



Photo: Alison Kwok

The traditional façade of the Woods Hole Research Center Ordway Campus building belies its LEED-rated interior and addition.

## THE NEXT AGENTS OF CHANGE WORKSHOP

WOODS HOLE RESEARCH CENTER, OCTOBER 14-16, 2004

Join the fun on October 14–16, 2004, when the Agents of Change project holds its next training workshop at the Woods Hole Research Center on Cape Cod. As in the past, the goal of this 3-day, intensive workshop is to help you embed the case study approach into your courses. Your faculty–TA team will learn how to use tools, and in the spirit of SBSE, share teaching ideas. The Woods Hole Research Center <<http://www.whrc.org/>> was completed in March 2003, by William McDonough+Partners as a conversion of and addition to a 19th-century summer home, creating 19,900 square feet of offices and laboratories. The Center, whose mission is in part to combat global warming and environmental degradation, intends the building to serve as a model for 21st-century construction, demonstrating that buildings can serve the needs of their inhabitants without causing harm to the environment. The innovative, high-performance building operates without on-site combustion of fossil fuels; it conserves energy through daylighting and a 26.4-kilowatt photovoltaic array; provides a stimulating, comfortable workplace through natural ventilation; delivers radiant cooling via a hydronic valence convector system; and uses a groundwater well with modular water-to-water heat exchangers to supplement space heating. High-durability, low-maintenance, low-VOC materials, paints, and adhesives were used throughout the center. And no carpet! It has already won design awards—one of AIA/COTE’s 2004 Top Ten Green Projects and the 2004 Northeast Green Building Award (first prize) in the places of work (small buildings) category, given by the Northeast Sustainable Energy Association (NESEA).

The workshop is almost fully subscribed, but there are a few spaces left. The application deadline is August 9. Apply now! For more information see <<http://aoc.uoregon.edu/workshops/woodshole2004.shtml>> or contact Alison Kwok <[akwok@uoregon.edu](mailto:akwok@uoregon.edu)>. ■

–Alison Kwok

## SBSE CALENDAR

### 2004

- Jun 26–30 ASHRAE Conf; Nashville, TN
- Jul 7–10 SBSE Retreat; Cascade Head, OR
- Jul 11–14 ASES Solar 2004; Portland, OR
- Jul 13 SBSE Annual Mtg; Portland, OR
- Jul 15 Tool Day; Portland, OR
- Aug 5–7 ~~AoC CalPoly~~ -- CANCELLED --
- Oct 14–16 AoC Workshop; Woods Hole, MA

### 2005

- Jun 25–29 ASHRAE Conf.; Denver, CO
- Aug 8–12 Solar World Congress; Orlando, FL ■

## DUES RENEWAL TIME

SBSE dues come due every year at summer solstice—\$25 for most of you; \$15 for students. Send in your renewal checks, or pay by credit card if you prefer. Directions for both are posted in the “Join or Renew” section of the SBSE web site <<http://www.sbse.org/membership>>. NB: Later this year all non-renewed members will be purged from the membership rolls and denied this ever-stimulating newsletter. ■

–Candra Mallory

## LETTERS TO THE EDITOR

As noted in the Winter 2003, *SBSE News*, the Institute of Energy and Sustainable Development is working with Short & Associates on the Architecture Building at Judson College (Elgin, IL). We can't discuss any details at present, but design support will involve some novel analysis techniques founded on the research pioneered at the IESD. We will be happy to submit an article on the building for a future *SBSE News*.

—John Mandarjeric, De Montfort University

[John isn't an SBSEer (he should be, eh?), yet still turned up with a copy of the News in distant Leicester. Check out his amazing web site <<http://www.iesd.dmu.ac.uk/~jm>> for hints on this hush-hush project.—ed.]



I just passed the USGBC LEED professional accreditation exam on Saturday in Amarillo because Prometrics doesn't have a testing center in Lubbock. Surprise (not)! The exam was 100 questions, two hours in length, and moderately challenging. All questions were multiple choice and, with few exceptions, of little ambiguity. I followed my advice to students and used the full two hours just to check and recheck. Other than the written portion of the Maryland driving test that I took about 20 years ago, this exam was my first using the computer—with instant on-screen result reports and printouts. Now I want to do that with my classes. Does anyone in SBSE use this method? I am looking forward to my first SBSE Retreat and meeting all of you.

