



photo: Bruce Haglund (plus Photoshop)

Pictured with Margot McDonald at the ASES banquet, Harold Hay not only celebrated his 100th birthday this spring, but was honored with the ASES Charles Greeley Abbot Award. [Nice tie, Harold!—ed.] For more SBSE award winners see page 5.

CALL FOR RETREATS OF THE FUTURE

[The 2010 idea was published in the summer 2008 News. So far we have no fully developed counterproposals. Also please think ahead to hosting the 2011 retreat!—ed.]

2010 LAS VEGAS, NV

ASES 2010 will be in Phoenix (May 17–22) and LightFair International 2010 will be in Las Vegas (May 10–14). While Las Vegas may not be a preferred destination among SBSE members, we could have a really cool (no pun intended) retreat here. There are many exciting things for people to visit in Las Vegas (before we effectively run out of water!). I want to emphasize that Springs Preserve <<http://www.springspreserve.org/html/home.html>>, with one building on its campus entirely cooled by passive systems, could be not only a place for us to visit, but the actual location for the retreat with daylighted facilities, passive cooling (usually) in May, and a Platinum LEED rating. Announcement is premature, but I thought I should suggest Las Vegas as a venue to gauge the level of interest for a retreat here. *[We're concerned that May will be too early for full representation e.g., quarter-term schools are still in session. Counterproposals?—ed.]*

—Alfredo Fernández-González

2011 CALL FOR PROPOSALS

Imagine your dream retreat. It is held in the most SBSE-esque setting in your region. You mobilize your colleagues at home and afar to handle logistics and content. That retreat is either a signature stand-alone event or attached to an event that a number of SBSEers may attend—ASES, PLEA, or whatever. See <<http://www.sbse.org/retreat/index.htm>> for the tone and history of our unique retreats. Send your ideas to anyone on the SBSE board <<http://www.sbse.org/contact/index.htm>> or present it at this year's retreat in Québec City or at next year's annual meeting at ASES in Phoenix. 🐾

—Bruce Haglund

SBSE CALENDAR

2009

- Jun 21–24 PLEA 2009/Québec City, QB
- Jun 25–27 SBSE Retreat/Québec City, QB
- Jul 27–30 SimBuild 2009/Glasgow, UK
- Aug 6–8 BTES 2009/Albuquerque, NM
- Sep 20–23 Greening VIII/Indianapolis, IN
- Nov 25–27 ANZAScA/Launceston, TAS

2010

- May 17–22 ASES Conf/Phoenix, AZ 🐾

2009 DUES DUE

A quick reminder from your SBSE Treasurer that dues for 2009–10 are due by June 21. Our membership dues are extremely low, and you know what an incredible body of knowledge we all access through SBSE. Dues haven't risen in decades—\$25/year, students \$15/year, and members from developing countries at no cost. Join the 150 who have paid their 2009–10 dues. Go to <<http://www.sbse.org/membership/newform2.htm>> to fill out your membership form. You can pay by check or through Paypal. 🐾

—Michael Zaretsky

SEE FULL RETREAT HISTORY AT [HTTP://WWW.SBSE.ORG/RETREAT/](http://www.sbse.org/retreat/)

Thanks again for another great issue of *SBSE News*! I will be teaching this summer in Dhaka, Bangladesh, trying to convey a little of whatever I have learned from all of you and from my two semesters of PhD studies at Virginia Tech. I shall miss you all for I'm not able to join PLEA or the SBSE gathering this year, though I look forward to making it in 2010. I'm working on "Thermal Chimney as a Natural Ventilation Strategy" as my PhD research focus. Any resources/suggestions are most welcome from all at SBSE.

—Shamim Javed, North-South

[Nice to hear that you're doing good and doing well. We look forward to your contributions to the 2010 retreat!—ed.]



I want to thank all of you for the opportunity to attend the ASES SOLAR 2009 Conference in Buffalo, NY in May. It was an incredible experience and would not have been possible without the help of the SBSE members and the scholarship program. I extend a special level of gratitude to Alison Kwok for all her hard work. I had a wonderful time at the conference and I'm already planning to attend ASES Phoenix next year. Hope to see you all there!

