

S—L—O—W

by Sam Savar

The popular virtuoso just played Schubert's "The Bee." It sounded like the whirr of an airplane propeller, or a lawn mower. Now this piece is entrancing, captivating, delightful. But what was this I heard? I would never know did I not have a printed program.

When driving faster than 40 miles an hour, it is no longer driving; it is aiming. Many of the most gifted of musicians, even string quartet and other chamber music performers, play fast movements much too fast. What are they aiming at? I feel that the bull's eye is just over my head. I did not come to this concert to be a target. I came to taste the music, to relish it.

Will there one day be an Olympic competition for musicians, wherein the speediest of them captures the gold medal?

"Reading Time: 10 Min." is prefaced before articles in some magazines. Mercurial musicians listen to the beat of their own greased lightning metronomes.

There must be an emotional reaction to sheer speed and technique in a musical performance. It's like the somewhat queasy feeling when watching the performances of tight rope walkers or acrobats in a circus. One can be awe-struck by such a performance, which is a far cry from being inspired.

At a recent performance, I sat but three seats away from the violin soloist. I immediately forgot his performance when it concluded. But when I heard Fritz Kreisler, every note resonated in my mind for days and days. Fritz Kreisler himself once said, "There are many young kids who can pick up a fiddle and play rings around me." There's a message there.

There may some day be a revival of the Art of Music, as against exhibitionism in performance. Pleasures of the epicure may be renewed as we learn to taste rather than to gulp. We would come once again to perceive, to feel, to understand.

Reading time: 10 minutes? Perhaps.

Understanding time: A millennium.



Jean Nix with stand partner Jeannie Wallis

RETURNING TO MUSIC: THE BELL CHOIR

by Jean Nix

I noticed the announcement of the formation of a hand bell choir in our church newsletter in September and briefly thought that it might be fun to join. However, like many such inclinations, it was soon forgotten in the rush of fall activities. Then, I saw another announcement in January for additional members. This time it piqued my interest more seriously, so I put the newsletter by the phone (my way of trying to remember to do something). By the time I finally called, the choir was full, but they were looking for substitutes. Great, I thought. Now I can try this and see if I like it.

I am strictly a lapsed amateur musician. I took piano and violin lessons through high school and even continued sporadically through college, and had been a member of various orchestras

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Karin Dutra, Flora Watson, Hal Van Zoeren, Glenn Martinson, Sam Jackson

EDITOR'S NOTEBOOK

AN OPEN LETTER TO ACMP

Thank you for asking my opinion of the Amateur Chamber Music Players' proposed name change (to "Association of Chamber Music Players" or "International Chamber Music Players"), and for forwarding some of the letters you have received on this issue.

I believe that amateurism — the courage to throw oneself wholeheartedly into the pursuits one cares about — is a threatened value in the Western world, and one worth fighting for. Amateurism keeps art alive by keeping people's minds open to the possibility of participation, so that performing can be an empathic exchange between performer and audience. It keeps the language of art in the mainstream of society, and makes possible the infinitely profound emotional communication of which Western art music is capable.

The fear of being branded "amateur" and therefore incompetent was expressed in many of the letters you sent me. The fallacy of this attitude is sadly obvious: making art for the love of it is no guarantee of incompetence, nor is making art for money a guarantee of competence. Many of the finest professionals in every generation have loved music-making enough to play gladly with amateurs, and many of the worst still make their living, grudgingly, by teaching them. Even sadder is the writers' mean-spirited elitism: what if many amateurs do play badly? Playing gives them pleasure, it allows them to explore the inner workings of music, it gives voice to their feelings and allows them to exercise one of humanity's highest gifts.

Words do guide action — look how important words have been to race and gender relations in recent years. I would be disappointed if ACMP were to lend credence to false beliefs and elitist attitudes by deleting "Amateur" from its name. We should keep it there, and teach people to be proud to be amateurs.

