An Excerpt from Michael Trimble’s  
*Fundamentals of Great Vocal Technique*  

**Methods and Techniques of Famous Singers**  

**The Power of Observation: Trimble’s observation of great singers**  
I had, by my third year in New York, developed my own style of physical analysis of technical singing, which was based on observation and physical, aural, and when available, intellectual confirmation. The information upon which I based my system of analysis has been gathered from every source available to me, and especially from the very best singers who sang in New York from 1959 to 1964 and in Europe from 1963 to 1972. My curiosity continued when I returned to the U.S. and again had access to the greatest singers in the world. The following points and questions were already a part of my method for acquiring technical knowledge about great singing, and I did my best to apply them to my search for understanding of the vocal process.

**Moveable Parts**  
First, observe the posture of great singers. It is possible to actually see some of the greatest singers performing live on YouTube. Do they stand up perfectly straight with the weight on the front leg, or do they lean the body in one direction or another? Aspiring singers should observe the physical movements of the bodies of great singers while they are singing, and especially when they breathe. The main areas to be observed are the abdomen, the chest, the back, the mouth, the throat, the jaw, and the angle of the head. Milanov was as still as a statue in the chest and the belly. Of course, her belly was held in by a corset! She could not have used the sleeping baby method of breathing if she had tried! Lauritz Melchior wore a corset that covered his body from his mid-thighs to his armpits! He couldn’t push his belly out to breathe, either! It was obvious that both singers did not, indeed could not breathe into their bellies. They had no choice. And, since there was no movement in their chests, they had to be back-breathers! This was confirmed in 1962 when I had lessons with Melchior. In one session with him, which resembled an interview, he described his breathing and support method to be the crying/laughing baby method described by Caruso in his book and Pavarotti years later at Juilliard.

**Observations of Milanov: Always Save a Leg**  
After I applied my system of analysis to the singing of Zinka Milanov, who was only one of the many great singers I have studied during my fifty years of involvement in the vocal arts, I was left with the following observations and notes. The dates were spread out over the Met season of 1962-1963.

**Posture and Breathing**  
The Milanov posture while singing was definitely old school, with her weight on one front foot or the other at all times and the chest thrown outward and forward with the elbows pulled back. I want to mention here that I was admonished by every great singer for whom I auditioned never to stand on two feet while singing. “Always save a leg,” advised Mario Del Monaco, “You may need it later!” Melchior said, “The balance and coordination needed for great singing is crucial in the very long roles. Never stand on both feet. It spreads your balance and is much more tiring. Standing on one foot makes you balance and saves your energy for singing. You can shift back and forth, but never stand on two feet at the same time if it is avoidable.”
I never saw Milanov stand on both feet while singing. The perfect stillness of her chest seemed to be an extension of her balance. The whole body was leaned slightly forward, but not as extremely as Dame Joan Sutherland, Luciano Pavarotti, or Jan Kiepura. She would change back and forth from one foot to the other in order to change direction, or, perhaps, to rest one leg while the other worked. The shoulders were kept back, dropped down, and relaxed.

Her belly and chest did not move when she breathed. What space in her body was left for breath? It was certain that she had to have breath to be able to sing. I realized that I would have to observe her back to see any action when she breathed.

Her chest did not move. It was held high and formed the sternal arch that is still a common concept in Eastern Europe today. Helge Roswänge described the chest as being:

> Like a shield made of iron. It should be maintained in an arched position, solid like the Rock of Gibraltar, filled with breath from the bottom of the lungs to the top of the lungs. The chest must be impenetrable, immovable, and unshakable by any outside influence. The King of Dancers posture in yoga creates the perfect shape of the chest for singing.

Milanov’s lower back was her secret weapon. It filled with air when she inhaled, with the lower ribs expanding. The lower ribs would close together when she sang, exactly like Caruso’s description of the bellows in the lower back. Her pelvis was turned under, in the old-fashioned posture of the elongation of the lower spine.

**Articulation**

Her mouth was not kept in the typical Italian *stai* shape, or in the shape of an oval lying on its side. She was not an Italian by nationality, and her accent was not as exemplary as it could have been. She definitely pulled the corners of her mouth back when she sang high notes, but did not use the open smile at all times in her middle voice. Observe, on YouTube, her high b-flat at the end of “Vissi d’arte” from Puccini’s *Tosca*; she pulled the corners of her mouth back extremely for every high note, regardless of the volume level she chose at the moment. I heard her Tosca many times. That note, “Signor,” was gigantic in its fullness and ringing power. Although Milanov was nearly a perfect singer, the looseness of her jaw affected the way she sang the Italian language, and marked her as a trainee of the Eastern European school of singing.