—Andrea Wilkins, UNLV

[Andrea won the SBSE/ASES Best Paper Award Honorable Mention as well as being supported by an SBSE scholarship. See story and pix on page 3.—ed.] 🖐️

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Regarding the separation of design from technology and right brain from left brain, "I hate it when that happens." Yes, analysis and synthesis may be described differently as two habits of mind, but they are not exclusive. We all have some innate capacity for critical thinking and creative imagination. How we are educated and the disciplines one elects can further develop one or both.

The design studio, a device of architecture schools, has a long tradition. Its great strength is that faculty and schools can use it to accomplish any, or at least, many purposes. It has most generally been adopted to introduce students to the very early steps in a conventionally defined architectural design project—when given a program, an architect comes up with a design scheme, a preliminary sketch. Paul Rudolph would say that this represents 2% of the design process. The reason given by schools of architecture in the U.S. for focusing so heavily on this limited phase is that time in school is so limited and the capacity to design, given a problem to define an overall visual concept, is at the core of developing the skills of design synthesis with emphasis on visual form. In some cases, schools have extended this very limited concept of design studio to include design development, with the integrated studio, usually in the final or penultimate year, in which the structural, mechanical, and other special areas of knowledge are represented, in some cases with introduction to construction documents. Exceptions to this very conventional and entirely restrictive studio format are all worthy of note. I was first introduced to the concept of a research design studio as a student at Yale, when Pier Luigi Nervi turned the master's class into a systematic investigation of the integration of architecture and structural engineering. The class produced a workbook worthy of publication. Students in the class included Richard Rogers, Norman Foster, and Stanley Tigerman. You all know of stellar models of similar worth.

The point is that a design studio can be anything you make it. It can and should represent a significant exploration of design. It can focus on integration of one or several so-called technical domains. A perfect example is a daylight design assignment, perfect because it is ultimately visual, but also because it involves systematic study, analysis, and thus a form of research applicable beyond the specific case. A similar assignment is structures, using visualization tools as developed by Ed Allen and extended to computer simulation to many technical overlays that help assess a design, as pioneered by Arup among others.

I admire those teachers who have used the research design studio format to (1) integrate design and technical knowledge in design studio, (2) expose students to the thrill of systematic exploration of design as research and research as design, (3) document findings that are useful to others, (4) and in rare cases, build a body of design-based knowledge over many years by having the results of one year's studio extended into the next year. This is exactly what Ralph Knowles accomplished at USC. Though produced a decade or more ago, the body of work that Ralph's students completed still provides a source of knowledge applicable to practice today. Henry Sanoff at NCSU accomplished something similar with students integrating behavioral research and programming data into the design process, also resulting in published documents for practice. There are others whose devotion to the weal should be recognized and learned from.

In my opinion, every design studio should meet the standard of the research design studio. For the same reason, every project that is built in practice should meet the standard of research, including post-occupancy evaluation and reporting lessons learned. This standard is employed by the health industry when it requires "knowledge-based" or "evidence-based" design.

As for the two habits of mind, they are synchronous. The eye doctor fine-tunes your eyeglasses (right-left) so you can see. Architectural education fine-tunes the lenses of the student so they can apply a mix of skills and creative insight to any assignment at hand.

It is a very simple matter for individual faculty and schools to adopt this standard in design studio because the choice of content is the prerogative of the individual faculty. For those interested, chase down the ACSA conference paper that I presented at the 81st Annual Meeting, "The Research Design Studio: a modest proposal to improve education and practice." This paper was one of many produced across the U.S. at that time, and as I recall, they were gathered into a conference proceedings produced by ARCC. 🖐️

—Don Watson, FAIA

ANNUAL MEETING NOTES

May 13, 2009, at ASES Buffalo 12:00–2:00 pm. Meeting facilitated by Terri Meyer Boake.

In attendance: Dennis Andrejko, Yasmin Bhattacharya*, Terri Boake, Harvey Bryan, Chuck Campanella*, Tom Collins*, Tony Denzer, Ihab Elzeyadi, Alfredo Fernández-González, Jocelynn Gebhart*, Jim Grady*, Walter Grondzik, Bruce Haglund, Jason Hainline, Kun-Jung Hsu, Alison Kwok, Pablo La Roche, Matt Linn*, Margot McDonald, Murray Milne, Victor Olgyay, Daniel Overby, Alex Palimino, Rob Peña, Troy Peters, Peter Pfister, John Reynolds, Vikram Sami, Steve Sandifer, Greg Swanson, Greg Thomson, Jim Wasley, Mike Wassmer, Andrea Wilkins*. * indicates scholarship recipient.

