

# MINUTES

## TECHNICAL COMMITTEE ON ARCHITECTURAL ACOUSTICS (TCAA)

144th Meeting of the Acoustical Society of America

3 December, 2002

7:30PM

Cancun, Mexico

Chair: **K. Anthony Hoover**

Secretary: **Scott Pfeiffer/Lily Wang**

### INTRODUCTIONS AND ACKNOWLEDGEMENTS

Thanks to:

- Program Chairs: **James West, Samir Gerges, & Sergio Beristain**
- Technical Chair: **Kevin Shepherd**
- Paper Sorters: **David Marsh and Angelo Campanella**
- All Session Chairs: Nine Special Sessions, and some chairing two (2) sessions!  
**Kenneth Roy (2), David Marsh (2), Richard Campbell, Carlos Bidondo, Brandon Tinianov, J. Christopher Jaffe, Jose Negrete, Murray Hodgson, Frank Brittain, David Lubman, Fernando Elizondo, Peter Mapp, Per Bruel, Sergio Beristain, James Cottingham (2), Roberto Velasquez(2), Angelo Campanella, Fausto Rodriguez(2), Paul Schomer (2), Brigitte Schulte-Fortkamp (2), Jorge Arenas, Jerry Lilly, Elvira Viverios**
- Tutorial: **Ralph Muehleisen (chair), Neil Shaw, Rick Talaske, Sylvio Bistafa**
- All paper presenters

### WELCOME

- First time attendees and students
- Iberoamerican Federation of Acoustics
- Mexican Institute of Acoustics

### CONGRATULATIONS!

- New Fellows: **Richard Campbell, Jack Randorff, Ning Xiang**
- Silver Medal in Noise: **Louis Sutherland**
- Wallace Clement Sabine Medal: **Alfred Warnock**
- John William Strutt, 3<sup>rd</sup> Baron of Rayleigh Medal: **Leo Beranek**

### NEW TCAA SECRETARY : Lily Wang

Thanks to **Scott Pfeiffer**

### PREVIOUS MINUTES

TCAA meeting minutes from Pittsburgh ASA conference were distributed and reviewed. **Steven Brown** motioned to accept. **Elizabeth Cohen** seconded.

### OLD BUSINESS

1) Classroom Acoustics:

- Classroom Acoustics standard ANSI S12.60.2002 has been approved. Members of the working committee were recognized and congratulated. A reception for S12 Working Group was hosted by NCAC on Monday, December 3, 2002. **Tony Hoover**, current NCAC President, summarized events from the reception, including the presentation of plaques by **Susan Blaeser** and **Paul Schomer** to **Lou Sutherland** and **Dave Lubman**.
  - Air-conditioning and Refrigeration Institute (ARI) has appealed the standard to ANSI. ARI voted against the proposed standard originally, on the basis that it would harm their members financially. S12 held a hearing, but hearing did not go in ARI's favor. Now ARI is appealing to ANSI that the standard is not in the public interest because it will cost schools too much to implement. **Bob Hellweg** and **P. Schomer** presented what ASA members can do to address the appeal. A handout "How can members of the ASA TC help in regard to defending the classroom acoustics standards?" was passed around (**attached**). Members are encouraged to write letters to ANSI and defend standard.
  - Classroom acoustics standard will be discussed at the ASA Public Policy Panel to be held on Thursday, December 5, 2002, at 2 PM. **Angelo Campanella** is our TCAA representative.
  - The Classroom Acoustics brochure has been revised with comments suggested from past ASA President **Bill Hartmann**.
  - **Red Wetherill** presented the Noise Pollution Clearinghouse brochure.
- 2) TCAA Web Page Update – no update
  - 3) Student Council Update: **David T. Bradley**, the TCAA Student Council representative, discussed the activities of the student council, including: establishing a website; sending out an E-Newsletter to all students of ASA which will prep them for events of next ASA conference; having an article in Echoes following each meeting. At Cancun meeting, there is a student message board available, and an all-inclusive student reception on Wednesday Dec. 5. The Student Council is in the process of becoming a standing committee.
  - 4) Concert Hall Research Group – no update
  - 5) Halls for Music Performance Book – **Neil Shaw** reports that Books committee has approved funds for it. Co-editors **Tim Foulkes**, **Chris Storch** and **Ian Hoffman** were not present, but it is the understanding of TCAA members that all is progressing well.
  - 6) Subcommittee on University / Consultant Partnerships for Research – no update
  - 7) Newman Student Award Fund Update: **Bill Cavanaugh** announced that the transition of this Fund to ASA has been successful. Subcommittee is eager to spread the word about the medals to more students. Eight medals have been awarded this year. Schultz Grant is also available for 2002/03. Six grants have been awarded in the past. More information can be found at the Newman Fund online home: [www.newmanfund.org](http://www.newmanfund.org).

