Regional chapters—the grassroots of ASA

by Jim Da Bois and Larry Royster

Between the Acoustical Society of America’s national meetings, the ASA’s regional chapters from coast to coast meet locally to exchange information, support participation in the Society, promote activities in acoustics, and socialize.

Currently there are 21 ASA regional chapters in various cities and geographical areas across the country. They are: Austin, Central Ohio, Central Pennsylvania, Chicago, Cincinnati, Delaware Valley, Florida, Georgia, Greater Boston, Houston, Los Angeles, Metropolitan New York, Narragansett, North Carolina, Northern California, Northwest, Orange County, San Diego, Upper Midwest, Washington D.C., and Wisconsin.

Although all chapters must be chartered by the ASA, each regional chapter is unique in its membership and operates under its own bylaws. The history and the activities of each chapter are very individual and all are worth relating, but two chapters separated by the continent may provide examples of the diversity of activities and goals. The Los Angeles and North Carolina Chapters have experienced both successes and adversity over the years.

The Los Angeles Regional Chapter was very active during the period from the 1950s into the 1970s. These were the years in which the aerospace activity in Southern California was at its height. There was a strong emphasis on structural dynamics, and vibration and noise control associated with the aerospace programs. Membership in the chapter and attendance at chapter meetings were good. Good times, however, don’t last forever in aerospace, and the membership began to drop off in the late 1970s. The meeting place for the chapter had been the campus of UCLA, but for various reasons it became difficult to meet on campus. In an attempt to increase attendance the meeting place was moved to a location in downtown Los Angeles. This met with temporary success, but in the early 1980s the chapter expired.

Fortunately, that was not the end. In 1985, eleven Los Angeles members of the ASA met and decided that the chapter needed a new birth. A new set of bylaws was established and application was made to ASA to reactivate the chapter. Upon ASA approval the new chapter had its first meeting in September 1985 and has had great success since then. What made the difference?

Several factors have contributed to the success of the new Los Angeles chapter. Continuity of leadership and dedication of the elected officers is one factor. Each of the chairpersons has served for more than one term and that has given continuity to the meeting programs. Also, the board has been expanded to spread the activities among several individuals. Meetings are now held in one convenient location that is close to a major freeway and has plenty of free parking.

There are hundreds of ASA members living in Southern California, representing many disciplines of acoustics. To reach these members the chapter has expanded its mailing of meeting announcements to all ASA members in the region. To be a member of the chapter an individual does not have to be a member of the ASA (although ASA membership is encouraged), but must have an interest in acoustics. Membership in the chapter currently stands at 48 individuals with an additional 6 corporate sponsors.

To accommodate the diverse interests of the members, the

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We hear that . . .

During the recent annual meeting of the ASME, Stephen H. Crandall, Ford Professor of Engineering Emeritus at MIT, received the American Academy of Mechanics Medal for Distinguished Service to the Field of Theoretical and Applied Mechanics.

Oscar Bryan Wilson, Professor Emeritus of Physics at the Naval Postgraduate School in Monterey, CA, received the Médaile d’Argent from the Acoustical Society of France. Wilson is writing a second edition of his *Introduction to Theory and Design of Sonar Transducers*.

Richard J. Peppin, President of Scantek, Inc. received the Wallace Waterfall Award at the fall meeting of the American Society of Testing Materials’ Committee E-33 on Environmental Acoustics. The award is presented for outstanding contributions to standardization in acoustics.

At the recent meeting of the National Hearing Conservation Association (NHCA), three ASA members were recognized. The Award for Outstanding Contributions to the Field of Hearing Conservation was presented to Henning E. von Gierke, The Michael Beall Threadgill Award for Outstanding Service to NHCA was presented to Andrew P. Stewart, and Elliott H. Berger received the Outstanding Lecture Award.

Cambridge meeting to be a grand affair

Details of the upcoming Sabine Centennial and other aspects of the Cambridge ASA meeting have been featured in recent issues of *Echoes*. At press time, a few additional items have come in that are definitely worth mention:

Biggest ASA meeting ever

A total of 1160 abstracts has been received. This is about 200 more than any previous ASA meeting. As many as 1500 people may attend, so anyone who has not yet made reservations for accommodations should hurry to do so.

