

SOCIETY OF BUILDING SCIENCE EDUCATORS

SBSE NEWS

FALL 1998



photo: Terri Meyer Boake

After the Summer Retreat fearless SBSEers trekked to Chaco for the solstice sunrise and to inspect the ancient ruins.

SBSE SNAKEDANCE AT TAOS

[I promised a special pictorial issue of SBSE News, but Walter Grondzik upstaged me by posting a photo-review of the Taos Retreat on the SBSE WWW site <<http://www.polaris.net/~sbse/sbse/web/sbse98-1.htm>>. Check it out! If you attended the retreat, you may enjoy reminiscing. If you didn't, here's your chance for regrets. Walter's posting redeems his Saturday evening IOU for a goody and allows me to pursue business as usual. Thanks, Walter!—ed.]

An inspired cadre of SBSEers, both old and new, gathered at the Inn at Snakedance in Taos Ski Valley, June 18–21, for the annual retreat. Rob Peña and Alison Kwok arranged a comprehensive and tasty schedule of events.

The retreat commenced with a three-van tour of the high road to Taos under the masterful tutelage of Rob Peña (thanks to his intimate knowledge of the region, handed down over generations). The first stop was Santa Fe where we toured this picturesque New Mexico town and gawked at the art and architecture at the Georgia O'Keeffe Museum. Contact Bruce Haglund for the really good photos of the interior *[I asked permission, but still wasn't allowed to take really good shots, just interior details—no art! See photo on page 5.—ed.]* because by the time the rest of us dribbled in, the security guards descended on the camera-bearing crew with a vengeance, prohibiting interior shots!

Lunch in Chimayo gave us all a taste of authentic New Mexican cuisine—a bit on the *picanté* side! *[For Great White North tastes, eh?—ed.]* The building was bedecked with *ristras*, some of which made their way into our delectable lunches.

We were taken care of lavishly by the staff at the Inn at Snakedance—our first “real” hotel retreat—treatment included wonderful meals and maid service. The sky was bluer than blue and the mountain air crisp (and thin!).

Tuning the Mind As usual there were difficult choices to make in selecting which sessions to attend! Ed Allen expanded the usual ECS theme by introducing a method for graphic statics for

• *continued page 6*

SBSE CALENDAR

1998

Nov 12–14 ARCC Annual Meeting; Washington, DC

Dec 1 ASES Solar '99 abstracts due

1999

Jan 8 ACSA Tech Conference papers due

Mar 20–23 ACSA Annual Meeting; Minneapolis, MN

Jun 12–16 ASES Solar '99; Portland, ME

Jun 16 SBSE Annual Meeting; Portland, ME

Jun 19–23 ASHRAE Conference

Jun 25–27 ACSA Technology Conference and ARCC Research Conference; Montréal, Québec

Jun 27–30 ACSA Construction Institute; Montréal, Québec

Jun 28–Jul 1 SBSE Summer Retreat; Tadoussac, Québec ■

REVISED RETREAT VENUE

Due to scheduling difficulties at Ferry Beach, the SBSE Retreat will be held after the ACSA Technology Conference at the refurbished Hôtel Tadoussac on the fjord. Transportation by ferry to the hotel will be available from Québec City. See story on page 4. ■

—Margot McDonald

LETTERS TO THE EDITOR

"What I Did on My Summer Vacation"

I was invited back to the Chinese University of Hong Kong for 10 days this summer to work with Professor Ming Ho to establish their environmental technology programme.

I testified in a \$5.8 million lawsuit involving a construction worker who had become a paraplegic. The case was complicated because he was incarcerated at that time, and the accident occurred in a Native Reserve.

I conducted an IAQ investigation of a school and found it so bad that I recommended a new school be built. A second consultant agreed. However, the government retained a third consultant who said the school should be renovated. Now the government can choose what they always wanted which was not to build a new school. (Apparently, if you have the money and time, you can keep hiring consultants until you find one who agrees with you.)

-Tang Lee, Calgary

[I think my seventh-grade classmates had more fun on their summer vacations, but I'm not really sure anymore. Also, weren't you going to write a book review? Nice excuse!-ed.]



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MYTHS, LIES, & FACTOIDS

[Rick Diamond used this list as the structure for his presentation to the ANZAScA conference (reviewed on page 6). He shared a fully-developed version of this list, an un-edited core dump of ideas and examples, with SBSEers on the list server, eliciting such reactions as "Do these sound familiar, are they dead horses, sacred cows? Do you have favorites to add or ones to dispute?" I took the liberty of reducing his full commentary to a list à la Letterman to share on the pages of the News. If you want to respond to the stimulus, I'm sure Rick would be appreciative.-ed.]

SOME COMMON MYTHS ABOUT BUILDING SCIENCE AND DESIGN

The myths I have collected are a mixed group, including myths about building scientists, building science, architects, and how we teach architecture students building science. I realize that something I call a myth may be your core belief. I mean no offense, but hope that by presenting these ideas, we can look for underlying truths.

