
THORBURN ASSOCIATES INC.
Technology and Acoustical Consultants
Designing Quality Environments
eNewsletter

April 2009

In this issue:

- Greetings and Upcoming Industry Events
 - Focus on Acoustics: Acoustically Integrated Themed Environments
 - Focus on Technology: Green AV
 - Project News: De Anza College Performing Arts Center
 - Product Review: The Thorburn Office Experience
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Welcome to the April 2009 eNewsletter!

April 1st is Thorburn Associates' birthday! Please join us in celebrating 17 years in business. And please accept our sincere thanks and appreciation, because we couldn't have done it without you. If you're at any of the following trade events, look us up and say "Happy Birthday!"

North Carolina Baptists Church Building Conference, Statesville NC, April 23

2009 AIA National Convention, San Francisco CA, April 30-May 2. Stop by booth #4084 in the North Hall for a free gift!

InfoComm, Orlando FL, June 14-19. Thorburn Associates staffers will present the following educational sessions at InfoComm. Register at www.infocommshow.org.

- **How to Issue an RFQ/RFP to Hire AV Designers and Contractors**, Lisa Thorburn, #IS10, Wed. June 17, 8-10 am
- **AV System Integration Issues for Owners and Facility Managers**, Steve Thorburn, #IS09, Wed. June 17, 8-10 am
- **Introduction to Acoustics in Architecture**, Steve Thorburn, #IW2, Wed. June 17, 12:30-4:30 pm
- **Presentation Facility Design and Integration**, Derek Meares, #IW9, Wed. June 17, 12:30-4:30 pm
- **Advanced Acoustics in Architecture**, Steve Thorburn, #IW4, Thurs. June 18, 8 am-noon
- **Building the Perfect Teaching Station**, Jim Horn, #IS72, Thurs. June 18, 10:30 am-noon
- **Space Planning for Videoconferencing Systems – Designing a Total Environment**, Lance Sturdevant, #IW6, Fri. June 19, 8 am-noon

As always, it is our goal to make sure that Thorburn Associates is your single point of contact for all your Technology and Acoustical Design services. If you have an idea, question or suggestions, please drop us a note at enews@ta-inc.com.



Focus on Acoustics

Hear and Be Heard - The Case for Acoustics in Themed Entertainment

Just as they are for conference rooms, auditoriums and commercial spaces, acoustical considerations are integral to the design of family entertainment centers, themed restaurants, theme parks, water parks, museums and other visitor attractions. (We call it Acoustically Integrated aRchitecture, or AIR.) Good acoustics are part of the pixie dust that creates an outstanding guest experience. Our top ten benefits:

1. All members of the extended family can enjoy themselves.
2. Guests can hear the show the way the producer intended it to be heard.
3. The show can only be heard in the designated space (not in the queue line, the neighboring attraction or the adjoining auditorium). Intrusive sounds counter the suspension of disbelief and pierce the "bubble" of the guest experience.
4. Sound and temperature are the two most criticized elements in a building, but putting on a sweater (or stripping down to your skivvies) won't fix the audio.
5. Keep the sounds of the nighttime spectacular inside the park and out of the surrounding community (it's good business to comply with local noise ordinances).
6. When incorporated into the architectural design, the investment for good acoustics is negligible – when added later, it costs significantly more and is often less effective. (Just like the "A" in AV, the "A" in Acoustics is not for "Afterthought.")
7. Improving speech intelligibility is especially important in settings that welcome a diverse audience, such as theme parks, museums or world's fair pavilions. Good acoustics creates the optimal environment for everyone to hear and understand the audio.
8. Good acoustics can encourage repeat visits and increase dwell time. A pleasant environment can dramatically extend the length of stay, which tends to increase per person spending.
9. The hearing-impaired can enjoy themselves fully. (Millions of deaf rock 'n' roll loving Baby Boomers are part of your market.)
10. Sound reinforcement alone is not enough. A bad sounding room with a good sound system will still sound bad.

Focus on Technology

The Time is Ripe for Green AV

Unless you just arrived on this planet, you know the AEC industry is pursuing ways to conserve energy resources and go "green". With ten percent of the new economic stimulus package being invested in green projects, the AV industry is positioning itself with smart designs, efficient products and carbon-frugal processes.

Four areas where Green AV plays a role are power utilization, recycling, energy management, and LEED Innovation in Design credits.