Awards

In addition to the medal presentations, Honorary Fellowship will be bestowed upon Leo Beranek. This honor is given to persons who have attained eminence in acoustics or rendered outstanding service to acoustics, whether or not they are members of ASA. Leo joins 11 others who have been so honored, the first of whom was Thomas A. Edison in 1929.

Fellows luncheon

For the first time ASA is hosting a luncheon for its Fellows, both old and new. Any of ASA’s approximately 800 Fellows are invited to the Sala de Puerto Rico in the MIT Student Center on Thursday, June 9, from 12:15 to approximately 2:00 pm. In addition to socializing and lunch there will be a short program. A nominal fee will be charged.

Hearing tests to be provided

Audiometric tests will be available free to registered meeting attendees and to the general public on a first-come-first-serve basis, Thursday, June 9, from 9:00 am to 3:00 pm. The tests are part of the plans developed by the Technical Committee on Noise to enhance ASA’s role in “Public Awareness of Noise and Noise Hazards.” The hearing tests will be provided by Health Testing Services, with CAOHC-certified staff supervised by a certified audiologist, and will be conducted in a mobile van located near the Kresge Auditorium. Look for information about this opportunity at the meeting registration desk.

Architectural acoustics applications exhibit

The National Council of Acoustical Consultants (NCAC) is sponsoring an exhibit during the Sabine Centennial and the ASA and NCAC meetings, which will follow immediately. The poster exhibit will involve architectural acoustics applications in a wide variety of listening spaces, applauding principles first investigated by Wallace Clement Sabine at Harvard in the late 1800s.

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Bob Beyer retires after two decades as ASA Treasurer

Robert T. Beyer retired recently after 20 years as Treasurer of ASA. He has been succeeded in that post by William W. Lang. Beyer has served the ASA for more than four decades, as an Associate Editor of the Journal, member of the Executive Council, Vice-President, then President, and, since 1974, Treasurer. ASA has acknowledged his contributions to the Society and to the field with Fellowship, the Distinguished Service Citation, and its highest honor, the Gold Medal in 1984.

In addition to the time and energy he has devoted to the ASA, and, of course, to the students and faculty at Brown University, Beyer has been active in other societies and they have recognized him as well. He is also a Fellow of the American Physical Society, the IEEE, and the AAAS.

Among the many accomplishments in his long and illustrious career are the publication of numerous books and articles, including: College Physics in 1957 (with A.O. Williams, Jr.), Physical Ultrasonics in 1969 (with S.V. Letcher), and Nonlinear Acoustics in 1976. Perhaps he is best known for his prodigious translations of physics and acoustics books and journals, first from German, and later from Russian and even Chinese.

Bob Beyer may have retired as ASA Treasurer, but he is still active within the AIP, and ASA will, no doubt, continue to use his expertise for years to come.

Music Critic’s Institute to take place

A first-ever Music Critic’s Institute is planned around the Sabine Centennial Meeting, June 5-7. Fellows of the Institute will be selected from among applicant-members of the Music Critics Association (MCA) by its officers. A number of MCA Fellows will participate as observers in the Sabine meeting, attending music and architectural acoustics-related events, including the Boston Symphony and Tokyo String Quartet performances, lectures on architectural acoustics science and history, and the Sabine Spaces and Places tour. Some may stay for the full ASA program, including musical acoustics papers on Thursday and Friday. The music critics will have a temporary headquarters at the ASA meeting and will meet one-on-one with acousticians, providing an opportunity for mutual education and cooperation.

Music critics can be influential as opinion leaders and public communicators in the assessment and interpretation of concert hall acoustics. Because of their large audience, they can play a vital role in promoting either acoustical superstition or fact. For these reasons, among others, the acoustical education of music critics is of some importance both to the architectural acoustics and music communities.

ASA member David Lubman has been arranging the details of the Institute with music critics Wes Blumster of the Denver Daily Camera and Carol Ann Bottino, freelance music critic from Lexington, Massachusetts. Lubman has succeeded in obtaining seed-money to fund the Institute from an anonymous west-coast music philanthropist.

ASA and AIP

Patricia Kuhl recently joined other ASA members Charles Schmid and Dick Stern on the Governing Board of the American Institute of Physics (AIP), replacing Murray Strasberg who has retired from the Board after more than 10 years of service.