—Mark Giacardo, Texas Tech University

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## SBSE ROCKS THE CRADLE-TO-CRADLE

[*SBSE has been asked to co-sponsor the Cradle to Cradle Home Design Competition. Sharlyn Underwood and Gregg Lewis of SmithLewis Architecture made the proposal to the SBSE Board. SBSE has agreed. Here's how it went down.—ed.*]

Jerelyn Wilson at BuildingGreen spoke highly of SBSE, describing you as, “a very enthusiastic group interested in bringing a focus on sustainability to the higher ed arena in which they work.”

I am part of a team administering the Cradle to Cradle Home Design and Construction Competition—C2C Home. Some of you have received information or a telephone call from Gregg Lewis or me. We have been diligent about personally contacting all accredited architecture and interior design programs.

I understand SBSE has an upcoming retreat July 7–11 at Cascade Head, OR. C2C Home has the endorsements of AIA, ASID, IUA, and NAHB. I would like to have SBSE's support for the C2C Home competition. SBSE would be instrumental in getting word out to the appropriate people at many of the design schools. Winning individual student entries receive cash prizes and winning studio entries receive paid internships to work on the construction sites as these C2C Homes are built in Roanoke in summer 2005. Can the competition be announced and officially given support at your retreat? More information and competition details can be found at <<http://www.c2c-home.org>>.

Another opportunity for SBSE presents itself after entries have been evaluated by our world renown jury that includes Alexander Garvin, Daniel Libeskind, William McDonough, Randall Stout, and Sarah Susanka. Winning designs need to be assessed as to their “buildability” [*we'll need to define this non-word—ed.*] late in January 2005. This great opportunity will herald building science as it moves forward to more sustainable methods and bring recognition to SBSE. Please consider being a resource for this review, and let me know your thoughts.

—Sharlyn Underwood

Sharlyn, the competition looks very interesting. Announcing and promoting it at our upcoming retreat is the easy part, and I will be glad to do that. Publicly endorsing it also should be easy, but since we aren't asked to do such things every day, I would like to ask my comrades copied on this e-mail for feedback before I approve listing SBSE as a sponsor.

I would also be glad to use the SBSE retreat and list server to recruit architecture faculty to evaluate the projects for “buildability,” but would like to know more specifically what you seek. My first instinct would be that you would want design and construction professionals intimately familiar with the Roanoke market to evaluate “buildability,” but I may be missing the point. Are you interested in second opinions on the green aspects of the designs? How thorough a review, and are you asking for faculty to do this pro bono?

The bottom line is that we are a tight-knit, but loosely formed (read anarchistic and low-budget) organization. I can certainly put the word out. You may very well get a strong response, but SBSE as an organization can't contribute more than our ability to network.

I'm teaching a summer design studio on just this topic, and you may see some rogue entries from Wisconsin that adopt the program but design for our cold climate. It's always interesting to see how competitions deal with people who don't follow rules.

—Jim Wasley

Jim, SBSE sponsors the ASES conference in name but not financially, so our C2C support could be similar. We can certainly publicize the competition in the *News*, on the list server, and on the the web site. Our enthusiastic membership may adopt the program for studio projects. Sound appropriate?

—Bruce Haglund

Jim, I echo Bruce's comments which seem to be what Sharlyn is looking for, though I think it would be intriguing to have some SBSE experts (building science/architects) at the table with the jury. I'm not sure what evaluating the ‘buildability’ means without seeing what criteria the jury will be using. Any draft flyers to circulate at the retreat would be helpful, too.

—Alison Krok

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**ANNUAL MEETING AGENDA**


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TUESDAY, JULY 13, NOON-2:00PM,  
ASES SOLAR 2004, PORTLAND, OR

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1. Welcome New Board Members/ Thank Outgoing Members (Jim Wasley)
2. Treasurer's Report (Sandra Mallory)
3. Membership Report and Renewals (Sandra Mallory/Robert Marcial)
4. Peer Review Network Update (Walter Grondzik)
5. Newsletter Update (Bruce Haglund)
6. Web Site Update (Robert Marcial)