1. Building Science is rigorous, logical, scientific; architecture is soft and intuitive.

It's the building scientists who are the wacky, goofy theorists who have all sorts of impractical schemes while the architects are the sober, practical, and pragmatic types.

2. If only we had gotten into the design process earlier.

I hear this complaint from consultants all the time—by the time they were brought to the table, all the key design decisions had been made, and all they could do was make incremental changes.

3. If only architects had a better design tool, they would understand the impacts of their design on energy use.

Energy simulation design tools are great, they allow exploration of lots of neat permutations and variations. But architects don't use them; they hire consultants who can use them.

4. We need to teach architecture students more building science.

Of course we need to teach architecture students building science—although some schools seem to get by without doing so. I think we really need to teach *design faculty* about building science.

5. If we explain the basic principles of building science more clearly, we will win over architects and design students.

Show a group of architecture students how uninhabitable Richard Meier's Logan House must be with its two-story west-facing glass—it violates principles of comfort, glare, and energy efficiency—but the students still love the way it looks, and enormous west-facing windows subsequently appear in their studio projects.

6. All buildings must face south (or north).

I recently reviewed design submittals for housing for the U.S. 2002 Olympics and schemes were scored based on their relationship to true south. I would rather have seen credit for orientation based on access, view, surrounding buildings, and the proper treatment of glazing facing different orientations. The solar criterion was a simple proxy for "energy-efficient design."

7. Low-E windows look just like regular windows.

I had recommended low-e windows for an artist friend's studio: it wouldn't have made a noticeable difference if she hadn't put a French door with clear glass next to them. It was instructive to see how different the sky color was through the two panes of glass—the quality and color of light are important to an artist.

8. You can't have operable windows in commercial buildings.

The only people I know who say they prefer sealed windows to operable windows are HVAC engineers. And when I've asked them whether they have sealed windows in their homes, they just glared at me.

9. Tight buildings cause "Sick Building Syndrome."

The Canadians and Scandinavians have been building tighter homes and offices for years and have addressed the issues of higher moisture and indoor pollutants by introducing mechanical ventilation systems. But when you make conditions comfortable for humans, bugs (such as dust mites which are causal in increasing asthma, especially in children) also thrive.

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MYTHS, LIES, & FACTOIDS [CONTINUED]

10. Energy codes restrict the creative genius of architects.

Following the 1991 fire that destroyed over 3,000 homes in the Berkeley/Oakland hills, the local chapter of the AIA convinced the cities to petition the state to exempt new housing designs from meeting the state's energy code. After a flurry of faxes and phone calls between state and city officials, the city withdrew its support for the architects' petition—energy codes would be enforced.

11. Fluorescent lighting is bad.

I remember my first day in design school when one of the students asked about the incessant buzzing we heard in the room. The prof launched into a diatribe against fluorescent lighting, about how it wasn't natural, and how bad it was for you. I climbed onto a table and whacked one of the overhead ducts with a tube of drawings. The noise stopped. The students all looked at the prof, who didn't miss a beat and continued with his lecture.

12. Fluorescent light is just like incandescent light.

Recent advances in compact fluorescent lamps have made them almost interchangeable with incandescent A-lamps, but we shouldn't say that they are the same.

13. Compact fluorescent lamps interfere with electrical systems and TV reception.

I was dismayed to learn that following our retrofit of a senior housing project in Worcester, MA, the residents were complaining of poor TV reception. The retrofits consisted of heating controls, new windows, roof insulation, and CFLs in all 70 apartments. Management was seriously considering taking out the new CFLs. But we discovered that during the roof retrofits the contractor had disconnected the TV antenna. However, the residents still talk about the problems with their new lights.

14. More and smarter controls are better.

Studies have shown that workers like to have local control over their ventilation, lighting, and temperature. Other research has shown that occupants don't want the additional hassle and just want things taken care of for them. [*"Think for me, Rick."* (Casablanca)—ed.]

15. Refereed architectural journals are a valuable source of information for the profession.

An article in *Science* in the early '90s showed that molecular biology had more than 90% of its journal articles referenced by others, while in refereed architectural journals less than 5% of the articles were cited.

16. Vernacular design provides an environmental model for contemporary architecture.

Students typically enjoy the lectures on vernacular architecture, and assignments on indigenous solutions are usually quite popular. Arguments that vernacular design reflects environment and climate are routinely disputed by cultural anthropologists who argue that form follows culture, not climate. [*I've always heard that the Cliff Palace was the epitome of passive solar shading, but found it baking in the summer sun. Why? See the illustration above.*—ed.]

17. Sustainability will be the rallying cry for a new, environmentally-sensitive architecture.

The term "sustainability" has been given prominence throughout the schools and profession by articulate speakers and practitioners. Are firms adopting green strategies because of their appreciation for the environment or as a market niche, demanded by their clients?

18. Better environmental quality means greater productivity.

The buzzword for the '90s has been "productivity," not "energy efficiency" for the obvious reason that workers are expensive and energy is cheap. Several books and articles have been written on how better environmental design has led to increases in productivity. But the evidence to-date has been pretty thin.