The AIP’s Governing Board is comprised of representatives from each of the 10 member societies. It normally meets twice a year to conduct AIP business and discuss actions taken or recommended by its Executive Committee, to which Charles Schmid was recently elected. There are several other AIP committees on which ASA members sit. For example, Elaine Moran is ASA’s representative on AIP’s Committee on Services to Societies, and Wayne Wright was recently appointed to the Committee on Physics Education.

Some members may not know that the ASA is one of the charter “member societies” of the AIP and that the AIP does quite a bit to help us run our Society. The AIP publishes and distributes copies of our Journal and most other ASA publications at cost, along with copies of Physics Today. AIP staff fulfills our subscriptions, collects our dues, and administers the salaries, health insurance, and pension plans of ASA employees.

The AIP also provides many other services of general interest to scientists and engineers, such as maintaining the Center for the History of Physics, providing information on government activities, and developing publicity for science.
Regional Chapters

Some tips to try out

- Chapters could initiate programs to help communities with their noise problems. They could, for example, go to schools, talk to the students about noise, and lend them inexpensive sound level meters.
- The Northwest Chapter is co-sponsoring a meeting (with the ASA and several other organizations) to educate local citizens about airport noise, its measurement, effects, and mitigation.
- At a Midwestern university, letters have been sent to highschool students inviting them to visit the university’s laboratories.
- Some chapters have different dues categories for different levels of membership. For example, the Washington D.C. Chapter has Commercial Members whose dues are $85 per year and Life Members who pay a one-time membership fee of $75. The Georgia Chapter charges Corporate Members $30 per year, Regular Members $10, and Student Members $5.

Tips from ASA’s National Office

- Remember that regional chapters may receive funds from ASA for certain chapter activities. ASA will contribute (per chapter, per year) up to $200 for local high school science awards and the same amount to support activities and awards intended to stimulate participation by college and university students in the Society. ASA will also provide up to $500 in start-up funds to help new chapters and will reimburse chapters up to $500 for the expense of obtaining out-of-town speakers. Chapters are required to subsidize 20 percent of the total expense for out-of-town speakers.
- New chapters are encouraged by the Society, but all chapters must have a charter and bylaws that are approved by ASA’s Executive Council.
- At least half of the regional chapter’s officers must be ASA members in good standing.

Some general pointers

- It helps to have meeting places that are conveniently located for the majority of members with plenty of parking (preferably free).
- Dues should be relatively inexpensive.
- Programs in acoustics that are of good general interest usually attract the most attendees. Examples would be the L.A. Chapter’s programs on spacecraft acoustics and Balinese/Javanese music.
- Coordinating meetings with other groups, such as Sigma Xi, can work out well. For example, the Cincinnati Chapter gave the same program on elephant communication in conjunction with the Cincinnati Zoo. Audience size ranged from under 50 to over 70; audience size broke a record for the Cincinnati Chapter.
- Energetic, imaginative, and dedicated officers and board members are essential.
- Further information may be obtained from Julia Royster, Chair of ASA’s Committee on Regional Chapters, (919) 782-1624.

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officers decided that the range of topics presented at the monthly meetings needed to be expanded. This was a challenge, but the results have increased meeting attendance. Here are examples of some of the programs from the past few years:

Infrasonic communication in elephants, Dr. William Langbauer, Cornell University
Self protection in the frog auditory system, Dr. Peter M. Narins, UCLA
Making Waves, Prof. Isadore Rudnick, UCLA
Spacecraft acoustics, Dr. Carol Tanner, The Aerospace Corp.
The performing arts: Whither and where, Mr. Paul S. Veneklasen, Paul S. Veneklasen and Associates
Techniques for classical music recording (Recording the Bolshoi Ballet Orchestra), Ronald Streicher, Pacific Audio-Visual Enterprises
Bodies and Bodhis: The cosmological basis of Javanese and Balinese aesthetics of sound, Dr. Sue DeVale and students at the Department of Ethnomusicology and Systematic Musicology, UCLA

The success of the program of speakers has been in the chapter’s use of the diverse expertise and interests of the ASA members in the Los Angeles area, and the use of the financial support ASA provides to the regional chapters to bring in speakers from other regions. Through its monthly meetings the Los Angeles Chapter is accomplishing its goal of reaching ASA members and others interested in acoustics.

