Think spring, think summer! The Royal Botanic Garden Edinburgh is flush with brilliant flora in July. There’s a preview throughout this issue.

**SBSE RETREAT 2017—SUBLIMITY, OR**

**CRAFT: SHAPING BUILDINGS, ECLOGIES, AND CITIES**

The presentation proposals are in and sorted! Join us for a sublime 2017 SBSE Retreat in Sublimity, OR, July 25–28, to share teaching materials, exercises, course designs, and design projects that demonstrate integrated technology and design. We have a generous venue where we will discuss the future of environmental technology teaching, how we establish research agendas, as well as promotion and tenure procedures. In parallel sessions, colleagues will present workshops and sessions on diverse topics, such as thermal delight, crafting high performance enclosures, technology in the curriculum, building in extreme temperatures, seeking grants, writing books, net zero strategies, materials and embodied energy, student competitions, and much more.

Ample “between times” will allow faculty, students, and invited guests to develop new ideas, collaborate, and have conversations about how we’re moving forward in our stewardship of the environment. The schedule will be posted to the SBSE retreat web site shortly. Tours will include Mt. Angel Abbey Library (Alvar Aalto) and Academic Center (SRG Partnership) as well as the Gordon House (Frank Lloyd Wright). Join us for post-retreat behind-the-scenes tours of buildings and the Energy Studies Building Laboratory in Portland on July 28.

[Best wishes, SBSE! I haven’t attended a retreat in a long time, but they were instrumental as I developed ecoMOD while on tenure-track at UVA.—John Quale]

Program Committee: Omar Al-Hassawi, Washington State University; Simi Hoque, Drexel University; Alexandra Rempel and Fred Tepfer, University of Oregon.

Site Coordinators: Alison Kwok and Isabel Rivera, University of Oregon.

—Simi Hoque & Alison Kwok

**SBSE TOOL DAY 2017**

**RBGE JOHN HOPE GATEWAY**

Edinburgh, 10am–5pm, July 2, 2017

SBSE is sponsoring a free, pre-conference Tool Day workshop that builds on a decade-long legacy of workshops conducted by Grondzik, Haglund, and Kwok—assisted by 10 Udaho architecture students. See <http://www.sbse.org/toolday/index.htm>.

The workshop will be held in the Gateway’s Patrick Geddes Room, adjacent to the top floor restaurant. The building’s designer, Roddy Langmuir from Cullinan Studio, and a Max Fordham engineer will introduce the building to SBSEers. The Geddes Room has a capacity of 40 attendees, so participation will be limited on a first-come, first-served basis. Over half of the spaces have been taken already! Sign up now!

After the workshop, we can all decamp to PLEA’s opening event, at Edinburgh Castle (PLEA event ticket required). It should prove to be an engiing day!

— Walter Grondzik, Bruce Haglund, and Alison Kwok

**HTTP://WWW.SBSE.ORG/RETREAT2017/RETREAT2017HOME.HTM**
LETTERS TO THE EDITOR


—Bruce Haglund, Idaho

So very nice of you to post the Metropolis article to the list server. –Ralph.

You might get someone in the know to write an article about ACSA, AIA, Architecture 2030, and the whole controversy about architectural program certification. I have not heard much lately. Was this issue resolved or does the in-fighting continue? 🤔

—Michael Holtz, Lightlouver

Great suggestion! Anyone knowledgeable willing to editorialize?—ed.

PLEA 2017—DESIGN TO THRIVE

We’ve had an amazing abstract response—over 1,200 submitted by 1,050 people. We’ve sorted through the abstracts and have notified authors. Because of the great response, the conference dinner on July 4 has been moved to the Victorian Grand Gallery of the National Museum of Scotland to accommodate the numbers. A less expensive [and more fun!—ed.] alternative to the conference dinner, especially attractive to young professionals and students, will be an amazing Caleigh (Scottish Dance) at the Ghillie Dhu, a converted 19th century church. For those interested in refurbishment of buildings Historic Scotland is hosting a free day out on July 6 at their Engine Shed R&D space in Stirling and tour of Stirling castle.