Any comments to <RCDiamond@LBL.gov> would be appreciated. ||

—Rick Diamond

LETTERS [CONTINUED]

It was great to be with the SBSE crowd this summer in New Mexico. I'm still amazed at the degree of congeniality and willingness to share. How impressive it is to have a sense of community where the clarity of teaching goals and the implementation of a vision is the rule, not the exception.

During the past year I have been developing the idea of a "Center for Architectural Research & Education" in Asia. The center would provide pertinent and relevant information about architecture to the Asian market and facilitate the use of that information through workshops and seminars. Next summer, we have arranged for a structures teaching seminar by Ed Allen and Chris Luebke. And in conjunction with the UIA triennial meetings in Beijing next year, we are organizing a design competition that will focus on a common building material for China—brick.

Our counterparts in China agree that one of the most pressing necessities in architectural design is in the area of building technology. With China's efforts to become contemporary in the global economy, the design and building industries have focused on an architecture with all the appearance of modernity, but without the necessary technologies such as solar, lighting, insulation, noise, air quality, and handicap considerations. China needs to use these elements of building science in a marketable manner and learn how to teach their effective use. One idea is to host an SBSE meeting in China in the future (year 2000?)—hold the meetings and workshops as usual and invite Chinese counterparts to observe and participate. Are any of you SBSEers interested in this idea? More logistic details would have to be worked out, such as funding to cover travel costs. It would be great if we could make this work and help develop a new tradition of academic teaching and research in China.

—Frank Sun, Hong Kong

[I'm always impressed by my SBSE colleagues! Your ideas are so intriguing that I had to share them with the SBSE membership. Action items here, folks? E-mail Frank at <fsun87@hotmail.com>.—ed.]



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Hey! This famous Mesa Verde settlement faces due west! The cliff doesn't shade it on summer afternoons!

U.S. National Park Service

LETTERS [CONTINUED]

I used to think that “Sky Blue” was a color that was found only on postcards or in the Photoshop color guide. However, Rob and Alison have opened my eyes to where that blue originated. What a match to the meeting!

The 1998 SBSE retreat was an uplifting event. The exchange of teaching goodies on Saturday night was truly the essence of our organization—sharing ideas that work. I hope this model can be expanded to include other areas of technology in the not too distant future. *[Is this Terri’s plot?—ed.]*

The retreat was marked by the distinct absence of a group of educators whom I really missed—those who have recently retired. *[Of the usual suspects, I think only Murray was missing. I’m the only crazy with a Ripken-esque record of attendance. Conversely, I value the influx of neophyte SBSEers on retreats. Diversity makes the retreats viable.—ed.]* This core, which has been a part of SBSE for so many years, is indeed a critical part of the whole. I hope their absence was due to the high altitude and will not become a habit!

I would like to suggest that next year we devote time to discussion of our courses. I am teaching the technology capstone course at MIT and would have welcomed the opportunity to talk about exercises and outcomes with other SBSEers. Can we build in a bit of free time next summer for this kind of banter? There are enough of us who are new that it would be well worth it! Perhaps a session in which experienced faculty talk about how they teach/taught a favorite or difficult part of the subject matter and why?

—Chris Luebke, MIT

[The Tadoussac retreat organizers promise more unstructured time . . . a goal that has become increasingly hard to attain!—ed.] ■

NEW 1999 SBSE SUMMER RETREAT SITE

[When it became known that Ferry Beach Retreat was not available during our proposed dates, a team of SBSEers led by Margot McDonald got busy, rescheduled, and relocated the retreat to a new venue. This task was not easy, but it was greatly facilitated by e-mail communications among the advisory team that included Eric Angevine, Harvey Bryan, Paul Clark, Lucie Fontein, Walter Grondzik, Mary Guzowski, Bruce Haglund, Terri Meyer Boake, and John Reynolds. Terrific job, Margot!—ed.]



L’Hôtel Tadoussac commands the fog and looms above the fjord.

Archival photo enhanced by Margot McDonald and Tisha Egashira

The 1999 SBSE retreat will take place Monday, June 28 through Thursday, July 1 at the refurbished Hôtel Tadoussac on the Saguenay Fjord waterfront. The village of Tadoussac (“rounded hill” or “knoll”) is one of the oldest European settlements north of Mexico, dating to Cartier’s visit in 1535 when he pronounced it the “gateway to the Kingdom of Saguenay,” a land of precious metal and stones. By the early 1600s it became a trading post and supply port for ships traveling to and from Europe. From Tadoussac, trade was established with Native Americans enroute to Hudson’s Bay. Traders and explorers were attracted to the site because the Saguenay Fjord is a deepwater channel, supporting sailing and whaling. Even today, the area is a prime launch point for hunting, fishing, and whale watching.