The North Carolina Regional Chapter has had great success with both one- and two-day biannual chapter meetings in which lectures on current acoustical topics are presented. For example, the Chapter held an all-day meeting in the Blue Ridge mountains last fall at a Victorian-era hotel. The meeting was planned for a Friday so most of the participants remained for the weekend. The program included sessions on psychological/physiological and engineering acoustics, and a guest speaker who explained and demonstrated Appalachian musical instruments. Funds were contributed from ASA’s National Office for the reimbursement of student travel expenses and for the guest speaker. The attendance was excellent, higher than for some of the other meetings that took place in more accessible locations.

But perhaps the chapter’s greatest accomplishments lie in its long history of involvement in student scholarship activities. Each year the chapter makes available a $150 award to a student or students who enter a project related to acoustics in the North Carolina Junior Academy of Science’s state-wide competition. The award can go either to a single participant or may be divided into a single or three equal awards. The subject area of a recipient’s project must be found on ASA’s acoustics classification (PACS) scheme.

The chapter also has three $750 yearly endowed scholarships for graduate level students. The scholarships are

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Sounds like fun: Acoustics on display at Discovery Museum

The DISCOVERY MUSEUM in Acton, Massachusetts, offers some acoustical fun for children and their parents alike. Pictured here is the “Slap-a-phone” sculpture, made out of 26 plastic sewer pipes, ranging in length from one and a half feet to more than 20 feet. You play it by slapping the pipe ends, which look much like the ends of exhaust pipes in the picture.

The keys, covering two chromatic octaves, are arranged in an arc. They ascend in tone from left to right on the bottom row, but, unlike an ordinary keyboard, from right to left on the top row. This arrangement lends a visual balance to the sculpture. Because the keyboard stretches 8 feet from one end to the other, it is best for duets and trios, or a very energetic solo musician. The Slap-a-phone was developed by Sommerville artist Arthur Ganson who, incidentally, also plays the violin. It was commissioned as a memorial to museum staff-person Andy Appleton.

Other exhibits of acoustical interest include the “Air Harp,” consisting of 15 floor-to-ceiling light emitters and light beams, which send signals to a MIDI synthesizer. Each beam corresponds to a different musical note. Music in a two-octave major scale can be played by dancing through the light beams. The music varies from harp sounds to drum noises, depending on how the synthesizer’s controls are set.

There is also a “Xylocoaster,” in which a little car rides on a 12-foot track of aluminum sounding tubes. The car drags a striker behind it, playing a song.

The museum consists of two buildings: the Children’s Discovery Museum geared to children age 6 and under, and the Science Discovery Museum for children age 6 and above. The hours are Tuesday, Thursday, and Friday from 1 to 4:30 pm and Saturday and Sunday from 9 am to 4:30 pm. On Wednesday the Children’s museum is open from 9 am to 4:30 pm and the Science museum is open from 1 to 6 pm.

The museum is easily accessible from Porter Square in Cambridge on the commuter rail line. Get off at Acton, walk to the top of the hill, turn left at the music store, and walk 100 yards. For those driving, it is located on Route 27 in Acton, 1 mile south of Routes 2 and 111. Admission is $5 per person per building. For further information call (508) 264-4200 or 4201.
Regional Chapters—endowed by: (a) the chapter, (b) Larry and Julia Royster, and (c) the Cabot Foundation. Standard scholarship application and reference forms are available from the chapter to all interested parties. All of the scholarships have one common requirement: if requested, students must present their research findings at a meeting of the chapter.

The chapter’s directly endowed scholarship is offered to students attending a university department where a faculty member is active in the chapter’s biannual meetings. The faculty member must have attended three of the past six chapter meetings for the student to be qualified to apply for the scholarship.

The Larry and Julia Royster endowed scholarship is offered to graduate students in certain departments at North Carolina State University and the University of North Carolina. The student’s research must be in an area related to hearing conservation and must be focused on solving an existing, real-world problem. Emphasis is placed on the student’s potential to produce findings that are publishable in a peer-reviewed journal.