Welcome and President's Report (Terri): Minutes not available to approve. Elections to take place in September; new officers will take office in November. Nominations for officers and self-nominations encouraged.

Treasurer's Report (Terri for Michael Zaretsky): Balance on December 31, 2008: \$28,742.14; on May 12, 2009: \$40,006.05

National Academy of Environmental Design (Terri): Discussion about how it will function. It will begin as institutional membership and may eventually be federally funded. The benefits would be that SBSE has an advisory role and opportunities to get research funding into the organization. SBSE is committed to contributing \$1,000/year for 5 years. Discussion about votes being proportional to the number of members in the organization. Terri was reimbursed for expenses to attend the organizational meeting.

Board Travel and Reimbursable Expenses (Terri): Discussion about decision-making process and reimbursements for Board members to attend Board meetings (may be in conjunction with Retreat or ASES or other convenient schedule). Discussion of general expenses related to our budget. Though we have a substantial treasury, as a nonprofit, we are not to make money. Annual budget needs to be set. Board travel/reimbursable expenses were not approved by membership; to be put on the ballot for the membership in August.

Contributions for Retreat Scholarships and ASES Travel Awards: Recognition and appreciation given to Fuller and Jane Moore, John Reynolds, and Don Watson for scholarship money contributed to SBSE. The Energy Trust of Oregon contributed funds to ASES for Oregon students to present papers. Sun Angle Calculator income is designated for scholarships. Scholarship and Awards Committee set forth and the board approved a motion in January 2009. Net income against expenses needs to be calculated for past years. Motion carried forward to members at the meeting: **MOTION** (Walter), 2nd (Dennis): Sun Angle Calculator income to be used for scholarships and awards. Discussion: Scholarship committee will discuss increases for scholarships for 2009–10. If the Sun Angle Calculator sales diminish as new software is developed, the scholarships program will have to be reconfigured. Motion passes unanimously.

Scholarship and Awards Committee (Alison) report distributed. A total of \$6,800 in scholarships were distributed this year by the following subcommittees:

- **ASES Best Student Paper Award** (Walter, Troy, Terri). Best Paper Award: not awarded as awardee had visa problems. Runner-Up: Yasmin Bhattacharya and Murray Milne (Massey University, NZ and UCLA), "Psychrometric Chart Tutorial: A Tool for Understanding Human Thermal Comfort Conditions." Honorable Mention: Andrea Wilkins and Alfredo Fernández-González (UNLV), "Design Lessons Learned from the Lied Animal Shelter in Las Vegas, Nevada."
- **ASES Travel Scholarships** (Walter, Jonathan, Troy, Leonard). Yasmin Bhattacharya (Massey University, NZ, and UCLA); Thomas Collins (Oregon); Chuck Campanella (Cal Poly Pomona); Jocelynn Gebhart and Matthew Linn (Oregon).
- **Jeff Cook Memorial Faculty Fellowship to Retreat** (Leonard). Not awarded this year.
- **Jeff Cook Student Travel Award to PLEA** (Chris T.). Anna Mavrogianni, PhD candidate at the Bartlett School of Graduate Studies, University College London. Her paper is titled "Modeling Domestic Stock Energy Use and Heat-Related Health Risk: A GIS-Based Urban-Scale Bottom-Up Modeling Approach."
- **Student Retreat Scholarships** (Bachman). Seven scholarships given to students: Shady Attia (Université Catholique de Louvain La Neuve); Mona Azarbayjani (Illinois); Christopher Black (Waterloo, USC); Kalyan Chakraborty (Kansas State); Deepa Chandrashekar (USC); James Grady, (NCSU); and Anupam Jain (USC).



photo: Bruce Haglund

SBSE Scholars at ASES are (back) Yasmin Bhattacharya, Andrea Wilkins, and Jocelynn Gebhart; (front) Chuck Campanella, Matt Linn, and Tom Collins.

Break: Becky Campbell-Howe (ASES) took pictures of scholarship/travel award recipients.

ACTION ITEM: Harvey asked if there was follow up with a letter to the Jeffrey Cook Trust for continued funding for 2009. Terri to follow up.