CHILDREN'S EARLY MUSIC WORKSHOP

A week-long summer day camp specializing in early music for children aged 6-10 will be initiated this summer by the San Francisco Early Music Society at the San Domenico School in San Anselmo, CA, August 22-27, under the leadership of Steve Bergman and Lee McRae. The workshop includes a parallel program for parents who wish to learn the recorder.

The impetus for the Society's new focus on children's music education came from a survey of their adult members, who expressed a strong desire to conduct more education and outreach to young people. Other San Francisco Early Music Society children's programs include after-school instruction in the elementary

schools of one Bay Area city, and offering free or low-cost concert tickets to students. Considering the widespread decline of public school music programs, other music societies may wish to follow their example. For further information, contact Robert Jackson, SFEMS Executive Director, PO Box 10151, Berkeley, CA 94709, 510/528-1725.

WORKSHOP AT SEA

The 5th Annual *Chamber Music Workshop at Sea*, directed by Joe Axup, will be held in the Caribbean aboard the cruise ship *Crown Princess*, December 16-24, 1994, out of Fort Lauderdale, FL. Contact Holidays at Sea, 1208 Fourth St., Santa Rosa, CA 95404, 800/444-8300.

BELLINGHAM FESTIVAL PROGRAMS

The Bellingham Festival of Music, Western Washington University, Bellingham, WA, offers three instrumental workshops. The Western Chamber Music Institute, August 21-September 4, will offer an intensive study with daily coaching, master classes and performances. Its faculty will include the Miami String Quartet, Garrick Ohlsson and numerous others. The Adult Division is open to professional and adult amateur violinists, violists, cellists and pianists without audition. Pre-formed groups are preferred, but individual players will be accepted. The Young Artist Division is open by audition only. The Guitar Institute with Pepe Romero will be held August 15-19, and the Custom Clarinet Mouthpiece Clinic will be held August 29-31. Contact Peter Marsh, Dept. of Music, Western Washington University, Bellingham, WA 98225-9107, 206/650-6856, fax 206/650-3028.

HIPPOCRATES MEETS ORPHEUS

Violinist/singer Adelaide Tolberg of Kensington, CA, forwarded an article about arts medicine from the Winter 1993 issue of *Dartmouth Medicine*. Two of the musician-doctors profiled were Dr. Stephen Hinkle and Dr. Robert Markison.

Dr. Hinkle is a violinist, and medical director of the Columbia Hospital Performing Artists' Clinic in Milwaukee. That clinic offers musicians the services of rheumatologists, orthopedists, a hand surgeon, an otolaryngologist, a psychiatrist, and a neurologist, as well as occupational and physical therapists.

Dr. Markison is a hand surgeon in private practice in San Francisco, CA. Dr. Markison plays jazz and classical clarinet, and makes a point of learning the technique of every patient's instrument. A skilled craftsman, he operates on instruments as well as hands. He has helped many players alleviate individual playing problems by adapting the ergonomic design of their instruments, as well as by helping to correct technique, posture, seating and physiologic factors.

PRACTICE MADE PERFECT?

Ensemble Live Practice and Playing System: Mozart, Quintet for Piano and Winds in E-flat major, K452. Ensemble Music, Inc., 1993. Distributed by Sony Classical, #SXX 53718.

Reviewed by Ted Rust

"Music Minus One" was a series of records published some thirty years ago. Each record had two versions of a piece, the second version lacking your part so you could play along from the sheet music included in the package. The series concentrated on the big concertos for solo instrument and orchestra.

Ensemble Music, Inc. has applied the "Music Minus One" concept to a delightful selection of classical chamber music literature, including, for strings, sixteen quartets of Haydn, Mozart and Beethoven, two Mozart divertimenti and *Eine Kleine Nachtmusik*, and for piano and winds, the magnificent E-flat quintets of Mozart and Beethoven plus the Mozart *Trio for Piano, Clarinet and Viola*. These are pieces one is often asked to read in workshops and informal gatherings, making them an excellent choice of literature for which many players wish to gain facility and confidence.

