OUR DECIBEL DILEMMA

By Henry Shaw

It seems that lately there has been a proliferation of articles addressing themselves to occupation-induced maladies of musicians. Hernias and arrhythmias in horn players; bursitis, tendinitis and "fiddler's ear" in violinists; lingual pains experienced by woodwind players; all plus a sundry assortment of other ailments are documented for our edification. I stopped reading after a British physician, Dr. J. M. Murphy, diagnosed a medical problem as a case of "cello scrotum." A puzzled colleague of the astute doctor observed that "as the cello is normally separated from the scrotum by a few centimeters, the patient either held his instrument in an unorthodox fashion or supplemented his meager musician's salary by sweeping chimneys."

Seriously, in the course of plying our trade we have become well aware of its physical hazards through personal experience or, vicariously, by observing the discomfort of our colleagues. What prompted this article is a problem, for the most part considered no more than an annoyance, but which has some insidious aspects. It affects us the moment the baton descends. Esthetically, it is music: an offshoot and less pleasant aspect can be din and excessive noise. It is in that context that we examine the product spawned by our bows, reeds, and mallets. Stage noise can cause physical and psychological problems while also manifesting itself as the cause of behavioral patterns, the reasons for which we are often not aware. I claim no originality for the conclusion. It is well documented.

The human ear, we told, was meant to provide several basic functions; to be an aid in intercommunication and to serve as a warning system in the case of impending danger. We marvel at its capacity to interpret the slightest sound. However, it is an organ that does not adjust well to maladjustment. In the bright sunlight the eye squints or the lid closes over it. When confronted by a thunderous sound, the ear can only "tie there and take it" allowing one's body and nervous system to fend for itself. It was not built to be at ease with any decibel reading above that of the average dynamic of the human voice.

By way of comparison, a quiet office might register a decibel reading (dBA) of 40. The human voice registers 70 dBA; a passing subway train or ascending jet, 120 dBA. The current standard on occupational noise exposure set by the National Institute of Occupational Safety and Health, a government research agency, limits an employee's exposure to 90 dBA for an eight hour day. The recommendation is designed to preserve hearing. Even that level is claimed to be too high an exposure for that time period and represents a hazard to health and a potential for permanent hearing loss. Also of interest may be the fact that an increase of only 10 dBA, from 90 to 100, for example, registers on the ear as a doubling in intensity.

In 1974, James Meyer, a bass clarinetist with the St. Louis Symphony Orchestra, completed a study entitled, High Noise Levels in Symphony Orchestras. Born out of personal problems as well as general concern for what he recognized as a serious problem, the study documents actual orchestra experiments, results of a telephone survey of noise problems in 15 major symphony orchestras, and discussion and recommendations for improvement. He took decibel readings from his position in front of the tympani and percussion section (2 to 5 feet). Readings of a wide range of dynamics were made of individual instruments as well as combinations of various percussion instruments with tympani. Space does not allow for a detailed account of the findings, however, a tympani roll alone reached 118 dBA peak at 5f, while a combination of bass drum, cymbals and snare drum together registered 137 dBA peak. DBA Peak is the peak intensity of a single sound. Mr. Meyer notes that it was necessary to stop taking readings at 137 dBA peak because his equipment would only record up to 140 dBA peak. The percussionist indicated that a higher orchestral level had yet been reached as his "loudest" sticks had not yet been used. It should be noted that the threshold of pain is 118 dBA to 120 dBA. The government limit on peak pressure is 140 dBA peak, the sound intensity at which an ear drum can rupture. The Meyer study reports that by using a standard method of computation, the 118 dBA tympani roll at the sound sensor may equate to 140 dBA at the drum itself. (Variable factors such as reflection, and cancellation make the 140 an approximate number).

Common complaints of musicians in the various orchestras surveyed resulted primarily from seating musicians too near to sources of high level noise. A report from an orchestra musician stated that "the bass clarinetist is afraid he is going to be deaf; the second clarinetist holds his ears in the loud passages; the second violinists use ear plugs; the bassoons complain to the brass." A musician in another orchestra states that the "second hornist has ear damage and that rehearsals are sometimes disrupted by the disagreements between the horns and percussion." In a Big Five orchestra string players carried out three successful actions against the Society for ear damage, and the entire clarinet and bassoon sections mark all loud passages to indicate where they will put their instruments down and hold their ears. These are but a few examples.