Her throat was breathed downward so extremely that her larynx almost disappeared from view. Its movement downward, when she inhaled, was the only visible movement in the front of her body. There was not a hint of visible tension or strain in her throat, no visible tendons or blood vessels, no quivering or shaking. I was reminded of Dame Eva Turner’s description of the invisible throat. Milanov was living proof that such a criterion could be fulfilled.

Her jaw opening seemed to generally follow the rule of one finger wide in the middle range, two fingers wide in the upper range. Although she did not always use the *stai* form in her middle range when she had a lot of text to sing, her jaw was never pulled down into the “baby-bird-ready-for-worm” opening that is so common today among singers of every category.

Another technical plus in her singing was that she did not chew consonants by moving her chin up and down to enunciate dental consonants. Ideally, the teeth should not come together to enunciate dental consonants (d, l, n, s, t, z). She used the tip of her tongue to pronounce those consonants, without moving the chin up and down while singing. This particular approach to
articulation was very old school. The modern Italian singers sometimes chew their consonants, although it is not as efficient as leaving the jaw invisible. Flexing the jaw to enunciate consonants used to be considered a flaw in a singer's technique.

Her neck was loose and free, and provided a relaxed support column for the position of her head, which was always tilted back and up, facing the balconies. There was no visible tension in her neck. Her head seemed to be balanced of top of her spine like a ball balanced on top of a pole. Because of the lack of tension in her neck, she could move her head in any direction while singing, including all the way back, without the tone being affected. Desdemona’s death scene in Verdi’s *Otello* was staged at the Met in the 1960s with the soprano hanging her head back and down off the side of the bed while lying on her back. She was the only soprano I ever heard who sang Desdemona’s last, pitiful notes with such freedom of the throat and such floating beauty.

**An Inspired List**
I had noticed for a long time, that the greater the singer, the less movement there was to observe in the chest. Another member of the invisible gang was Richard Tucker. He was one of the stiffest singers I have ever seen, especially in the lyric sections of his most dramatic roles. Only his back could be seen moving, opening and closing, with the chest perfectly still. Gestures as part of acting were freely made, but never allowed to disturb the perfect stillness of his chest. No exaggerated actions were obvious when he pronounced words.

I also have found this list to be very useful in teaching actors. Olympia Dukakis said that one of the old rules of the theater is to *never show the work*! Being dead-still, with the chest in a high, open posture while singing or speaking, not only helps control the vocal requirements of a difficult role, but also negates superfluous movement, and contributes to the success of the interpretation of a role. Singers need to practice never showing the work if they want to become good actors.

**Fritz Wunderlich: The Natural Singer**
I would include Fritz Wunderlich on the list of great singers. He was a fabulous vocalist with a marvelous, free, and sympathetic vocal delivery. His entire approach to singing seemed to rely on a psychomotor response to his desire to sing. In other words, he fulfilled the definition of a pure, natural singer. Although his voice was pure silver, and as sweet as candy, and his vocalism was in every way extraordinary, he did not want to discuss his mental approach to singing. When I asked him how he sang, he said, “like everybody else.” Well, that certainly wasn’t true! He was, without a doubt, the very best Mozart tenor in recorded history. Tucker was astounding to hear in Mozart because he had such a big, ringing, multi-colored voice in such light music. However, those of us who were fortunate enough to have heard Wunderlich in a live performance knew we were in the presence of a vocal and stylistic phenomenon. There was no need to compare him with anyone, and certainly not with the power tenors. He was able to stand alone as a great, unique singer who could please all people all of the time. There was no evidence that he was analytical about his vocal method, or that he had a process of sequential thinking to keep him organized. Most of the singers who worked with him regarded him as a natural singer. He just opened his mouth and out came flawless singing.

Like Cornell MacNeil and Cesare Siepi, perhaps Wunderlich simply didn’t want to discuss vocal technique. There are singers who keep their secrets to themselves, for whatever reason, and there are singers who really don’t know how they sing. They don’t seem to think a series of thoughts that dictate predictable responses in the body. Tito Ruffo comes to mind as the greatest example of a historical singer who couldn’t explain how he sang or what he thought about while singing. When
asked why he didn’t teach to provide an income for himself after his retirement, he said that he “had no idea what to tell a student about how to sing.” He “opened his mouth and the voice came out.” One day he opened his mouth and his voice did not come out and he didn’t know why. He had to retire from singing. Ebe Stignani and Eileen Farrell were the same way. They never discussed technical singing. They just punched their mental buttons that called forth perfect singing and they did it for years.

During an engagement when I sang a series of performances of Dvorak’s *Rusalka* in Munich, I decided to observe Wunderlich closely in performances on my days off, and try to discern the actions of the key elements of the vocal puzzle when he sang, just as I had done while a student at the old Metropolitan Opera when the best singers performed.