## NEW BUSINESS

- 1) **N. Shaw** reviewed the procedure for nomination of new ASA Fellows. Nominations must consist of letters from two ASA Fellows and a third ASA Member. All are encouraged to initiate nominations.

- 2) The 2<sup>nd</sup> Concert Hall Acoustics Summer Institute is being planned for August 11-14, 2003, in Saratoga Springs, NY. **Chris Jaffe** distributed copies of the tentative program (**attached**). The last summer institute focused more on research; this time the focus is on how research results have been applied to buildings. Theater consultants and architects are being invited to participate as well. **Robin Glosemeyer** is helping to organize. Cost is not available yet. Formal invitations will be sent to NCAC members and advertised to ASA membership.
- 3) The following members who recently passed away were remembered for their good work and contributions: **Bob Apfel, Francis Daniel, Bob Tanner, Ludwig Sepmeyer, Bob Young**.
- 4) **T. Hoover** presented the following items from the ASA Technical Council:
  - Technical Council has asked each TC to consider developing their own logo. A TCAA vote on whether TCAA should generate our own TCAA logo resulted in assorted nays; generally ambivalence was shown.
  - TCAA members discussed how high costs of socials at ASA conferences could be defrayed (about \$35 per person per social, so currently \$70/person at each conference). Various options discussed were to 1) eliminate socials; 2) drop one social; 3) separate socials for each technical committee area; 4) raise conference registration fees; 5) check box and pay with registration if they plan to attend social. General consensus was that TCAA members want to keep socials. **Jiri Tichy** noted that socials originally planned to keep people around for TC meeting. Option 4 of raising conference registration fees was most popular; generally members felt that current ASA registration fees are low compared to other society conferences.
  - For brochure on “101 Careers in Acoustics”, 107 people submitted information, of which 23 were TCAA members!
  - Should ASA eliminate print version of Reference to Contemporary Papers on Acoustics (RCPA) and issue online/CD versions only? The database then becomes searchable. TCAA consensus is that this is a good idea.
  - Should ASA eliminate print version of Soundings issue online/CD versions only? TCAA consensus is that Soundings should be printed. Currently Soundings comes out once a month, while Echoes is quarterly. A recommendation was made that the two documents be combined. Half of TCAA voted that Soundings should remain monthly; the other half voted that it be quarterly.
  - Comments on Acoustics Research On-Line (ARLO) were requested. A rough vote was taken to determine usage: 1 had submitted to ARLO; 8 had looked at ARLO; some had difficulties accessing it.
    - **Rendell Torres** noted that the mandatory page charges for ARLO, which isn't mandatory for journal, is irksome.
    - **Dick Lyon** mentioned that it allows for things that cannot be accomplished on printed paper, i.e. multimedia content.
    - **J. Tichy** pointed out that ARLO has a faster review process.
    - **Charles Schmid** stated that on-line journals is the new trend in publishing.

- **Jerry Lilly** feels that more promotion/publicity is needed for ARLO. Perhaps add to JASA Table of Contents. **B. Hellweg** suggested adding a link which goes directly to ARLO. Quarterly Email reminder is being looked into, says **C. Schmid**.
- Is there support for the Student Council to become a standing committee? **E. Cohen** motions that TCAA support this move; **B. Hellweg** seconds. Majority vote is in support.
- **T. Hoover** presented the idea of having ASA Student Chapters. Several people spoke in favor of this idea. How the student chapters should be implemented was discussed a great deal. Some felt that student chapters should be supported only if no local chapter is nearby; some believed they should be sub-groups of local chapters; others thought they should be separate entities. **Greg Miller** suggested that we should look at what other societies do and not reinvent the wheel. **R. Wetherill** stated: “Where it is needed it will grow and thrive; where it is not, it will not survive.”
- **S. Brown** requested longer hours for Email room at ASA conferences.
- **Damian Doria** has been in discussion with the Books committee about reprinting the Cremer Muller and Schultz books. Many in TCAA were in support of this.