Nervousness, irritability and anxiety were words that characterized some musicians' reactions. In New York, Las Angeles, Kansas City and Denver, problems resulted in the use of ear plugs by many. Complaints were brought to management's attention by Artistic Advisory Committees in various cases.

Although there is a wide range of responses from person to person, the irritation factor in a noise problem is undeniable, while outright physical and psychological damage is more commonplace than one might imagine. The report documents the case of a musician who suffered a ruptured ear drum while sitting in front of the tympani and another who suffered temporary island of hearing loss while sitting in front of a principal trumpet player.

The most chilling example of noise related trauma comes from a bassist in one of the country's premier opera companies. This company performs in a theater where the stage apron juts out over the pit creating an intolerable situation for those players under the overhang. The player likened it to being boxed up inside a speaker enclosure. He accounts his misfortunes beginning in March, 1975
just after a new seating arrangement was ordered and the basses were placed under the ledge over the pit. The reverberation from low pitches can be extremely damaging to the inner ear. He writes of the nausea and stomach problems which eventually led him to try ear plugs to no avail. He became increasingly nervous. Hearing in his left ear began to “cut out,” and the ears became painful and filled with fluid. A week later hot and cold flashes ensued and he would shake uncontrollably.

He continued to work, and during the performance of a particularly loud opera, he experienced the most extreme reaction of all; dizziness, shortness of breath and a sensation of pulsing and swelling in the head. Once at home and in bed, he shook violently and experienced buzzing and ringing sounds and sharp pains in the chest. Needless to say, he resigned himself to the care of a physician. Similar responses to those just described are attested to and discussed in Noise, Hearing and Cardiovascular Function, a report by Samuel Rosen, Consultant, the Mount Sinai School of Medicine, New York, and the New York Eye and Ear Infirmary.

There have been many studies made relating to noise levels to the consequent amount of ear damage possible. There is a strong indication that projected exposure will cause permanent ear damage. Since one must account for individual differences, the damage will vary. Noise is a long range cumulative stressor. The evidence of stress related illness due to noise is impressive but still insufficient and inconclusive. More study is essential. The National Institute of Occupational Safety and Health behavioral research team wishes to pursue this research. Unfortunately, absolute proof requires that individuals become, sick, go deaf or die so scientists can then determine what it was that injured or “did them in.”

The Meyer study indicates that the use of ear plugs by musicians may be more extensive than most musicians, conductors or management personnel might suspect. This fact, plus the negative affects on body and mind, as well as the resultant effect on player morale can only affect the musical product adversely. Obviously the problem of high level noise can not be solved by playing everything at a $f$ level; however, we must show concern and try to alleviate such problems when they exist. It is inhumane to dismiss noise related problems as an occupational hazard. One of the difficulties in dealing with high noise level in the orchestra is the variance in how it affects individual players. Perhaps too many treat it as a tolerable annoyance. Perhaps there is a reluctance to make waves over the issue. To the complacent we would suggest an emphatic response toward colleagues who have a tolerance problem with vocal support where needed. Indeed, one would think that self interest alone would dictate that every musician show concern for a situation suggesting physical damage masked by little pain.

NIOSH standards relate to noise levels that are constant over periods of from 2 to 8 hours a day. It is difficult to relate these standards to the symphony orchestra, for decibel range varies greatly over the span of an orchestra service. In addition, our work day does not span a long time range. What is needed is more study on impact noise and its long range effect upon us.

To a degree noise problems appear to be preventable in various ways. The Meyer report suggests the use of vertical and horizontal distance; that is, the placing of percussion and tympani on risers so that sound is projected over the musicians as well as providing a reasonable amount of distance between these instruments and the musicians who sit near them. A sound inhibiting surface on the floor in front or in back of the brass section can diminish deflected sound.

Long range, acousticians must be made aware that in the construction of our “art palaces” it is not sufficient to think only of the impact of sound upon the audience, but on those who produce the sound as well. This means that crowded and ill-planned orchestra pits are to be avoided and that musician input into planning be seriously entertained. The maintenance of an orchestra’s highest musical standards, and its morale, is in part dependent upon the comfort and physical well-being of its members.