Communications and Newsletter (Bruce): Still going strong; the membership contributes to the newsletter. Newsletter is distributed every 3 months. There are about 600 people on the list server. Web site is periodically updated by Martha and Bruce.

Curriculum (Terri): need for more members and someone to take the lead on curriculum resource development (images, syllabi, etc.).

Retreat 2009 (Terri): Québec City following the PLEA Conference, June 25–27, 2009. Terri, Mary work on content; André Potvin and Claude Demers arranging logistics.

Retreat 2010: Alfredo Fernández-González mentioned the possibility of the Springs Reserve in Las Vegas which has cool towers and thermal mass strategies, but accommodations would have to be in a Las Vegas hotel. Proposals for alternative sites are encouraged and to be sent to Terri and Bruce for the newsletter. 🙌

—Alison Kwok



photo: Bruce Haglund

Alfredo Fernández-González hopes to be your retreat host in Las Vegas next year!

ARCC 2009 IN REVIEW

Sixty-nine attendees registered for this year's national conference on architectural research. There were fourteen peer-reviewed paper sessions (~50 papers), one panel, and two keynote speakers—Chris Luebke, Head of Foresight and Innovation, Arup; and John McRae, Dean, Tennessee. Dean McRae gave the Haecker Award address, having received ARCC's highest recognition of accomplishment in architectural research. Lynne Dearborn (Illinois Urbana-Champaign) received the ARCC New Researcher Award for her work in social equity and housing practices and gave a 30-minute address on the particulars of her work in the Bottoms and Bluffs in St. Louis.

The level of discourse was high and spirited. Many commented on how well the review and selection process worked to provide such provocative papers and opportunities for ensuing conversations. It's clear that we felt a growing sense of urgency and significance in regards to the place of research within the many dimensions of architecture and architectural education. Within and outside of the structured discussions I frequently heard ongoing discussions on the dynamic interaction of research, design, and education. It was a healthy and inclusive debate.

I was delighted to chair the Research in PhD Programs session. Aside from the intent of drawing doctoral students and deans together to facilitate job placements, ARCC wanted to broaden participation by including PhD candidates as presenters. It was rewarding for all to review the four projects, clarify the issues and methods, and act as a committee-at-large for focused feedback and validation.

The "Academia and the Profession" session was especially noteworthy for its illumination of research in practice, the emergence of research directors at many firms, and incorporation of research ethics into standards of critically distinguished design practice. I was taken by the depth of research assimilation this session portrayed as in place and growing in vitality.

I'll end in predicting that Ken McCray's gaming software, *Building Systems Integration for Enhanced Environmental Performance*, is going to be a real game changer. I hope he sends me the software soon so I can distribute it in my college. Ken? Please?

Next year the international conference, co-sponsored by the EAAE, will be held in Washington, DC. 🖱

—Leonard Bachman

CARBON-NEUTRAL DESIGN WEB SITE GOES LIVE

The Carbon-Neutral Design (CND) Project is a joint effort by the AIA, AIA COTE, and SBSE to produce educational and resource materials for carbon-neutral design. The CND Project acknowledges that there are identifiable starting positions and best practices required for a building to succeed in reducing its energy demands and to reach a state of carbon neutrality.

The initial phase of the project has focused on reducing the carbon emissions from the operating energy of the building. Operating energy has been selected over embodied energy as it represents the major contribution to the carbon emissions of a building and is the focus of the 2030° Challenge. Practices, protocols, and tools to reduce the carbon associated with embodied energy will form the focus of subsequent research associated with this project.

Members of SBSE have been involved for two years in teaching and documenting carbon-neutral design studios. The outcomes of these studios are included in the Teaching Resources portion of the web site. Also included are the beginnings of ten detailed case studies of zero-carbon or low-carbon buildings in the United States. Pablo La Roche provided a survey of carbon calculation tools—an overview of currently available online materials. A review of energy and simulation tools with links to faculty studio projects that use those tools is included. A spreadsheet tool developed by Michael Utzinger (based on the CND of the Aldo Leopold Center) is slated for launch in summer 2009.

