

## SECTIONS

*We appreciate the assistance of the section secretaries in providing the information for the following reports.*



Colorado Section addressed voice, stage and sound amplification. Panelists (left to right): Bob Mahoney, Patti Peterson, Bob Burnham and Peter Russel.

### Vocal Amplification

The **Colorado Section** held its first meeting of the season on September 25, at the King Center of the Auraria Higher Education Center campus in Denver. Some 24 guests attended a panel discussion on voice, stage and sound amplification that covered a broad range of interests, including audience expectations for vocal performance in coming years.

Patti Peterson, professor of vocal studies at the University of Colorado, began the session by describing the aspects of vocal pedagogy that are common to both amplified and unamplified performance practices. She also talked about how vocal technique and tone production vary, depending on whether or not sound amplification is employed.

Peter Russell, president and general director of Opera Colorado, which in its early days was one of the first companies to practice amplified opera-in-the-round, spoke forcefully in favor of proscenium style presentations of unamplified opera. Russell characterized amplified vocal performance as appropriate for musical theater, but reiterated his position that conventionally produced opera must be unamplified to be true to the art form. Russell also said that since productions developed for in-the-round presentations have lit-

tle value to other (more traditional) companies, co-production with other opera companies for such performances is not economically feasible.

Bob Burnham then spoke to the group from a sound technician's point of view on the importance of establishing a warm and supportive rapport with the performing artists. Drawing on his 33 years of experience as a recording and sound reinforcement engineer, Burnham described several methods of miking and reinforcement and fielded a number of very pertinent questions from the audience.

### Japan Tours

With 53 members and guests the **Japan Section** toured the new sound research facility at NHK Science & Technical Research Labs in Setagaya, Tokyo, on June 26.

Kimio Hamasaki of NHK welcomed visitors and talked briefly about NHK's objectives in undertaking the renovation, and about those sound research projects that are being undertaken now by the company. Members were able to visit the laboratories, talk with the heads, and take a look at some of the company's latest products. These include an extended dynamic range silicon diaphragm condenser microphone; a tiny moving coil microphone capable of picking up a

sound of insect chewing leaves, which was developed for the purpose of supporting microscopic scenes taken by a high resolution camera; a highly directional stereo gun microphone; and a sound image control system that uses loudspeaker arrays for a virtual studio.

Hamasaki concluded the tour with a demonstration of a 23-channel sound system developed for an experimental 4000-line HD-TV system, which impressed the group.

The section met again on August 22, for the annual review and to evaluate the fiscal year of 2001. During the evening, all the section's activities throughout the year, as well as the settlement of accounts were reported and approved. Other business included the election of new officers and the announcement of activity and budget projections for 2002.

Vic Goh

### Audio Tech Seminar

The **Singapore Section** presented an Audio Technology Seminar in conjunction with Broadcast Asia 2002, Singapore's premier broadcast exhibition and conference on June 17, 2002. Entitled, "Future Trends for Digital Audio: Principles, the Practice & the Possibilities," the seminar drew 48 professionals from various areas of the audio industry and included delegates from 12 countries, including the USA, Japan and China.

The full-day seminar featured seven speakers, who covered topics relating to digital TV, digital audio, and loudspeaker systems. The first lecture focused on the work being done in the area of compression schemes and digital television. Mary Ann Seidler, international director of sales for Telos Systems/Omnia USA, talked →



Singapore discusses future trends for digital audio. *photo/Singapore Exhibition Services*

about some of the new schemes now available for audio compression. In particular, she focused on the advantages of MPEG4, such as its more efficient use of bandwidth.

Henk Mensinga, sales manager of TC Electronic of Denmark, then spoke about audio for DTV, covering the requirements of broadcasting for digital TV. Mensinga discussed the assortment of digital TV formats that are now being adopted by governments in different countries.

After a 15-minute break for refreshments, the discussion moved on to the implementation of digital audio. John Wigglesworth, vice president & director of Creative Services for Four Media Company Asia of Singapore, and Danial Shimiaei, chief digital systems engineer of Todd-Soundelux USA, talked about how international program producers are currently choosing to complete their programs in high-definition video with Dolby 5.1 soundtracks. Even though many of the final delivery formats for TV are still in analog and capable of supporting only Dolby Surround 2.0, the practice of exceeding current requirements permits a degree of future proofing that will ultimately prolong the shelf-life of these products.

Wigglesworth then talked about digital audio from a management point of view. He deciphered budget breakdowns and compared major Hollywood movie budgets with typical Asian budgets. Shimiaei covered the topic from an operational angle. He talked about the responsibilities involved in the numerous mixing

stages of major TV shows, including "The Sopranos," "Alias" and "Star Trek: Next Generation." Local delegates were able to get a glimpse into the workings of the companies that produce so many of the programs that make up many of the prime time programming in the region.

After a lunch break, two more seminars on digital audio focused on the developments in network audio. Yves Ansade, head of Product Development of Digigram, France, gave a presentation on using Ethernet cables for sound distribution that included an in-depth explanation of applications possible in a format that permits 24-bit/64-channel sound. Ansade also discussed EtherSound, a proprietary card system developed by Digigram that utilizes Ethernet cables for sound distribution.