LETTERS TO THE EDITOR

We have learned that Kirke Walker, violinist with the Minnesota Orchestra, frequently an ICSOM delegate and a loyal contributor to the columns of Senza Sordino, has recently suffered a heart attack. He is well on his way to recovery and we extend to him our best wishes. Whatever damage Kirke suffered, it certainly wasn’t to his sense of humor. In a recent letter to an Indianapolis orchestra colleague he writes:

Its something else with these heart doctors! Here is what happened to me when I arrived at the hospital with atering rhythm which deteriorated to no rhythm at all. They beat my chest black and blue and shocked me with electric paddles. That woke me up and a strange doctor started to explain that he was cutting a hole in my leg to run a wire attached to a temporary pacemaker (a small metronome) which would kick in if I couldn’t keep a steady beat on my own. The nerve of him talking that way to an orchestra player with 30 years experience!

Next they ran a tube into my arm and dripped a quart of a clear liquid to help my pulse rise! So help me, that’s what it said on the bottle! If conductors ever find out about that stuff, we’ll all be lined up for a spoonful before rehearsals and concerts.

For the final indignity, they wired me up in six places and for six days, 24 hours a day, I was recorded on TV and tape. They couldn’t have cared less about the A. F. of M. Recording Agreement which calls for a 20 minute break each recording hour, among other things.

NORTH CAROLINA UNIQUE STRING ROTATION WORKING WELL

As was reported in the February, 1977, issue of Senza Sordino, the North Carolina Symphony has instituted a unique system of string rotation. With the exception of the principal and assistant principal players in each string section, all the players rotate on a periodic basis. The first and second violins are considered as one section, with players rotating freely between them.

The response among the section players has been overwhelmingly favorable. In a recent conversation with our two conductors, they both indicated enthusiasm also. The logistical problems are being handled quite well by the players themselves, and both conductors expressed the opinion that the musical result is excellent, particularly because the chance to play different parts, with different stand partners, provides motivation for the players.

After trying it for a year and a half, we can say with confidence that this experiment is working well for the North Carolina Symphony, and we would hope other orchestras might be interested in trying it also.

Jan Gayer Hall, ICSOM Delegate North Carolina Symphony

1978 ICSOM CONFERENCE ON WEST COAST

The 1978 ICSOM Conference will be held in San Diego. It will be a five day meeting beginning Monday, August 28th and ending the afternoon of Friday, September 1st.

Orchestras are urged to attend now to the matter of election of its ICSOM delegate and to mail to Secretary Stan Dombrowski suggestions for the agenda. Suggestions for work shop topics would also be welcomed.

ICSM correspondents who have not yet mailed the necessary data for the 1978 ICSOM-AFM Wage, Scale and Condition Chart to Ted Dreher, AFM, 1500 Broadway, New York City 10037, are asked to do so immediately.

In the event an ICSOM correspondent is changing his present mailing address in the coming months before the Conference the ICSOM secretary and the editor of SEnza Sordino should be advised.
MORE ON ORCHESTRAL ASSISTANCE PROGRAMS

By Nancy Griffin, Seattle Symphony Orch.

The Seattle Musicians Scholarship Program

Concern on the part of Seattle musicians over the lack of music instruction available to talented minority and economically disadvantaged children led to the formation of the Music Motivation Committee approximately ten years ago, under the auspices of Seattle’s Local 76, A. F. of M. Emphasis of the Committee, which is now known as the Musicians Scholarship Program, was focused on private lessons together with a series of summer classes. The classes were designed to provide musical experience and exposure for young children ages 3-6, involving sounds, demonstrations of instruments, and simple musical concepts. Financing of the Program came from an original grant of $2,000 given by the Seattle Musicians Union, together with volunteer cooperation on the part of musician members. Music teachers lowered their usual lesson fees, and Local 76 members worked together to provide transportation for students to classes and lessons. School and private music teachers were encouraged to submit names of students, both beginning and advanced, while local newspapers carried the story of the Program together with a plea for instruments to be donated. More than enough instruments were received during a one-month period and the Program was on its way.