The hotel’s group rate is approximately \$50/person and includes a double-occupancy room, buffet breakfast and dinner, plus meeting rooms. (I’m not sure what happened to lunch—maybe on our own?) Ferry transportation to and from the hotel will be available from Québec City, where SBSEers attending the ACSA Technology Conference in Montréal will need to secure Sunday night lodging. (There will be ACSA Technology Conference paper sessions on Sunday that overlap with the Construction Institute. We could arrange to be free from sessions after lunch to travel the 150 miles to Québec City to spend the night on Sunday.) From Québec City a ferry, operated by the Hôtel Tadoussac, leaves at 7:30 a.m., serves breakfast, hosts whale-watching, and arrives at the hotel at about noon. Our retreat would take place from noon Monday until Thursday. (Thursday is a holiday, Canada Day.) For departure we could: (a) leave Thursday at 10:30 a.m. via bus to Montréal for flights departing after 5 p.m. or (b) leave at 2:30 p.m. Thursday on the hotel ferry, arriving at Québec City at 6:30 p.m., and either spend the night there or take the bus to the Montréal airport for a red-eye flight home.

The cost for the retreat this year will be more expensive than previous years due to the added transportation and lodging costs. Our preliminary estimate (based on current exchange rates) is \$400/person double-occupancy. Contact Eric Angevine for more info. We’ll conduct a list server survey in October to judge SBSEer interest in the Tadoussac Retreat. ■

—Margot McDonald

ACSA TECHNOLOGY CONFERENCE UPDATE

ACSA has issued its Call for Papers for the 1999 ACSA Technology Conference in Montréal, June 25–27, 1999. All the architectural technology themes are meant to encompass writings and other creative work from the specialties of building construction and materials, information technology, architectural practice, and environmental technology. The conference will be co-sponsored by the CIB, ARCC, and SBSE. [Notice that we have our name on the event folks!–ed.]

Although environmental topics are not explicitly outlined in most of the conference themes, those of us who teach in this field can surely make the connections, for example, between information technology and energy or building materials and lifecycle analyses. Environmental considerations have largely become an overlay to all aspects of architectural design, practice, research, and construction. I encourage you to relate some aspect of your work to the conference themes and submit it to what may again become one of the important forums for our research, creative activity, and scholarship.

I have been actively representing SBSE in the ACSA Technology planning process. Recently, I polled the membership about plenary speakers for the event and nominated Thomas Hertzog and Glenn Murcutt to the conference chair. I have also provided a list of potential paper reviewers and session chairs. It is our aim to have SBSEers assist in shaping the seminar and paper sessions about teaching, practice, and research.

Details on the conference are available on the web at <<http://www.ame.umontreal.ca/nouv>>. Note the deadline for submittals of full-length papers (NOT abstracts) of January 8, 1999.

The annual SBSE Retreat will follow the ACSA Technology Conference with visits to Québec City and Tadoussac (see story on page 4). For those of you not going on the retreat, you may decide to attend the ACSA Construction Institute which will be concurrent with our retreat.

We are also planning to submit a joint proposal (with the structures contingent) for chairing the 2000 ACSA Technology Conference. A good showing and active participation at ACSA Technology '99 would provide significant groundwork for our leadership of ACSA Technology 2000.

Plan to submit and attend! █

–Margot McDonald

SBSE PEOPLE

🏠 **Dana Buntrock** has become a contributing writer and photographer for *Architecture*. [Check out her articles and photos, “Warehouse C” and “Libeskind Builds Outside Line,” in the August and September issues.–ed.]

★ **Virginia Cartwright** was the faculty sponsor for Midhat Delic’s “Additional Selected Project” award in the ACSA/Otis Elevator International Student Design Competition. Delic’s project envisioned mixed-use housing in the airport district of Sarajevo.

🕒 **Eddie Cazayoux** has stepped down as director of the USL School of Architecture after serving for 13 years. He is now teaching the thesis studio and his hands-on steel course. [I am green with Eddie-envy!–ed.]

✧ Larry Sherwood will soon send a list of nominees for the ASES Solar '98 Technical Review Committee to **John Reynolds**, who has been named the committee chair for the (re-vived) 24th National Passive Solar Conference.

✧ “It’s okay with me to have my name associated with Richard Kelly,” quipped **Sandy Stannard** after receiving an Honorable Mention for the 1998 Richard Kelly grant, which was set up to “recognize and encourage creative thought and activity in the use of light.” She has been invited to present her work to the “lighting, architectural, and arts communities,” presumably in NYC. █

IN MEMORIAM

We are all saddened by the sudden passing of Professor John Lyle on Friday, July 3. John was the faculty visionary who worked for many years to bring the Center for Regenerative Studies into being. His recent consulting work in sustainable and regenerative techniques around the world spawned a variety of efforts by others to bring harmony to our environment. John had been ill for a few weeks and had only recently learned of his cancer. A memorial service was held on Wednesday July 8, 1998, at the Shinji Shumeikai of America Headquarters. █

– Patricia L. Farris



The south façade of Cornell emeritus John Shaw’s earthship near Taos.



An artless interior of the Georgia O’Keeffe Museum as mandated by the guardians of culture. But the skylight is pretty good.

photo: Alison Kwok

photo: Bruce Haglund

AUTOBI(BLI)OGRAPHY?