The last presentation focused on a dual-loudspeaker project involving mLAN. Kunihiko Maeda, chief planner of the R&D Planning Section for Otari Inc System Engineering Division, USA, and Junichi Fujimori, project leader of Yamaha Corporation, Japan, described the efforts made by their respective companies to bring mLAN to fruition for sound applications. According to Maeda and Fujimori, using the FireWire/IEEE 1394 format single-cable connections within studio and stage environments is now possible. This eliminates cable clutter as well as permitting network connections that allow other settings and parameters to be transmitted via the single FireWire cable.

Lively Q&A sessions followed each

of the three pairs of presentations and AES mementos were given to the speakers by Robert Soo, section chair. The section is already preparing for its 2003 seminar to be held in conjunction with Broadcast Asia 2003.

Kenneth J. Delbridge

## Seattle Symphony Center

Twenty-eight members and guests of the **Pacific Northwest Section** held a business meeting at Soundbridge, the Seattle Symphony's Music Discovery Center, an educational outreach section of the Benaroya Hall Complex on June 25.

Aurika Hays, section chair, opened the meeting with some remarks about the success of the preceding year and thanked members for all their hard work in helping to bring Soundbridge to life.

Ron Hyder and Rick Chinn (section committeemen) gave details of continuing improvements to the sound reinforcement system in Benaroya Hall S. Mark Taper Auditorium. The designers purchased a JBL Vertec line array system for left/right arrays and redid the built-in central cluster system, which is normally intended for basic use such as announcements, with JBL components to match the Vertec sound. They also installed a distributed loudspeaker array under the balcony, and purchased a Soundcraft Series 4 board. Unfortunately, the Seattle Symphony was in closed rehearsal at the time, so the group could not see the items firsthand. However, attendees were able to view the rehearsal on the Soundbridge plasma TV.

Bryan Stratton, manager of Soundbridge, then talked about how Soundbridge strives to be a hub for the Seattle Symphony's education and community programs. The program offers high-tech, hands-on interactive exhibits such as "Be a Virtual Conductor;" real instruments visitors can try; and a "Music Bar" featuring hundreds of musical pieces that can be called up for listening by visitors. The organization also offers programs and classes to educate people of all ages about music.

Soundbridge was originally slated to



Bryan Stratton (in suit) explains a kiosk to Pacific Northwest members. Aurika Hays and Gary Louie (inset) look on.  
photos/Rick Smargiassi

occupy a small restaurant space. Stratton walked the group through the exhibits and demonstrated the Music Bar, which consisted of a row of PCs connected to a server. Each station has touchscreen controls, which allow the user to access information about hundreds of musical pieces, composers and styles, as well as the Seattle Symphony recordings.

There were also several video kiosks on myriad musical topics. One explained the forms and styles of various musical genres; another showed how music is used in films and cartoons. There was a "Meet the Conductor" kiosk, that featured a video of symphony conductor Gerard Schwarz and offered the participant a view of the orchestra from the conductor's standpoint, and several kiosks on various instruments and musicians. One could even try playing the instruments on display.

After experiencing the array of delightful exhibits, attendees reassembled for the announcement of election results and a presentation of door prizes. For the list of new officers see the December issue of the Journal. Door prizes included a Silk Road poster won by Seth St. John, and two tickets to the Seattle Symphony Bugs Bunny on Broadway concert, won by Gary Louie. Members then discussed several ideas for next season's meeting topics. Film scoring, IMAX theaters, acoustic analyzers, grounding and shielding were some being considered.

Gary Louie

## Waring Collection

Fourteen members of the **Penn State Student Section** held the first meeting of the semester on September 23, at the Fred Waring Collection of the Patee Library. Waring, who is probably best known for the Waring blender, hailed from the local area of Tyrone and donated his collection of musical archives and memorabilia to Penn State after his death.

Curator Peter Keifer, who was a sound person and road manager for Waring, began with a short history of Waring's career as a choral conductor and showman. The Waring Collection houses more than 10 000 recordings, sheet music, scrapbooks, photographs, original cartoon artwork, correspondence, and other items such as costumes and the renown Waring blender. Keifer talked about the many changes in recording media and microphone techniques as reflected in Waring's archives and souvenirs from his Pennsylvania shows. Early shows were recorded using only one or two microphones for the soloists. Later, Keifer explained, the shows incorporated more microphones for the band.

The group gathered in the archive area, where Keifer transfers recordings from old formats such as aluminum records and wire recordings to digital formats like DAT and CD. He demonstrated the wire recorder as well as various types of records that require different size styli.

Keifer concluded the session by

talking a little about the Association for Recorded Sound Collections (ARSC), a group dedicated to the preservation of historical recordings and their importance in cultural heritage. For more information on this group, visit the Web site at: [www.arsc-audio.org](http://www.arsc-audio.org).