Ensemble Live includes helpful refinements to the basic MMO format. Tuning is solved by sounding an "A" before the piece. Starting each movement is helped by a sequence of loud and soft metronome clicks notated as large and small dots to the left of the staff. This I find confusing since the big dot is not always a downbeat; why not put them in music notation? When to release and re-enter after fermatas remains a problem.

Mozart's *Quintet for Piano and Winds* was accurately if unenthusiastically played by an anonymous ensemble. Tempos were moderate and very consistent, making it an easy group to sit in with. I was disappointed with their treatment of ornaments in the slow movement, where they consistently jammed two ornaments — a turn and an arpeggio — into a single beat:

instead
of:



In the "play-along" version, the balance was adjusted "to simulate your placement in the performing group," which in my case, as the oboist, seemed to mean making the horn too loud and the bassoon nearly inaudible. While that certainly represents a common real-life situation, it is one most players seek to avoid.

Ensemble Live may be no substitute for a live rehearsal with friends, but it is excellent preparation for sight-reading with strangers. It certainly helped me increase my comfort with the oboe part of the Mozart Quintet.

LETTERS

Editor:

In a recent issue you wrote an excellent article on the theory and practice of vibrato. I wonder if you could do a similar piece on the tempered, or well-tempered, scale. I've never been able to understand this, and I've read several explanations. It's especially embarrassing because I am a physicist, and people occasionally turn to me for explanation. I'm an amateur violinist and enjoy your publication very much.

Joseph Horner (Ph.D.)
Belmont, MA

Ted:

I have bought a Yamaha Clavinova. It has allowed my wife and me to start a project we've long been interested in: playing all the three-part pieces by Bach that would work for two violins. It would have been difficult to find a cellist with the patience to play with us and a compatible schedule. We've already played more often together in the last few weeks than we had in many years. It should be good preparation for playing with other people. It turns out that the software available for the Yamaha is limited, so eventually we plan to hook it up to our computer.

Roland Smith
Albany, CA

Dear Ted,

You might find this interview with Richard Wagner's granddaughter interesting with regard to your article on wedding music in the June issue. It was broadcast on CBS Radio in 1950.

CBS: Was the "Bridal Chorus" from *Lohengrin* used at (your) wedding?

Granddaughter: Goodness, no!

C: How about Mendelssohn's "Wedding March" from *Midsummer Night's Dream*?

G: No, not that one, either

C: Why?

G: Nobody gets married to them in Europe.

C: They are very popular over here.

G: Yes, I know, since I am in this country.

However, we never heard of it in Europe until we saw it in the movies, and then we thought it was some kind of Hollywood joke.

C: What music do people get married to in Europe?

G: Well, we make a difference between secular and sacred music in the marriage ceremony. And besides, I would be superstitious about getting married to the "Bridal Chorus."

C: Why?

G: Well, the marriage of Lohengrin and Elsa did not last long!

Dieter Bergman
Hayward, CA

FROM THE HEART

RACHAEL AND RACHEL

by Helen Spielman

I have two flute students with the same name. Rachael is eleven, is fair-skinned with straight blond hair, and has two brothers. Rachel is nine, a single child, and has curly brown hair and dark eyes. Both girls are musically talented, bright and precocious, and can single-handedly keep a conversation going for hours on any topic under the sun. Each has taken lessons with me for about four years. Rachael's family found me through a newspaper ad, and I met Rachel's parents at a party.

I've long been convinced that parental support and involvement in a child's music lessons is a critical factor in successful musical development. I've watched youngsters without innate talent learn to play well because their parents actively helped them. I've also sadly observed children with talent who have floundered and even quit as a result of a lack of structure, supervision, and parental encouragement. Rachael and Rachel have a great combination: a true inner gift for music and outstanding parental support.

