AUSTRALIAN GROUP STUDIES SOUND LEVELS PROBLEM

Australian surgeon Hunter J. Fry writes to tell us about the Performing Arts Medicine Society and to share his thoughts about the problems of sound-induced hearing loss. Dr. Fry will participate in a panel discussion on medical problems of musicians, a feature of the 1985 ICSOM conference.

The Performing Arts Medicine Society was formed late in 1983 as a section of the Australian Medical Association in Victoria, Australia. The aim of the society is to study the occupational maladies of performing artists, of which dancers and musicians form the largest groups. As it happens, all the doctors on the committee are themselves musicians, two of them professional and the others amateurs. While a good deal of knowledge had been gained about ballet injuries, there was no equivalent for music as interest was new. The committee decided that a survey should be carried out at two levels: first at tertiary (university) music schools and second among performing musicians from symphony orchestras. Regular clinics were held at two university music schools. To date, eight tertiary music schools and six symphony orchestras, the Los Angeles Philharmonic being the most recent, have been surveyed.

An unexpectedly high incidence of overuse injuries was found; these were similar to those produced by key punching, use of word processors, and other repetitious types of activity in industry. These were directly attributable to the excessive repetitious muscular activity and static muscular and ligamentous loading involved in music-making. Such injuries are largely preventable. Once they occur, the outlook for the musicians (university students particularly) was greatly worsened if they kept practicing. Total avoidance of all pain-inducing activities was the only treatment that worked. Unless this was done, lesions could lapse into a chronic unhealed state, persisting often for years. We believe that an urgent education program is required with the aim of preventing this unfortunate situation. Our publications to date have been largely in music journals for that reason.

Sound-Induced Hearing Loss

As a doctor and a music lover, I put forward a plea that the term “noise-induced hearing loss” be abandoned. Sound is the general term, and the symphony orchestra makes some of the loveliest sounds we know. There are some sounds we do not like, and noise is the worst kind of sound, “the garbage of sound,” the by-product of factory operations and the like. When the term was originally coined in Britain, it was noise that was causing deafness in this situation. The musician produces sound, and excessive volumes of even this lovely kind of sound can produce auditory overload.

Volume levels have grown during music performance history. The “big sound” was established in Beethoven’s time. Mahler and Richard Strauss wrote on an even larger scale. Today some composers write for (literally) a double orchestra. Concert halls today require a big sound for large audiences. That music listeners seem to want a big sound is apparent from the sound equipment music lovers buy for home use. Small groups of mus-

sicians playing popular or rock music are now amplified so much that they may be unable to monitor their own playing.

Is sound level really important? Is the acute discomfort some people feel from loud music related to ear damage? Is damage possible though high sound levels are tolerated? Our survey evidence indicates that, except for the third question, the answer is yes. It’s important to separate discomfort, which may be almost intolerable, from damage, which may occur unrecognized. The two may coexist or they may exist separately. The medical literature in the last 10 years abounds with verified reports of inner ear damage from high sound levels. Auditory perception is blunted and impaired for communication as well as for music, and physical capacity is reduced.

Overuse injury is brought about by exceeding the upper biological tolerance of living tissues. All our tissues have such an upper limit which is genetically determined and which varies in individuals. However, the tissues of even the most genetically robust individual will break down if the stress is great enough. There are many common examples. Excessive light may cause damage to the lens of the eye or even to the retina. If a muscle group pulls too hard, or if gravity loading is excessive, a bone may break. Skin stressed too much will give way. A muscle which is overused may break down, causing pain and loss of strength. Ligaments holding bones together may break down under excessive load and become painful. Damage due to excessive sound levels falls into the category of overuse injury.

There are several options for dealing with this problem.

• Sound levels can be reduced by reducing the size of the orchestra. This lessens the problem but does not eliminate it. For artistic reasons, this option is unlikely to be developed.

• The brass can be placed on risers to spare the musicians who sit in front of them. This is commonly done.

• Deflecting baffles can be used to modify sound transmission and cut out extremes of sound levels.

• Personal baffles behind the players head may give considerable protection. Although musicians might at first find them cumbersome, such baffles have some promise and deserve development and fair trial.

• The most exciting possibilities lie in modification of the auditory signals to the individual musicians. Auditory signals reach the musician, (or any listener) by air conduction and bone conduction (through the skull itself.) Simply blocking the ears (and therefore air conduction) demonstrates clearly that air conduction, not bone conduction, is responsible for the transmission of high sound volume. If technology were developed to modify the sound passing through the ear canal to the ear drum in an appropriate and suitable way, the problem could be solved. There is absolutely no reason why this cannot be achieved. Two types of modifications are possible.

