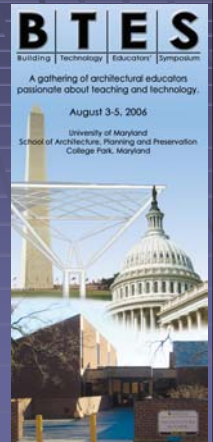


Bridging the Gap: Reviving Pedagogic Discourse in Architectural Technology Education

- Deborah Oakley, University of Maryland
- Ryan Smith, University of Utah

The Building Technology Educators' Symposium

- August, 2006, University of Maryland School of Architecture, Planning and Preservation
- Deborah Oakley & Ryan Smith, co-chairs
- Paper sessions, panel discussions, keynote speeches largely to address issues of pedagogy in architectural technology education
- “A gathering of architectural educators *passionate* about teaching and technology”



The Building Technology Educators' Symposium ???

Topics of This Presentation:

- Why is it significant to talk about a small conference at this ACSA meeting?
- Outcomes of the meeting
- Future directions



The “Gap?”

“We graduate generation after generation of students who are not broadly competent, and whose design work suffers from a lack of understanding of the technical means by which we build.”

Why does this happen? The simple answer is because of ‘The Gap’...that huge bottomless gulf that separates the design studios from the technical courses in most schools of architecture.”

Edward Allen

Some History...

- ACSA Technology Conferences
- 1996 Gathering of structures educators at the University of Wisconsin, Milwaukee:
 - "Teaching Structural Creativity"
 - Edward Allen; Linda Sanders (then ACSA President and a structures educator); Gil Snyder (UWM Arch. Program chair)
 - "I think it did a lot of good in freeing up the structures teaching at a few schools, but there was no big breakthrough" — Ed Allen
- Relatively few publications related to pedagogy in architectural technology

The Building Technology Educators' Symposium

- Ryan and I began pursuing the idea independently at the same time
- Deborah ← Bruce Lonman
- Ryan ← Christine Theodoropoulos
- Both ← Ed Allen
- Came together through Pat Tripeny
- Felt right from the start we needed to bring together *both* M /M faculty and structures faculty

BTES Keynote Addresses



Edward Allen, FAIA

"Bridging the gap" between technology teaching and design teaching



Joseph Burns, FAIA, Thornton-Tomasetti Structural Engineers

Emerging trends in Building Information Modeling in architectural practice and its relation to architectural education.



Images from the BTES



Panel discussion on the implications of BIM on architectural technology pedagogy

Kate Simonen, California College of the Arts, Moderator
Panelists: Joseph Burns of Thornton Tomasetti Structural Engineers, Mike Christenson, University of Minnesota, Christopher Livingston, Montana State University, Ryan Smith, University of Utah



Images from the BTES



Ivan Markov of the Chinese University of Hong Kong describing hands-on lab exercises in structures classes



Krik Martini, UVA, Demonstrating his "Arcade" software



Images from the BTES



The "Great Space" in the UM School of Architecture, Planning and Preservation

Walls covered with "teaching gifts" (ranging from course syllabi to classroom exercises to CD-ROM image banks) and an exhibit of the work of structural engineer emeritus and MIT architecture professor, Wacław Zalewski, graciously provided by Edward Allen.



Images from the BTES



Some of the most informative times were the discussion period just following a session of papers or a panel.



BTES Outcomes

- Proceedings
- Listserv
- Web site
- New organization





BTES Outcomes: Influencing one another's teaching

"Troubled Bridge over Waters"

Vincent Hui's adaptation of a presentation he saw from Patrick Tripeny for student tests of cardboard beam behavior

BTES Outcomes: Participant Comments

"The BTES was the densest concentration of relevant, thoughtful presentations about pedagogy that I have ever experienced."

Patrick Rand
North Carolina State University

"The BTES will be remembered by a generation of educators as a pivotal point in their teaching careers. It has rejuvenated me by introducing me to a new generation of technology educators and to their ideas. It has the potential for improving the education of generations of architects."

Patrick Tripeny
University of Utah

What is The Building Technology Educators' Society?

- Grew out of the symposium — programmed a closing organizational meeting
- 1996 structures meeting at UWM — Impromptu meeting...lots of excitement
- Longstanding desire among technology faculty to organize...just never happened
- Do we really want to form an organization or not?



What is The Building Technology Educators' Society?

- BTES can open up possibilities
 - Funding from industry to support faculty development
 - Fostering connections
 - Mentoring
- The time is now... touching on a nerve



The Need for a New Organization

- ACSA support for technology has dropped off in recent years
- Stimulate activities focused on architectural technology
- Wouldn't it be nice if all the connections were established and faculty need only plug into this community?



Why are we not joining with the SBSE?