Before the end of the first year the Program had become truly meaningful for everyone involved. A request for funds was made to the Washington State Arts Commission, with Local 76 pledging to meet the grant dollar for dollar. The result was a total of $5,000 for the following year. This money was earmarked specifically for individual lessons, while the class program was in effect for the first summer only. Because of Seattle’s economic recession in the early 1970’s a number of families not involved in the program suddenly found themselves unable to continue regular lessons for their children. Included among these families were several talented and advanced students. The Program helped these youngsters to continue their studies on a matching basis whenever possible, with the parents paying half of the lesson costs, or on a full scholarship basis when necessary. Conversely, families of pupils who were on the Program because of need were asked to assume responsibility for payment once the parents were again employed. Thus, more money was freed for others.

As years went by, the Washington State Arts Commission considered this one of their finest programs, continuing the Commission’s contribution for a total of eight years. At present, the Program is seeing an end to its funds because of new policies within the Arts Commission which do not allow money for private lessons. It is hoped that a re-evaluation will eventually lead to a consideration of further funding for this vital effort.

The success of the program can be measured in terms of the number of students involved, and in the quality of the results. Mori Simon (Seattle Symphony bass and former ICSOM delegate) is the current chairman of the program . . . he states that during the years he has been chairman, he has processed a total of over 1,000 monthly payroll and evaluation forms, representing over 4,000 individual lessons. Evaluations include written comments from each teacher, which are read and signed by individual pupils. During the initial stages of the Program, it was chaired by Adele Zeitlin (formerly Seattle Symphony flute and ICSOM delegate, now Minnesota Orchestra flute), with significant contributions to the success of the Program being made by Norm Hoagy, who was President of Local 76 during most of the years that the Program has been in effect.

The personal aspect of the student-teacher relationship appears to be a vital ingredient in this Program, so that the scope of endeavor reaches beyond just the music lessons. The Scholarship Program has represented a link between students and professional musicians, and in many cases this link has led to an entirely new and more hopeful outlook for the student. As the students have progressed, some have continued on to musical careers, Congress of Strings scholarships; solo appearances with the Seattle Symphony; scholarships in colleges and universities and, in two cases, positions with nationally renowned orchestras. The Seattle Musicians Scholarship Program has been an inspiring experience for everyone involved, including musicians, parents, teachers and students. It is hoped that some way can be found to continue what seems to be a unique effort at reaching these minorities and economically disadvantaged students, to maintain this basic musical training and valuable personal student-orchestra musician relationship.

The Los Angeles Philharmonic Orchestral Training Program For Minority Students

Los Angeles Philharmonic musicians work with minority students through their Orchestral Training Program, which provides opportunities for talented minority instrumentalists to study orchestral techniques. Originally conceived in response to community need, the program has expanded to include a large number of students and approximately forty teachers, representing all sections of the orchestra. The teachers themselves bear a large share of the responsibility for running the program, as they screen students, run auditions, develop individual guidelines and establish liaisons with community orchestras. While musician teachers determine their approach to each individual student, the Program Administrator, Joe Westmoreland, is a full-time member of the Los Angeles Philharmonic staff.

Mario Guarneri (L. A. Philharmonic trumpet), who heads the corps of teachers, and Irving Bush (trumpet and ICSOM delegate) indicate that the program is successful in training individual musicians. Further success is seen in establishment of the human contact which is critical to providing an escape from the ghetto's environmental traps. Starting with a volunteer staff of teachers several years ago, lesson fees are now underwritten by the Los Angeles Philharmonic, together with partial payments by the students themselves. Students are interviewed by the Program Administrator to determine their economic need. Requirements for student participation include membership in a "minority group," potential talent, and attainment of certain performance levels in symphonic music.

Training emphasizes individual music instruction on orchestral instruments; opportunities are provided through various community orchestras for actual orchestral experience. Student ensembles are also developed and some of these groups have found work through the public schools, gaining experience by playing large numbers of performances in some cases. Although goals of the program focus on individual lessons and orchestral preparation, professional symphony orchestra jobs cannot ultimately be available for all participants. Accordingly, it is recognized that the human contact is also a valuable component of the program providing unique meaning for both students and teachers. In addition, new teachers are trained . . . advanced students return successfully to their own communities and are paid by the program to teach others. As the training program becomes more successful, a part of its goal might even be described as phasing itself out, with its expansion back into the community producing a source of teachers from the community itself.