**SBSE Member Donations, Awards, and Scholarships**

7. Recognition of Donations—Fuller Moore, John Reynolds, and Agents of Change (Jim Wasley/Alison Kwok)
8. Student Retreat Scholarship (Chris Theis/Alison Kwok)
9. Student Travel Scholarship to ASES (Chris Theis/Jim Wasley), presentation of checks to students
10. ASES Student Best Paper/Presentation Award (Chris Theis)
11. ASES Poster Competition (Jim Wasley)
12. Jeffrey Cook Legacy Project (Harvey Bryan)
13. Jeffrey Cook Memorial Scholarship for Faculty from a Developing Country (Jim Wasley)
14. Jeffery Cook Student Travel Award to PLEA (Jim Wasley)

**New/Ongoing Business**

15. Agents of Change Project Update (Alison Kwok)
16. International Scholarships Update (Jim Wasley)
17. Future Retreat Plans (Emad Afifi)
18. SBSE and USGBC (Jim Wasley)
19. Tool Day Update (Bruce Haglund)
20. Cradle to Cradle (Jim Wasley)
21. Other business █

*-Jim Wasley*

Having seen the traffic on Sharlyn's request and your feedback, I would like to suggest the following: It is imperative to the success of this competition that we take the projects the design jury selects and run them through a filter to address a direction for technical development. This step will be done, in part, with the assistance of the local design and construction community. In an attempt to broaden the conversation and to bring the much-needed expertise to the table, we expect to invite a panel of building science and other professionals for a discussion in Roanoke. We would like your organization to play a major role in that conversation. There are other groups and individuals who have been, or will be, contacted to discuss their involvement. We anticipate a strong response.

At this point I'm considering the "buildability review" to involve a group of local architects and contractors sitting in a room with the top thinkers on building science and sustainability for a two-day conversation around the end of January 2005. The outcome of this conversation could be a local design and construction community better prepared to offer their assistance to the designers selected through the competition.

SBSE's involvement is essential, and we will leave it up to you as to how to structure that involvement. Ultimately, as the C2C Home Competition goes forward we anticipate bringing an adapted competition to another market in the U.S. in 2006, apparently something of interest to NAHB and AIA. Your continued support as the process evolves will be greatly appreciated.

Thank you for your thoughtful responses to Sharlyn's e-mail. We look forward to collaborating on this effort.

*-Gregg A. Lewis*

As you can see from our rather transparent dialogue, everyone is excited about the competition with SBSE supplying technical expertise. I'll step in and say now that we would officially like to sponsor the competition by lending our name and networking capacity. Please list us along with your other sponsors. I'll put a note about the competition on our list server today. If you have hard copy flyers to distribute at the retreat, please send them to me before July 7. Finally, if you have more specific information about your call for technical expertise, I will recruit experts at the retreat.

*-James Wasley*

My call for technical expertise is an effort to invite building science professionals, educators, and others whose participation we hope will serve as a foundation for the local design and construction community as they go forward in the development of the designs and ultimately the construction of the homes.

We will likely work in teams, each reviewing one (or more) of the selected entries and offering input into how to best realize the concept. A team may be comprised of the following wherever possible: The project designer(s), local architect(s), local contractor(s), community/neighborhood representative(s), government representative(s), realtor(s), building science professional/educator(s), other stakeholder(s).

Perhaps we can look at developing a list of interested members of your organization, then determine what needs to occur to bring them to Roanoke in late January or early February 2005. Costs and schedules are the two primary issues we will need to resolve. Your input is appreciated. █

*-Gregg A. Lewis*

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**CAL POLY SLO AOC WORKSHOP CANCELLED**


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We appreciate our colleagues' applications, but unfortunately the Agents of Change workshop planned for UCSB in August 2004, has been cancelled due to low enrollment. Cal Poly workshop registrants have been given priority registration status for the Woods Hole Research Center AoC workshop this October (see p.1). To preview the study building, go to the Woods Hole Research Center Building Excitement web page <<http://www.whrc.org/education/edordway.htm>>. AoC looks forward to an exciting, energetic workshop. █

*-Sandy Stannard*

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**LETTERS [CONT. FROM PAGE 2]**


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*[Thanks for the LEED testing report; unaccredited professionals are curious. Former students (ECS multiple-choice test survivors) tell me that the test's a Yogi Berra experience—déjà vu all over again!—ed.] █*

## SBSE PEOPLE

✦ Hearty congratulations to **Harvey Bryan** and **Murray Milne**, who are among six ASES members just elected to Fellow status for their many years of service. We all know of the many excellent papers produced by these two and their fortunate students. Many an ASES workshop has benefitted as well.

