



photo: Kyle Brown

SBSEers will gather at and tour the regeneratively designed John Tillman Lyle Center at Cal Poly Pomona before traveling to Mt. Baldy for the retreat.

READY, SET, MEASURE! RETREAT 2013

This year SBSE retreaters will delve into questions related to modeling and measuring design in research, practice, and teaching. The retreat is organized into 12 hands-on workshops and presentations that investigate the science and art of measuring design. The retreat stands for SBSE's ongoing commitment to leadership in sustainable design and sustainable design education.

SBSEers will gather in the Lyle Center in Pomona on Friday afternoon to tour the facilities before they hop on the shuttle bus for a short drive to Mt. Baldy, California for a weekend of reflections, hand-on demonstrations, Eureka moments, and debates of why, what, when, how to measure, and by/for whom?

At the Mt. Baldy Zen Center, participants will engage in spirited introductions aided by their *omiyage* [*Japanese: provide a small gift for each of the 35 participants-ed.*] (brainstorm your *omiyage* ideas now!). Ralph Knowles will start us off on Friday night with a keynote session celebrating the poetics of measurement. Saturday and Sunday sessions will feature an avalanche of old-time pioneers and new trekkers. There will be no parallel sessions! Come join (in order of sessions) G.Z. Brown, Michael Iversen, Ihab Elzeyadi, Nelson Brito, Mary Guzowski, Terri Meyer Boake, Laura Martínez, Katrin Klingenberg, Adam Menter, Alison Kwok, Sara Tepfer, Sandy Stannard, Pablo La Roche, James Wasley, Margot McDonald, and Juintow Lin for an immeasurable experience!! SBSE is sponsoring six student scholars and the Jeff Cook Trust is sponsoring two international faculty scholars (who will also present their work!). The retreat format favors interactive sessions rather than typical conference presentations. You will be engaged!

For further information please check out the retreat site at <<http://sbse.org/retreat/retreat2013/>>. Retreat registration is open, space is limited. Sign up now at <<http://sbse2013.eventbrite.com/>>, first-come, first-served. 🖐

—Ihab Elzeyadi

SBSE CALENDAR

2013

- Mar 27–30 ARCC Conf/Charlotte, NC
- Apr 11–12 Facade+ Conf/New York, NY
- Apr 11–13 Reclaim+Remake/Washington, DC
- Apr 16–20 ASES Conf/Baltimore, MD
- Apr TBD SBSE Annual Mtg/Baltimore, MD
- Jun 21–23 SBSE Retreat/Mt. Baldy, CA
- Jun 24–25 BESS–SB13 Conf/Pomona, CA
- Jul 11–13 BTES 2013 Conf/Bristol, RI
- Jul 26–27 Facade+ Conf/San Francisco, CA
- Sep 10–12 PLEA Conf/Munich, GER
- Oct 24–25 Facade+ Conf/Chicago, IL
- Oct 30–Nov 2 PLDC 2013/Copenhagen, DEN

2014

- Jan 22–24 Sustainability Conf/Split, Croatia
- Apr 10–13 Windsor Conf/Windsor, UK 🖐



photo: Bruce Hagglund

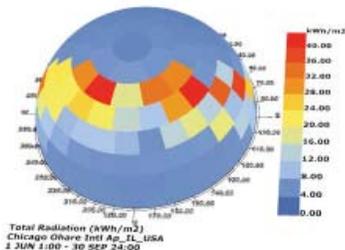
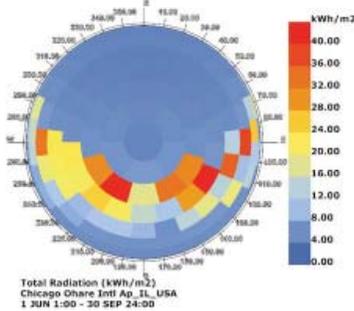
Jean Nouvel's le Musée du quai Branly is renowned for its green wall, but these adjustable exterior shading devices are equally cool!

LETTER TO THE EDITOR

Help me find a co-author for a structural design book for architects and civil engineers. The text will focus on the basics of what structural engineers use on a daily basis and will be project-based. It will be used in architecture graduate materials courses and intro civil engineering classes. I'm looking for one to two technical authors. My editor is looking for reviewers for the book. If you are interested, contact me, <pmcmullin1@gmail.com>, for further information.