The web resource is by no means complete. It was introduced to architects at the AIA Convention and Expo in San Francisco on April 30, 2009. The missing pieces will continue to be filled in through summer 2009. The project was funded by the AIA, the Brico Fund, and a private donor. Check it out at <http://www.architecture.uwaterloo.ca/faculty_projects/terri/carbon-aia/index.html>. 🖱

—Terri Boake and Jim Wasley

CARBON-NEUTRAL DESIGN CHARENTTES DEBUT

SBSE's CND charette team delivered the first of two installments in a long line of charettes (we hope) aimed at educating design professionals from multiple disciplines to deliver carbon-neutral buildings in the near future. The core team—Walter Grondzik, Bruce Haglund, Alison Kwok, Nick Rajkovich, and Mike Utzinger—with help from Bill Burke, Muscoe Martin, and Anna Maria Orru among others delivered two successful charettes in Portland, OR (Mar 21) and in San Francisco, CA (Apr 29) to audiences of architects and engineers. A pdf-formatted book describing the charettes and their outcomes is being produced. Stay tuned! 🖱

—Bruce Haglund



Expecting a day of hard work and intensity, Portland design teams gird their loins for the launch of the inaugural carbon-neutral design charette.

photo: Bruce Haglund

TOOL DAY NO. 9 AT BUFFALO

Walter Grondzik, Bruce Haglund, Alison Kwok, and Troy Peters with the help of fabulous graduate students from Oregon—Jocelynn Gebhart, Adrian (Yu Hin) Ho, Matthew Linn, and Kody Nathe—conducted the ninth annual SBSE Tool Day workshop at ASES in Buffalo's Market Arcade. As usual, participants enjoyed an intense day of behind-the-scenes building performance investigation. To see what and how they did visit <<http://www.caa.uidaho.edu/sbse/BufferToolDay/>>. 🖱

—Bruce Haglund



Troy Peters demonstrated the power of high dynamic range photography and its role in daylighting design and analysis.

photo: Bruce Haglund

SBSE PEOPLE

⊛ **Dennis Andrejko** and **Gary Siebein** became Fellows of the AIA during the Investiture of Fellows Ceremony at the 2009 National Convention and Design Exposition in San Francisco on May 1, 2009. Dennis also served ASES on Solar 2009's National Organizing Committee and as its Passive Technical Review Committee Chair. Gary is also a Fellow of the Acoustical Society of America.



photo: Hofu Wu

Dennis Andrejko (with wife Mary) accepts his AIA Fellow's medallion.

✿ *Treehugger.com* gave front-page billing to **Terri Meyer Boake's** presentation at the OAA convention. See <<http://www.treehugger.com/files/2009/05/the-comfort-zone.php>>.

♁ **Harvey Bryan** testified before the U.S. Senate's Environment and Public Works Committee on Earth Day (April 22, 2009), emphasizing the need for the U.S. to improve building energy standards.



photo: Harvey Bryan

Harvey Bryan enthralled a Capitol Hill audience.



photo: Hofu Wu

Veteran AIA Fellow Hofu Wu congratulates new fellow Gary Siebein.

✠ **Alfredo Fernández-González** will be on sabbatical leave from UNLV during the 2009–2010 academic year doing research at the National Autonomous University of Mexico.

⊛ **Bruce Haglund** has been named Fellow of the American Solar Energy Society.



photo: Alison Kwak

John Reynolds presents Bruce Haglund with ASES Fellow certificate.

♁ As well as celebrating his 100th birthday, **Harold Hay** was presented the Charles Greeley Abbot Award for significant contributions to the society by the American Solar Energy Society. [See page 1 photo!—ed.]

⊛ **Chris Leubkeman** was the keynote presenter at the Chicago ASHRAE meeting (Jan 2009). **Sue Roaf** is set as the keynote presenter for the Louisville ASHRAE meeting (June 2009). [How very impressive; both are SBSE members. Influence beyond numbers.—wg]



photo: Leonard Bachman

Chris Luebckeman holds forth ethereally at ASHRAE Chicago.

♁ **Greg Keeffe** has been named Professor of Sustainable Architecture at Leeds School of Architecture starting in June.

♁ **Rob Peña** has gained tenure at the University of Washington.

♁ **John Quale** reports that his ecoMOD Project was recently featured in *Metropolis* and *Dwell*. In addition, he received two international fellowships for next year—the Thomas Jefferson Fellowship at Downing College, University of Cambridge, and a Fulbright Scholar Fellowship in Japan. He'll research sustainable, affordable, and prefabricated housing in northern Europe and Japan, and welcomes suggestions about relevant projects to visit or people to contact.