⊗ The newly elected Vice President for the AAUP Texas State Chapter is **Mark Giaccardo**.

⊕ **Martin Gold** will spend the next year on sabbatical in Finland gathering research on lighting in Finnish architecture and bicycle infrastructure plus working professionally.

✦ **Sandra Mallory** was quoted in a recent *New York Times* article on greening affordable housing, "Green Gets Real," in which the Environmental Works-designed project, Traugott Terrace, was cited as an example of a cost-effective approach to sustainable design.

◀ Ed.'s ed. is delighted that **Wendy McClure** succeeds **Bruce Haglund** as Department Chair at Idaho this summer.

♠ **John Quale** has accepted a tenure track position at the University of Virginia.

➤ **Fatih Rifki** has been promoted to Professor and will continue to serve the NCSU College of Design as its Associate Dean for Graduate Academic Affairs and Director of the interdisciplinary Ph.D. in Design program. ||



photo: Tisha Egashira

*Bruce Haglund receives expert advice at Wales' Center for Alternative Technology on how to turn pedal power into a banana-strawberry smoothie.*

## RESEARCH NOTES

### ECOMOD: ECOLOGICALLY BASED MODULAR HOUSE PROTOTYPE

Starting this fall, the University of Virginia School of Architecture and the Piedmont Housing Alliance of Charlottesville (VA) will cooperate on a design/build project to develop modular house prototypes using rigorous criteria for assessing architectural design, building performance, and environmental impact. In an attempt to combine a tangible building project with speculative research, the students will design and construct three prototype modular homes over several years and monitor their performance.

The project, led by John Quale, is in response to involvement in the U.S. DOE-sponsored 2002 Solar Decathlon competition. The UVA team won 1st place in design and 2nd place overall. Unlike the solution for that competition, the ecoMOD prototypes will be affordable and sold by the Piedmont Housing Alliance to qualified low-income buyers. Quale will lead a complex collaboration of architecture, engineering, urban and environmental planning, and landscape architecture students. His partners will be Nisha Botchwey of the Department of Urban and Environmental Planning, who will lead a neighborhood workshop, and Paxton Marshall of the School of Engineering and Applied Science, who will coordinate the work of the engineering students. The students will design a modular system, then fabricate three 1,200–1,500-square-foot homes. Based on extensive research that considers the advantages of prefabricated components, rapid proto-typing technology, modular construction, and manufactured building systems, the project team will establish a design and construction strategy that will carefully balance ethical, aesthetic, technical, and financial issues. A thorough description of the entire research, design, and construction process will be made available publicly to maximize the educational value of the endeavor. The project will include the publication of a web site with the complete design drawings and specifications.

*[John is looking to build partnerships and relationships with other members of SBSE to support the many complex technical aspects of this project. Anyone interested in supporting the project—by giving advice or taking on some aspect of building performance analysis—please contact him at <quale@virginia.edu>. There are limited funds available to cover some expenses, although he does expect to write additional grant proposals for the performance analysis phase.—ed.]*

—John Quale

### IDAHO GREEN ROOFS

The University of Idaho Idaho Urban Research and Design Center in Boise received a grant from the Idaho Department of Environmental Quality to research and demonstrate vegetated roofs. IURDC Director Sherry McKibben has been working with DEQ's stormwater program manager, Todd Maguire, for several years on stormwater solutions in the context of urban design. She attended the 2nd Annual Green Roofs for Healthy Cities' Greening Roofs Conference in Portland in June and toured many of that city's green roofs, talking to researchers and policy makers. The project will begin with test plots on the Ada County Courthouse roof, thanks to the interest of Dave Logan, Ada County facilities director. Other project partners will be the AIA Idaho Central Section, the ASLA Olmsted Group, and the Idaho Botanical Garden. The funds will also support the construction and monitoring of a living roof on a building to be determined after several years of research are completed. Research will include plant list, planting medium, water runoff, pollutants, insulative properties, and heat island temperature modulation. Look for the link on the IURDC web site at <<http://www.aa.uidaho.edu/iurdc>> coming soon.