PLEA 2017—hosted by a consortium of Scottish universities, the Scottish Government, the City of Edinburgh, and Historic Environment Scotland—will feature over 250 speakers from around the globe, site visits, extraordinary parties, and a plethora of networking opportunities. Our theme, “Design to Thrive—Foundations for a Better Future,” recognizes the enormity of the local and global challenges we face in building and refurbishing our buildings, cities, and societies both to minimize climate emissions and to adapt effectively to climate change effects in each of our own rapidly evolving economies, societies, and physical infrastructures.

We in Scotland and Edinburgh are hosting PLEA 2017 to share both the lessons learned from our history and our recent progress towards building a more resilient society and country through excellence in education, great modern design, the refurbishment of historic building stock, new energy and water systems, tools, technologies, materials, and the evolution of our climate change planning and design policies and demonstration projects. There are many different ideas that we hope to tap and to integrate into new “joined-up” thinking on the built environment. We are doing all this with the help of our friends, colleagues, partners, and sponsors—to all of you a huge and heartfelt thanks. 🎈

—Sue Roaf
TEACHING REPORTS

NORTH CAROLINA STATE UNIVERSITY

The LEED Lab course participants at NC State are successfully certifying their first building in the LEED Operations + Maintenance (O+M) rating system. Last fall the course, co-taught by Traci Rose Rider (College of Design) and Liz Bowen (University Facilities Division), focused on Talley Student Union. The building, opened in 2015 and LEED Silver certified in the BD+C rating system, is awaiting final word on their LEED O+M certification. The project will be certified using the new Dynamic LEED Plaque, or ARC platform, which ties directly into the building’s monitoring systems, and will continuously update the level of certification digitally displayed in the building. The project expects to be certified initially at the Gold level. Talley Union will be the first LEED O+M certified NC State building, and the first in the University of North Carolina System statewide. The plaque will be unveiled in partnership with a Talk N-Walk with the NC USGBC chapter, where students from the LEED Lab course will both present their findings and lead tours for local professionals. More about the class and the project can be found at <https://sustainability.ncsu.edu/leed-lab-2016/>.

—Traci Rose Rider

WASHINGTON STATE UNIVERSITY

The U.S. Department of Energy Solar Decathlon 2017 is only eight months away, but the competing teams have been hard at work for more than a year. Competition organizers recently reviewed team design development drawings, which reflect about 90% completion of the design details.

Washington State University’s entry is a house designed for a community of tiny homes that share amenities—even an electric vehicle. The community is designed as an urban infill project that adds density in areas already served by important infrastructure such as transportation and utilities. This project functions within the context of a smart city—a place where digital technology is integrated with a city’s assets. The WSU house combines machine learning, energy storage, smart grid connectivity, and heat recovery to find efficiencies and reduce energy consumption. Many of the technologies that make this house unique are leveraged from research across multiple disciplines in the university.

/You can check out WSU’s entry among the 12 others during Solar 2017 in Denver, in October, or on-line at <http://www.builderonline.com/building/building-science/solar-decathlon-2017-a-sneak-peek_c?utm_source=newsletter&utm_content=Article&utm_medium=email&utm_campaign=BBU_030817%20(1)&he=3800532aeffc75bb97271ceda04d659237a0f933.—ed./

—Darrin Griechen and Omar Al-Hassawi

DEADLINE REMINDER

SBSE TRAVEL SCHOLARSHIPS

24 March: last day to submit applications for the Jeffrey Cook Student Travel Scholarships to PLEA

24 March: last day to submit applications for the SBSE Student Travel Scholarships to PLEA

1 April: last day to submit applications for the SBSE Retreat Scholarships for Students

Information and application procedures for all these opportunities can be found at: <http://www.sbse.org/awards/index.htm>.

ASES SOLAR 2017

1 April: deadline for submitting proposals to ASES Solar 2017 <http://solar2017.org/>. –Walter Grondzik

BE AN EDITOR!

The Journal of Technology Architecture and Design (TAD) seeks candidates to join the editorial board of this new ACSA journal. Candidates should have a record of peer-reviewed publication in architecture or an affiliated discipline with relevant scholarly or practice-based research activity in technology-related areas.

TAD’s 12-member board conceives, develops, and executes the journal’s editorial activities. In addition to reviewing manuscripts, editorial board members are expected to serve in one or more roles on the editorial team, which includes the executive editor, associate editor, design editor, and issue editors. Editorial board members serve a three-year term, eligible for one renewal, and shall begin officially July 1, 2017.