## FUTURE MEETINGS

### 1) Nashville, TN: 28 April – 2 May 2003

- TPOM Reps: **L. Wang & Martha Larson** (**M. Larson** replacing **Paul Calamia**)
- Special Sessions: Richard Bolt (Named Session)**William Cavanaugh**; Museums Steve Haas; Multi-channel Sound Systems Robert Coffeen; Studio Acoustics Jeff Szymanski & Alex Case; Synthesis/Processing and ‘Acoustical’ Music K. Anthony Hoover & Richard Campbell; Teaching Rendell Torres
- January 6 is deadline for abstracts.
- NCAC will be meeting on 26 & 27 April, 2003.
- Socials will be held on Tuesday and Wednesday (at the Ryman Auditorium).
- The Student Design Competition, being organized by **Bob Coffeen**, did not make it into the Nashville Call for Papers, but it is being planned as an adaptive reuse project.

### 2) Austin, TX: November 10-14 2003

- The following special session topics were suggested for Austin meeting:
  - Sound Quality – When Sound is the Essential Property (**D. Lyon**) – possibly three sessions: (1) products for which sound is essential, (2) products for which sound is important quality, and (3) product where sound is not in control of user/listener. **R. Torres** suggested **Klaus Genuit** as speaker. **C. Jaffe** suggested **Jens Blauert** as speaker. Please forward other suggestions to **D. Lyon**.
  - Retrospective on Elmer Hixson, joint with Noise (**Brandon Tinianov**)
  - Acoustical Design of Government Buildings (**David Marsh**)

- Acoustical Design of Libraries and Archives (**E. Cohen**)
- Speech Privacy and Speech Intelligibility (**Ken Roy**)
- Scattering Topics (**Dick Campbell**)
- Workshop on Testifying/Forensic Acoustics: **Jack Randorff**
- Small Room Acoustics (**Alex Case**)

3) New York, NY: May 24-28 2004 (75<sup>th</sup> Anniversary of the ASA)

- Co-chairs **Russell Johnson** and **Damian Doria**
- 75<sup>th</sup> Anniversary Committee, Chaired by **Pat Kuhl** and **Leo Beranek**
- **L. Beranek** reported that they are planning to have no papers on Wednesday. Instead there will be special talks on Wednesday morning, a plenary session in the early afternoon, time off in the late afternoon, and a formal banquet on Wednesday evening for which there will be a charge. The banquet will take the place of one of the two standard conference socials. A 25<sup>th</sup> anniversary movie will be running sometime too. To accommodate all of the expected papers, there may be a Saturday session, or perhaps technical committee times will be sacrificed so papers can be presented in an evening.
- Sessions being planned are:
  - Special Session honoring **Leo Beranek**
  - Memorial Session honoring **Robert Apfel**
- Other suggested sessions include:
  - Acoustics of Virtual Rooms, joint with Musical (**E. Cohen**)
  - Posters session on Drama Theaters(**G. Miller**)
  - Paper session on Drama Theaters (**Rick Talaske**)
  - Bell Labs – How Far Have We Come, joint with Engineering Acoustics (**N. Shaw**)
  - Performance Art Spaces (**C. Jaffe**)
  - Spatial and Binaural Evaluation of Performing Art Spaces, joint with Signal Processing (**N. Xiang**)
  - Active and Passive Acoustical Aspects for Teleconferencing, joint with Engineering (**R. Torres**)
  - Acoustics and Human Performance/Productivity (**R. Torres**)
  - How to Measure Opera House Acoustics (**Jin Jeon**)
- Organizers expect that there will be too many submitted papers to this conference. Ideas for limiting the number of papers included: 1) requiring refereed short papers, 2) requiring non-refereed short paper, 3) push posters, 4) limit one paper per author. No general consensus on recommended course of action was reached.
- **J. Jeon** pointed out that ICA is one month before this NYC conference.

