### Scott McCoy, Associate Editor

# The Choir Issue, Part 1

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Journal of Singing, January/February 2011 Volume 67, No. 3, pp. 297–301 Copyright © 2011 National Association of Teachers of Singing LOVE CHOIRS AND CHORAL MUSIC with a passion that goes back to my formative years as a musician. As an undergraduate, I pursued degrees in voice and piano performance because those skills were needed for my chosen career: I was going to be a choral conductor. My aspirations were fulfilled upon completion of my master's degree when I was appointed Director of Choral Activities at Virginia Tech. During my interview for that position, I was informed my teaching duties would also include individual voice lessons and that I would need to teach a sample lesson. This was the first voice lesson I ever taught. The young soprano was gracious and never complained when I played her vocalises in my octave, not hers. Nonetheless, as my freshman faculty year progressed, it became apparent that I had an aptitude for teaching singing.

As my career developed, I moved through a series of university positions, gradually leaving conducting behind in favor of voice performance and pedagogy, and I've not conducted a choir on a regular basis for more than twentyfive years. It is somehow fitting, therefore, that I now find myself teaching at Westminster Choir College. In some ways, it feels as though I've come full circle.

At Westminster, the voice faculty is quick to note that we teach people to become singers and musicians, not choristers. Choir might be our middle name, but the word reflects the shared ensemble experience of *all* our students, not the manner in which they are taught to sing. In spite of the occasional aesthetic or pedagogic disagreement, I remain an ardent supporter of the choral experience for developing singers:

- Choir teaches singers to be team players, building essential musicianship skills applicable beyond the choral experience to ensemble work in opera, oratorio, concert, and chamber music.
- Peak musical experiences, those thrilling moments that inspire us to devote our lives to music, almost certainly will be at a higher level as a member of the ensemble than as a fledgling soloist.
- Almost every singer who aspires to a career in classical music will sing in ensembles, whether in the opera chorus at a young artist program, in the church job that helps pay the rent, in the *Carmen* sextet at the Met, or as a paid member of a professional choir.
- From Palestrina to Penderecki, much of the greatest classical music ever written includes a choir.

Yet, I suspect there always will be conflicts between singing teachers and conductors. This certainly has been true everywhere I have taught, including Virginia Tech, where the conflicts were internal between my aspirations for

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my applied students as soloists versus the vocal demands I placed on them in choir. To a certain extent, this probably is unavoidable, given the basic difference between solo training, which emphasizes individuality and projection, and choral training, which prizes uniformity and the ability to blend.

This conflict easily is exacerbated by the fact that developing singers usually spend far more time working with their conductors than their applied teachers, often by a ratio of five (or more) to one. My colleagues and I often lament the challenge of getting "the choir" out of a student's voice before serious solo work can begin in any given lesson. As I ponder this issue, however, I'm struck by the need to be proactive in teaching our students the techniques required to be productive choristers in addition to the work they do to become soloists. Just as a so called "classical" technique will not necessarily prepare a singer to work on Broadway or to sing R&B without genre specific training, it cannot automatically guarantee to solve all potential vocal challenges associated with choral singing. Adaptation of vocal technique to the challenge of singing in multiple styles is a learned activity, usually requiring direct assistance from a qualified mentor. The remainder of this article will focus on three of these challenges: nonvibrato singing, high tessitura versus vowel integrity, and lengthy rehearsals. Additional topics will be covered in future installments.

#### **VIBRATO**

With apologies to Shakespeare: to vibrate or not to vibrate, that is the question. A curious thing happened during the years since I left my last conducting post; the dominant tonal paradigm shifted dramatically concerning vibrato in choral singing. Once upon a time, nonvibrato singing was reserved for special effects and early music. In many ensembles, it now is pervasive and as likely to be employed throughout in Brahms's Nänie as in Josquin's Missa l'homme armé. Aesthetically, I appreciate this quality in music of the Renaissance, but have difficulty with its application to Romantic masterworks. Orchestral string sections play Brahms with vibrato-why shouldn't singers do the same? Of course, it is highly unlikely that the musical world will yield to my tonal preferences, which means singers will need to produce tones with little or no vibrato for the foreseeable future.