The first is passive sound modification. A filter must be fitted to the external ear to reduce the level of incoming sound in such a way as to preserve quality and balance. The musician must still be able to hear the orchestra, hear the conductor in rehearsal, and monitor his own playing. This technology will not be developed unless there is expression of concern from the

(Continued on Page 2)
SOUND LEVELS (Continued from Page 1)
musicians, a willingness to adjust to the new situation, and understanding of the need for damage prevention. Ear plugs are the forerunners, now increasingly used. The ear plugs of the future will not reduce low volume transmission but will respond to greater volumes of sound in proportion and without loss of quality.

Active sound modification would involve sending idealized input to each ear. Small headphones would delete external sound and provide, say, the orchestral sound heard from the conductor's podium in one ear and the player's own sound against the orchestral background in the other. Separate volume controls for the two sides would be required.

The time has come for the development of this technology. The impetus for this should be the recognition and acceptance of the real risk of auditory overuse injury while playing in a symphony orchestra. There is no theoretical barrier to solving the high sound levels problem. We hope to see the necessary technology develop.

Hunter Fry, M.S., I.R.C.S., F.R.A.C.S.

ICSOM OFFICER PROFILES
or
WHO ARE THOSE PEOPLE, ANYWAY?

FREDERICK ZENONE, ICSOM CHAIRMAN
Frederick Zenone has been ICSOM chairman since 1980, having served two years as Eastern area vice-chairman and two years as ICSOM vice-chairman. A graduate of Indiana University, Fred has been a cellist with the National Symphony Orchestra since 1969 and plays with other NSO members in the Euterpe Chamber Players. He was a member of the orchestra panel of the National Endowment for the Arts from 1980 to 1983, assuming the position of co-chairman in his final year. When time allows, Fred indulges his passions for tennis and for fly fishing. He and wife Pat have three sons and recently became grandparents for the first time.

MELANIE BURRELL, ICSOM PRESIDENT
Cellist with the Denver Symphony since 1964 and Denver's ICSOM delegate since 1971, Melanie Burrell has been active on many DSO committees and negotiating teams and is secretary and trustee of the orchestra's jointly administered retirement fund. She served as ICSOM treasurer in 1983–84 following eight years as Western area vice-chair. Melanie received her B.A. from Vassar and also studied at Juilliard, Kansas State, and the Mozarteum in Salzburg. She and husband Charlie, a bassist with the DSO, combine a family of eight children. Gardening, refinishing antiques, doing needlework, and spending time in her mountain shack retreat are her favorite activities.

NANCY GRIFFIN, SECRETARY
Bassist with the Seattle Symphony Orchestra since 1961, Nancy Griffin received her B.A. from the University of Redlands. A student of James Vivell of the Chicago Symphony and of Georges Morieux at the Berkshire Music Center, Nancy has played with the Northwest Chamber Orchestra, the Carmel Bach Festival Orchestra, and at other music festivals. She has been a member and chairperson of the Seattle Symphony committee and an ICSOM delegate from 1975 until 1980, when she became ICSOM secretary. Since 1982 she has been a member of the NEA orchestra panel. Nancy has two daughters, both in college, and is an avid animal lover, training dogs—and tortoises!

PENNY ANDERSON, TREASURER
Penny Anderson is a graduate of Smith College and the Juilliard School. She held a teaching scholarship in viola at Juilliard while substituting at the Metropolitan Opera and subsequently taught at the Oberlin Conservatory for two years. Violist with the Pittsburgh Symphony Orchestra since 1980, she also performs as a member of the Pittsburgh Quartet. Penny has been the Pittsburgh ICSOM delegate for three years and has been an active member of the PSO orchestra committee and chairman of the players committee. She is also on the board of the Pittsburgh chapter of the American Civil Liberties Union. A nationally ranked distance runner in high school, Penny now enjoys running, back-packing, and hiking in her spare time.

TOM HALL, EDITOR OF SENZA SORDINO
Tom Hall received all his formal music education in his home town of Tallahassee, earning two degrees in violin performance at Florida State University. Following a stint in the US Army Strings, he played with the Cincinnati Symphony for a season before joining the Chicago Symphony in 1970. He was a founder of the Meridian String Quartet and a long-time member of the Chicago Arts Quartet, and he has served regularly on the CSO members committee and audition committee. Senza Sordino editor since 1982, Tom collects minerals, stamps, coins, paintings, and art glass.