#### 4) Future Conference Schedule:

- San Diego Fall 2004.
- Vancouver, BC Spring 2005 (Joint with CAA)
- Fall 2005 is open
- Providence, Spring 2006
- Hawaii, Dec. 2006 (Joint with Japanese Acoustical Society, INCE/Internoise + possibly INCE Japan)

#### TECHNICAL INITIATIVES

- \$750 for Student Paper Awards (Nashville and Austin)
- \$600 for Student Receptions (Nashville and Austin with NCAC&NS)
- \$300 for Web Site Maintenance
- \$2,000 for Outreach for Classroom Acoustics (form submitted): **Coffeen/Wetherill**
- \$500 for AIA Certification for Continuing Education (form submitted): **Hoover**
  - A poll was given on who had provided AIA Certification courses. At least 5 people raised their hand. Anyone in TCAA can give this presentation. **Bennett Brooks** is our CES contact for AIA; please contact him for canned presentation and more information. **B. Brooks** will try to make presentation available on the TCAA website.
- **N. Shaw** proposed \$1000 technical initiative to work with Education in Acoustics on developing and promoting lesson plans (modules) for grade/middle school teachers. **S. Pfeiffer** made motion to approve, **S. Brown** seconded. All voted unanimously in favor.
- **R. Muehleisen** proposed \$500 technical initiative to purchase Classroom Acoustics brochure to give to teachers who come to ASA Education in Acoustics sessions. **N. Shaw** made motion to approve, **L. Wang** seconded. Majority vote in favor, with one nay vote. During discussion of this initiative, **E. Cohen** urged that we get the brochure out to teachers in schools of education as well. **D. Marsh** suggested that we set up a booth at a School Board conference; Classroom Acoustics task force can look into this.
- **D. Houglund** plans to suggest technical initiative to develop more course material for AIA Continuing Education program. She will bring proposal to Nashville TCAA meeting.

#### INTER-SOCIETY

No updates given.

#### INTRA-SOCIETY

**2002 International Symposium on Musical Acoustics (ISMA)** will be held in Mexico City immediately following the Cancun Meeting, 9-13 December 2002.

#### ADJOURNMENT,

**S. Pfeiffer** made the motion; **James Phillips** seconded. Meeting adjourned at 10:22 PM.

## HOW CAN MEMBERS OF THE ASA TECHNICAL COMMITTEES HELP IN REGARD TO DEFENDING THE CLASSROOM ACOUSTICS STANDARD?

The classroom acoustics standard – ANSI S12.60-2002 American National Standard Acoustical Performance Criteria, Design Requirements, and Guidelines for Schools – was approved by ANSI this summer and is now available for sale. (To purchase it go to the ASA Standards Store <http://asa.aip.org> or call the Standards Secretariat at (631) 390-0215. The cost to ASA members is \$26.25 – the non-member price is \$35.)

The Secretariat and S12 are currently defending against an appeal to the ANSI Board of Standards Review, which claims that the Standard is “not in the public interest.” This matter will be heard by the ANSI BSR at a hearing set for 6 February 2003.

Your letters to ANSI (with a copy to the ASA Standards Secretariat) will be most helpful in the defense of the standard. Talking points include:

- The Standard was developed **based solely on the needs of students** (and teachers) to attend school in a minimally acceptable acoustic environment.
- **The levels established in the Standard are not new.** The same levels have been recommended for years in the literature. The World Health Organization (WHO) and the national standards of many other countries call for the same levels. Equivalent levels are already part of ANSI S12.2-1995 Criteria for Room Noise.
- **The Standard is technically reasonable.** Air conditioning exerts in ASHRAE have amended the 2003 Applications Handbook to track the Standard and refer their readers to the Standard for more information.
- **Implementation of the Standard is entirely voluntary.** In every case, school boards will be able to consider their local needs as they plan school building or renovation projects.
- **These four points clearly demonstrate that the Standard is in the public interest and should be upheld.**

Send letters to:

Anne Caldas  
ANSI  
25 W. 43<sup>rd</sup> Street, 4<sup>th</sup> Floor  
New York, NY 10036

Send copies to:

Susan Blaeser  
ASA Standards Secretariat  
35 Pinelawn Road, Suite 114E  
Melville, NY 11747

# **Concert Hall Research Group**

## **2003 Summer Institute**

### **Saratoga Springs**

It has been three years since the Concert Hall Research Group sponsored the Tanglewood 99 - CHRG Summer Institute. The first of its kind, organized by Bill Cavanaugh and Tim Foulkes, the sessions received high accolades from both the professional and university students as well as the participating lecturers. We are currently in the process of organizing a second institute, to be held in August of 2003 at Saratoga Springs in upstate New York. While the first institute focused on bringing acoustical professionals and students up to date on the research being performed in the area of concert hall acoustics, the 2003 session will concentrate on the application of this knowledge to create successful concert hall designs.