—Paul McMullin

[It seems like the SBSE community can help address this challenge!—ed.] 🙌

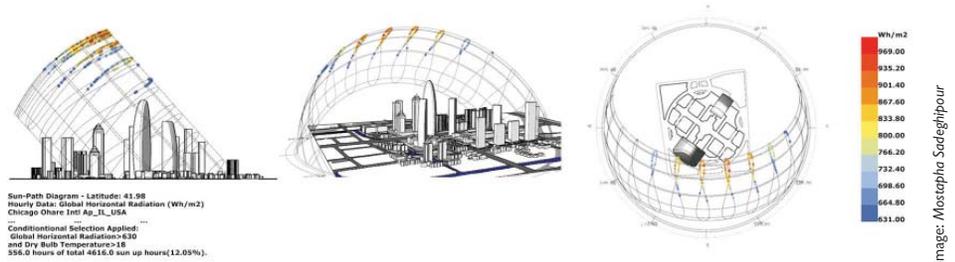


Chicago's summer radiation plots in plan and axo as plotted by Ladybug.

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OPPORTUNITY KNOCKS & STUFF CALLS

LADYBUG, FREE ENVIRONMENTAL PLUG-IN FOR GRASSHOPPER



Chicago's 3D sun-path diagramming the hours of the year that the temperature is more than 18°C and the global horizontal radiation is more than 630 Wh/m²

Ladybug imports standard *EnergyPlus* weather files (.epw) into *Grasshopper* and provides a variety of 2-D and 3-D designer-friendly interactive graphics to support the decision-making process during the crucial initial stages of design. This tool also provides further support for designers to test their initial design options for implications from radiation and sunlight-hours analyses results. Integration with *Grasshopper* allows for almost instantaneous feedback on design modifications, and as it runs within the design environment, the information and analysis are interactive.

Ladybug allows you to import and analyze standard weather data in *Grasshopper*; draw diagrams like sun-path, wind-rose, radiation-rose; customize the diagrams in several ways; run radiation analyses, shadow studies, and view analyses for your design inside *Grasshopper*!

The group page in *Grasshopper3D* is <<http://www.grasshopper3d.com/group/ladybug>>.

—Mostapha Sadeghipour

ARCHITECTURE AT ZERO 2013 COMPETITION

The American Institute of Architects San Francisco chapter (AIA SF) and the Pacific Gas and Electric Company (PG&E) Zero Net Energy (ZNE) pilot program, in partnership with the Tenderloin Neighborhood Development Corporation (TNDC), are pleased to announce the upcoming Architecture at Zero 2013 zero net energy design competition. The competition team is extending this invitation to encourage the participation of architecture, engineering, planning, and urban design students in this unique event that explores the cutting-edge of energy-efficient design.

Entrants will submit a detailed design as well as a thoughtful schematic energy strategy for an affordable housing project in the heart of San Francisco's Tenderloin neighborhood.

The competition opens May 1, 2013; site tour for entrants date will be announced; submissions are due Oct 1, 2013; jury comments and winners announcement will be published Nov 2013; and winning entries will be exhibited in the AIA San Francisco gallery and other locations.

Entry for students is free, and up to \$25,000 in prize money will be awarded to winning entrants, who will have a chance for recognition in exhibitions and print media. Students from Harvard University; University of Wisconsin, Milwaukee; University of Virginia; and the Academy of Art received awards in past years' competitions.

Architecture at Zero is committed to engaging students in progress towards reaching zero net energy buildings, and we hope that you will consider using the Architecture at Zero 2013 competition program as part of your Summer or Fall Semester curriculum. The web site will be updated throughout the Spring Semester with more information on competition requirements. If you need additional information, please contact Loren Wearsch at <lwearsch@aiaaif.org> for updates. For information on past Architecture at Zero competitions visit <<http://www.architectureatzero.com>>.

