

## **In Support of Contemporary Commercial Music (nonclassical) Voice Pedagogy** **An American Academy of Teachers of Singing paper - 2008**

In 1922, the year the American Academy of Teachers of Singing was founded, the greater voice teaching community's pedagogic focus was training singers to perform in classical musical genres. Vocal techniques had been developed that served a variety of vocal literature including opera, oratorio, national and international art songs, as well as certain sacred and secular music. Classical performers demonstrated varied approaches to body alignment, breath management, timbre, resonance, and articulation.

Unfortunately, techniques for singing other genres such as folk, gospel, blues, jazz, pop, and rock, which fall under a new heading called "Contemporary Commercial Music" (CCM), have been neither clearly defined nor seriously addressed in traditional voice pedagogy texts. While it is true that all singers must breathe, phonate, resonate, and articulate, they do not necessarily approach these technical elements in the same manner. Recent acoustic, physiologic, and pedagogic research challenges the widely-held belief that classically-based voice techniques alone can serve the world's diversity of singing styles. This new information has motivated the American Academy of Teachers of Singing to address the topic: "In Support of Contemporary Commercial Music (nonclassical) Voice Pedagogy."

While some American music in the United States has its roots in the classical tradition, much of it does not. Native Americans used vocal music as part of their tribal life. Early settlers from various European countries brought their music with them and over time, the multi-cultural influences interacted to create unique styles peculiar to America. African slaves also brought music with them. The sounds of their voices calling across farmlands and over the accompaniment of drums soon found its way into the mainstream of American music.

By the early 1900s, America had begun to forge its own very distinct musical persona. In New York, Jewish immigrants from Eastern Europe brought klezmer to the new world. That, blended with the sounds of the British Music Hall and New Orleans jazz and blues, helped to create America's Tin Pan Alley. In the teens of the new century, Broadway finally took its place as a sister to London's famed West End, creating shows that were completely unique to the new world.

During these early days of live entertainment, prior to the advent of electronic amplification in the mid 1930s, only two kinds of singers could be heard in a theater or concert hall. Those singers were called "legitimate" (a.k.a. legit or real) singers and "belters." Legit singers often were those who had received classical vocal training and could sing over an orchestra without strain; those who could project their voices in a kind of energized declarative speech were the belters.

Silent movies became "talkies" in the late 1920s. Radio broadcasts brought a wide variety of singers and music directly into the home of the average person via the console radio in the family parlor room. Widely diverse audiences were now exposed to classical singers, country and western vocalists, Broadway stars, and jazz artists, often during the same programs.

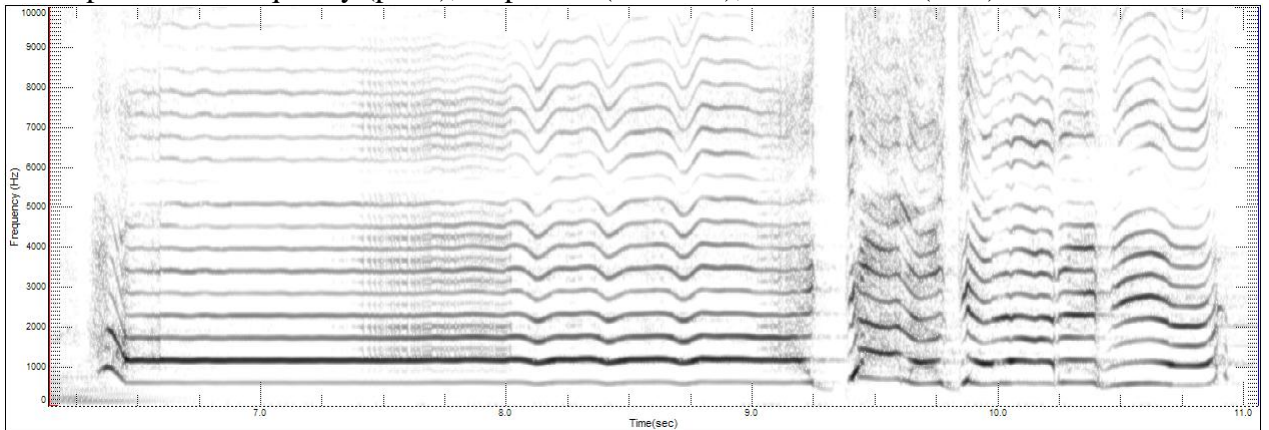
In the mid-1930s electronic amplification became widely available, so the need for a well-projected voice to fill a hall or theater on its own was no longer a requirement. This created a new kind of vocalist, the "crooner," who could sing softly and intimately outside the parameters of either classical vocal production or belted song.