Rachael's family life revolves around music. A fun Saturday outing is to pile into the car and drive 50 minutes to the nearest music store to spend hours browsing. They attend concerts and discuss what they experienced, listen to all kinds of music from classical to country, and buy the CD and sheet music ahead of time for musical plays they plan to see.

Practicing can be lonely for a child who imagines the rest of the world is out having fun, so Rachael's parents listen to her practice, especially during times when she's resistant, and give her compliments and positive reinforcement. They put their children (Rachael's older brother plays piano) in situations where other people, such as grandparents or church friends, can give them encouragement, because they know that children become a little deadened to their parents' familiar comments.

Rachael practices for half an hour before school and half an hour later in the day. When she or her brother resist practicing, these creative parents offer to pay their children \$1.00 per hour of practice. They would rather pay their children to study music than to mow the lawn. At first, Rachael's brother collected a stack of cash, but now he's self-motivated and no longer needs a tangible reward. Rachael always refuses the money. Debbie and Roger's philosophy is to make practicing the better

... parental support and involvement in a child's music lessons is a critical factor in successful musical development.

Roger and Debbie feel that learning music is learning discipline.

Rachel's family has a less structured style and schedule, but she receives just as much support.

alternative. When Rachael isn't "in the mood" to practice, she is given an alternative such as cleaning her room, which succeeds in leading her to her instrument. I especially appreciate it when they call me because they can't get Rachael to cooperate. Then I know what's going on; as with most children, she often listens more openly to a teacher. Her parents support me by telling her, "Do what your teacher says to do."

Rachael's parents take her and the family out to dinner whenever she performs at church or plays in a recital. She has shown me little flutist figurines and books that she received on distinctive musical days, such as when she participated in a competition or took a special lesson with the flute professor at the university.

Roger and Debbie feel that learning music is learning discipline. They believe that as Rachael grows up, she'll have better self-esteem if she excels at one thing, and that her flute can comfort her and be a good friend. Their family has become closer as a result of their communication about and through music. Although they get pleasure from watching their children learn and perform, they admit that sometimes it gets to be "a pain in the neck" because of all the time and expense required.

Rachael is considering becoming a professional flutist. Either that, she tells me, or a "shrink doctor"; she wants to make sad people happy. Roger and Debbie don't push Rachael to become a professional musician; their goal is for her to become a very accomplished amateur, because music is a joy that will last her entire life. But they'll be behind her, no matter which road she chooses.

Rachel's family has a less structured style and schedule, but she receives just as much support. She practices at a different time every day because of other activities and varying amounts of homework. Rachel has to practice every day before getting her privileges, but her parents encourage her only to a certain level, and don't push any further, so Rachel misses a day from time to time. One parent is always in attendance when she practices, sometimes with attention divided between listening to the music and doing the dishes. When Rachel has played everything but hasn't practiced long enough, her mother says, "That was really great, I'd love to hear everything again." When Rachel has trouble with a passage, Amey may suggest she play it again, but leaves

the final decision to Rachel. Rachel's father sometimes turns practicing into a game, pretending that Rachel is giving a concert or radio show.

Rachel rarely gets discouraged, because she has confidence in her musical ability, but

INTONATION AND TEMPERAMENT

by Ted Rust

“The piano is out of tune.” Of course it is. It only can play twelve pitches per octave. Keyboard instruments have been made with more than 50 pitches per octave in attempts to replicate what a good string or wind player does by ear: to temper each interval in accordance with its harmonic context and expressive purpose. “To temper” comes from metallurgy, where it means “to make more elastic.”

Getting in Tune

Intervals we hear as “in tune,” those beat-free¹, acoustically pure² intervals a piano can’t play, are produced by making microtonal adjustments of pitch until the combined sound contains a minimum of beats. This is an intuitive process that proves to be extremely difficult to reproduce on a fixed-pitch instrument. Even 50 pitches per octave is not really enough; a much larger number is needed to sweeten every interval in every key. As a practical matter, ensembles often must favor any fixed-pitch member such as the piano, even if it means playing a little out of tune with each other.