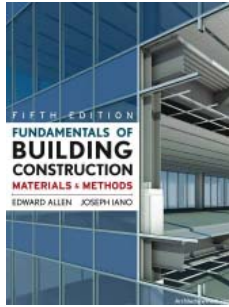
⊛ **John Reynolds** was named Fellow of the Cascadia Region of USGBC at their Living Futures Conference in Portland, OR, in May. 🖐

STUFF FOR YOU

CONSTRUCTING SUSTAINABLY

In the new fifth edition of *Fundamentals of Building Construction*, Allen and Iano set a new benchmark by incorporating sustainability issues into a mainstream construction textbook, section by section, in this concise overview from chapter one. We also look forward to a future edition of their outstanding book in which appropriate sustainability considerations have penetrated every topic and page. Read more at <http://www.ArchWeek.com/2009/0408/environment_1-1.html>.

—The Editors, ArchitectureWeek



cover: Wiley & Sons

SPRING IN NEW ZEALAND

The International Building Performance Simulation Association (IBPSA) Conference 2011 will be the week of 14 November in Wellington, NZ. Start planning now—Spring in NZ! I hope to have the SBSE sister organization ANZAScA's annual conference as a satellite conference in NZ as well. No doubt we will all be in celebratory mood, having just won the Rugby World Cup by then.

—Michael Donn

NOMINATIONS AND APPLICATIONS

Instructors of architectural acoustics are encouraged to nominate a student each year to receive the Robert Bradford Newman Student Award, which includes an engraved medal, an honorarium check for \$300, and a set of books from the Acoustical Society of America's architectural acoustics library. Nomination forms may be found at <<http://www.newmanfund.org>>.

The Newman Fund also supports development of improved teaching methods in architectural acoustics through the Theodore John Schultz Grant for Advancement of Acoustical Education. Applications for the 2009 Schultz Grant are currently being sought. The grant, typically \$3,000, provides partial support for the development of improved teaching methods, new curricula, or research in architectural acoustics education. Applications should be sent no later than June 30, 2009. Full info at <<http://www.newmanfund.org>>. 🖐

BOOK REVIEWS

A HANDBOOK OF SUSTAINABLE BUILDING DESIGN AND ENGINEERING

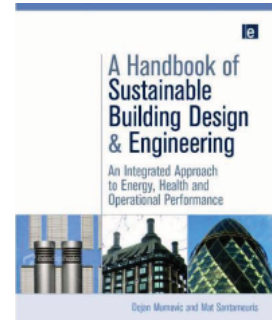
Dejan Mumovic and Mat Santamouris, published by Earthscan, £75

The drive to reduce the energy used in day-to-day living has become more focussed with increasing awareness of the faltering balance of the global ecosystems. There's an urgent need for architects and engineers to become better informed, and this tome is one of a number of recently published books that seeks to identify the route to buildings that tread more lightly on the planet. It sets out the boundaries of an approach to sustainability encompassing much more than just the building and briefly discusses urban planning and social geography. The intended audience is surely an already committed sustainable building designer or environmental engineer; it provides lots of very useful information and good check lists, not thoroughly presented in a way that would easily inform architectural design development.

The book includes contributions from 54 writers, mainly academics with nearly a third based at University College London. There are excellent sections on the development of building monitoring, approached in a straightforward way with discussion about logger positions and data requirements as well as good sections on analyzing the data. There are lots of case studies but, for wider architectural understanding, more information (e.g., plans and sections) about the buildings studied would be helpful. I particularly liked the rules-of-thumb (e.g., an insulation thicknesses guide was very useful for getting wall thicknesses right in student projects) and the charts of underground temperatures in relation to surface temperatures.

Interestingly, the book makes no mention of the Code for Sustainable Homes (perhaps a deserved omission of a very weak document), which is the current UK government standard to encourage progress towards zero-energy homes. The thermal comfort sections are based on Fanger's work; a bit dated—they would be stronger and more relevant if the adaptive model of thermal comfort were discussed. It's big (400 pages), well-referenced and produced (though all in black and white), and a useful book for detailed investigation of sustainable design strategies.