As the twentieth century reached middle age, music styles exploded into a vast array of diversified expressions. There were bands featuring Swing, Lindy Hop, Fox Trot and Latin rhythms. Bee Bop and Jive soon followed. By the 1940s, all America was dancing to the music

of the big bands. Television arrived in the early 1950s and it also brought new music into the home of the average person. In the mid 50s, rock and roll burst on the scene to the delight of a new generation of young people, and the popular music world was never the same.

In the 60s, 70s, 80s and 90s, styles continued to diverge and expand. The amount of "legit" singing decreased as the world of "nonclassical" music grew until literally millions of people all over the world were hearing CCM styles that had been created in America. It's important to note that few of the styles that emerged had any developmental roots in European courts or in the liturgical music of any traditional religious denomination.

In this, the twenty-first century, we not only have the continuing emergence of new vocal styles, but we also have a better understanding of how the human vocal mechanism functions in the production of all styles of singing. Through the use of modern technology, we can now identify significant acoustic differences when comparing vocal performances in different genres. A particularly striking example is provided through a spectrographic analysis of two sharply contrasting excerpts: "Over the Moon," from the Broadway musical, *Rent*, as sung by Idina Menzel, and "Song to the Moon," from the opera, *Rousalka*, as sung by Renée Fleming. Much as a prism refracts light into its component colors, spectrography divides complex musical sounds into their components of frequency (pitch), amplitude (loudness), and duration (time).



**Figure 1: Spectrogram of excerpt from *Rent*, sung by Idina Menzel.**

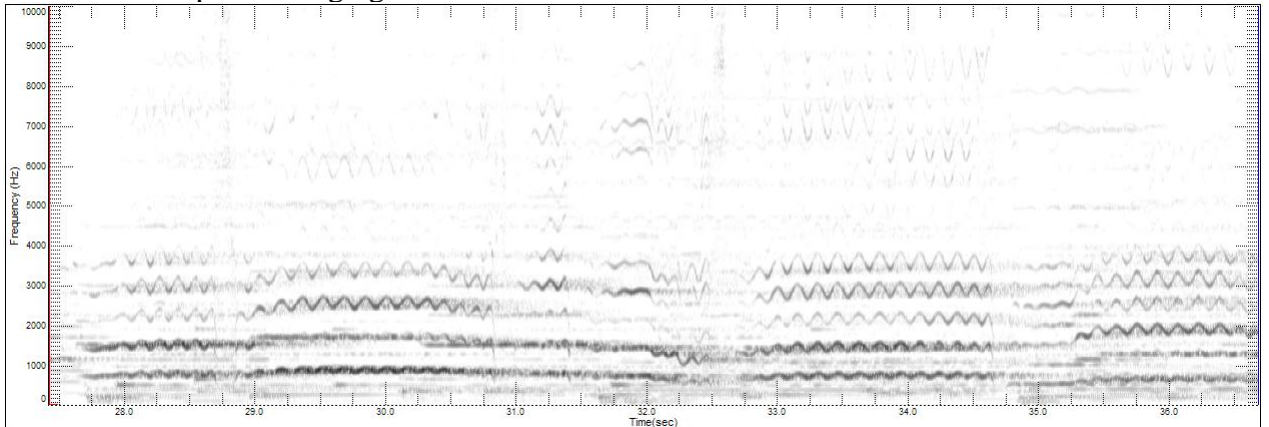
Sampling rate of 44 kHz (audio CD rate), narrowband spectrogram (1,024 FFT points), display range of 0-10,000 Hz. Frequency markers are provided at 1,000 Hz intervals. Analysis performed using *Multi-Speech* from KayPentax.

Ms. Menzel's performance, as seen in Figure 1, demonstrates several acoustic characteristics often found in Contemporary Commercial Music (CCM). This excerpt is unaccompanied; therefore, all the acoustic information comes exclusively from her voice. Four striking features are found:

- 1) Harmonics (as evidenced in the prominent horizontal lines running across the image) have significant amplitude at very high frequencies, extending to the maximum 10 kHz (cycles per second) display range of this spectrogram. At times, an extraordinary 20 harmonics can be seen.
- 2) Inharmonic frequencies are often visible between the harmonics, providing evidence of noise or roughness that is deliberately added to the tone.
- 3) In spite of rapid enunciation of text, formant zones (evidenced by darker and lighter color of individual harmonics) are relatively indistinct.

- 4) Vibrato is used sparingly, primarily as an added expressive device, as shown in the first sustained tone.

The acoustic structure of Ms. Fleming's performance, as seen in Figure 2, demonstrates typical characteristics of the operatic singing voice.