Tuning Through the Years

Several alternative tuning systems for the diatonic scale have been used in Western music. All of them live on in contemporary performance practices, despite the nominal acceptance of equal temperament.

The ancient Pythagorean system, which was fully developed before the time of Plato, favors the pure fifth rather than the octave or third. It constructs a diatonic scale from a series of pure fifths. (The “circle of fifths” illustrates how a complete chromatic scale can be built from fifths as well.) This procedure results in audible sharpness of the upper registers: a series of twelve acoustically pure fifths is 23.5 cents longer than seven octaves, a discrepancy called the Pythagorean comma. Many string sections and even some pianos can still be heard playing long octaves.

The Pythagorean system produces impure thirds. The problem of thirds became an important concern to Renaissance musicians with the spread of polyphonic music, and led to the development of “just intonation.”

“Just intonation” is not a single tuning system, but rather an esthetic goal — the beatless third — shared by a large family of alternative tuning systems. First formalized in the 13th century, it became widely used during the Renaissance; just intonation systems which give five or more pure intervals within each octave are still being refined and are favored by some modern composers like Terry Riley. Those pure intervals are achieved at the price of consistency, in that a justly-tuned scale necessarily uses several different sizes of semitone. Furthermore, just tuning systems generally favor thirds at the expense of fifths, and consequently have at least one fifth (e.g D-A in the key of C) that sounds quite different from the others. These inconsistencies can be negligible within one key and its close neighbors, but tend to become increasingly grating in more remote tonalities. Some musical styles relish these differences, using them expressively to heighten the drama of departing from (eek!) and returning to (aah!) the home key. The same tonal inconsistencies would not so much intensify as sour a broadly-modulating piece of Romantic music.

“Mean-tone temperament” retains the pure thirds of just intonation but evens out their most prominent inconsistency by dividing the major thirds above and below the tonic into two equal whole tones. It was widely used on keyboard and woodwind instruments throughout the Baroque and Classical periods, and was probably the tuning system Bach referred to in the title of *The Well-Tempered Clavier*.

“Equal temperament” is a tuning system that divides pure octaves into twelve equal semitone intervals.³ Equal temperament eases transposition by sounding the same (equally out of tune) in any key, and resolves some inconsistencies of the other tuning systems. It has been known and used since the 16th century. Myth has it the first historical impetus for equal temperament was the emergence of operatic superstars in Baroque opera: the *prima donna* or *primo uomo* with enough clout to command that an aria be transposed up or down a semitone to favor her or his vocal range. It existed alongside other tuning systems for three centuries before it became the norm in Western music. The enormous popularity of Beethoven’s widely-modulating music, in particular, stimulated the acceptance of equal temperament.



Sand Dalton with his replica of an equally-tempered, 8-key Floth oboe, German, c.1805

Oboe maker Sand Dalton of Lopez Island, Washington, commented to me recently that in Beethoven's time, woodwinds first began to be tuned for equal temperament, as well as being fitted with additional keys to simplify chromatic fingerings. In building historical replica instruments for use in professional original-instrument orchestras, however, he has found he must favor equal temperament even in two-keyed Baroque and Classical instruments; oboes he tunes to the mean-tone temperament of their originals are invariably rejected as being "out of tune." Even professional early-music specialists, it seems, have 20th-century ears.

Ensemble Tuning Techniques

One of the most subtle challenges of ensemble performance is to temper each interval appropriately. As a point of departure, it helps enormously not only to tune a single note, but to adopt an internally consistent ensemble scale. Warming up together with slow unison scales and triads in the key of the first piece to be played helps ingrain a group's tuning consensus and an awareness of one's own peculiar tendencies. If equal temperament (factory tuning) is the frame of reference, one often finds fifths that need to be flattened a little, thirds that need to be flattened a lot, and some notes that have the hazardous property of leading certain instruments in opposite directions. One learns to listen downward, and pay attention to notes that have prominent overtones in the same register as one's own.