Fuller Moore's newest book, *Understanding Structures*, was just published by McGraw-Hill. It introduces the concepts of structural support in buildings, emphasizing the importance of integrating structure and architectural design. Fuller has included numerous conceptual diagrams and illustrative case studies to help the reader develop an intuitive understanding of how structure affects the building design. An introduction to the basic physical principles (statics, dynamics, and strength of materials) is followed by the various structural systems, clearly presented in a non-mathematical manner [*Fuller's strength!—ed.*] that stresses their architectural design implications. These systems include: cable stays, trusses, space frames, geodesic domes, columns and walls, beams and slabs, frames, catenary cables, tents, pneumatics, arches, vaults, shells, and folded plates. The theory and behavior of each system is presented using extensive illustrations, familiar analogies [*How familiar?—ed.*], and model demonstrations, followed by building case studies—selected for their integration of structure and excellent architectural design as well as their suitability for demonstrating the unique behavior of specific structural systems. Finally, a chapter on structural layout describes a step-by-step method for integrating structure into the design process at the earliest stages, using schematic framing plan diagrams, a system selection matrix, and design charts for preliminary member sizing. Features include: 79 case-study buildings, 32 model demonstrations of structural principles, end-of-chapter summary of terms, 179 citations in bibliography, 503 illustrations (custom drawn by the author), 42 charts for preliminary member sizing, and 286 pages, paperback (11" x 8½"). To receive an examination copy, e-mail <wcbcomp@mcgraw-hill.com> or call 800-338-3987 and ask for "Faculty Service." ■

—Fuller Moore



SBSE officers past, present, and future—Leonard, Terri, Margot, & Walter—pose in Albuquerque.

SBSE SNAKEDANCE AT TAOS [CONTINUED]

bridge design, with Chris Luebke assisting. (I'm involved in a plot brewing in the structures and construction field to ___ [*Terri's not revealing the plot—ed.*]). G. Z. Brown, Lance Levine, Mark DeKay, and Paul Clark demonstrated both web-based and classroom versions of *Energy Scheming* applications. Version 3.0 is in the works, and Charlie is interested in recruiting satellite schools to form a more comprehensive network of *ES* applications. Marietta Millet illuminated the group with a construction method for a "sketch" lighting fixture. Acousticians and amateurs alike worked in Bruce Haglund's seminar, constructing cardboard and foil acoustic models of silence-goal spaces—testing for sound distribution with the aid of a laser pointer. Cris Benton shared a series of lectures/seminars for teaching solar geometry, and Mike Garrison demonstrated an integrative approach to combining technology in your design studio.

Rob Peña and Cris Benton discussed the benefits of Myers-Briggs and LSI personality typing as an aid to understanding teacher-student dynamics. Most SBSEers are still puzzling over the nature of their LSI diagrams.

Tuning the Body eee, ahhhh, grrrr! Carrie Danielson, an acting teacher, loosened our vocal chords and led us in a series of exercises intended to relax and harness our anxiety vibrations into dynamic presentation. (Frank "The Starr of Hong Kong" Sun took a hot video of this foray with exclusive, risqué shots of SBSEers in some pretty strange poses.) Tuning was also self-directed—Jonathan Reich scaled the summit of 10,000-foot Mt. Wheeler and Eddie Cazayoux dabbled in some hiking and fly fishing (no fish caught, but as a veteran angler I ask, so what else is new?). Walter Grondzik was seen taking vigorous early morning walks. Fletcher came close to a run-in with a rattlesnake and took a trip to the vet to remove a cactus thorn! [*The official retreat dog did enjoy herself though.—ed.*]

Touring About Mike Reynolds hosted a tour of several of his earthships. He shared his insights into their design, materiality, and perilous route through local authorities to obtain subdivision construction permits. The tour gave rise to some lively discussions about the sustainable nature of using aluminum cans as wall building material and the appropriateness of sloped south-facing glazing at the New Mexico latitude. John Shaw, Professor Emeritus at Cornell, gave the group a wonderful tour of his Taos residence. The Shaw house is modeled on earthship principles (bermed at the north and glazed at the south) and provides a delightfully planned and planted interior environment.

Party Favors This year's retreat introduced what we hope will become a tradition at closing night ceremonies. Members distributed their favorite teaching aids to all as party favors. A small sampling: Cris gave all a portable sundial; Eric Angevine shared some HVAC design shareware; many favorite slides and killer images to add to collections; The *Energy Scheming* gang outfitted all with team baseball caps.