**Figure 2: Spectrogram of excerpt from *Rousalka*, sung by Renée Fleming.**

Sampling rate of 44 kHz (audio CD rate), narrowband spectrogram (1,024 FFT points), display range of 0-10,000Hz. Frequency markers are provided at 1,000Hz intervals. Analysis performed using *Multi-Speech* from KayPentax.

Four important acoustic elements are seen:

- 1) Acoustic energy is confined to a relatively narrow frequency range, rarely extending beyond 5,000Hz. At most, 7 harmonics are strongly present within the sound.
- 2) All overtones are harmonic, indicating a sound uncolored by noise or deliberate roughness.
- 3) Formant zones are discernible through the changing amplitude of harmonics. Amplitude shifts in harmonics 1-3 are in response to vowel formants; constant amplitude of harmonics in the 2,500-3,500Hz range is in response to the singer's formant.
- 4) Vibrato, as evidenced by the wavy appearance of harmonics, is unvarying.

Since there are significant and measurable acoustic differences between classical singing styles and popular singing styles, the Academy proposes that the techniques used to train singers in those styles should be tailored to the particular performing needs of the singer. Developing a balanced *chiaroscuro* (bright and dark) sound with vibrato from onset to release of tone, self-amplification through a strong singer's formant, formal articulation patterns, and seamless blending of registers throughout the voice, serve only repertoire that requires such vocal production. A vocal mechanism trained in that technique does not automatically nor easily reconfigure to produce sounds that are typical stylistic requirements of CCM repertoire, which often:

- are chest-voice dominant
- are extremely bright in timbre
- use vibrato sparingly or not at all
- separate, rather than unify vocal registers
- are sympathetic to electronic amplification
- deliberately induce noise, breathiness, and nasality

- rely on colloquial, speech-based articulation.

Classical and CCM genres often demand significantly different strategies concerning voice registers. Typically, classical training seeks to blend registers into a seamless whole: the voice is expected to sound essentially the same at all pitches and dynamic levels. This is not the case in many areas of CCM, which often stylistically demand strongly separated registers, as in the example of belting or traditional yodeling. Regardless of the physiologic and acoustic mechanisms by which these sounds are produced, the final product is different, often extremely so. Though many singers perform successfully in both classical and CCM styles, the vocal techniques required to produce those styles are not likely to be interchangeable.

Whether specializing in one area of technique and repertoire or working with a multitude of singing disciplines, teachers should have an appreciation of and a respect for any style they teach so they are not tempted to change the style, thus compromising both the integrity of the art form and the singer's ability to successfully compete in that art form. Though there are many exercises in the classical vocal discipline which are beneficial and perhaps even essential for vocal development in all singers, including CCM singers, no single voice technique can serve all styles of singing.

The Academy recognizes the need for diversity in the voice teaching community. Today, the Mimi in Larson's *Rent* is just as likely to seek out a teacher of singing as the Mimi in Puccini's *La Boheme*. Anyone who wishes to train in a particular vocal style should be able to find a teacher knowledgeable and skilled in the technique and repertoire of that style. Regardless of the technique the teacher is utilizing, one that is CCM-based or one that is classically-based, the goal should be the same: singing that is efficient, healthy, and artistically expressive.

Though the goal of efficient and effective singing is the same, the paths to the goal may need to be very different. For example, while building the vocal mechanism's strength, coordination, flexibility, and endurance, the teacher of an extreme singing style such as heavy metal rock must also be prepared to address the shouts, screams, yells, and growls that characterize this style of singing. The issue here is not that one technique or style is better than another. Rather, it is that they are different aesthetically, physiologically, and acoustically, and thus demand different pedagogic approaches.

The voice science community continues to investigate differences among the various styles of singing including: 1) physiologic aspects of registration related to muscle function and configuration of the glottis; 2) breath and airflow management, including typical subglottal pressure required to sustain phonation, and; 3) variations in the acoustic spectrum that are related to gender and style. The Academy encourages this ongoing research and hopes it will lead to a deeper understanding of differences and commonalities in the vocal techniques required for mastery of all singing styles.

In conclusion, it must be emphasized that no style or voice technique, be it belting or traditional art song, can be learned in a weekend workshop. Teachers of singing must pursue in-depth study if they are to fully comprehend the specific voice techniques that produce the "twang" in country, the "wail" in gospel, the "rasp" in rock, as well as the "bel canto" differences between Wagnerian and Mozartian singers in traditional opera. The Academy acknowledges and supports the diversity of singing techniques needed to meet the diverse demands of singers, regardless of the place they occupy in the spectrum of singing styles.