The point of this ground-work is to educate the ears and quicken the reflexes; it can be counterproductive if it produces tonally inelastic playing. As an antidote, many groups loosen up by free improvisation ("noodling") and playing bizarre intervals together during warmup.

The progress a group can make on intonation in these exercises tends to be dramatic but short-lived, and needs constant renewal.

The Goal

The musical task of good intonation is infinitely complex, both for the theoretical reasons discussed above, and for an even more important esthetic reason: the ultimate goal is not merely to play right notes but to express the musical content of a piece, in all its emotional, intellectual and stylistic richness. The performers must choose where to place each note, and convince the audience it is the right placement.

To acknowledge the impossibility of perfect intonation can be oddly liberating: no matter how much you know, you still have to trust your intuition. Only when an ensemble is relaxed, confident and totally absorbed in a shared expressive goal, rather than the mechanics of performance, does it begin to realize the full potential of human beings to make beautiful music together.

Notes

1. Beats are the apparent pulsations of volume one hears when an interval is out of tune. The beat frequency is exactly the difference between the two clashing frequencies. As the faster one repeatedly catches up with and passes the slower one, it alternately adds to and subtracts from their combined volume.

2. Acoustical purity is a relative matter: on real-life instruments, even unisons shimmer a little due to small differences in their overtones. (Perfect intonation requires matching not only pitch but tone color.) The acoustically cleanest-sounding intervals are ones in which the the upper note is a unison with an overtone of the lower note. The first four notes of the overtone series of a string or air column vibrating at the C below middle c are given in the middle column below:

<u>Interval</u>			Frequency <u>Ratio</u>
Octave	C	c	1:2
Twelfth	C	g'	1:3
Second octave	C	c'	1:4
Seventeenth	C	e''	1:5

Transposing the lower notes into the same octave (doubling or quadrupling the lower frequency), the intervals still sound relatively pure, because the upper parts of their overtone series are in unison.

Fifth	c'	g'	2:3
Third	c'	e''	2:5
Fourth	c''	g'	4:3

The fundamental pitches of thirds, fourths and fifths do beat, but they are far enough apart to beat quite rapidly, an effect we may politely choose to ignore, or may perceive as an additional sound. The beat of well-tuned thirds and fourths can be heard as separate voices, called "combination tones" or "difference tones," which some composers have incorporated into their works as a phantom accompanist.

3. Numerically, the frequencies of notes an octave apart are in the ratio of 2:1, while the frequencies of notes a semitone apart are in the ratio of $\sqrt[12]{2} : 1$; each step up an equally-tempered chromatic scale means a 5.946% increase in the number of vibrations per second. For example, if a' is tuned to 440 hz, a# will be at 446.162 hz and a'' will be at 880 hz.

Much of the technical information and terminology used in this article is based on entries in The New Harvard Dictionary of Music, Harvard University Press, 1986.

Oboist Ted Rust is editor of Music for the Love of It and principal of Planning and Applied Economics, a consulting firm in Berkeley, California.

HANDBELLS

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throughout my school years. I had sung in the high school choir and in church choirs, and even taken guitar lessons when my children were small. But over time, family and professional demands have taken their toll and I kept up with none of my instruments.

The possibility of learning a new musical skill was very appealing. I decided to try. During our phone conversation, the hand bell director assured me that I would have no problem. "You read music, don't you? And, you play the piano — well, it's just like the keyboard. You won't have any problem at all." So I was convinced that this would be possible (maybe even easy), as well as fun. It would be a good way to learn something new musically, as well as provide some nourishment for the "arts" portion of my soul. I asked the director to put me on the substitute list, and was called the next day to fill in for a member.