Chaco Excursion As a warm-up, Anne Marshall tantalized the group with stunning images and stories of the Anasazi constructions in Chaco Canyon, where she is engaged in architectural/archeological research. A hardy group of campers made their way to Chaco on the solstice to hike and investigate the nooks, crannies, and aerial patterns of Pueblo Bonito. Cris Benton, <<http://www-archfp.ced.berkeley.edu/kap/kaptoc.html>>, flew his kite fantastic, shooting aerials of the Bonito site as well as the SBSE cliff climbers who used foot power to attain the Pueblo Alto cliff-edge for a grand overview of Chaco. Camping out under the stars was divine (even for me, a tried and true city kid!). The stars were so multitudinous it was difficult to find the constellations, and the Milky Way flowed from horizon-to-horizon. Paul Clark came armed with his Raytek Ranger and recorded far-varying desert temperatures both day and night. (It was 87°F inside my down sleeping bag on that 45°F morning after!) The group made their way to Casa Rinconada at sunrise to check out the solstice alignment of the sun's rays—only to find SBSE petroglyphs etched by the sun on the old stone walls. ■



Doorways of Pueblo Bonito.

photo: Terri Meyer Boake

—Terri Meyer Boake

RESEARCH NOTES

This year, two University of Illinois–Chicago graduate students went to Japan as part of the NSF Summer Institute. One looked at contemporary Japanese earthquake technologies and the other, who caused greater difficulty for NSF in terms of placement and such, looked at how contemporary architects are developing and using new translucent materials. (As you may remember, last year one of our students was accepted to the NSF institute. She studied how Japanese carpentry practices are changing in response to economic, labor, and material changes.) They reported a very high level of satisfaction with their experiences, and NSF again tells me they would like to see more applicants. The program had one other architecture student, who was looking at computer use in a major firm.

Please encourage your qualified graduate students to apply for this program. The NSF people here told me they are not certain they would have known how to handle the “architecture and light” application, but we worked together on that one, and I found NSF very flexible. The Japanese hosts make tremendous efforts to give students interesting experiences (the earthquake student was in the basement of the newly renovated Corbu museum and—although I am at a loss as to what it had to do with her topic—spent a week looking at Ando’s work, while the lighting student interviewed Maki, Ito, and Sejima).

For more information, check the NSF web page <<http://www.nsf.gov/home/grans.htm>>. The deadline is towards the end of this term, and any student who has completed one year of graduate studies and is a U.S. citizen is eligible.

—Dana Sutrock



photo: Terri Meyer Boake

Paul Clark and Eric Angevine pause for hydration in the John Shaw earthship near Taos.

VITAL SIGNS NEWS

1998 CASE STUDY COMPETITION RESULTS

UNDERGRADUATE DIVISION

First Prize: *It's Not Easy Being Green: The Audubon House*; Team: Caroline Cassavoy, Michelle Drollette, Jason Frantzen, Pablo Garcia, Carlin MacDougall, Philip Shiva Mandell, Aleksandr Mergold, Sneha Patel, Nicholas Rajkovich, and John Tsai; School: Cornell; Advisor: Alison Kwok.

Second Prize: *Dog Trot: A Vernacular Response*; Team: Aaron Gentry and Sze Mun Lam; School: Mississippi State University; Advisor: Jane Greenwood.

Third Prize: *The Evolution of the Curtain Wall: 100 Years of Envelope Design*; Team: J. Scott Walsh, Owen D. O'Rourke, Michael S. Powers; School: Cornell; Advisor: Alison Kwok.

Honorable Mention: *Greening The Grand: A Case Study of the Green On The Grand*; Team: Costas Catsaros, Kevin Leskiw, Laurie Evans McLeod, Angie Mende, Carla Weinberg; School: Waterloo; Advisor: Terri Meyer Boake.

Honorable Mention: *Allied Enterprises: Using Fiberglass Skylights to Save Energy*; Team: J. D. Balzli and Kyle Wagner; School: Mississippi State; Advisor: Jane Greenwood.

GRADUATE DIVISION

Shared Top Prize: *The Ojai Section: Daylighting Strategies in Maynard Lyndon Schools*; Team: Daniel Bertone and Ameet Nindra; School: UCLA; Advisor: Murray Milne.

Shared Top Prize: *Let There Be Light: A Quantitative and Qualitative Analysis of Natural Daylighting in Modern and Pre-Modern Architecture*; Individual: Phillip Katz; School: Wisconsin, Milwaukee; Advisors: Gil Snyder and Michael Utzinger.

Shared Top Prize: *REI Daylighting Study*; Team: Dave Bamford, Cory Crocker, Yoriko Endo, and Vorapat Inkarojrit; School: Washington (Seattle); Advisor: Marietta Millet.

We don't have a third case-study competition scheduled yet. If we're successful in our efforts to secure funding, we'll schedule a competition for fall 1999 or spring 2000. █

—Bill Burke

SLIDES AND SYLLABI

The SBSE WWW group is ready to rock 'n roll on updating the slide collection and curriculum materials. We're dusting off the slide binders and developing a plan to offer members access through our website. Next year we will inventory our current slide collection and select the best slide sets to be made available. We are also planning a call for contributions of new materials. Stay tuned for more details! If you have any questions or advice, please contact Terri Meyer Boake, Walter Grondzik, Alison Kwok, or Margot MacDonald. █

—Alison Kwok



photo: Alison Kwok

Cris Benton leads SBSEers Paul Clark, Ed Allen, Judy Theodoreson, and the SBSEers in a disco revival session at Taos. Viva John Travolta!