The tentative dates for the 2003 Institute are Monday, August 11 through Thursday, August 14, 2003. The Gideon Putnam Hotel and Conference Center will provide the accommodations and setting for most of the sessions. From the Gideon Putnam, it is a 5-minute walk to the Saratoga Performing Arts Center, where we will have the opportunity to hear a performance of the Philadelphia Orchestra, tour the facilities, and hear lectures.

The following is the tentative schedule of events and lecturers:

#### **Monday - August 11, 2003**

4:00 PM - 7:00 PM	Check in at the Gideon Putnam Hotel
5:00 PM - 6:00 PM	Cocktail Reception
6:00 PM - 8:00 PM	Dinner
8:00 PM - 10:00 PM	Evening Session
	Title: Current Research at US Architectural Acoustics Programs
	Lecturers: Rendell Torres; Rensselaer Polytechnic Institute Lily Wang; University of Nebraska Gary Siebein; University of Florida
	Format: 30 min. per lecturer and 30 min. of Q&A

#### **Tuesday - August 12, 2003**

8:00 AM - 9:00 AM	Breakfast
9:00 AM - 12:00 PM	Morning Session
	Title: Integration of Physical Acoustics with Architecture and Theatre Design
	Lecturers: An architect in the performing arts field A theatre consultant Larry Kirkegaard; Kirkegaard Associates Russell Johnson; Artec Consultants
	Format: 30 minutes per lecturer and 60 minutes of Q&A



12:00 PM - 1:00 PM	Lunch
1:00 PM - 5:00 PM	Afternoon Session
	Title: Integration of Electro Acoustics with Architecture and Theatre Design
	Lecturer: An architect in the performing arts field A theatre consultant Bob Coffeen; University of Kansas David Robb; Jaffe Holden Acoustics
	Format: 30 minutes per lecturer and 60 minutes of Q&A
5:30 PM - 6:30 PM	Cocktail Reception
6:30 PM - 8:00 PM	Dinner
8:00 PM - 10:00 PM	Evening Session
	Title: Concert Stage Acoustics
	Lecturer: Chris Jaffe; Jaffe Holden Acoustics Larry Kirkegaard; Kirkegaard Associates Russell Johnson; Artec Consultants
	Format: 30 min. per lecturer and 30 min. of Q&A

**Wednesday - August 13, 2003**

8:00 AM - 9:00 AM	Breakfast
9:00 AM - 10:00 AM	Morning Session I at SPAC
	Title: Contributions of Paul Veneklasen to the field of Architectural Acoustics
	Lecturer: Gary Siebein; University of Florida
10:00 PM - 12:00 PM	Morning Session II at SPAC
	Title: Orchestra Rehearsal and Lecture
	Lecturer: Charles Dutoit; Conductor of the Philadelphia Orchestra at Saratoga
	Format: Rehearsal and Lecture as time allows
12:00 PM - 1:00 PM	Lunch
1:00 PM - 5:00 PM	Afternoon Session
	Title: Tour of SPAC and Lectures
	Lecturer: Herb Chesbrough; President of SPAC Joe Kluger; President of the Philadelphia Orchestra
	Format: Tour and Lectures as time allows
5:30 PM - 6:30 PM	Cocktail Reception
6:30 PM - 8:00 PM	Dinner
8:00 PM - 10:00 PM	Evening Session
	Title: Philadelphia Orchestra Performance

**Thursday - August 14, 2003**

7:30 AM - 8:30 AM	Breakfast
9:00 AM - 11:30 AM	Morning Session
	Title: Can a Pavilion Provide a Satisfactory Musical Experience?
	Lecturer: Leo Beranek Carl Rosenberg; Acentech Inc. Chris Jaffe; Jaffe Holden Acoustics
	Format: 30 min. per lecturer and 30 min. of Q&A
11:30 PM - 12:00 PM	Closing Remarks

The hotel and conference facilities have been secured and the SPAC arrangements are nearing completion. As with Tanglewood, we expect that ASA and NCAC members (the professional students) will be covering their own expenses and students will receive full or partial scholarships, based on participation. We anticipate participation of approximately 40 people and will finalize the cost in the coming months. Look for announcements and application forms to appear on the ASA and NCAC websites within the coming month. Information will also be available from Chris Jaffe or Robin Glosemeyer. Please contact us with any questions.

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