

## TECHNICAL COMMITTEE ON ARCHITECTURAL ACOUSTICS, (TCAA)

**Date:** July 8, 1995

**From:** TCAA Secretary - **Ron Freiheit**

**Subject:** TCAA Minutes of May 31, 1995. Documented at the 129th meeting of the Acoustical Society of America (ASA), in Washington, D.C.

**TCAA CHAIR:** **Dana Hougland**

**TCAA MEMBERS PRESENT:** **John Bradley, David Braslau, Bennett Brooks, Steve Brown, Angelo Campanella, Ron Freiheit, Richard Guernsey, Dana Hougland, David Kahn, John Kopec, David Lubman, Dan Martin, Dennis Paoletti, David Prince, J. David Quirt, Neil Shaw, Gary Siebein, Rick Talaske, George Winzer.**

**GUESTS PRESENT:** **David Adams, Leo Beranek, William Cavanaugh, Mendel Kleiner, Joseph Pope, Jim Brown, Dick Campbell, Avillez Marcio, Dan Clayton, Raul Gonzalez, Steven Haas, Russ Cooper, Tom Horral, Bertam Kinzey, Jim Mastracco, Mike Nixon, David Moyer, Kenneth Roy, Neil Thompson Shade, Noral Stewart, Robert Walking, Eric Seifert, Gilbert Soulofre, Rendell Torres, Robert Young.**

### **INTRODUCTION :**

**ACKNOWLEDGMENTS:** **Ron Freiheit** was approved as secretary for the TCAA. The Chair expressed thanks on behalf of the TCAA/ASA to **Rick Talaske** and **John Kopec** for their work and leadership for the past three years of the TCAA. Thanks were also expressed to **George Winzer** and **Mahlon Burkhard** of the Technical Program Organizer Committee. The Chair was proud to report that two TCAA committee members are now elected to the Executive Council; **Bill Cavanaugh** and **Dave Lubman**. The results of the recent election were reported: **Stanley Ehrlich**, Vice President - Elect, **Patricia Kuhl**, and new members of the Executive Council, **David Lubman** and **Julia Royster**. The executive committee also reminded the subcommittees to encourage members to write their congressional representatives regarding support for funding for the science community.

### **PREVIOUS MINUTES:**

A motion for approval of the meeting minutes from the Austin, TX meeting of the TCAA was made by **Neil Shaw**, seconded by **Bill Cavanaugh**. The motion was unanimously passed.

### **OLD BUSINESS:**

The Meeting Room Acoustics: **Rick Talaske** addressed the committee regarding the involvement of the TCAA in initiating a proposal for guidelines to be used for evaluation of meeting rooms. The proposed guidelines would outline basic criteria for acoustic performance of meeting rooms. The initial thoughts are that these guidelines would be distributed to groups utilizing conference and meeting room facilities. **Rick Talaske** is looking for others that would be willing to work with him in this area. It was suggested that this may be a good joint work with others including Noise committee of ASA. Those interested in working on this should contact **Rick Talaske** (attached is a copy of some initial work done in this area). **Bill Cavanaugh** motioned to have **Rick Talaske** as chairman of this sub-committee, **Neil Shaw** seconded the motion. **Rick Talaske** declined to head up the subcommittee. He expresses that it would be preferred to have someone else head this sub-committee. **Mike Nixon** and **Tom Horrall** volunteered to work with **Rick Talaske** on a subcommittee.

### **NEW BUSINESS:**

Future Meetings Programming: The Chair proposed that the TCAA follow the standing rules of Technical Committees by establishing a subcommittee to work on programming for future meetings. It was suggested that the subcommittee be comprised of the Chair (**Dana Hougland**), **Gary Siebein**, **John Bradley** and the Secretary (**Ron Freiheit**). The idea was accepted by the floor with no opposition.