CONFERENCE PREVIEW

MAINSTREAMING GREEN: SUSTAINABLE DESIGN FOR BUILDINGS AND COMMUNITIES

A national conference, *Mainstreaming Green*, scheduled for October 14–17, 1999, in Chattanooga, TN, and organized by the AIA Committee on the Environment and the U.S. Green Building Council, will build on the success and themes of their joint 1997 conference in Miami, *Environmental & Economic Balance*. It will highlight the many aspects of sustainable design entering the mainstream of the construction and development industry. Through case studies of built projects, this event will communicate the tangible economic, environmental, and health benefits of green buildings and communities and provide participants with resources and tools for designing sustainably.

The conference will also focus on two issues critical to the continued acceptance of green design in mainstream construction and development—performance and standards. Presentations of monitored data from case studies of built projects around the world will demonstrate what's working and what's not. Sessions on building rating systems will show how to evaluate the environmental performance of buildings during design. There will also be opportunities to hear from industry leaders about green building standards and how building codes are adapting to sustainable design.

The selection of Chattanooga as the site for this national conference is significant—the city is building a reputation as one of the leading sustainable cities in the country. The city's Institute for Sustainability has pledged to help put on a great event. A design charette with university architecture and planning students will take place during the conference and a trade show, Mega Case Studies, will feature students, designers, and manufacturers working on a project and brainstorming about new products for the 21st century. Tours offered will include green projects in Chattanooga and in northern Georgia. ■

—Muscoe Martin

CONFERENCE REVIEWS

KIWI CURIOSITIES

The Australia and New Zealand Architectural Science Association (ANZASCA) held its 32nd annual conference this winter, July 14–17 in Wellington—a beautiful city which combines the cafés, restaurants, hills, fauna, and earthquakes of San Francisco; a bit of Hong Kong's British influence and relationship to the harbor; and Hawaii's Polynesian traditions. Kiwi fruits are inexpensive and delicious, and a new species is a pinkish-orange color. Green-lipped mussels are a known remedy for arthritis. [*Nice non sequitur, Alison!—ed.*]



photo: Alison Kwok

Hong Kong or San Francisco? No, they speak Kiwi here! It's Wellington Harbor.

Kudos to George Baird and Werner Osterhaus for a wonderful job coordinating papers and speakers from Australia, New Zealand, Southeast Asia, and the United States. Victoria University hosted the conference at the architecture school where Rick Diamond delivered a delightful keynote address titled, "What Do Building Science and Architecture Have in Common?" featuring 18 myths collected over the years [see feature *Rick-itorial* on page 2—ed.]. Larry Degelman (TAMU) and Veronica Soebarto (University of Adelaide) presented *ENERWin* as a design tool, and Michael Donn led discussions on ECS and studio curricula (and distributed a humorous sheet on interpreting the Kiwi accent. Put it on the web, Michael!) and coordinated with Werner on many of the fine details that made the conference successful, and yours truly presented the Vital Signs Project. Werner also organized a behind-the-scenes tour at Te Papa Tongarewa, Wellington's new national art museum and BRANZ (Building Research Association of New Zealand), a research and materials testing facility <<http://www.branz.org.nz>>. Werner will no doubt become head of the department (as soon as he finishes his dissertation). *Kia Ora* (welcome)! ■

—Alison Kwok

LEADING EDGE NEWS

1998 LEADING EDGE STUDENT DESIGN COMPETITION RESULTS

Challenge A (two-year schools)

First Place: Columbus State Architecture Student Association, Columbus, OH; Team: Jeffrey A. Calcamuggio, Shelley Grieve-Zerkel, Nathell Grubbs, Timothy Smith, Diane Van Dyne, Heath Wintz; Advisor: Thomas G. Robbins.

Second Place: Cosumnes River College, Sacramento, CA; Team: Robert Francisco, Lourdes R. Gonzalez, Margarette Jones, Joseph Wilson; Advisor: John Ellis.

Merit Award: "For careful & complete analysis;" Columbus State Community College, Columbus, OH; Team: Angela Garner, Kelly McMichael, Ben Nicholas, Elizabeth Stout, Joshua Williams; Advisor: Doug Ritchie & Joan C. Weaver.

Merit Award: "For sensitive response to building orientation;" Cosumnes River College, Sacramento, CA; Individual: Joshua A. May; Advisor: John Ellis.

Merit Award: "For evocative presentation;" University of Auckland, Auckland, New Zealand; Team: Raymond Lee, Ben Mak, Joseph Wan, Wilson Wong, Kenneth Yeung; Advisor: Brenda Vale.

Merit Award: "For sophisticated and comprehensive presentation;" University of Auckland, Auckland, New Zealand; Team: Joane Cheung, Lin Lin, Daphne Liu, Ann Mu; Advisor: Brenda Vale.

Challenge B (four-/five-year schools)

Second Place Tie: School of Architecture, University of Hawaii, Honolulu, HI; Individual: Jennifer Phang; Advisor: Victor Olgay.