Photos of Fred Zenone and Tom Hall by Barbara Cotell, Washington, DC; photo of Nancy Griffin by Hank Kranzler, Seattle WA; photo of Melanie Burrell by Important Occasions Photography, Denver CO; photo of Penny Anderson by Richard Field, Baltimore Symphony Orchestra.
FEEDBACK

I recently conducted a thorough review of the many letters I have received during the last three years, of my survey of delegates at annual conferences, and of my surveys of subscribers at the time renewal notices were sent out.

During this process I was often reminded of an incident at a Chicago Symphony recording session. During playbacks, conductor Daniel Barenboim was constantly approached by principals from the orchestra expressing concern that they or their sections could not be sufficiently well heard. Barenboim finally announced to everyone in the room, "When the woodwinds tell me the strings are covering them up, and the strings complain that the brass are too loud, and the brass say their solos aren't cutting through the other winds, I know I have found the right balance!"

Well, I'm not sure I have found the right mix and treatment of topics in Senza Sordino, but I do find that what some enjoy others would just as soon do without. For example, there are conflicting requests for more and fewer humor and color articles; more and fewer individual success stories, human interest articles, and personality sketches. Many readers express appreciation for the variety of topics we address.

Most persons (but not all) want ever more information about orchestra management-labor relations, contract negotiations and settlements, grievances, benefits, salaries and working conditions. Such information is especially desired by ROPA and other non-ICSM orchestra members. A professor of arts administration and labor relations assures us our newsletter is an important and highly credible source of such information. One journalist would welcome an entire issue devoted to the chart of wages and working conditions; we used to do that, but the AFM now provides a very comprehensive chart which would be pointless to duplicate in Senza Sordino. One reader prefers more Denver-type news; would that we had more such stories about successful cooperative management-labor negotiations!

A topic which many readers ask us to address is professionally related health and medical problems, especially sound-induced hearing loss and the use of beta-blockers; we have responded by supplying much coverage this season. There seems to be an increasing interest in quality-of-life issues and not just in bread-and-butter, dollars-and-cents labor issues.

A librarian subscriber makes the excellent suggestions that ICSOM arrange for some central storage and preservation of its archival materials.

One reader urges that ICSOM become more independent within its affiliation with the AFM and asks if we "have the guts to move that way." No doubt ICSOM relations with the AFM will come under scrutiny at the annual conference, which will focus on musicians' representative organizations.

A professional journalist suggests we offer more debate, showing both sides of management-labor issues. We have moved more in this direction and away from the one-sided polemics of several years ago which bothered a number of readers, delegates, and ICSOM officers. A few years ago, one orchestra manager wrote to assure me that "not all management people are hostile to ICSOM!" I believe we now present a more mature posture.

Often readers ask for some things we simply are not chartered to or able to provide. Why not have ads? We used to, believe it or not, but we presently consider it inappropriate to offer space to commercial enterprises. To our Canadian subscri-
SETTLEMENT SUMMARIES

Settlements are reported in greater detail in the ICSOM bulletins which are sent immediately to member orchestras; basic summaries and interesting new provisions are noted in Senza Sordino. Orchestras are encouraged to file bulletins as a basic source of information.

In the face of a threat to disband the orchestra, Phoenix Symphony Orchestra musicians agreed in June to extend current salary levels unchanged for another year, postponing negotiated increases until the following season.

In delivering its ultimatum to the musicians, the symphony board withdrew an earlier offer agreeing to develop a mutually acceptable artistic dismissals clause. Instead, the musicians will have an advisory committee to represent them on artistic dismissals, and they have the promise of the music director that no musicians will be put on probation during the 1985-1986 season.

Weekly wages for Phoenix musicians are $450 for 39 weeks this season and next, $500 for 41 weeks in 1986-1987.

INDEX TO VOLUME XXIII (1984-1985)

The index below provides a complete listing of articles published in Volume XXIII of Senza Sordino. In most cases the actual headline is used; where the actual headline is not particularly informative, a more explanatory heading has been substituted or a bracketed explanation added. Some items of minimal length or import have been omitted. Listings are in order of appearance in the newsletter. Settlement summaries appeared in every issue and are not noted in the index.