The deadline for candidates’ submissions is March 30, 2017. —TAD editorial board
John Quale and Ryan Smith edited a book on offsite design and construction that’s due in mid-March. The *Offsite Architecture: Constructing the Future* book launch event will occur at the World of Modular in Tucson, AZ, on Saturday, March 18.

The book includes two essays each from John and from Ryan with additional essays on a wide range of related topics.

Ryan Smith was awarded the 2016 National Institute of Building Science (NIBS) Member Award. The award was presented in Washington, DC, at the NIBS annual conference. The press release states, “The Institute Member Award goes to a member who has made a substantial contribution in support of the mission, goals, and objectives of the Institute. The 2016 Member Award went to Ryan Smith, Associate Professor and Director of Integrated Technology and Architecture, University of Utah. Though not present to receive his award, Smith was recognized for his work and leadership on the Off-Site Construction Council (OSCC). As the founding chair of the OSCC, Smith’s vision and strategic planning fostered a productive start to the Council, which kicked off in 2013. He has since helped to establish the OSCC as a valued research, education, and outreach center for relevant and current information on off-site design and construction.”

The Robert Wood Johnson Foundation (RWJF) recently awarded eight research studies to build an evidence base for how private-sector investment can help build a Culture of Health—promoting greater well-being and health equity for all. These grants were awarded as a part of the Engaging Businesses for Health project, an RWJF initiative managed by AcademyHealth. Traci Rose Rider spearheaded a proposal at North Carolina State University and was one of the selected recipients with the two-year $250,000 grant starting February 1. Rider’s project focuses on targeting both how and why private multifamily developers employ community health strategies in new projects in addition to understanding the actual and perceived costs and returns of employing these strategies. These decision-making processes and client perspectives on health will affect future designers’ responsibilities in our built environment to positively affect health outcomes. Read more about the award and Rider’s interdisciplinary team at <https://design.ncsu.edu/designlife/rider-awarded-grant/>.

—Traci Rose Rider

After ten years of ecoMOD at the University of Virginia, we’re in the midst of building our first ecoMOD home in Albuquerque. The design and construction team includes architecture, civil engineering, construction management, planning, landscape architecture, and marketing students. The nonprofit housing partner is the Greater Albuquerque Habitat for Humanity. We’re also working with the local community college—including workforce training students in carpentry, plumbing, and mechanical. As always, our goal is to create high-performance, modular homes for affordable housing organizations. Given my administrative role, I’ve brought in Donovan Boone as the Assistant Director of ecoMOD.

There is a link to the Facebook page which has some videos from Fall 2016 at <https://www.facebook.com/ecoMOD/>. Viva ecoMOD!

—John Quale
FIVE ADDITIONAL COURSES SELECTED FOR ACADEMIC YEAR 2016–2017

Architecture 2030’s initiative supports courses at U.S. architecture and planning schools that “fully integrate lessons in energy use, emissions, and resiliency into the widest possible range of projects and topic areas, and across all year levels.”

Five more courses join others selected for the 2030 Curriculum Project in fall 2016, recently called, “The 7 Best Sustainable Design Courses in America,” by Metropolis magazine.

All twelve courses represent creative and resourceful efforts by faculty and program chairs to integrate critical issues of sustainability in new and unique ways. These innovative models are transforming the way sustainable design is taught in U.S. architecture and planning schools, particularly in core and early design studios, history courses, electives, and other program areas where this material is neither traditionally nor adequately addressed.

For full info, see <http://architecture2030.org/2030-curriculum-project-new-courses/3/6/2017>. Architecture 2030 looks forward to supporting these inspiring faculty and sharing the successful outcomes of their teaching.

The five new courses and the faculty involved are:

- Portland State U, Arch 232 Architecture and Cultural History III w/Building Science Lab to Advance Teaching Integration (BUILT), BD Wortham–Galvin and Corey Griffin with Kalina VanderPoel
- UC Berkeley, DISC 2017 Design and Innovation for Sustainable Cities, Gabriel Kaprelian & A. Ghigo DiTommaso with Chrissie Bradley
- UMass Amherst, Arch 601-1 Graduate Design Studio, Aja Aksamija
- UOregon, Arch 4/584 Intermediate Architectural Design Studio, Brook Muller

—Anthony Guida

2030 ZERO TOOL

Architecture 2030 introduces the Zero Tool, a free, innovative online application that allows architects, designers, engineers, building owners and managers, and policymakers to calculate building energy consumption baselines and targets. The Zero Tool normalizes building performance by climate, space type, building size, occupancy, and schedule, allowing users to compare a new or existing building’s fossil fuel energy consumption with that of similar buildings.

