involving pumps, fans, motors, insulation, and heat recovery with complete calculation solutions.

Throughout the text, the author presents anecdotal rules-of-thumb called Richard’s Retrofit Rules (reminiscent of Murphy’s Laws). For instance, insulation rule #1 is “If you burn your hand on the equipment, you can probably save some energy,” and rule #3, “If it’s already covered with asbestos, the payback will be measured in decades.” The summary at the end of the book presents 26 very practical Richard’s Retrofit Rules, broken down into 7 categories—Lighting, Pumping, Fans, Motors, Insulation, Fuel Switching, and Heat Recovery. The first rule in each category seems to be “You can never save more energy than shutting it off.”

The author uses a common-sense style that the reader will find both understandable and entertaining. He has worked more than 22 years for several energy services companies and has performed energy audits for over 150 large commercial, industrial, and institutional facilities. He admits that he is slow and lazy, thus the reason for developing tools that will quickly and easily answer the energy questions.

If you’re interested in energy retrofitting, try this one—you’ll like it.

---Larry O. Degelman

**The Stookey Building—built from unwanted materials.**

---Kurt Rathmann

---Larry O. Degelman
SANTA BARBARA RETREAT IN A NUTSHELL

The schedule for the July 10–14 summer retreat is set.

**10**  
evening  • SBSE opening session and business meeting  
• Planning session for Friday’s workshops  

**morning**  
Workshops (choose one)  
• *The Architectural Office as a Learning Organization*, Don Watson, FAIA, and James Franklin, FAIA  
• *Understanding Solar Geometry*, Norbert Lechner  

**11**  
noon  
Keynote—*EDEN and the Environmental Design Institute*, Sim van der Ryn  

**afternoon**  
Workshops (choose one)  
• *Green Architecture and the Internet*, Walter Grondzik  
• *Designing High Performance Buildings*, Murray Milne and Bruce Haglund  

**10**  
**morning**  
Critique of CE workshop sessions  
• Traditional SBSE reports from the field  

**afternoon**  
• *Vital Signs Panel*, Cris Benton and Bill Burke (includes an exhibition of the six winning student projects)  
• *Working with Vital Signs*, Brooke Harrington, John Selfridge  
• *Lighting Research and Patterns Revisited*, Russ Leslie  

**12**  
evening  
• *The Boyer Report: New Developments*, Harvey Bryan  

**morning**  
• *Case Study of an On-Line Seminar*, Cris Leubkeman  
• *Participatory Research Methods*, Jeff Cook, Ed Arens, Ralph Knowles, Murray Milne, John Reynolds, and Don Watson  

**afternoon**  
Open Forum—*Is There Anything More to Learn After Graduation, or Can The Academy Really Change the Profession?*  
• *Virtual Acoustics Workshop*, Martin Gold  

**evening**  
• Final SBSE business meeting and awards presentation  
• *My Life with Peter’s Building*, David Lee Smith  

**13**  
**morning**  
• Visit the Fielding Institute for an academy working session on developing philosophy, curriculum, and legal structure  

**afternoon**  
• Visit the Harold Hay Atascadero SkyTherm house  

**evening**  
• Visit Ken and Polly’s strawbale, off-the-grid house for dessert  
• Visit Cal Poly-SLO Campus, the Canyon, the Arts Complex  

—Murray Milne

Typical daylighted office at NRDC, Washington, DC.