Correspondence: The Chair presented a request from **Dana Kirkegaard** for support by the TCAA for a grant being proposed to the IAAM to continue his research on the acoustics of auditorium seating in the occupied state. **Dana Kirkegaard** is requesting a letter from the TCAA/ASA in support of his proposal. **Leo Beranek** had reviewed **Dana's** proposal and remarked that he thought it should received the support of the TCAA committee. **Leo Beranek** made a motion that the TCAA committee should support **Dana Kirkegaard's** request to issue a letter for support for further research into the acoustics of auditorium seating in the occupied state. **John Kopec** reported that 100 tests were done in this area by **Dana Kirkegaard** and strongly recommends that we support the request - seconded. **Rick Talaske** requested that the data from the research be made available. The Chair explained the information will be reported first in the IAAM publication (since the IAAM is funding the effort) and then suggested that it be presented at the ASA meeting in Indianapolis next spring. **Neil Shaw** asked if the information would only be published in the IAAM. **Neil Shaw** has a concern that it might not be available to everyone. **Tom Horrall** suggested that the work will be published in JASA and subject to peer review. The Chair suggested that the raw data also be made

available able. **Steve Brown** asked for clarification on the proposal by **Dana Kirkegaard**. The Chair clarified that **Dana Kirkegaard** is requesting that the TCAA issue a letter of support regarding the need for continued acoustic research into occupied auditorium seating. The motion was unanimously supported by the committee.

Suggestions for Permanent Subcommittees: **Bill Cavanaugh** brought two items up for discussion on behalf of **Bob Coffeen** who was not able to attend the meeting: 1) With the success of the student participation in the design competition at the Cambridge meeting last year, **Bob Coffeen** is suggesting that a permanent subcommittee be established to support continuation of this at future meetings. 2) It was also suggested that a subcommittee on audio applications be established. **Bob Coffeen** volunteered to chair the subcommittee on student design competition and is requesting that others work with him on the committee. **Bill Cavanaugh** made a motion in support of establishing these two subcommittees. **Dana Houglund** seconded.

Discussion Regarding the Establishment of an Audio Subcommittee: **Tom Horrall** asked for further clarification of "audio applications". **Bill Cavanaugh** responded that there are members in ASA both acoustics and electro-acoustics and that allowing a subcommittee would allow a re-focus on these efforts. **Dan Martin** stated in there is currently little of the audio in acoustics and that it is a good idea to establish a subcommittee in this area. **Neil Shaw** commented that the area of audio is quite interdisciplinary today and involves many groups. He raised the question of whether it should be a interdisciplinary sub committee? **David Kahn** commented that there is quite a bit of activity in the Audio Engineering Society (AES) in the area of architectural acoustics and thought this it would be good to have audio as part of the ASA TCAA. **Jim Brown** commented on the good session on ADA at the present meeting regarding issues. The audio subcommittee would be a good way to address ADA issues. **Jim Brown** also volunteered to be part of the audio subcommittee. **Neil Shaw** commented that the ASA "take back" electro-acoustics as part of the ASA. **Dick Campbell** reported that the work going in the AES related to architectural acoustics was; 1) a group working on speaker radiation 2) a group chaired by **Peter D'Antonio** on sound scattering 3) a group chaired by **Dick Campbell** on room models. **Mendel Kleiner** commented that he is chair of the Technical Committee on Sound Reinforcement which is a standards committee within the AES. He also supports the idea of a audio subcommittee within the TCAA. **Rick Talaske** commented that its usually the special sessions that draw people to these meetings. With this in mind there needs to be special sessions related to these new subcommittees to attract others such as those from the AES. There was unanimous support for the idea of a audio subcommittee.

Discussion on the Establishment of a Student Design Competition Subcommittee: **Neil Shaw** commented that this is a long term type of subcommittee. **Bill Cavanaugh** said that the thoughts **Bob Coffeen** were that if established as a subcommittee it would get the necessary focus to make this a long term commitment. **Dan Martin** requested that the chair restate the motion being voted on. The Chair stated: the requests for a permanent subcommittee on student design competitions to be sponsored by the TCAA

and any other organizations. The motion was unanimously supported by the committee.

Address by Former Member: **Jim Mastoricao** who had been part of the ASA addressed the committee on his desire to return to the ASA and the TCAA as a member that could share his experience in research as well as his experience working within the government. He was welcomed back to the ASA by the TCAA.

## **FUTURE MEETINGS:**

### **ST. LOUIS MEETING: November 27 - December 1, 1995**

Residential Acoustics - Four invited speakers so far. The Session Chair, **Charles Moritz** is looking for someone on home theaters to present. The Chair noted that there had been a suggestion for a session in Architectural Acoustics regarding the ADA and hearing impairment. It was discussed that there had been coverage of this subject at the present meeting. **Mike Nixon** suggested that there was still sufficient material to cover for another session. A motion was made that there be another ADA session in St. Louis. **Jim Brown** seconded this motion.