Second Place Tie: Washington University, St. Louis, MO; Individual: Sarah Davis; Advisor: Mark DeKay.

Merit Award: "For building as an ecological learning environment;" UCLA, Los Angeles, CA; Team: Eileen Bradley, Jennifer Zurick; Advisor: Murray Milne.

Merit Award: "For comprehensive integration and analytical clarity;" School of Architecture, University of Hawaii, Honolulu, HI; Individual: James Kane; Advisor: Victor Olgay.

Merit Award: "For compelling clarity in diagrammatic analysis;" Washington University, St. Louis, MO; Team: Laura Dulski, Henry Mahns; Advisor: Mark DeKay.

Merit Award: "For ambitious analytical approach;" California State Polytechnic University, Pomona, CA; Team: Danielle Lee, Khoi Tran; Advisors: Anna Escalante, Lance O'Donnell, Judith Sheine.

—Marilyn Parker

1999 LEADING EDGE STUDENT DESIGN COMPETITION

The competition will focus on energy-efficient and environmentally-responsible urban infill projects. Leading Edge, now in its eighth year, is a juried, prize-granting competition with international entries. The advanced students will design a mixed-use, multi-story building in Riverside, CA. First- and second-year students will design a townhouse. Both sites are on the northern edge of White Park, Riverside's first urban park, slated for restoration. White Park retains some of the specimen trees and shrubs from its original design as a city arboretum and botanical collection. Riverside's transit center is a block from both sites. The mixed-use project will have ground-floor retail with residential units above—it will test the viability of the city's proposed mixed-use zoning ordinance. The townhouse project will accommodate a separately-accessed workplace. The Redevelopment Agency intends to request proposals from developers for both sites in the next year. Riverside is in a hot, dry, inland climate. It is a city with a rich architectural legacy, though its downtown has suffered from center-city decay. It is a perfect testing ground for design strategies for energy-efficient and environmentally-sensitive infill development. The problem statement will be available for general distribution in early October. If necessary, draft copies for fall studios can be requested from Deborah Weintraub, AIA, at Southern California Edison <weintrdj@sce.com>. ■

—Deborah Weintraub

EVENTS

EARTH TECHNOLOGIES

The initial *Earth Technologies Forum* will be held in Washington, DC, **October 26–28, 1998**. For information check out the conference website <<http://www.earthforum.com>>.

GREEN BUILDING CHALLENGE

Green Building Challenge '98 will be held in Vancouver, BC, **October 26–28, 1998**. For information contact Nils Larsson <larsson@greenbuilding.ca>.

MULTIDISCIPLINARY PRACTICE

The European Association for Architectural Education (EAAE) is sponsoring an international academic conference, *Architecture and Engineering*, with a focus on "The Teaching of Architecture for Multidisciplinary Practice." The conference will be held at the School of Architecture, University of Plymouth, UK, from **February 4–6, 1999**. Full details on the conference and the submission of abstracts are available at <<http://techweb.sec.plym.ac.uk/soa/staff/mvoyatzaki/index.htm>>.

INTELLIGENT, RESPONSIVE BUILDINGS

Intelligent and Responsive Buildings, an English-language conference aimed to disseminate research and developments in leading-edge buildings, will be held in Brugge, Belgium, **March 29–30, 1999**. For information visit <<http://www.ti.kviv.be/conf/buil.htm>>.

INDUSTRY & INNOVATION

Industry & Innovation in the 21st Century, the 1999 ACEEE Summer Study on Energy Efficiency in Industry, will be held in Saratoga Springs, NY, **June 15–18, 1999**. Abstracts are due **October 30, 1998**. For information visit <<http://www.aceee.org>>.

UIA BEIJING 1999

The *XXth UIA Congress of World Architects* will be held in Beijing in **1999**. 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.

MAINSTREAMING GREEN

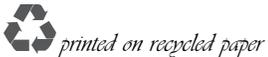
Mainstreaming Green: Sustainable Design for Buildings and Communities, will be held **October 14–17, 1999**, in Chattanooga, Tennessee, organized by AIA COTE and the U.S. Green Building Council. For info contact Muscoe Martin, <mbm@maxmanpartners.com>. ■

SCOOP!

Martin Moeller, ACSA Executive Director, has taken a position as executive vice president of the National Building Museum (NBM) and will leave ACSA in mid-November. He will serve as the museum's chief operating officer, working with Susan Henshaw Jones, who is currently president and director. After Martin starts, she will stay on in a part-time capacity as president and drop the title and duties of director.

Martin says, "I look forward to opportunities to working cooperatively with SBSE and other academic groups once I move to the museum. In particular, I hope we can work with the many schools that put together exhibitions of their own—perhaps we can share resources and expand the reach of existing programs." We'll see that his subscription is forwarded to the NBM for he's been a staunch SBSE advocate at ACSA; we'll miss his helpful presence there, but anticipate his collaborative efforts at NBM. ||

-Bruce Haglund



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



photo: Terri Meyer Boake

Baa, baa black sheep have you any wool? Yessir, yessir, three vans full. SBSE on the high road to Taos.

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