—Mary Hancock



cover: Earthscan

PRINCIPLES OF BUILDING COMMISSIONING

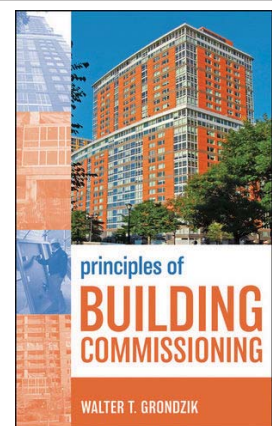
Walter Grondzik has written another good book, *Principles of Building Commissioning*, published by Wiley & Sons, Inc., 2009. In this book he makes the case for how essential building commissioning is. The book is a must-read for design professionals who have an interest in buildings' rating systems like LEED or GBI. Educators and design students will find this book interesting and inspirational as well.

Quality control is the essence of the book. Verification of proper performance of buildings and their achievement of intended results is a relatively new concept in the design and construction industry, which for a long time has overlooked the necessity of setting a standard for systematic processes to verify building quality. In contrast, mass production industries, like for automobiles, developed means and processes for quality control, which earned them well-deserved trust and credibility. So far, the building industry underestimates the benefits of commissioning, and many clients hesitate to pay for third-party verification.

The book starts with a chapter that answers the fundamental question, "What exactly is this thing called commissioning?" The book tries to clarify the underlying philosophy of commissioning, mapping out the territory of commissioning, outlining defining characteristics, explaining processes, and demystifying documentation. The book addresses commissioning in all design phases—pre-design, design, construction, and occupancy and operations.

Walter has been involved with commissioning for the last 16 years. In this new book, he shares his thoughts and experience. Thanks, Walter! 🖐

—Khaled Mansy



cover: Wiley & Sons

RESEARCH CORNER

ADAPTING SUBURBAN NEIGHBOURHOODS FOR CLIMATE CHANGE

Rajat Gupta, a Reader in Architecture and Climate Change from the Oxford Institute for Sustainable Development in Oxford Brookes University (UK), has been awarded a 3-year grant funded under the call on “Adaptation and Resilience to Climate Change” by the UK’s Engineering and Physical Sciences Research Council (EPSRC) to undertake research on adapting suburban neighbourhoods for a changing climate: identifying effective, practical and acceptable means of suburban re-design (SNACC). The proposed research question: how can existing suburban neighbourhoods be best adapted to reduce further impacts of climate change and withstand ongoing changes? The total value of the project is £645,000 with University of West of England, Heriot-Watt University, and a range of industry partners as well as researchers from overseas. For further information mail <rgupta@brookes.ac.uk>.

—Rajat Gupta

THE FOLLY OF BUILDING-INTEGRATED WIND

I thought your readers might be interested in a controversial stand that our newsletter has taken on wind energy. *Environmental Building News* executive editor Alex Wilson argues that putting wind turbines on top of buildings or integrating them into a building’s architecture doesn’t make sense. Building-integrated wind has become a popular strategy for “greening” buildings, but the technical and economic challenges are very significant, and the potential of small wind turbines for these applications is often oversold.

Wilson strongly supports wind energy, but he found that turbines small enough to work on buildings are simply too expensive to compete with other, more appropriate renewable energy sources, such as photovoltaics (PV) or larger, tower-mounted wind turbines. “Large, freestanding wind turbines on ridge lines or Midwestern agricultural fields and offshore wind farms provide the most affordable renewable electricity,” according to Wilson. “It’s really hard to make the economics work on buildings.”

“The Folly of Building-Integrated Wind,” was published in the May 2009, issue of *EBN* and is available online at <<http://www.BuildingGreen.com>>. While most archived content requires a membership to access, this article and an accompanying editorial are available for free.

—Jerelyn Wilson

FOCUS ON CARBON WRONG?

I’m concerned by the new fixation on carbon neutrality. It has many of the earmarks of the energy-saving focus in the 1970s. It is equally likely to lead to more bad buildings that are uncomfortable and unhealthy. As the DOE/LBL study a few years ago suggested, poor indoor air quality may cost the country \$160 billion a year, but sealed buildings saved energy!

The goal should be to make buildings that are delightful, pleasant, healthful, and sustainable in many ways—not just carbon neutral. Nitrogen emissions, for example, may be locally much more important and leakage of ecotoxic materials like zinc from metal roofs and panels can be devastating for local ecosystems. Rainwater harvesting, sustainable building materials, and living with the local energy flows of solar and microclimate resources are means to an end, not the end.