**Neil Shaw** suggested that room acoustics is an important area with regard to the ADA. **David Kahn** - commented that there should be a better understanding on the problems of hearing impairment by those involved in architectural acoustics. A joint session with P&P was suggested due to the St. Louis location and the proximity to CIP (Central Institute for the Deaf).

**Dave Lubman** suggested that acoustics for homes for the aged be a possible topic.

**David Quirt** asked for clarification of what the topic "residential acoustics" includes. The Chair stated that this covered multifamily dwellings as well as single dwellings. **Neil Shaw** suggested that the non-uniformity of codes needed to be discussed as a part of this topic since it is something that acousticians deal with. The Chair asked for suggestions for who would chair this session. **John LoVerde** was suggested. The Chair will follow up to see if **John LoVerde** would be willing to chair a future session on residential acoustics topics.

The Chair suggested moving the session on "Design Techniques for Noise Control in Mechanical Systems" chaired by **Angelo Campanella/George Maling**, Co-sponsored with Noise from the Indianapolis meeting to the St. Louis meeting (Spring 1996). **Angelo Campanella** agreed to this change.

The four sessions proposed for the St. Louis meeting:

Residential acoustics

Multidwelling acoustics and related topics

Architectural Acoustics for the hearing impaired

Mechanical systems - **Angelo Campanella/George Maling**

**Gary Siebein** suggested trying to work with the St. Louis ASHRAE group on the "Design Techniques for Noise in Mechanical System" session. **Russ Cooper** will bring this up to ASHRAE to see if they would like to co-chair this session in St. Louis.

### **INDIANAPOLIS INDIANA MEETING: May 13-17, 1996**

Chair Comments: The Chair stated that the call for papers for the Honolulu session will go out before the Indianapolis meeting.

**Mendel Kleiner** suggested moving the "Computational Architectural Acoustics" from the Indianapolis session to the Honolulu session. **Mendel Kleiner, David Braslau** and **Neil Shaw** have agreed to work on this session together for the Honolulu meeting.

**Rick Talaske** suggest that "Directivity of Musical Instruments" as a topic for the Indianapolis Meeting. He was not volunteering to chair that session. **Neil Shaw** suggested a joint session with Musical Acoustics group. It was commented that **Dan Martin** did a doctoral theses on this topic. **Rich Talaske** agreed to find a chair for that session.

**David Lubman** proposed special session in Honor of **Curt Holmer** cosponsored by Structural Acoustics and Engineering Acoustics. EAR may be willing to work with the committee on this session as well. The committee will be looking for papers on new work for this session.

**Bill Cavanaugh** suggested that **Dave Lubman** be a presenter for the Knudsen Lecture. **Steve Brown** made a point the ASA administration would like to be involved in the approval for the Knudsen Lectures. Reverberation Theory (general topic) tentatively set as the topic for the Knudsen Lecture in Indianapolis.

### **HONOLULU HAWAII MEETING: December 2-6, 1996**

Two sessions on auralization, modeling and virtual reality. **Neil Shaw** suggested that the terminology be very specific regarding these items. **Dan Martin** commented that it was not clear what a good definition of auralization was. **Neil Shaw** suggested that it is the counterpart to visualization. **Mendel Kleiner** commented that the AES journal has a definition of auralization which states that "Auralization is the counter part to visualization in various complexities". Suggestions were made that auralization

demonstrations would also be part of the Honolulu meeting. It was suggested that this should be a joint session with P&P. **Neil Shaw** agreed with this.

**David Adams** will be working as the TCAA representative to the organizing meeting at the Honolulu meeting.

Future meeting locations:

Penn State - Spring 1997

San Diego - Fall 1997

Seattle - Spring 1998

Open topics for future sessions:

Sound Quality

SMPTE (Society of Motion Picture and Television Engineers) - **Neil Shaw** commented that SMPTE is not currently interested in room acoustics. Lucas THX is now doing this function. It was questioned should the ASA be involved since the only involvement currently is by commercial firms. SMPTE deferred to ISO on the issues regarding acoustics. **Bill Cavanaugh** commented that THX would be willing to work with the ASA.

Acoustics in Theaters - **Neil Shaw** would be willing to work on this session.

On-stage Acoustic Environments (related to Jazz musicians and amplified instruments) - **Jim Brown** suggested that a this subject as a topic for future sessions.