- Different agendas
- SBSE is strongly committed to what they are right now
- SBSE is very happy with their size "*scale is everything*"
- Diane Armpriest (one of our five BTES organizers) is an SBSE member
- Learning a lot from their beginnings (SBSE bylaws are starting point for us)

BTES Organizing Committee

- Organizing Committee members (the "D" crew):
 - David Perronet, Hampton U., (chair)
 - Diane Armpriest, U. Idaho
 - Dana Gulling, SCAD (secretary)
 - Donald Hunziker, BAC
 - Deborah Oakley, U. Maryland
- Have held monthly teleconferences (six so far) since the symposium in August

BTES Organizing Committee Progress

- Defined a mission statement ratified by membership
- Legal incorporation is pending
- Working with legal clinic at U. Idaho (it's free legal counsel!)
- No benefit to one state over another
- This is progressing quite well and should be finalized by April

Why Incorporate?

- Protects individual members from personal liability related to the operation of the organization.
- Has tax deductible status, allowing BTES to receive donations that may be deducted by the donor.
- Exempt from paying federal income taxes.

Mission Statement of the BTES

The Building Technology Educators' Society (BTES) is an organization of architectural educators, passionate about teaching the technology of building design and construction. The mission of the BTES is to promote and publish the best pedagogic practices, relevant research, scholarship, and other creative activity to facilitate student learning, advance innovation, and enhance the status of our disciplines in the profession at large.



To achieve this mission, the BTES seeks to:

- Promote and share the best architectural technology teaching practices among all who are concerned with effective teaching in these subject areas.
- Promote critical discourse and the scholarship of teaching on issues related to pedagogic theory in architectural technology, with peer-reviewed publications of its work for public dissemination.
- Enhance the mentoring process among faculty, students and practitioners for the enrichment of all involved and for the preservation and propagation of accumulated experience and wisdom.

To achieve this mission, the BTES seeks to:

- Stress the issues concerning technology in architectural curricula to help influence change when necessary in the related accreditation process.
- Foster the continued betterment of the profession by serving as a point of contact for the discussion of issues related to building technology with the design professions and building industry at large.
- Bring issues of concern to affiliated entities in the Academy, profession, industry and associated regulatory agencies and
- Facilitate connections among like-minded individuals for collaborative research.

Membership Benefits?

SBSE model is again a good one for us.

The screenshot shows the SBSE website with a navigation bar and a main content area titled "Ten Good Reasons to be an SBSE Member".

Society of Building Science Educators
 About Us | Membership | Newsletter | Calendar | Announcements | Resources | Awards | Contact SBSE

Ten Good Reasons to be an SBSE Member

Join SBSE or renew your membership today! [Click here for all the details](#) and read about the benefits of being part of SBSE below.

1. A network of educators, professionals, and those in related disciplines who support excellence in the teaching of environmental science and building technologies.
2. Perspectives, assistance, and answers to all your questions via the [SBSE listserv](#).
3. Annual [retreats](#) and [Tool Days](#) to exchange and share ideas.
4. A [newsletter](#) published 4 times a year by Bruce Haglund who always has his finger on the environmental pulse (the newsletter alone is worth the dues!)
5. Peer review service (coordinated by Walter Grondzik) for promotion and tenure cases.
6. Mentoring and scholarship opportunities (see below) for students interested in teaching.
7. Countless opportunities to volunteer on worthwhile projects that help make our organization outstanding in every way.
8. Access to curriculum [resources](#): digital slide library on CDROM, sun angle calculators, links to course websites and course offerings.
9. Opportunities to meet and collaborate with faculty nationally and internationally.
10. Lots of personal attention (it might be called haranguing) by the officers to become involved with SBSE activities.

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 Comments about this page can be sent to [Bobert.Mazzoli](mailto:Bobert.Mazzoli@sbse.org)

Future Directions

- Research Studies
 - “the presence of ‘the gap’ is debatable...”
 - Is the perception of primarily technology faculty about the need for connection different from the perception of primarily studio or studio/technology faculty?
 - What are the already highly successful models for technology teaching architecture programs?

Future Directions

- Research Studies
 - What have been the ebbs and flows of change in focus on technology education over the past several decades?

Structural Systems	0 %
Building Systems Integration	29.3 %
Comprehensive Design	33.7 %
Site Conditions	4.3 %
Legal Responsibilities	6.5 %
Building Code Compliance (eliminated in 2004)	14.1 %

NAAB results of visiting team assessment of student performance criteria for 1999, 2000, 2002, and 2003. (80% of accredited U.S. schools): C. Theodoropoulos, *Seismic Design Education in U.S. Schools of Architecture*, 2006 BTES Proceedings

Future Directions

Publications

- Resources for both faculty and academic programs for guidance on the successful models (“How are they doing it elsewhere?”)
- Timeline of changes?

Do you want to know more?

Join the listserv

- <http://groups.yahoo.com/group/BTES>

▪ Visit our web site

- www.arch.umd.edu/BTES
- Full proceedings available for download
- Audio recordings of each session