I concentrated my observations on a list of observable body functions while Wunderlich was actually singing:

- The chest (sinking or still)
- The belly (moving inward or outward while singing or inhaling)
- The nose (open like [m] or closed like [b] or [d])
- The corners of the mouth (puckered forward or pulled back)
- The hinge of the jaw (showing a separation from the skull or not)
- The angle of the head (held level, lifted upward, or facing downward)
- The upper lip (covering the upper teeth or lifted to show the teeth)
- The tongue (pulled back away from the teeth or placed against the lower teeth or the lower lip), the teeth (showing or hidden?)
- The movements of the lower back during the alternating functions of inhaling and singing

Needless to say, he used all of the parts of the vocal puzzle like a fabulous tenor from the Golden Age of Bel Canto. As far as I could tell, everything functioned when he sang exactly like the technical, physical responses of Richard Tucker, Jussi Björling, and Helge Roswänge! No wonder his voice was so exquisitely beautiful and full of tenderness and velvet. He could have written the Caruso book!

I never knew if he was actually moving his mind when he inhaled or if he thought about the *Atemstauen* when he sang, but he definitely achieved what can only be described as perfect singing, while fulfilling every criterion desired in a world-class tenor. What was he thinking about when he sang? Was he thinking at all in order to achieve the physical movements in the back and the posture of the chest we observed while he sang? Was it all natural and automatic? According to the German baritone, Herman Prey, Wunderlich’s best friend, Fritz was a pure, natural singer who couldn’t tell even his closest friend (Prey) how to become a better vocalist. All he told him was that he “dropped everything when he had to sing.” “God and Nature,” to quote Lilli Lehmann’s praise of Adelina Patti, provided Wunderlich with everything a singer can possibly possess in terms of vocal beauty, volume, ease, and range, along with a touching, charismatic quality that thrilled the public.

**Jon Vickers: An Exception to the Rule**

Jon Vickers was the only successful singer I have known who had a great career by pretending to move his bowels while singing. I know for a fact that he supported with this concept because I asked him in Mexico City in 1962, during a run of performances of Verdi’s *Aida*. He explained it
very carefully. He opened his throat in the biggest yawn possible and pressed down like he was constipated and trying to move his bowels.

Vickers was a lumberjack in his youth and had the physical strength of ten men. He was able to produce huge tones in his middle voice, and the color of the voice was magnificent, in spite of the enormous efforts demanded to neutralize the vertical pressures against his larynx. Extraordinary physical strength, superior to any professional singer I have known, was not sufficient to overcome the reactions in his throat on his high notes. Although he could reach the highest notes in his repertoire through sheer effort and muscle, they did not ring or project like his massive notes in the middle range of his voice (and certainly not like those of Mario Del Monaco, Richard Tucker, Franco Corelli, Lauritz Melchior, or the most powerful tenor I ever heard, Helge Roswänge).

Helge Roswänge: A Vocal and Technical Phenomenon
There have been a few singers who have had long, successful careers, basing their vocal techniques on the writings of great singers and teachers of the past. Helge Roswänge never had a voice lesson, and was, in the minds of many fans, the world’s greatest tenor for fifty-five years. He depended on the technical approach described in Caruso’s book as the best way to organize his own vocal method. He especially practiced the breathing and support functions and the mouth shape as described by the great Italian artist. Although he was Danish, Roswänge was called the The German Caruso because of his enormous, thrilling voice and the fact that he made his career mainly in Germany and Austria. Critics, colleagues, and fans in the German speaking countries who heard Roswänge in his prime referred to him as a Stimmphänomen (voice phenomenon). Many of Caruso’s fans who heard Roswänge in the 1930s found no reason to consider one voice better than the other. There has probably never been a better voice that Roswänge’s. It would have to be a matter of personal taste, especially among the Italian fans, to prefer Caruso or Roswänge. In any case, it is certain that the voice of The Great Dane was indescribably beautiful and powerful, with a scintillating mezza voce that could effortlessly fill every theater. He could sing the complete range of highest (including high D) to lowest notes at any volume level he desired. Even at the age of seventy, when I heard him live at the Gärtnerplatztheater in Munich, the voice was still one of the wonders of the world! When I asked him about vocal technique, he immediately said that I should read Caruso’s book.

Roswänge was a scientist by training and mentality, and he had a clearly defined, sequential mental and physical procedure that he practiced and applied to his singing. He followed the advice in Caruso’s book to the letter, which provided him with the ability to exploit one of the greatest vocal gifts in history. He was an extremely advanced practitioner of yoga and had the most prodigious breathing capacity I have personally observed. His application of the principles of the bel canto vocal style learned from Caruso’s book, plus the enormous breath capacity at his command, gave him the ability to astound the world with his phenomenal voice.