—Sherry McKibben

### FLORIDA BICYCLES

Martin Gold has completed a design studio—Transporting Ecologies—as part of a bicycle master plan for the City of Gainesville and for Alachua County. The proposal incorporates integration of ecology, energy harvesting, hydrology management, and public space as part of an integrated, nonmotorized transportation network. The work identifies practical priorities for infrastructure investments and proposes more innovative policies for generating ecological implementation processes. See <<http://www.transportingecologies.com>>. ||

—Martin Gold

## 100 YEARS AFTER ULYSSES

### ARCC/EAAE RESEARCH CONFERENCE

It will be a cold day in hell before consensus is reached on the nature of research in architecture. The 4th Joint European Association for Architectural Education/Architecture Research Centers Consortium Conference took place this year at the Dublin Institute of Technology in Dublin, Ireland, June 2–4 [*Two weeks shy of the centenary of a walk through the streets of Dublin described in James Joyce's Ulysses.*—ed.] and was the scene of continued, and at times, heated debate regarding the architectural research endeavor. Despite every effort to clarify the issue, conversations that began in Raleigh (NC) in 1998, continued in Paris in 2000, and Montreal in 2002, remain unresolved and will have to be resumed at the next joint conference in 2006.

SBSE colleague, Chris Luebke, currently Director of Foresight and Innovation at the Arup R&D office in London, delivered a wonderful opening keynote address in which he reflected on the theme of the conference, “Between Research and Practice.” This theme was subsequently variously interpreted as research on practice, research as a component of practice, practice as research, knowledge and practice, ad nauseum. A number of papers addressed the more theoretical nature of architectural knowledge, examining how practice and research are knowledge producers. [*I understood every word of some papers, yet had no clue of their aggregate meaning. And I wasn't alone.*—ed.] Other papers spoke to more concrete issues such as the research and development of energy modeling and its introduction in practice.

As always, the wide range of cultural backgrounds (from Australia, Belgium, Canada, Germany, Ireland, Sweden, Switzerland, UK, USA) as well as philosophical/epistemological backgrounds was a defining characteristic of this edition of the joint conferences and, to my mind, its great benefit. As much as one finds oneself attempting to bring order and understanding to the group (regarding, for example, European vs. American tendencies) sufficient exceptions exist to defy any generalization. The only constant is a sincere interest in the discipline of architecture and commitment to the exchange of ideas.

Our hosts at the Dublin Institute of Technology did an excellent job—providing warm and sustaining hospitality both at the Bolton Street Campus and at the scenic National Botanic Gardens (where we also enjoyed a lecture on and tour of the historic greenhouse structures renovated by the architect/landscape architect Ciaran O'Connor). The conference dinner was an exquisite affair at the Royal Irish Yacht Club, where in true Irish tradition Dean Horan displayed his wonderful facility for storytelling when he attempted to answer the question, “Is hell exothermic or endothermic?” [*You may have heard that one before, but Jim's love of storytelling enriched it with his eloquence!*—ed.] Thankfully, entropy has not prevailed, and much heated debate remains on ice until we meet again! ■

—Lucie Fontein



Conference delegates explore the renovated and yet-to-be-replanted great glasshouse in the National Botanic Garden of Ireland.



Grafton Street in Dublin as Joyce imagined it?

## JOB OPS

### STANFORD UNIVERSITY

The Department of Civil and Environmental Engineering invites applications for a tenure-track faculty position (Assistant Professor or untenured Associate Professor) focusing on sustainable development of buildings and infrastructure. The successful candidate is expected to have in-depth knowledge of methods and tools for integrating sustainability in early conceptual design. The selected candidate will be expected to (1) teach core courses in the Construction Engineering and Management (CEM) and/or Design/Construction Integration (DCI) programs, (2) conduct research on integrated design and construction of sustainable buildings and infrastructure. Required qualifications: an earned doctorate in civil and environmental or a related engineering discipline or an M.Arch. degree. Desired: significant experience in facility design and construction and in performance-based, sustainable engineering projects.

Applications should include a CV, publications list, brief statement of research vision and teaching interests, and names of three to five references. Submit e-mail as Adobe Acrobat file attachments, each labeled “LastName\_FirstName\_DocName.pdf” to <CEM-DCI-Search-Levitt@stanford.edu>. Alternatively, mail applications to: Professor Raymond Levitt, Chair; CEM/DCI Faculty Search Committee; Dept. of Civil & Environmental Engineering; Stanford University; Stanford, CA 94305-4020. The review of applications will begin September 15, 2004; however, applications will be accepted until the position is filled. Stanford is EO/AA.