So, with a great deal of confidence, I reported the next Tuesday night for rehearsal. The director showed me the bells I would be playing that night and gave me a brief introduction to how to ring a bell. I quickly discovered that this was not going to be the easy task that I had thought! I looked down at the four bells. (Yes, four! I had expected two, at the most — after all I didn't know anything about this.) "This doesn't look like any keyboard I ever saw," I thought. The bells were beautiful — bright and shining. As I reached for one, the director called out "Don't touch them until you put your gloves on!" Gloves? what gloves? "Oh, I forgot to tell you — get an extra pair of gloves out of the closet. The oil from your hands can damage the bell."

When I was properly attired, I picked up two bells to practice the special swing necessary to a good "ring" from the bell. "Starting at the top, swing your arm in the shape of a football with the ends of the football pointing towards floor and ceiling, and just flick your wrist at the bottom. Continue to swing your arm up holding the bell up like it was full of milk and you'll get a good tone."



Karin Dutra and Jessie Jackson emulate Michelangelo

This was very different than anything I had done before — not only did the bells in front of me not look like keyboard, I certainly didn't pick up the "swing and flick" easily. I learned that I should ring the bell only in one direction for the best tone. Each bell is marked with a small star or a small bell image on the "right" side. Each bell is also stamped with the note, such as D. However, if the bell is a half-step, it represents two notes, the sharp and the flat, such as the D# and the Eb, and is marked on one side with the flat and on the other side with the sharp. This can lead to considerable confusion for the new bell ringer who remembers that the signature is sharps, is frantically looking for the D#, but sees only flats!

With this brief introduction to bells, we started practicing the first piece. Little did I realize how many of my abilities (or inabilities) would be challenged in the next two hours:

Keeping the rhythm
Eye-hand coordination
Keeping the rhythm
Reading music
Keeping the rhythm
Finding the bells
Keeping the rhythm
Putting the bells back in the exact spots (the piano keys never moved!)
Listening to everyone else's part
Keeping the rhythm
Learning a new vocabulary
Keeping the rhythm
Turning the pages with my gloves on
Keeping the rhythm

I quickly realized how important it was to keep time. "Don't worry about the notes that are not played — just play yours when the time comes!" I might have only one note in ten measures, but I had better pay very close attention to the music to be sure I play my one note exactly in time with the preceding and succeeding notes (even if they were not played at all or were not played in time). I didn't remember ever paying so much attention to the "and" and the "and uh" to get the eighth and sixteenth notes in the proper places, nor have I ever done so much toe tapping to keep on the beat. And talk about the importance of watching the conductor! I played many notes all by myself because I was so engrossed in keeping time, looking for the next bell I had to pick up, or trying to turn a page.

I found it an unexpected challenge to try to play only one to four notes exactly in the right place. I realize percussionists deal with this situation much of the time, but had never experienced it myself to this extent. Additionally, because I can only play two bells at one time (one in each hand), at times I needed to quickly



The Sunnyvale Presbyterian Church Handbell Choir. Jessie Jackson (right), Director

switch between these and the other two bells I was responsible for. And, of course, to remember the constant admonition "Whatever you do, don't drop the bell or bang it on one of the other bells."

As a substitute, I played a variety of bells, from large bass bells to the very small treble bells. I quickly decided I did not have the muscle required to play the bass bells. I also realized that, although I was getting wonderful exposure to the range of bell playing, I was not able to learn any part. I would just begin to feel comfortable with a certain part, then the next week I would play another set of bells. I needed to look constantly at the marking on the bells to remind myself which ones I was playing this week! This added to counting, watching the conductor, trying to get the bell swing right, damping the bell (or not) meant that I missed playing a lot of notes, played a lot of wrong notes, or played them in the wrong places. The only solution was to join as a regular player!