**TECHNICAL INITIATIVES:**

1. The Concert Hall Research Group Project (CHRG):

The Chair reported that \$2500 is currently not used. **John Bradley** will discuss with the CHRG and will report back to the TCAA. **Rick Talaske** reported that the initiative of \$2500 was originally given to archive that data from the CHRG testing to be put on a CD. The latest discussion was to use the funds for general support of the CHRG. There will be a CHRG meeting at the St. Louis meeting.

2. INTERNET/PINET:

**Angelo Campanella** reported that AIP had agreed to put the TCAA on a list server (provided by AIP). The "sign-up" sheet from the TCAA meeting would provide that basis for the initial list.

3. Music Critics Survey:

**Dave Lubman** reported that survey is not complete yet but that progress is being made that will compare responses of the critics with those of the musicians and audience. The assessment forms were provided by **Gary Siebein** and the U. of Florida for the survey. The initial mailing did not get enough responses from the music critics so a second mailing was conducted. The surveys contain a "coding" which allows for tracking of where and when the response came from. The experiment was done on two nights at the Meyerson Hall in Dallas. One night the concert was with the Dallas Symphony the other was the Houston Symphony. **Dave Lubman** will have something yet this year.

4. New TCAA Initiatives:

None

**EXECUTIVE COUNCIL REPORT:**

Chair **Dana Houglund** invited David Lubman to give a report:

**David Lubman** reported the ASA will be accepting email submission of abstracts with the potential for cost savings and the ability to search abstracts. There is an investment being made by the ASA to implement this.

JASA - The first CD-ROM of JASA back journals set was sent out in the January 1995 issue of JASA. This will be an on going project.

Interdisciplinary committee on digital signal processing has been started.

There is a proposed joint meeting with the ASA & EAA in Berlin in spring of 1999. Papers in will be in English (no translation offered).

For National Save Your Hearing Conservation Day, the noise coalition provided free hearing screening tests to the public during the ASA meeting in Washington, D.C.

**Dana Houglund** mentioned that there will be a new standard on acoustical terminology released soon.

**TECHNICAL COUNCIL REPORT:**

**Rick Talaske** reported the following:

Fellows luncheon - The featured speaker will be the architect for the capital.

The TCAA membership list will be updated in future JASA publications.

**INTERA SOCIETY:**

ASACOS: **George Winzer** - ASA members will be getting a 20% discount on standards; however there will be a **special** promotional discount of 40% on the new acoustical terminology standard. To qualify for this special discount the special order form in the June issue of JASA must be used and will be valid for only six weeks (one time offer). The price is \$50 including shipping and handling (normally the price is \$80 less shipping and handling). Issues and topics in need of standardization should be brought to the attention of ASACOS. Be sure to read the "Standards News" section of JASA for listings of standards and committee Working Groups and chair.

Long Range Planning: **Dana Hougland** - Currently there are discussions of having joint meetings with INCE.

JASA: **Dan Martin** - The first CD-ROM of JASA back journals set was sent out in the January 1995 issue of JASA. This will be an on going project.

Medals & Awards: No report.

Archives & History: No report.

Committee on Meetings: No report.

Membership Committee: No report.

Newman Award: No report.

ASA Women Status Com: No report.

AES: **Mendel Kleiner** - Symposium discussing a joint AES & ASA meeting co-sponsored by each society. The Standards committee work within the AES is open to involvement from the TCAA of the ASA. **John Kopec** commented that the Chicago ASA & AES conduct a joint meeting yearly.



## **INTER SOCIETY:**

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### **NCAC:**

**Dennis Paoletti** - The NCAC is planning an international meeting in the year 2000. The presentation by **Layman Miller** at the Washington D.C. NCAC meeting was video taped. If anyone is interested in viewing this tape, contact the NCAC.

### **ASTM:**

No report.

### **ASHRAE:**

No report.

### **INCE:**

Next meeting in Newport Beach in July of 1995.

### **CAS:**

No report.

## **OTHER BUSINESS:**

**Neil Shaw** suggested that there may common interest in doing a meeting with the IEEE.

## **MEETING ADJOURNMENT:**

**John Kopec** made a motion that the meeting be adjourned. It was seconded by **Neil Shaw**. The next TCAA meeting will be in St. Louis on Tuesday, November 28, 1995.

## **POST SCRIPT NOTE:**

**Harold Marshall** has been invited to present a Knudsen Lecture in St. Louis.

Some topics originally slated for special sessions in St. Louis may be combined to allow us to take advantage of this special opportunity.