The Cabot endowed scholarship is limited to graduate students attending the Department of Mechanical Engineering at North Carolina State University. The student’s research interest must be in hearing conservation with emphasis placed in hearing protection and noise control.

The total endowment for these scholarships is approximately $40,000 and additional scholarships are being developed. The development of student financial awards and the encouragement of student participation in the acoustics community are long-standing goals of the North Carolina Chapter. The program’s success is largely due to the commitment of a core of chapter members who have continued to monitor and maintain the scholarship program over the years.

The Los Angeles and North Carolina Chapters are different, yet in many ways the same. The differences lie in their history and the various ways they serve their region. The similarities, as in every successful regional chapter, lie in the dedication and commitment of the chapter members.

ABOUT THE AUTHORS
Jim Du Bois is the Regional Representative for the Los Angeles Chapter. He is currently Director, Energy Industry Marketing, for Acentech Inc. He recently retired from Southern California Edison where he had supervised noise, vibration, architectural design, and maintenance engineering groups. He has been an ASA member for over 25 years.

Larry Royster is the Regional Representative for the North Carolina Chapter, which he was instrumental in founding about 25 years ago. He is Professor of Mechanical Engineering at North Carolina State University, where he teaches courses in the effects and control of noise and vibration, and the vibration of plates and shells. He has been an ASA member for more than 30 years.

Miscellaneous Soundings

Demonstrations in Acoustics at AAAS

ASA members presented an afternoon of acoustics demonstrations at the recent American Association for the Advancement of Science (AAAS) meeting in San Francisco. The symposium, entitled “Acoustics: Sound of Science and Science of Sound,” was organized by Anthony Atchley (Naval Postgraduate School—NPS) and Logan Hargrove (Office of Naval Research) as an educational outreach of the ASA Committee on Education in Acoustics. The demonstrations were presented by Robert Keolian, Andres Larrazza, and Anthony Atchley from the NPS Physics Department, and James Sabatier and Henry Bass from the University of Mississippi’s National Center for Physical Acoustics and Department of Physics and Astronomy. Steve Baker from NPS also played a substantial role in the demonstrations’ preparation but was unable to attend the AAAS meeting.

During the three-hour session the group presented over twenty demonstrations, including well-known classical phenomena, such as the flaming tube, Chladni plates, and waves in bars. Demonstrations of forefront research areas included nonlinear and chaotic vibration, the thermoacoustic prime mover, and acoustic levitation. The demonstrations were aimed at a general audience, not just the acoustics specialist, and were intended to entertain as well as educate. The final hour of the symposium was set aside to give the approximately 65-person audience an opportunity for hands-on experience with the demonstrations. Further information on the session may be obtained from Anthony Atchley at (512) 835-3792.

Earlier on the same afternoon Steve Garrett, also from the NPS Physics Department, presented a Topical Lecture entitled “Thermoacoustic Refrigeration: A CFC Alternative.” Both ASA participations were facilitated by Logan Hargrove, the ASA’s representative to the AAAS Physics Section.
Violin octet goes to Russia

In mid December 1993 a crew from Public Television in St. Petersburg arrived at 112 Essex Avenue in Montclair, NJ, the headquarters of the Catgut Acoustical Society and the laboratory and workshop of acoustician / violin maker Carleen Hutchins. They came to film a documentary on Hutchins’ life and work, having become interested in doing so through contacts with Dr. Marina Meleshkina, a specialist in the acoustics of the Russian language.

In addition to Hutchins, the crew taped interviews with a number of her colleagues, including ASA members Joan Miller, Gabriel Weinreich, and Oliver Rodgers. They also taped interviews with several musicians who demonstrated and discussed the violin octet instruments. The TV crew and Meleshkina became so excited about the new instruments that Hutchins agreed to send a full set of the octet on loan to St. Petersburg. There they will be used in concerts and studied at the Conservatory of Music.

The violin octet consists of eight new instruments of the violin family, designed acoustically to have the two biggest resonances (the “main wood” and “main air” resonances) to be within a semitone of the two open middle strings, as they are within the violin itself. The octet is designed to carry the clarity and power of the violin to tone ranges beyond that of the ordinary violin. This is in contrast to the blending qualities of the viola, cello, and string base, beautiful though they are. The result is an instrument with violin sound at each half octave over the range of written music. A detailed discussion of the octet’s development, authored by Carleen Hutchins, may be found in the August 1992 issue of the Journal (vol. 92, no. 2, pp.639-650).