Every semester at Westminster, students in my voice science classes complete a unit on technology for voice measures, including spectrum analysis and electroglottography (EGG). As a reminder, EGG is a noninvasive measure of vocal fold movement, including the speed at which the glottis closes versus opens, and the relative duration of the closed and open phases of each vibration cycle. These measures are useful in exploring issues of vocal effort and registration. To demonstrate the technology, all students take measures of their solo singing *with* vibrato and again of their choral singing, deliberately *without* vibrato. With little variance from year to year, we see three patterns that emerge in the nonvibrato singing in approximately equal portion:

- 1. Singers who increase their closed quotient (the ratio of time the glottis remains closed, abbreviated CQ), often by 10% or more. These people appear to be stifling their vibrato by adducting more firmly at the laryngeal level (squeezers).
- 2. Singers who decrease their CQ, again, often by 10% or more. These people appear to be inhibiting vibrato by increasing airflow through the glottis, either by adducting less or actively adding an element of glottal abduction during phonation (blowers).
- 3. Singers whose CQ essentially remains the same during singing with and without vibrato. Sometimes, these singers also have little or no vibrato in their solo singing. Others, however, are adept at turning their vibrato on and off as the situation warrants. Among this group are singers with both larger and smaller voices, although lighter voices dominate.

I don't think it is coincidental that singers in group three report greater ease when singing without vibrato than do the squeezer or blowers. It must be mentioned that this exercise at Westminster simply is a demonstration of how a specific technology might be used; as a study, it is a neither controlled nor scientific and therefore lacks statistical validity. Nonetheless, the results we've seen are consistent and merit further exploration with rigorous methodology.

The question remains: why are some of these singers, all of whom sing in choir on a very regular basis, more comfortable than others when it comes to vibrato removal? I think there is a parallel in the opera realm and the phenomenon of *marking* in rehearsal. Some opera singers are capable "markers," easily singing lightly for hours

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on end, often using multiple octave displacements to maintain a limited pitch range and friendly tessitura. Others find any singing taxing that is not fully supported, on the breath and in the body. I sang several productions with one soprano who actually marked by whistling her notes! Of course, sopranos in choir can't just start whistling when they need to sing straight tone. As with marking for opera, we teachers need to help our students learn to sing easily and with relative freedom when a nonvibrato sound is required. This feat demands balanced, easy breath support, laryngeal freedom, muscular release in the articulators (especially the tongue and jaw), and the willingness to make a different sound quality. This latter point is perhaps the most important; singers who are willing and able to adapt their vocal output to match the style at hand will optimize their opportunities for professional advancement. This is equally true when considering choral music as it is for the solo works of Bach, Mozart, Puccini, Cole Porter, and Philip Glass, all of which require adaptation of vocal technique to suit the musical style.

# HIGH TESSITURA VERSUS ACCURATE VOWELS

Perhaps Beethoven was fortunate that he could never actually hear the sopranos struggle with text projection in the sustained high passages of the *Ninth Symphony* and *Missa Solemnis*. In his inner hearing, the singing no doubt was angelic, with perfect intonation and exquisite accuracy of text declamation. In the real world, we know this often is not the sound that reaches the audience.

Voice science has understood the phenomenon of disappearing vowels at high pitch for many, many years. In fact, nearly every current textbook devoted to voice science and pedagogy includes a discussion of the issue, which generally is explained through the relationship of the sung pitch (F0) versus the first formant (F1) of the vowel that is sung. As a reminder, vowels are modified through raising or lowering formants, or resonance zones, by subtly (or overtly) changing the shape of the vocal tract. Unfortunately, these changes only can occur within a relatively limited range before any vowel ceases to be acceptably accurate, morphing instead into one of its neighbors.

By the time singers approach G<sub>5</sub> at the top of the treble clef, the sung pitch exceeds the expected first formant for all vowels except /a/. Therefore, no matter what vowel is intended—and what shape is maintained in the vocal tract—the vowel that is perceived most closely will resemble /a/, *even when no modification is employed*. This is equally true for sopranos (female and male), mezzos, and countertenors. Tenors, baritones, and basses never confront this issue to the same extent because the pitch range in which they sing rarely exceeds the expected frequency of F1 by a significant margin. It's not fair, but it is acoustic reality. It is also a reality that I wish more composers and conductors understood.

To illustrate the phenomenon in my voice science classes, I cite the (nonexistent) new opera in which the tempestuous relationship between the tenor and soprano is resolved in her final aria: she will either *love* him or *leave* him forever. Of course, if that crucial word is set to a pitch above  $G_5$ , the audience must rely on program notes or the tenor's reaction to know what happened; on soprano high C, love and leave sound the same. (Curiously, some sopranos actually are able to differentiate these vowels at high pitch when singing *pianissimo* in a *flageolet* production, a phenomenon I have observed, but cannot explain.)