Until recently, the EPA’s Energy Star Target Finder has been the primary application for determining a building’s energy use intensity (EUI) baseline and design target. However, the EPA is planning to change the Energy Star baseline from the 2003 Commercial Building Energy Consumption Survey (CBECS 2003) to CBECS 2012. And now, preliminary budget proposals from the White House indicate plans that may “close out” Energy Star programs altogether. [Shocker!]—ed.

The Zero Tool expands on Target Finder’s features, providing simple, clear, and graphic results for visualizing baselines, design targets, and existing building performance.

The Zero Tool is free, comes with a detailed User Guide, and is available at <https://zerotool.org>. —Anthony Guida
This special issue explores overheating in buildings: The unintended rise in internal temperatures during warm weather. Often caused by one or more factors and their interplay (hotter weather patterns, improved fabric performance, and occupant/management practices), overheating is found to be further exacerbated by other societal and construction trends. In examining the causes, magnitudes, consequences, and remedies, this special issue considers whether and how overheating and associated health risks and vulnerabilities could be defined, identified, and reduced. In doing so, it highlights the tensions among climate change mitigation and adaptation, energy demand reduction, and the quality of the indoor environment. If not addressed, countries with a low proportion of air-conditioned buildings will experience a sharp rise in a/c use and an increase in energy demand. Countries that already have pervasive use of a/c will have an increased demand to cool buildings that would otherwise overheat.

You can access this issue at <http://www.tandfonline.com/r/rbri-specialissue>. Enjoy! 🌿

—Richard Lorch

Cold Climate HVAC 2018 at Kiruna, Sweden, 12–15 March 2018, invites submissions from academia, industry, and municipalities presenting novel research results in all aspects of technologies and processes to achieve sustainable buildings and districts with high indoor environmental quality and minimal use of resources and energy. The conference covers technical, economic, and social aspects of buildings and HVAC systems in new and renovated buildings and will have both theoretical and practical tracks.


Submit your abstract before 1 May 2017!

Due to the iron ore mining in Kiruna, there will be extensive new development during the coming decade to form one of the most sustainable Arctic cities in the world. In connection with the conference there will be opportunities to experience many highly interesting local attractions such as Icehotel Jukkasjärvi, Esrange Space Center, Northern lights, and Sami culture.

Take this opportunity to experience the process of constructing one of the most sustainable Arctic areas in the world! 🌿

—Dennis Johansson

IES VE 2017 was released on February 28 with dozens of new features and dozens of significant enhancements. Some of these include:
- Ability to customize inputs and outputs and to streamline QA using Python
- Significant BIM import enhancements and workflows
- Optimization using a genetic algorithm
- New parametric tools for faster execution
- Ability to run simulations while continuing to work (no need to wait for the simulations to complete)
- Enhancements to ModelIT to make it easier to learn and use.


—Nathan Kegel
**REYNER BANHAM FELLOWSHIP**

Peter Reyner Banham spent his time in Buffalo engaged in a scholarly project on imaginary American industrial architecture that took the form of historical research, hands-on engagement, and seminar instruction, resulting in his landmark work, *A Concrete Atlantis*.

In celebration of Banham’s legacy of experimental criticism, the fellowship is intended to support the research and creative activity of emerging practitioners. Candidates are encouraged to propose a research trajectory that will be developed in tandem with a pedagogical agenda. The Banham Fellow will teach a design studio and an elective course each semester at Buffalo for the duration of the one-year fellowship. In addition, the fellow will deliver a public lecture as part of our school-wide series and prepare an exhibition that culminates from the research, teaching, and/or creative work conducted while in residence at the school.

Digital applications should be comprised of a well-considered proposal for research/creative work (1,500 words maximum), a curriculum vitae, portfolio of work, and names of three references.

The University at Buffalo is an affirmative action/equal opportunity employer.

Applications for the 2017–18 academic year must be received by April 1, 2017.

Send inquiries and applications to: <ap-banhamf@buffalo.edu>. Subject: Banham Fellowship 2017

More information is available at <http://ap.buffalo.edu/People/related/employment/banham-fellowship.html>.