—Loren Wearsch

A similar competition is the ASHRAE Integrated Sustainable Building Design (ISBD) at <<https://www.ashrae.org/membership--conferences/student-zone/design-competition>>. 🙌

—Mary Ben Bonham

THE LATEST FROM BR&I JOURNAL

In 2011 the Edge debated “What does it mean to be a building professional in the 21st Century?” (Debate 46, 15.9.11). The debate led to the development of a Special Issue of the journal *Building Research and Information* on New Professionalism edited by Bill Bordass and Adrian Leaman, which has just been published. Copies were available at the follow-up Edge Debate 54, “A New Professionalism?” on Wednesday, Feb 20, 2013. See <<http://www.edgedebate.com/?p=1842>>.

The 2011 debate examined the dynamic relationship between professionals, government and markets; and whether professionals need to have a stronger role in protecting the public good through asserting leadership, acting impartially, and sharing knowledge and expertise. In particular, it explored the actions that professional institutions could take.

Among the featured articles are:

- (1) Bill Bordass and Adrian Leaman’s editorial, “A new professionalism: remedy or fantasy?”
- (2) Stephen Hill, David Lorenz, Peter Dent, and Thomas Lützkendorf, “Professionalism and ethics in a changing economy”
- (3) Ursula Hartenberger, David Lorenz, and Thomas Lützkendorf, “A shared built environment professional identity through education and training,” which poses a number of radical recommendations for education and training that SBSEers will no doubt want to discuss.

Speakers/authors included SBSEers Bill Bordass OBE, Usable Buildings Trust and a guest editor of the *BR&I* special issue; and Katy Janda, Environmental Change Institute, University of Oxford.

Synopses of previous debates are recorded on <<http://www.edgedebate.com>>.

Some elements of a new professionalism, proposed by the Edge and reproduced in the editorial of the Special Issue, are aimed at what the individual professional can do.

1. Be a steward of the community, its resources, and the planet. Take a broad view.
2. Do the right thing beyond your obligation to whoever pays your fee.
3. Develop trusting relationships with open and honest collaboration.
4. Bridge among design, project implementation, and use. Concentrate on the outcomes.
5. Don’t walk away. Provide follow-through and aftercare.
6. Evaluate and reflect upon the performance in use of your work. Feed back the findings.
7. Learn from your actions and admit your mistakes. Share your understanding openly.
8. Bring together practice, industry, education, research, and policymaking.
9. Challenge assumptions and standards. Be honest about what you don’t know.
10. Understand contexts and constraints. Create lasting value. Keep options open for the future.

Institutions have a significant role in underpinning these elements, encouraging the appropriate conditions for adoption, and providing additional support through the creation and sharing of knowledge. 🖐

—Bruce Haglund & Richard Lorch



Bill Bordass introduces his new professionalism ideas at SB11 in Helsinki, Finland two years ago.

SBSE PARTNERS WITH PLDC2013



SBSE is now an official partner organization for PLDC2013 to be held 30 October–2 November 2013 in Copenhagen. I’m looking forward to welcoming SBSEers. Make sure to register early rate 25 May 2013 to guarantee the best available rate! See <<http://www.pld-c.com>> for details.

Also, for our partner associations [*like SBSE-ed.*], we offer 1 free entrance ticket per 10 registrations. So it’s important that SBSEers include their association in their registrations. We also offer a discount of 10% for groups of 10 people and more.

The final programme offers 71 fascinating papers and interactive sessions presented by professionals from around the world. Keynote Speakers for PLDC 2013 have been invited from the world of architecture and film, and promise to inspire discussion. Architect Sahel Al Hiyari (Jordan), glass artist James Carpenter (USA), concept artist Mischa Kuball (Denmark), and Alessandro Gobbetti (Italy), Lighting Effects Assistant Technical Director on the film production *Avatar*, are featured.

PLDC organisers are planning a series of excursions to some awe-inspiring projects in and around Copenhagen led by their respective designers or clients. These include the Royal Playhouse and the new Blue Planet Aquarium designed by Jesper Kongshaug, as well as the Deloitte Building and Frederiksberg Courthouse, Industriens Hus in the centre of Copenhagen and three unique and innovatively designed projects in Malmö by Black Ljusdesign, Lichtlabor Bartenbach, and Christian Partos/Johan Moritz. Pre-convention meetings on Wednesday include meetings for International Educators and Early Career Researchers to discuss strategies to raise the quality of lighting design and research programmes. 🖐

—Franziska Ritter

SBSE PEOPLE

☞ **Mary Ben Bonham** has been promoted to Associate Professor with tenure at Miami University. Mary Ben says, “I am grateful to the SBSE community whose members have supported my first six years of being an educator in so many ways.”