Returning to Beethoven, there are passages where the sopranos will be served better by deliberately altering "die ganze Welt" to "da ganza Walt." The more they struggle to maintain the purity of the original vowels in the stratospheric tessitura, the more they are likely to increase vocal tension, leading to fatigue and potential injury— and the audience still will not be able to hear the written vowels! Unlike vibrato, there is nothing we can do as voice teachers that will enable our singers to produce accurate vowels at every pitch level. Perhaps our solution is to be more proactive in educating our conducting colleagues about these crucial acoustic realities.

# LENGTHY REHEARSALS

As I note in my book, moderation is a key element in the maintenance of vocal health. Simply put, the human voice is not designed for unlimited use. Opera companies generally accommodate this factor of voice production quite well, rarely, if ever, requiring principal cast members to sing rehearsals immediately prior to a performance. Why is it then that choirs so frequently schedule a marathon rehearsal on the day of the concert?

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Sometimes, this scheduling is dependent on the availability of a venue or an orchestra and is truly unavoidable. In these cases, singers should be reminded of the herculean task ahead of them in the form of tens to hundreds of thousands of vocal fold collisions as the glottis opens and closes during phonation, and be *required* to take it easy and pace themselves through the rehearsal. Perhaps singing teachers and conductors can strike a bargain here; the former will work to improve their students' endurance through better vocal technique, while the latter work to ensure efficient rehearsals that last no longer than absolutely necessary.

Moderation, however, includes factors beyond the total number of minutes that phonation is sustained. An hour of varied singing, including a range of dynamic levels, tempi, tessitura, and vowel distribution, might be well tolerated by most singers. The same time spent singing exclusively on the same vowel and at the same loudness will be extremely taxing. During almost any physical activity, including singing, constantly repeated actions cause localized fatigue, which may lead to injury. A few minutes spent quietly rehearsing a score on a neu-



tral syllable can work wonders; an entire rehearsal singing in that manner primarily will succeed in generating vocal and mental fatigue.

It is incumbent on us as voice teachers to counsel our singers on ways to cope with the various demands placed on their voices. It is an inescapable fact of life that there will be times when vocal demands will exceed the reasonable expectations of moderation, especially for high school and undergraduate singers. During periods of heavy voice use, these singers must develop coping strategies that limit nonessential phonation, including social conversation. It might also be appropriate to ration time spent in the practice room, concentrating on quality, not quantity of the work.

I have a final, "off the record" recommendation I give my students who have issues with vocal stamina in ensembles (including opera and music theater chorus): periodically take breaks in strenuous rehearsals by lip synching. Their brains remain engaged and they continue to learn the intricacies of the score, but the voice is allowed to take a brief rest. In most cases, the loss of a single voice from the ensemble will never be missed. The acoustics behind this rather heretical statement are based on the laws that govern the cumulative amplitude as multiple sound sources are added together. If there are ten singers in a section, all of whom are singing at about the same loudness, the absence of one voice will result only in a miniscule reduction in amplitude. Specifically, if every individual produces 90dB, the communal output will be about 100dB, which is subjectively perceived as about twice as loud as a single voice in the mix. Take away one singer, however, and the total only drops to about 99.4dB, which is barely perceptible. Contrary to popular myth, every singer is not always essential. In large ensembles, contributions of individuals increasingly become less significant.

The arithmetic in the above argument is based on an ensemble where all singers are equally skilled and capable of producing identical target levels of loudness, pitch, and vowel. In the real world, of course, that rarely happens. Most nonprofessional ensembles include singers with a wide range of vocal gifts. Members of the ensemble might all be equal, but clearly, some are more equal than others (apologies to Orwell). Strong voices always will have a larger impact on the sound output than do smaller ones. The numbers also impact extreme dynamic range, especially at the quiet end of the spectrum. Two hundred singers can never be quieter than one, no matter how hard they try. I once sang a Verdi *Requiem* with a conductor who had a particularly enlightened (from my perspective) approach to this issue: in moments that called for exquisite *pianissimo* dynamic levels, including the opening, semiwhispered utterance of "Requiem," only a handful of singers actually sang—the others only pretended (more lip synching).

# COOPERATION

Since I began my tenure with the *Journal of Singing*, many people have spoken with me about this column serving as a bully pulpit for pedagogic issues. If that indeed is true, I am now officially standing on my soapbox calling for one simple thing: **Let's talk**. If singing teachers and conductors only complain about the actions of each other, our students always will be left in the middle. We all have our students' best interests at heart, and we all have the ultimate goal of making beautiful music. Won't this work better if we do it together?

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