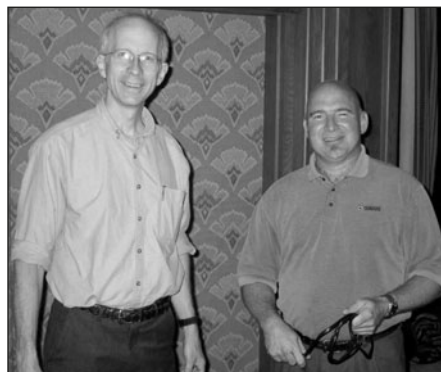
Alexandra Loubeau

## IEEE 1394 in SF

The September meeting of the **San Francisco Section** at Dolby Labs, featured John Strawn of S Systems and Mike Overlin of Yamaha. They spoke to 65 audio professionals about IEEE 1394. The IEEE 1394 bus can be used to distribute audio and MIDI signals to practically any audio device including personal computers, keyboards, mixers, samplers and signal processors. IEEE 1394 provides configurable, high-speed (400 Mbps) data transfer and can greatly reduce the complexity of cables commonly found in audio systems.

Strawn talked in general about how audio is distributed over IEEE 1394, which was originally developed to debug back planes and has since evolved into a set of standards for a high-speed serial bus. Apple Computer then developed Firewire, which in turn, became the prototype for the IEEE 1394 standard.

According to Strawn, it is important to remember that IEEE 1394 is a bus, not a network, and is quite versatile in carrying SMPTE code, MIDI, 1-bit, floating point or linear audio. Data transfer on IEEE 1394/Firewire can be isochronous (real-time), or asyn- ➔



John Strawn (left) and Mike Overlin tell San Francisco members about IEEE 1394.



Tobias Lentz tells Central Germany members about audio-virtual reality.



chronous (not real-time).

Overlin described a family of products that incorporate IEEE 1394/-Firewire into a practical system called mLAN by Yamaha and its licensees. The core of Yamaha's mLAN is a series of chipsets, which can be embedded in audio devices to allow connection to the IEEE 1394 bus.

Overlin gave an example of mLAN applied to sound reinforcement at a sports stadium in Florida. In this situation, amplifier power totaling 350 000 W drives 250 loudspeakers. Two rooms contain power amplifiers, one 70 meters from the audio control room, the other 400 meters away. Interconnections were done using mLAN over glass fiber optics to avoid a wiring maze.

Strawn and Overlin concluded with a discussion of some of the major advancements in interconnections, an important and often overlooked part of the audio world.

Paul Howard

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## British Look at Pro Studios

**British Section** members gathered June 19, at the Department of Sound Recording at Surrey University to participate in a one-day course organized to give members an opportunity to gain hands-on experience in professional studio operations. Entitled Studio Appreciation Day, the day's events offered a practical introduction to five principal areas of studio operation: surround sound mixing on a Sony Oxford Console; multitrack pop mixdown on Neve Series V; music

and dialog editing on the SADiE Audio Workstation; audio postproduction on Sonic Solutions; and live classical or jazz recording straight to stereo.

The range of activities covered the principal areas of work of professional studios and production facilities, as well as a wide variety of equipment, media and musical styles. During the course of the day members made and edited recordings under the guidance of experts. By using the equipment first hand, participants gained a deeper appreciation of the decisions and compromises involved in the design. The course organizer, Ken Blair of BMP Recording, assisted by other AES members as well as staff and students of the Tonmeister course, were on hand to guide participants through the studio process.

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## Virtual Acoustics

The **Central Germany Section** held a meeting June 24, at the Technical University of Aachen on virtual acoustics and the simulation of sound fields and multichannel reproduction. Present were 31 members and a large group of students, who were interested in finding out more about the work of the AES and its student sections all over the world.

The University of Aachen, under the leadership of Professor Vorländer, head of the Institute for Technical Acoustics, has for many years been a center of acoustics and electroacoustics. The school first became famous with Professor Kuttruff and his extended investigations in room

acoustics and electroacoustics.

The meeting was full of interesting reports, information and demonstrations. Tobias Lentz reported on his investigations in the field of audio-virtual reality. Simulation, in many cases, is much cheaper and faster than reality; consider flight simulators and simulations of a production line in the automobile industry. Lentz talked about how such models can be applied to the creation of the ideal acoustics for new buildings and/or rooms. For new buildings room acoustical conditions demonstrated in virtual reality enable decisions to be faster and easier. The reproduction of sound fields is based on the fast calculation of sound transmission and the use — in this case — of only two channels and the reproduction with loudspeakers instead of headphones.

Professor Völker then took over with a report on a listening test that compared the sound of 5.1 multichannel stereo reproduction in an Institute for Acoustics and Building Physics control room with a normal living room. The living room contained furniture and had the acoustical features of a normal room, i.e., no specially tailored design.

Alexander Bob described the test results, which showed that a normal living room with additional sound reflections placed on the ceiling walls and floor was not as acoustically bad as expected. Some listeners actually preferred these acoustic conditions to the normal non-reverberant IAB control room, where the reproduction was reportedly more precise and sharply directed.