I am now a permanent member of the choir and have now been playing for over four months with great enjoyment. Every week we learn some new technique and often hear about several more that we want to try. I have experimented with playing two bells in each hand, either as "Shelly ringing" — to play octaves — or as "Four-in-hand" — to play chromatically or to play chords. We have learned a variety of techniques of "damping"— on one's shoulder, stomach (tummy-damp), thumb-damp, table-damp; swinging the bell like a bell in a belfry to increase and decrease its volume; hitting the bell on the table (a padded table) then quickly swinging it up for yet a different sound; and I am sure there are many other techniques to learn. I have also tried the great challenge to my coordination -- playing more than two bells consecutively without holding two bells in each hand: ring 1 in the left hand, damp it on the shoulder, ring 2 with the right hand, damp 2, move one step to the right, put 1 down where 2 was, pick up 3 with the left hand, ring 3, damp it, put

2 down where 3 was, move left one step, pick up 1 with the right hand (which is where 2 was), ring 1, damp 1, etc. (I can't even write about this with setting it up and doing it, let alone doing it in rhythm).

All in all, it has been a learning experience, as well as a very humbling one — so much for that past musical training. Reading music is but one small part of handbell ringing. I have much more to learn, and hopefully I will be doing that for many years.

*Jean Nix is a writer and bellringer in Sunnyvale, CA.
Photos by Ted Rust.*



INNER EAR

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With my friend Kate, however, her "inability" to sing does not stem from inhibition but is a matter of learning to sound the relative intervals between notes. This can be trained by sounding a note on the piano or keyboard and practice singing a given interval from that base note: the half-step, the full-step, the minor third, the third, the perfect fourth and so on, checking for accuracy each time by playing the note afterwards. This kind of practice eventually will develop good relative pitch in one's inner ear, which is essential to playing in tune.

After explaining the above to my friend Kate, I did not see her again until the opening night of "Carousel." And there on stage, along with the other members of the chorus, was Kate!

Multi-instrumentalist Kok Heong McNaughton does nuclear physics research in Los Alamos, NM and writes frequently for Music for the Love of It.

INNER EAR

by Kok Heong McNaughton

When our local amateur Light Opera Society put out a call for singers for the show "Carousel" last year, I asked my friend Kate if she would like to try out with me.

"I can't sing," Kate said.

Startled, I said, "But you play the clarinet."

"That has nothing to do with singing," Kate explained. "I've never learned to sing the notes. I just finger them and blow."

"You mean you have no idea what the notes you're going to play would sound like until after you've played them?"

"Especially with new pieces. Only after hearing it over and over again can I anticipate what the notes are before I play them. But I still can't sing," she admitted.

I suppose the kind of rote-learning Kate described, where one simply "fingers the note and blows," is not an uncommon practice amongst musicians, particularly with wind and brass instruments. However, it is difficult for me to imagine anyone playing an instrument well without being able to anticipate each note by "hearing" it first with an inner ear.

I remember when I first started learning the violin and playing very badly out of tune. My teacher would stop me and ask me if I could hear the note in my head first before I played it. Once I could, I began to play in tune.

In "A New Approach to Violin Playing," Kato Havas teaches her students the technique of learning a new piece of music by first learning to sing out loud the note

names in the correct rhythm, then miming both the right hand bow-strokes as well as the left hand fingerings before playing the music on the instrument.

The results she produces are amazing! At her demonstration workshops, you'll find students singing and swaying and playing in tune and having great fun.

How does one develop the ability to sing and to hear the music with an inner ear? For some of us, the answer is not in learning something new, but is in undoing the inhibitions that have built up over the years that prevent the expression of a very basic and natural ability to vocalize sounds and music.

I remember one adult violin student of mine who came to me because he had just inherited a reasonably good violin from his grandfather. He had it fixed up so that it was playable. Having heard that I had started learning to play the violin as an adult, he asked me to be his teacher.

I started him with the New Approach technique and he was progressing very well with rhythmic pulse and producing a good tone with open strings when I introduced the singing.

Right away he froze up. "I can't sing!" he protested. "Not even in the shower!" I discovered that ever since he was a child, he had been told that he was tone deaf, and the idea of opening his mouth and singing out loud had always scared him. This man had a strong, melodic speaking voice. Why not a singing voice?

If we can hear with our "inner ear" what a piece of music sounds like, there's no reason we can't imitate that sound once we remove our inhibition to sing.

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