☞ **John Reynolds** was elected to another 3-year term on the board of the Energy Trust of Oregon, where he has served since its 2001 implementation, and was re-elected to another year as Board President. This nonprofit provides incentives for energy efficiency and for renewable electricity.

☞ ACSA election results indicate **Ryan Smith** has been elected as the new West Regional Director! Great news for the advocacy of architectural technology.

☞ **Kevin van den Wymelenberg** has been promoted to Associate Professor with tenure at the University of Idaho. 🙌

JOB OPS

BUILDINGGREEN

The publisher of *Environmental Building News*, *GreenSpec*, *LEEDuser*, and *BuildingGreen.com*, has an opening for an editorial intern. This is an on-site position located in southern Vermont. The flexible, full-time schedule has a \$12/hour stipend. This is a twelve-month position with a June start date. We’re looking for an intern who can jump right in writing and editing articles, providing both editorial and research support for the editorial team, keeping our resources up-to-date with changes in the LEED rating system, and updating our industry-leading guide to green building products. Requirements include good writing and organizational skills and a strong command of the English language. The ideal candidate will also be driven to learn about green building strategies and products, and have a willingness to pitch in on our team-oriented publications. Video editing skills would be a plus. Do any of your soon-to-graduate students come to mind? For the full description, potential candidates may contact <Jerelyn@BuildingGreen.com>.

—Jerelyn Wilson

UNIVERSITY OF LEUVEN

The Department of Architecture, Urbanism & Planning at KU Leuven (University of Leuven) invites applications for an academic position in the area of building technology and design. For more information, see <<https://icts.kuleuven.be/apps/jobsite/vacatures/52409277>>. 🙌

—Ann Heylighen

BOOK REVIEW CORNER

THE PASSIVHAUS HANDBOOK

Janet Cotterell and Adam Dadeby, Green Books, 2012

I enjoyed this book. It is well written, contains a great range of useful insights, and is easy to read. The authors state that the book is focussed towards satisfying a broad target audience, just about anyone who might be involved in provision of housing, though they fail to mention post graduate students who could find this book very useful for its careful explanation of many of the issues surrounding low-energy housing.

The book is divided into two major sections. Part 1 provides general background information about the intention and application of passivhaus with interesting depth and comments. Many pages feature a useful glossary of the terms and units used. Part 1 is closely aligned to UK practice with many comparisons to the Code for Sustainable Homes. Its final chapter, ‘Setting up a passivhaus project,’ seems particularly useful as a general reference, with sections on achieving thermal balance and site considerations, as well as brief discussions on appointing an architect or builder and the standard (UK) contracts.

Part 2 starts with “using the Passivhaus planning package,” which is at its most useful as a commentary to the *PHPP* software—yet it is difficult to get a feel for the software from the smallish screen shots—however, it does review the steps towards completing the software. The following chapters on thermal bridges, airtightness, moisture, windows, and ventilation provide good information but, for an architect, could be improved by the provision of more detail. There is a chapter about passivhaus living which offers an anticipatable chorus of approval from occupants. A more structured post-occupancy study of the some of the passivhaus buildings would be a helpful addition. The appendix of completed certified passivhaus projects is useful. The authors accept, with little discussion, the standard view that mechanical ventilation and heat recovery (MVHR) saves more energy than it uses, but the authors encourage the use of natural ventilation in summer (“a longer season for windows open”) and in this respect differ from manufacturers of MVHR units whose standard advice seems to be to keep the MVHR running continuously to make sure “the occupants don’t ruin things!”

The recently published NHBC Foundation “Lessons from Germany’s Passivhaus” indicates the need for more education in the operation of this sort of house, particularly for ventilation. I would have liked more exploration of MVHR in this book, particularly its cost advantages in a range of modes of use.

In general, in the UK particularly, a useful book.