### BUILDINGGREEN, INC.

The publisher of *Environmental Building News* and the *GreenSpec Directory* is offering a ten-month paid internship beginning September 2004 (beginning and end dates are flexible). Tasks include categorizing past and current articles for online publication, verifying and updating *GreenSpec* listings, and editorial support for *EBN*. BuildingGreen has a staff of a dozen knowledgeable, dedicated employees whose work is well-connected to the cutting-edge of sustainable building design and construction. The office environment is casual, yet professional, personal, and focused.

Please send a résumé and cover letter to Jerelyn@BuildingGreen.com or to Jerelyn Wilson; BuildingGreen, Inc.; 122 Birge ST, Suite 30; Brattleboro, VT 05301. ■

## BOOK REVIEW

In her introduction to *Closing the Loop: Benchmarks for Sustainable Building*, Sue Roaf argues that a feedback loop is imperative if sustainable building is to have any effect. “Our top priority is to ensure that we all clearly understand the issues at hand, how to measure and monitor them, how to report building progress against authoritative benchmarks, and how to use the results to plan our common future.” *Closing the Loop* aims to provide the background for such a task.

The first section gives an overview of the goals of sustainable design, beginning with a chapter on incorporating sustainability in the building program. The next few sections discuss a range of environmental indicators that can be used as benchmarking tools. These indicators run the gamut from “number of countries at war” and “sense of place” in the Quality of Life chapter to a comparison of fuel consumption per mode of travel in the Transport chapter. The final two sections present sustainable building and planning strategies, along with tools for predicting and evaluating sustainable building and a reprint of a PROBE report on Post-Occupancy Evaluation.

The book covers a huge range of issues and provides a good introduction to environmental concerns in general, environmental, and social issues related to development and the more specific sustainable building agenda. By covering such a large topic area, however, there is little room for any in-depth focus on the indicators and tools that would assist in benchmarking buildings, in particular. While each of the chapters on environmental indicators includes a section specific to buildings, they are necessarily brief and might have benefited from a more direct link to the global conditions and how we can realistically benchmark a building’s effect.

The Tools and Techniques section was of more interest in terms of evaluating buildings themselves. It covers both projected and measured evaluation techniques. There is an interesting chapter on mandated ratings for the energy-efficiency of dwellings in the UK, an informative case study of Oxford Brookes University’s attempt to quantify its “ecological footprint,” and a useful introduction to general principles of sociological survey techniques. It is this last third of the book that I would love to see expanded and given greater depth as a means of “Closing the Loop” through building performance evaluation. ■

—Sandra Mallory

## A WALK AND A TALK IN THE PARK

### CLOSING THE LOOP: POST-OCCUPANCY EVALUATION, THE NEXT STEPS

#### He Said

This truly exceptional event was organized by the TIA (Teaching in Architecture) group at Oxford Brookes University with Sue Roaf as the guiding light. SBSE played a small, but ocean-spanning, supporting role through the graces of *SBSE News* Editor Bruce Haglund. About 40 papers were presented during the two-and-a-half-day program, vying for attention with the elegance of the Lodge, the greenery of the Park, the camaraderie of the attendees, and truly outstanding food. Conference food will never be the same.

*Closing the Loop* provided a venue for discussing an issue of long-standing concern and recently heightened interest on both sides of the Atlantic—the performance of buildings after they are occupied. Larger and more formally structured than an SBSE Retreat, yet small enough to permit active attendee participation and interaction (and no parallel sessions), the conference provided interesting insight into state-of-the-art POE in the U.S. and the UK. As is usually the case at international conferences, concerns are universal (generally indifferent building owners, distanced design professionals, and the never-to-go-away question of who pays), and solutions not geographically unique (some excellent tools, pockets of knowledgeable design professionals, and worry about the effects of failing to consider performance on the products of current and emerging designers).