Six sets of the violin octet are currently in existence. Two sets have been purchased: one by the Stockholm Music Museum and one by the University of Edinburgh’s Music Department. One set has been donated to the Metropolitan Museum of Art in New York City, where the instruments may be played on request. A fourth set has been loaned to the University of South Dakota’s Shrine to Music Museum in Vermillion, SD, and the fifth set has been sent to Russia. The sixth resides at 112 Essex Avenue in Montclair.

Group to advise on noise & animals

The Executive Council has approved formation of an ASA Advisory Group on Noise Effects on Animals to be chaired by William Cummings. The group’s composition will be: William Cummings and Ann Bowles from the Animal Biocoustics Technical Specialty Group, Homer Bucker and Leroy Dorman from the Underwater Acoustics Committee, John Potter from Acoustical Oceanography, and two ex-officio members from U.S. Government agencies: Carol Fairfield of the National Marine Fisheries Service’s Office of Permits, and an as yet unnamed representative from the Marine Mammal Commission.

The group’s mission will be to study regulatory issues that may affect scientific acoustical research, which, in turn, may affect protected or endangered animals. This mission applies to all such animals, not just marine mammals. The group will develop technical definitions, guidelines, or perhaps eventual standards to be included in regulations, which will be offered to scientists, administrators, and policy-makers. All activities will be carried out strictly for scientific purposes, not to further the interests of any specific group or project.
The "Phenomena" section of the April 1994 issue of Technology Review included a short article, "As far as the ear can see," about virtual acoustics. A display designed at the University of California, Santa Barbara, would enable blind people to navigate strange cities by listening to computer generated cues through earphones. Earlier, in the January 1994 issue, Phenomena carried a short piece on hearing aids designed for man's (and woman's) best friend, the dog. In "His master's voice," the author cites the development at Auburn University of a hearing aid attached by Velcro to the dog's collar, with a plastic tube leading to the ear. Predictably, it takes at least a month of training for the dog to adjust to the device.

The "Random Samples" section of the January 21, 1994 issue of Science ran an article entitled "Designer cattle with ultrasound," reporting on the use of ultrasound to detect the amount of fat in the ribeye muscle of living cattle. This way the cattle can be branded "prime," "choice," or "select" before they reach the slaughterhouse. In the February 11 issue of the same section, a piece entitled "Do whales speak in many tongues?" described the acoustic signals emitted by whales. Biologists studying the sequences of clicks and pauses called "cadas" emitted by sperm whales believe that these sounds are more like language than the songs of other whales.

A short article, "Stove efficiency leads to reduced air pollution," carried in the January 1994 issue of ASME News, discussed the development of a pulse combustor retrofit for residential wood stoves. As many as 28 percent of U.S. homes use wood as a fuel source. The pulse combustor retrofit uses an acoustic after-burner to increase fuel-burning efficiency, greatly reducing unburned hydrocarbons and particulates. Produced by Manufacturing and Technology Conversion International Inc. in Baltimore, the retrofit is expected to be available as a cost-effective product within three years.

The saga of the New York / New Jersey citizens’ problems with aircraft noise was continued in the January 26, 1994 “Business Day” section of The New York Times. In an article entitled "Air war erupts over a plan to reroute Newark flights," reporter Todd Purdum recounted how a plan, drafted by the New Jersey Coalition Against Airport Noise and under study by the Federal Aviation Administration, was raising the hackles of many New Yorkers. The plan would direct flights currently taking off over northern New Jersey communities, first over the ocean and then over several counties on Long Island. Although the planes from New Jersey would fly over New York at altitudes higher than 10,000 feet, New Yorkers contend they would interfere with existing traffic patterns around Kennedy Airport and cause more noise for already impacted Long Island residents.

Last September, ASA member Laura Wilber was interviewed for a TV program on noise pollution. The interview took place outdoors in suburban Chicago and, conveniently, an airplane flew over during the filming. Later in the fall the program was aired on the "NBC Nightly News" and the "NBC Sunday Show," and in January 1994 it was featured on United Airlines’ "NBC News magazine in the Air."