—Martha Bohm

**SUSTAINABILITY ENABLER OR RESEARCH FELLOW AT EDR**

Eskew+Dumez+Ripple, an architectural practice with a staff of 42 and winner of the 2014 AIA Firm Award, has permanent staff and fellowship positions open for students and recent graduates in building science.

Our Sustainability Enabler will plug into design teams, helping inform design choices through energy and daylight modeling and assessment of the environmental and health effects of materials choices. The work will involve participation in all project phases, from pre-design charrettes to post-occupancy performance measurements and occupant engagement.

<http://www.eskewdumezripple.com/opportunities/sustainability-enabler>

The EDR Research Fellowship program allows talented individuals—typically recent graduates of design professional educational programs—3-month or 12-month opportunities to explore fundamental questions while embedded in a firm committed to excellence in design and performance.

2017–18 theme | Mysterious Skin: Pushing the envelope on building enclosures.

<http://www.eskewdumezripple.com/opportunities/fellowship>

—Z Smith

---

**ECS SURVEY**

[We always wonder who teaches ECS-related courses around the nation. Nathan pledges to find out. He’ll also report his findings in the summer or fall SBSE News! Please help him out!—ed.]

I’m working on a graduate project related to NAAB schools. This research seeks to develop a profile for faculty who teach environmental controls in schools of architecture. I kindly ask for SBSE’s participation in a brief survey. Your responses will help shed light on faculty teaching environmental controls. Please use the link or qcode below to access the survey.

<https://wsu.co1.qualtrics.com/SE/?SID=SV_3rwGYMz1siodOTj&Q_JFE=0>

Your participation in this survey will be kept confidential. No personal identification information will be associated with your responses in any reports of these data. Should you have any comments or questions, please contact me at <nathan.lima@wsu.edu>.

Thank you very much for your time and cooperation. Your feedback is vital to the project.

—Nathan Lima
ACSA WEIGHS IN ON TENURE & PROMOTION

At the last BTES conference in Salt Lake City there was a panel discussion in which audience members voiced the desire to have more information on T&P guidelines that support alternative forms of scholarship, including community engagement. I pushed this agenda with Rashida Ng over the following months as my ACSA board term expired last year. The Research and Scholarship Committee of the ACSA Board has since posted a draft white paper on the subject of multiple forms of scholarship at <http://www.acsa-arch.org/resources/faculty-resources/tenure-promotion>. We hope this effort is helpful to your T&P processes, although it does not address the pedagogical scholarship in which many BTES and SBSE members are engaged. This mode of scholarship is more of a challenge, and I encourage BTES and SBSE members who have had success in applying pedagogical scholarship toward T&P to share their experiences with the committee or at the ACSA Annual Meeting in Detroit.

Thanks to ACSA committee members [listed at the link above.—ed.] who put this report together. Those members (including SBSEer Franca Trubiano) have performed a great service to architecture faculty around the country.

Looking forward to seeing everyone at BTES in Iowa this summer! 🌞

—Ryan Smith

SBSE CALENDAR

2017

Jun 8–10  BTES Conference/Ames, IA, USA
Jun 14–18  ARCC Conference/Salt Lake City, UT, USA
Jul 2  SBSE Tool Day/Edinburgh, Scotland, UK
Jul 2–5  PLEA2017/Edinburgh, Scotland, UK
Jul 25–28  SBSE Retreat/Sublimity, OR, USA
Aug 7–9  Building Simulation/San Francisco, CA, USA
Sep 6–9  EAEA13 Conference/Glasgow, Scotland, UK
Oct 5–15  Solar Decathlon/Denver, CO, USA
Oct 9–12  ASES Solar Conference/Denver, CO, USA
Nov 1–4  PLDC2017/Paris, FRANCE

2018

Mar 12–15  Cold Climate HVAC 2018/Kiruna, SWEDEN 🌞

SUMMER ISSUE SUBMITTAL DEADLINE—JUNE 1

TO: SBSE MEMBERS & FRIENDS

PLANET-WIDE

SBSE NEWS
C/O BRUCE HAGLUND
DEPARTMENT OF ARCHITECTURE
UNIVERSITY OF IDAHO
PO BOX 442451
MOSCOW, ID 83844–2451
BHAGLUND@UIDAHO.EDU

OUR 20

GROMMIT AND BRUCE MAIL