Many of the *Closing the Loop* presentations dealt with thermal comfort. As expected, possession of a unified (even if evolving) theory of human response puts the comfort researchers out front when it comes to POE investigations. Much less was presented regarding definitive human responses to the visual, aural, spatial, and social environments established by buildings. Not that these aspects of the built environment are not being addressed. Worker productivity and occupant satisfaction were a fundamental element in many presentations. It was good to hear, more than once, that there appears to be a strong, consistent correlation between occupant comfort and productivity (take that you Eisenman wannabees!). Verifying intuition with science usually feels good.

Two must-see post occupancy evaluation resources were presented at the conference—Usable Buildings <[www.usablebuildings.co.uk/](http://www.usablebuildings.co.uk/)> and the Center for the Built Environment’s “Occupant Indoor Environmental Quality Survey” <<http://www.cbe.berkeley.edu/RESEARCH/survey.htm>>.

—Walter Grondzik  
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Cumberland Lodge in Windsor Great Park was a great conference site.

## They Said

From 29 April–2 May 2004, *Closing the Loop* gathered a group of 70 academics, professionals, and students for three days in the picturesque setting of Cumberland Lodge (aka Queen Mother's Lodge), in the middle of the UK's Windsor Great Park. The opening talk by Wolfgang Preiser (after a lovely opening dinner) offered the opportunity to gauge the diversity of views and perceptions of POEs and to learn about the most recent reviews of POEs. More than anything, this first "clash" of ideas advocated the responsibility of building professionals for occupants' satisfaction and well-being well beyond the constructive and operational qualities of the building. The group also conceded that the reality of professional practice seldom allows, financially and logistically, the means of conducting such evaluations. The road was paved for the discussions on the "What," "Why," and "How" of POE.

Hal Levin insisted on the increasing relevancy of POEs in the actual sustainability challenge where occupant comfort, health, and well-being need to be assessed more thoroughly. During the conference, several authors presented their own "customerised" evaluations of occupant satisfaction indices of case studies reaching from small residential clusters to such architectural icons as London City Hall by Foster & Partners. Georges Baird raised the question about the importance of forming a consistent body of knowledge on building–occupants relations for an agreed-on international questionnaire that spurred a passionate discussion of their value, be they hard copy, electronic, or customized interviews with occupants. Although well-accepted that performance of occupants may be determined by a building's physical attributes, it was acknowledged that it is also strongly dependent on organisational features of the workplace and on psychological, more human or interpersonal aspects. Thomas Markus rightly insisted on the reliability and validity of such studies and is finding methods that could appraise the performance of buildings through the responses of its users to scalable semantic instruments. The first day ended (again after a much-praised dinner) with informal discussion animated with much enthusiasm from Bill Bordass and Sir Andrew Derbyshire's inquisitive look at the very nomenclature of POE. The suggestion for ROSE (Response of Occupants to Space Environment) stood out as a new acronym for POE in deference to Shakespeare ... was it time for bed? ... or had the spirit of the late Queen Mother (who so praised that bloom) visited us?

The second day was marked by the Shakespearian performance by Stirling Howieson that dramatically asked, "Are our buildings killing us?" This presentation brutally reminded us that beyond comfort and well-being, health still constitutes a foundation stone for any so-called sustainable building. Other second-day presentations addressed integrating the concept of the adaptive theory into POEs, interestingly in the presence of Rev Michael Humphreys, Nick Baker, and Fergus Nichol, three of its most notorious proponents. Byron Jones suggested, after a second look at existing databases, that adaptation effect on thermal satisfaction is substantial for both naturally and conventionally conditioned buildings and should be considered in a more complex adaptive model for thermal comfort. A dynamic multisensory approach to assess global environmental adaptability using a portable array [*described by attendees as a wearable "deely-bopper environmental scanning system"*—ed.] stirred a good, welcome laugh, and electronic questionnaires were presented by André Potvin and Claude Demers. POEs as didactic tools for understanding existing buildings and the teaching of POE methodology to future professionals appear a clear necessity on the way toward sustainable building. Alison Kwok and Walter Grondzik offered a tour of the Agents of Change project that addresses the disconnection between technology and design and how students view and study buildings to inform their own design work. Their convivial tool kits were used later in a frantic hunt for environmental benchmarks in a thick English fog punctuated by curious silhouettes bending over the grass or stretching dangerously on chairs towards fans and ceilings with uncommon, if not frightening, instruments.