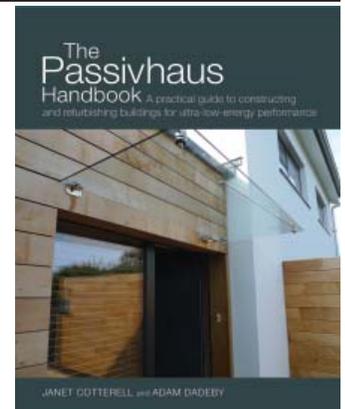
—Mary Hancock

PLUMBING, ELECTRICITY, ACOUSTICS

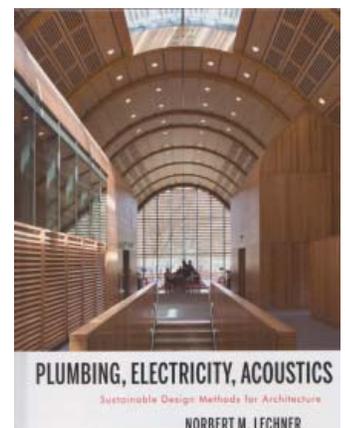
Norbert Lechner, John Wiley & Sons, Inc., 2012

Building systems courses just became a little more sustainable to teach. Why? Because from comfort and climate to compact fluorescents and cooling towers and now to constructed wetlands and conveyance systems, Norbert Lechner has you covered. Released earlier this Fall and written with the same astute mix of exceptional readability and cogently simplified illustrations that has marked the rise of *Heating, Lighting, Cooling* to a curricular mainstay since its arrival over two decades ago, *Plumbing, Electricity, Acoustics: Sustainable Design Methods for Architecture* is a most effective companion text to *HCL*; one certain to appear in syllabi across the US in short order, and quite deservedly so.

The text’s five-topic sequence is straight-forward, moving from the three titled headings of electricity, plumbing, and



cover: Green Books



cover: John Wiley & Sons

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ALTERNATIVE CONFERENCE DATES?

RECLAIM + REMAKE

The Reclaim + Remake 2013 International Symposium <<http://architecture.cua.edu/reclaim-remake>>, April 11–13, 2013, features 60 presentations and posters representing 11 countries, 33 universities, and governmental and non-governmental organizations gathered to engage in a dialogue about the reclamation and reformation of built environment material resources through education, research and design. Submission abstracts are available on the schedule page.

This event is hosted by the Center for Building Stewardship at The Catholic University of America, Washington, D.C., with additional support by the National Science Foundation. A.I.A. CEUs will be available.

—Brad Guy

SUSTAINABILITY CONFERENCE

Entering its tenth year, the Sustainability Conference meets annually to discuss the four fundamentals of sustainability in today's changing world. The Sustainability Conference serves as an open forum for exploring sustainability from many perspectives. The 2014 Sustainability Conference will be held from 22–24 January 2014 at the University of Split in Split, Croatia, one of the most popular Croatian tourist destinations. This year's conference will feature a

• *continued next column*

BOOK REVIEW CORNER [CONT.]

acoustics, on to fire protection and conveyance systems. Rewardingly, it's subtitle "Sustainable Design Methods" provides the overarching conceptual tie for Lechner's two-volume work. Plumbing chapters resonate best with his theme, percolating with innovations from new home run distribution manifolds to foam flush water closets, to mini-graywater-systems. Other topics attend more to their necessary comfort and safety issues, while offering sustainable asides (on elevators: take the stairs) and the consistent passing references to recent statistics and examples that gives the book currency (among fire tragedies, the 2009 Beijing Mandarin by OMA; regarding transport, triple-decker elevators at Taipei 101 and the Burj Khalifa). Finally, reminding his reader that technology must ever stand the test of humanism, Lechner's occasional editorial asides—as the brutality of electrocution or the scabrous practices of fire brigades—continue to offer an intriguing background voice to his work (quite surprisingly, fracking escapes unmentioned).