No. 1 (October 1984)
ICSOM Reorganizes in Louisville [1984 Annual Conference]
St. Paul Chamber Orchestra Joins ICSOM
Ralph Mendelson Prize Awarded

No. 2 (December 1984)

ICSOM Committees
Symphony Softball Highlights
Letter Concerning Use of Excerpt Books at Auditions

No. 3 (February 1985)

ICSOM Major Managers Liaison Committee Meets in New York

No. 4 (April 1985)

A look at Two European Orchestras
Oklahoma, Minnesota Musicians Play for Famine Relief
Psychoanalyst Gives Views on Stage Fright
1985 Music Medicine Symposia Announced
The Association for Classical Music

No. 5 (June 1985)

San Antonio Strike Ends
Preliminary Sound Level Survey Report
Orchestra Solutions to Decibel Dilemma
ICSOM Conference Preview
Committee on Sound Levels Meets in Chicago
New ICSOM Directory Published
ICSOM Legal Counsel Review Settlements

No. 6 (August 1985)

Australian Group Studies Sound Levels Problem
Feedback [Delegate Survey and Subscriber Card Review]
Officer Profiles
“Sight-Reading” Excerpt
Index to Volume XXIII

ICSOM GOVERNING BOARD

CHAIRMAN
Frederick Zenone
National Symphony
2207 Wilson Avenue
Vienna, VA 22180
Phone: (703) 580-3676

PRESIDENT
Melanie Burrell
Denver Symphony
415 Gaylord Street
Denver, CO 80206
Phone: (303) 331-9263

SECRETARY
Nancy Page Griffin
Seattle Symphony
Box 20013
Seattle, WA 98102
Phone: (206) 329-9118

TREASURER
Penny Anderson
Pittsburgh Symphony
3127 Emerson Street
Pittsburgh, PA 15206
Phone: (412) 362-9455

EDITOR, SENZA SORDINO
Tom Hall
Chicago Symphony
2900 Lake Shore Dr., #4001
Chicago, IL 60657
Phone: (312) 217-6939

Bernice Beckerman
Houston Symphony
5242 Indigo
Houston, TX 77096
Phone: (713) 665-4754

Catherine Compton
Detroit Symphony
221 East Boston Boulevard
Detroit, MI 48202
Phone: (313) 869-7367

Michael J. Nutt
Los Angeles Philharmonic
1075 Kenosha Road
Los Angeles, CA 90266
Phone: (213) 977-0222

Donald Whyte
New York Philharmonic
155 West 66th Street
New York, NY 10023
Phone: (212) 799-1096

ICSOS ORCHESTRAS

Alabama Symphony Orchestra
Atlanta Symphony Orchestra
Baltimore Symphony Orchestra
Boston Symphony Orchestra
Buffalo Philharmonic Orchestra
Chicago Lyric Opera Orchestra
Chicago Symphony Orchestra
Cincinnati Symphony Orchestra
Cleveland Orchestra
Dallas Symphony Orchestra
Denver Symphony Orchestra
Detroit Symphony Orchestra
Florida Symphony Orchestra
Great Park Symphony Orchestra
Hawaiian Symphony Orchestra
Houston Symphony Orchestra
Indianapolis Symphony Orchestra
Kennedy Center Opera House Orchestra
Los Angeles Philharmonic
Louisville Orchestra
Metropolitan Opera Orchestra
Milwaukee Symphony Orchestra
Minnesota Orchestra
National Symphony Orchestra
New Jersey Symphony Orchestra
New Orleans Philharmonic Symphony Orchestra
New York City Ballet Orchestra
New York City Opera Orchestra
New York Philharmonic
North Carolina Symphony Orchestra
Oakland Symphony Orchestra
Oklahoma Symphony Orchestra
Oregon Symphony Orchestra
Philadelphia Orchestra
Phoenix Symphony Orchestra
Pittsburgh Symphony Orchestra
Rochester Philharmonic Orchestra
Salt Lake Symphony Orchestra
Saint Paul Chamber Orchestra
San Antonio Symphony Orchestra
San Diego Symphony Orchestra
San Francisco Ballet Orchestra
San Francisco Opera Orchestra
San Francisco Symphony Orchestra
Seattle Symphony Orchestra
Syracuse Symphony Orchestra
Toledo Symphony Orchestra
Utah Symphony Orchestra

COUNSEL
Simon Weisbrot, Harper, Dorn and Leibowitz
300 Madison Avenue
New York, NY 10017
Phone: (212) 867-2100

SENZA SORDINO is the official publication of the International Conference of Symphony and Opera Musicians and is published six times a year on a bi-monthly basis. ICSOM is affiliated as a conference of the American Federation of Musicians of the United States and Canada, AFL-CIO.

TOM HALL, Editor—Mailing address: 2800 Lake Shore Dr., Chicago, IL 60657
Subscriptions: A.F.M. Members $4.00 per year
Non-Members A.F.M. $7.00 per year
Overseas rate $9.00 per year

\$370 Printed by M. Kallis and Co., Chicago, Illinois