Finally, participants agreed on the necessity of developing accessible tools and methods if POEs are to become a natural part of project delivery and improve the sustainability of our buildings. The diversity of methods mostly initiated by academics now needs to be transposed in the business context by professionals. Phil Jones suggested that "log books" now mandatory in the UK should make POE quicker, easier, and cheaper by bringing together much of the information needed for a professional POE. Simon Roberts exposed an approach called

• *continued next column*

## STUFF

### FROM LBL

1. New book on commercial building fenestration—*Window Systems for High Performance Commercial Buildings*, Carmody et al., Norton Press. See <<http://www.wwnorton.com/npb/nparch/carmody731219.html>>.

2. Some new research that we hope will begin to change owners' and suppliers' views on the cost effectiveness and practicality of smart daylighting strategies. Nothing formal is written, yet since field testing is still in progress. See the cover article in the May 2004, *Metropolis* <[http://www.metropolismag.com/html/content\\_0504/nyt/index.html](http://www.metropolismag.com/html/content_0504/nyt/index.html)>.

—*Stere Selkowitz*

### FROM PENN STATE

DALI Lighting Lab, the world's first internet-controlled lighting laboratory <<http://www.dali-ag.org/>> debuted at Penn State. It was on display at LightFair 2004, in Las Vegas and has been published in *Architectural Lighting* (3) 2004, p.15 and in *Consulting Specifying Engineer* at <<http://www.csemag.com/sections/psu.asp>>. ■

—*Martin Moeck*

## CLOSING THE LOOP [CONT.]

Integrated Workplace Performance Methodology that could account for the diversity of applications in the real world. Michael Humphreys finally insisted on the intrinsic subjective dimension of any POE, therefore acknowledging the diversity of the built and human environments, and concluded with the impossibility, if not irrelevancy, of developing an international index to rate indoor environment with a single number.

If one thing stands out from *Closing the Loop*, it is the fact that it allowed a very knowledgeable group of academics, professionals, and students to grasp the complexity of POEs and their challenge in the face of the now well-accepted sustainability issues. It allowed participants to identify the inevitable transdisciplinary dimension of POEs reaching far beyond such specialised disciplinary fields as architecture, engineering, and environmental psychology. In that sense, POEs stand as genuine tools to conduct transdisciplinary research that should create a new "space of knowledge" and help articulate bridges between the built form, society, and the environment. ■

—*Claude Demers and André Potvin*

## NEW ARRIVAL



photo: Chungyoon Chun

SBSEers Chungyoon Chun and Junseok Park's new baby Jiyon was born on 13 May. She weighed in at 3.73 kg. [How many stones is that?—ed.]

## BELLY UP TO THE BREWERY BLOCKS

We're pleased to announce the Fourth Annual Tool Day—it's becoming a tradition—to be held in Portland, OR, on 15 July 2004 (the day immediately following the ASES Conference). Spaces for this free (yet priceless) workshop are limited—in fact there are only two open slots at press time! Pre-registration is a must, and reservations will be accepted on a first-come, space-available basis. To register, simply send an e-mail (subject: Portland Tool Day) to <gzik@polaris.net> with your name, affiliation, and short statement of intent to attend.

Portland Tool Day will explore the Brewery Blocks, with an emphasis on the Art Institute which occupies the second floor of Block 4. The building has light shelves, solar panels, an eco-roof, and more. It is expected to be LEED rated (at least silver, maybe gold). Potential study topics include lighting and visual comfort (though we encourage team creativity and inventiveness). The Brewery Blocks, covering five blocks, introduces approximately 1.7 million square feet of retail, office, and residential space to the southwest section of Portland's vibrant, post-industrial Pearl District. The design of the Blocks is faithful to the industrial and historic character of the former Blitz-Weinhard Brewery and its surrounding district while incorporating environmentally-friendly, green architecture concepts. GBD Architects, Portland, is designer for the Brewery Blocks. See <<http://www.breweryblocks.com>> for a preview of the Tool Day venue.

Agents of Change alumna Kathy Bash is the site coordinator for this year's event. Participant information and more is available on the Tool Day web site <<http://www.aa.uidaho.edu/archwebs/bldgvital/PortlandToolDay/>>. ■

—Alison, Bruce, Kathy, & Walter



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

## FALL ISSUE SUBMITTAL DEADLINE—SEPTEMBER 1

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