SBSers might find my new book, *Rebuilding the American Economy with true cost accounting*, a help. The focus is on true cost accounting for social and environmental impacts of development and production. For example, view chapter 5 at <<http://www.sustainabilityleader.org>>. 🖱

—David Bainbridge



David’s handy triple bottom line calculator.

DOE ENERGY MODELING

COMMERCIAL BUILDING BENCHMARKS

DOE, working with three national laboratories, has developed commercial building benchmark models, which are complete descriptions of buildings for whole building energy analysis using the *EnergyPlus* simulation program. There are 16 building types, representing approximately 70% of commercial buildings in the U.S., in each of 16 locations, representing all U.S. climate zones. Currently, new construction benchmarks, based on ASHRAE Standard 90.1, are available comprised of an *EnergyPlus* input file (.idf), a file showing *EnergyPlus* simulation results (.html), a scorecard that summarizes the inputs and results for each location (.pdf), and the *EnergyPlus* weather file (.epw). The benchmarks can either be downloaded by building type or by location from <<http://www.eere.energy.gov/buildings/highperformance/benchmark.html>>.

—DOE Commercial Building Team

ENERGYPLUS VERSION 3.1

The latest release of the *EnergyPlus* building energy simulation program, Version 3.1 for Windows, Linux, and Mac operating systems, is now available at no cost from the *EnergyPlus* web site <<http://www.energyplus.gov>>. *OpenStudio* is a free plug-in for the *GoogleSketchUp* 3D drawing program. The plug-in makes it easy to create and edit the building geometry in your *EnergyPlus* input files and allows you to launch *EnergyPlus* simulations and view the results without leaving *SketchUp*. See <<http://www.energyplus.gov/features.html>> for a complete list of new features in this and previous versions.

A helpdesk system has been set up for managing *EnergyPlus* user support requests. The helpdesk system includes a download area, a knowledge base, and a troubleshooting area. To submit new support requests (tickets) or search the knowledge base, go to <<http://www.energyplus.helpserve.com>>. You may also submit new issues, files, and reply to tickets via e-mail at <EnergyPlus-Support@gard.com>. This address has been linked to the helpdesk since early May 2008, and is the best way to get your specific *EnergyPlus* questions answered. 🖱

—The *EnergyPlus* Team

CAVIN FELLOW NAMED



photo: Brooks Cavin

Michael D'Ambrosia presents his prize-winning project to the final jury, which included SBSEers Pablo La Roche (l) and Alison Kwok (not pictured).

The 3rd Annual Cavin Family Traveling Fellowship (\$10,000) was awarded to Michael D'Ambrosia (UO, 2003), following a juried design competition at Cal Poly Pomona on Mar 27. Jeff Guggenheim was selected as the alternate. The jury commended D'Ambrosia's project as, "A solution with an elegant screen treatment surrounding the building, yet with user control." D'Ambrosia, a San Diego architect, plans a travel itinerary through Japan and Scandinavia to examine the use of wood in both cultures, as structure, material resource, and in construction detailing. For full information, see <<http://www.cavinfellowship.org>>. 🖱

—Patrick Sullivan



SBSE NEWS
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URBAN SUSTAINABILITY AND GREEN BUILDINGS

Rajat Gupta (Oxford Brookes) chaired a UK-India conference on "Urban Sustainability and Green Buildings" on 15 May 2009, in New Delhi. The conference was organized jointly by the Commonwealth Association of Surveying and Land Economy (CASLE), Oxford Brookes University (UK) and RICS India. The conference featured a range of plenary sessions, expert workshops, and Q&A sessions with about 24 speakers from the UK and from India presenting their papers on cities and sustainability; carbon mapping; green building design and performance; sustainable materials and construction; environment rating systems for green buildings; workable strategies for green buildings; post-occupancy building evaluation; and green buildings in the market. The target audience of about 250 was comprised of built environment professionals, policy makers, academics, and researchers.

To access the full programme of the UK-India conference see <<http://www.brookes.ac.uk/schools/be/oisd/conferences/ukindia09.html>>. 🖱

—Rajat Gupta



Panel discussion led by (left to right) Peter Dent, Ashok Lall, and Rajat Gupta.

photo: Rajat Gupta

FALL ISSUE SUBMITTAL DEADLINE—SEPTEMBER 1

FIRST CLASS MAIL