In curricular application, *Plumbing, Electricity, Acoustics* may require some "integrative design" negotiations across course sequences wherein different faculty cover different systems topics and are holding fast to the venerable *MEEB*, or perhaps are experimenting with David Lee Smith's *Environmental Issues for Architects*. Both the sheer readability of Lechner's prose and his deftness for concisely striking the most salient design notes (289 pages vs. 760 pages in *MEEB*) makes necessary shuffling easy. If there is any writerly criticism, it is that by functioning so explicitly as a companion text to *HCL*, providing those chapters which round out the remaining interior environment and service system domains, *PEA* lacks a mission-critical narrative of its own on a par with *HCL*'s three-tier Basic/Passive/Mechanical framework.

Though it's surely preaching to the SBSE choir, if there was any doubt as to the sheer importance of thinking about the inestimable value of a sustainably-themed textbook pair like Lechner's in today's architecture programs, consider Vanessa Quirk's recent *Arch Daily* article, which interprets the most recent *Design Intelligence* report beyond its well known flashy rankings, "While 58.8% of firms (the highest percentage) identified design quality as one of the architecture profession's premier concerns, the issues of Integrated Design (52.1%) and Sustainability/Climate Change (48.5%) rounded out the firms' top 3 priorities (multiple responses were allowed)." See "Forget the Rankings, the Best US Architecture Schools for 2013 Are...." *Arch Daily*, <<http://www.archdaily.com/297294/forget-the-rankings-the-best-us-architecture-schools-for-2013-are/>>. Whether our schools, like the profession, will catch up to thinking of form through systems and not in opposition to them is a task which Lechner has surely empowered the current generation of students to decide for themselves. 🖐

—Rob Svetz

special theme, World Heritage and Sustainable Tourism Development. The conference will feature sessions on a breadth of topics relevant to sustainability:

- Environmental Sustainability
- Sustainability in Economic, Social and Cultural Context
- Sustainability Policy & Practice
- Sustainability Education

Please visit our web site for more information on future deadlines and conference registration.

FACADE + PERFORMANCE

There's going to be a great facade conference (Facade+Performance) in NYC in April, followed by San Francisco in July, and Chicago in October. See <<http://facade.archpaper.com/ny2013/>>.

Also consider the facade retrofit workshop I am coordinating in NYC <<http://facade.archpaper.com/ny2013/day-2-dialog-workshops/>>. 🖐

—Mic Patterson

STUDENT OPPORTUNITIES

There are two more active travel scholarships available through SBSE this year:

- The BESS conference (students)
- PLEA (students)

For information see <<http://www.sbse.org/awards/index.htm>>. 🖐

—Walter Grondzik



At SBSE Retreat 2012 participants gathered in McCall's rustic setting for networking and socializing. More to come at Mt. Baldy this year!

WHAT'S THIS?



image: Troy Phillips

Is it a Dalek? A traffic cone? No, it's a daylighted artificial sky, illuminated by a donated SolaTube [thnx ST!—ed.] industrial strength skylight. Is it the first one of its kind in the world? Check it out in the architecture studios at the University of Idaho.

SBSEERS WIN

A lighting education project contributed to by several SBSE members won the 2013 Interior Design Educators Council Media award. SBSE members and their colleagues are invited to start using the site. Six interactive modules address concepts and practices so that lighting does not only occur in building science courses but is addressed “across the design curriculum.” Check out “Lighting Across the [Design] Curriculum” <<http://tedore.net/Nuckolls/about/>>. The winning team included the following universities and educators:

Kansas State University—Katherine S. Ankerson, (project lead) Interior Architecture & Product Design; Neal Hubbell, Interior Architecture & Product Design; **University of Nebraska-Lincoln**—Betsy Gabb, Interior Design; Lindsey Ellsworth-Bahe, Interior Design; Timothy Hemsath, Architecture; Clarence Waters, Architectural Engineering; **Nate Krug**, Architecture; **Miami University (OH)**—Mary Ben Bonham, Architecture+Interior Design; **Scott Johnston**, Center for Building Science Research; and **University of Texas at Austin**—Nancy Kwallek, Interior Design. 🖐



photo: Pablo LaRoche

A glance at a time line display from one of the learning modules from the Lighting Across the Design Curriculum web site.

—Mary Ben Bonham



SBSE NEWS
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VIRTUAL MAIL

TO: SBSEERS WORLDWIDE
AT HOME & AT WORK



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