Power utilization can get an exception for the "watts per square foot" requirement with video teleconference (VTC) rooms. For example, under California Title 24, provided that the VTC lighting is in addition to and separately switched from general



lighting; all lighting is controlled by a multi-scene programmable control system; and the video conference cameras, audio equipment, and playback equipment are permanently installed. Remember that a great VTC room is also a great meeting/presentation room, yet a great meeting/presentation room is not always a great VTC room!

Recycling: Just like computers from our corporate offices, we can pass AV components down to schools and other civic groups. Last year's projector or odd shaped screen will work well in classrooms and will keep it out of the landfill.

AV control systems can tie into a building's Energy Management System (EMS) program. Either by telling the Energy Management System that:

- the VTC/ Presentation room is being used so leave the HCAV system and lights on, or
- the room has not been used for the last hour, so turn the AV system and lights off and reduce the cooling requirement.

Finally we get to the Innovation in Design credit. To our knowledge, no one has been awarded an ID credit for AV, but we are working on it! Last year VTC saved us at least 10 coast-to-coast flights (more like 20! – but we'll start with 10) plus at least 4 meetings with out-of-state clients that accept VTC as a viable meeting method. This saved us between 51,000 and 100,000 miles of air travel corresponding to approximately 10 to 20 tons of CO₂ emissions per year (based on Cisco's WebEx Carbon Calculator www.webex.com/carboncalculator.html). This doesn't even include the 100 to 200 work hours that were recouped!

This is Part II of a continuing series on Acoustically Integrated aRchitecture (AIR) in the LEED environment and focused on the technology/audiovisual aspects. Please see our February 2009 issue for Part I (www.ta-inc.com/archivenewsletters.htm).

Project News

De Anza College Performing Arts Center

The new De Anza College Visual and Performing Arts Center in Cupertino, California held its grand opening March 6-8. The 20,500 square foot building on Stevens Creek Boulevard is a unique resource for the arts in Silicon Valley and was largely funded by the community it serves.

Thorburn Associates teamed with DES Architects to provide acoustic and audiovisual consulting for this state-of-the-art project featuring a 400-seat theater and adaptable, technologically advanced learning spaces. LEED-silver certification is being sought for the building.

One of the biggest challenges was finding space for all the technology gear, given that the Center is multi-purpose, serving as both a teaching and performing space. (Somehow, everything fits!) The theater was designed to accommodate lectures, dance and music (both plugged and unplugged), cinema and drama, and to facilitate rapid changeovers from one use to another. These changeovers were put to the test during the grand opening, and passed with high marks.

Elements are designed to fly up or slide out of the way so that one configuration can give way to the next quickly and easily. Sliding acoustical panels line the walls on



either side of the theater and extend from floor to ceiling. These panels can be adjusted manually to tune the room – from a “live” space for dance to a “soft” space for cinema. Adjustable acoustical reflectors are suspended over the stage and the audience and operate in conjunction with the acoustical band shell for music.

The loudspeaker system for lectures, musical, and theatrical/spoken word performances consists of a set of left-center-right line arrays. For cinema, a second set of loudspeaker clusters flies up and down along with the screen, which is 15 feet by 41 feet to accommodate a variety of historical film aspect ratios. The cinema surround loudspeaker system has been designed to support sound effects in other productions. There is a digital video projector and a pair of film projectors with dual 16mm/35mm capability. In addition to designing the presentation system, TA provided construction administration and commissioning for the AV system to help assure it met our client's goals. The high caliber of this facility is not often seen in colleges and we were honored to be part of it.

Product Reviews

The Thorburn Office Experience

The new equipment and infrastructure helps make Thorburn Associates' new North Carolina offices a pleasant, modern, functional space and an exemplary, working model of an open-plan office, featuring an exposed ceiling grid and first-rate acoustics. The office design is in conformance with LEED Silver (we hope) guidelines. When you're in the Raleigh-Durham area, please pay us a visit to experience it for yourself.

For their generous support and assistance, we'd like to thank the following suppliers: Atlas Sound (paging and sound masking), Biamp (digital signal processor), Crown (power amplifier), FSR (AV Floor boxes for conference rooms), Kinetic Noise (acoustical ceiling tiles), Liberty (door face plates, and cabling for loudspeakers), Lutron (lighting control), MBI Products (lapendary panels), Peerless Lighting / KB Stephens Co. (light fixtures), Pyrok (acoustical material for the lobby), West Penn (cabling for loudspeakers).

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