The Los Angeles Philharmonic's efforts represent a means to reach various minorities, break down barriers, enhance commun-
cation, and make minority communities eventually self-sufficient in providing their own training. Meanwhile, valuable human and musical goals are being served while teachers and students come together with the common purposes of musical training and orchestral contact. The results of the program are seen in the evidence that students have demonstrated marked improvements in their performance, which has led to positions in various high school, college and community orchestras; substitute work with the Los Angeles Philharmonic and in two cases, chairs with professional symphony orchestras.

**NJSO HIT BY DISMISSALS AND DEMOTIONS**

A professional decimation has occurred in the New Jersey Symphony Orchestra. There are 7 Principal vacancies, along with 4 others, for a total of 11 vacancies.

The facts are these: Mr. Thomas Michalak (the new Music Director) has dismissed 6 non-tenured players, demoted 3 tenured players and fired 2 tenured players. Mr. Michalak became NJSO Music Director in June of 1977. Simply put, we feel strongly that Mr. Thomas Michalak has not had adequate time to evaluate fairly the orchestra personnel and, most importantly, therefore justify the loss of livelihood for these musicians. In the process of effecting these dismissals and demotions, the NJSO Management has indulged in numerous violations of the contract, and a number of grievances have been filed on behalf of the orchestra personnel. The NJSO Management has been charged with fraudulent alteration of the Master Agreement concerning the demotion of tenured players. This is the subject of an unfair labor practice charge submitted before the National Labor Relations Board; it is also the subject of a suit in New Jersey Civil Court, charging fraud and discrimination.

It is now up to us to put the pieces into a form we can make strong. It will be a long struggle and the time to begin is now!

The Members of the New Jersey Symphony Orchestra

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**BOSTON PLAYS AND TALKS SIGN THREE-YEAR PACT**

On November 29, 1977 the musicians of the B.S.O. ratified a new 3-year contract retroactive to Sept. 1, 1977. The minimum salary was increased from $400 per week to $440, $480, and $510 over the next three years. The recording guarantee remained the same, $1000 per year for all three years.

The pension benefits, which proved to be a major obstacle to the acceptance of a new contract, were increased from $9500 per year in the previous contract to $10,000 per year in the first 2 years and $10,500 in the final year.

Probably the most important gain in the new contract was the agreement by management to refund the entire principal amount of past total dues paid into the pension fund to all orchestra members who had contributed to it and who were still active members as of August 31, 1977. The B.S.O. has had a non-contributory pension plan since 1971. The refund will be distributed incrementally at the rate of 1/4 of the total contribution per year over a period of 4 years.

Our per diem was increased to the IRS maximum of $44 per day for all 3 years of the contract. With the exception of New York City, in the first year of the contract, management will provide for all hotels on all tours. Per diem will thus be decreased by the amount of the usual hotel allowance.

A major gain was made in the area of work load. In the last year of the new contract the "Pops" season of 8 weeks remains, however, the number of work days per week is reduced from 6 to 5 for each member.

Beginning in the first year of the agreement the entire orchestra will perform at Tanglewood for the full 8-week period. In the past the orchestra has been split for the first two weeks with approximately 2/3 of the membership performing "Bach, Mozart" at Tanglewood and the remaining third forming the nucleus of the Esplanade orchestra in Boston.

String rotation has also been initiated; it is voluntary for present members and mandatory for new members.

Thanks to the diligent efforts of the Players' Committee, the orchestra management, Messrs. Sipser and Leibowitz (the orchestra's legal counsel), and numerous other committees within the orchestra, the new contract was successfully negotiated.

Ronald Wilkison
ICSOM representative, Boston Symphony Orchestra

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**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.

HENRY SHAW, Editor—Mailing address: 1577 Elizabeth Pl., Cincinnati, Ohio 45237

Subscriptions: A.F.M. Members $2.00 per year
       New Members A.F.M. $3.00 per year

74 Printed by S. Rosenthal & Co. Inc., Cincinnati, Ohio