I studied singing with Roswänge for one winter in Munich. One approach to teaching and vocal technique he used was demonstrated by letting me observe his own singing. As did so many of the great masters, he pulled his abdomen inward while inhaling into his lower back; at the same time, he smiled and raised his chest. The intensity and depth of the inhalation was extremely exaggerated, and because of his life-long practice of yoga, his breath capacity was enormous. During the warm-up period, the inhalation was especially long and sustained. His inhalations certainly fulfilled Caruso’s demand for massive respiration.
He would demonstrate the open throat by breathing deeply with the corners of his mouth pulled back exaggeratedly in the shape of an open smile. No teeth were allowed to show. The upper lip was pulled down to cover the upper front teeth, and the tongue across the lower lip covered the lower teeth. Each vocalise began with movement of the chest outward and forward in coordination with an outward and forward movement of the abdomen. He would then begin to sing a series of staccati on different vowels in the middle range, bouncing them on his downward moving diaphragm while relaxing his abdomen outward.

After locating the two responses to the activity of the staccato function—one on his chest and one in his lower pharynx—he would sustain a tone on each point provided by the staccato, alternating from the chest to the throat and back. The sounds he made from the point on his chest sounded exactly like the sounds emanating from the tones based on the staccato point in his throat. I would not have been able to tell the tones apart if he had not clearly demonstrated with his hands and pointing fingers the source of each tone. At the instant of the attack of any sustained sound, he would press the breath from his lower back against the corresponding staccato point on his chest.

He would demonstrate the open throat by not allowing the mouth to change shape from low note to high note while singing octave leaps on different vowels with the corners of the mouth pulled back as far as possible. No covering or vowel modification was allowed as an action, although a definite change of acoustical quality occurred automatically as he passed through the passaggio.

The front of the tongue was kept in contact with the lower lip from corner to corner of the smiling mouth, while the back of the tongue was inhaled downward. The corners of the mouth were kept pulled back at all times as a contribution to the open throat, just as demonstrated by Caruso in the photographs in Dr. Marifiotti’s book on every vowel, including [u].

These few ideas, sequentially applied to his breathing and his phonation, comprised the totality of his vocal method, and it was learned from a book!

**Breathing Methods of Master Singers**

**Common Aspects**

How did the greatest singers in history describe their sequential thinking processes that produced the most fantastic voices in history? How did they describe the way they inhaled and the way they controlled the breath while singing?

It is noteworthy that the inhaling and breath control methods described have aspects in common with each other. The most striking criterion they shared is inhaling into the lower back and the contrary motion of the breath at the instant of attack of the tone. Caruso said, “never try to sing while still breathing in.” The suspension or restraining technique, so popular among Liedersänger (singers who specialize in songs written by composers who attempt to create a work of art as opposed to a piece designed to entertain), requires a continuation of the inhalation process while singing. The Verhaltungsmethode, which was described earlier in this book, requires a lateral (sideways) pressure against the upper ribs to prevent the release (dropping) of the breath while singing, instead of a leaning of the breath and steady pressure of the breath against the lower chest. The restraining method or the suspension method would not have met with approval from Caruso, as it functions like a continuation of an inhalation that is high in the ribcage, with the drawing in action directed against the inside of the upper ribs, which are flexed outward to the sides. Caruso’s method, according to his own words, functions like a “stopped exhalation.” The appoggio was the concept common to many great Italian singers of the past, and to some of the
greatest German and French singers who studied and sang during the Golden Age of Bel Canto. Frieda Hempel was an example of a fabulous German singer who used the appoggio method. Her approach to singing is described in her book, *My Golden Age of Singing*, which detailed an Italian vocal style based on exaggerated inhalations and the appoggio.

**Caruso’s massive respiration**
The “massive respiration required for great singing,” as described by Caruso, is an aspect of vocal technique that often stirs curiosity among young singers. The question often arises: “Why worry about extreme inhalation and an ever increasing volume of air in the lungs, if only a small amount is needed to sing a phrase?” It should be enough for us to realize that the greatest singers in history recommended inhaling as much air as possible at all times. Montserrat Caballé said, “You should be able to inhale for, at least, eighty seconds, before you have a voice lesson.” When asked what a singer should do who does not have such extreme breath capacity, she answered, “Find another line of work!” There must have been a reason why the greatest singers recommended such extreme development of the breath capacity and strength. It is up to us to figure out why, because we know their approach was the most successful method in the history of singing.

**Nothing Moves Unless the Breath Moves It: George London’s breathing method**
One important rule that should be scrupulously observed is as follows: *The ribs should not move unless the impetus of the inhalation moves them.* George London would point at the lower back of the young singers and say, “make the singers work the machine (the lower back) when they breathe, both inhaling and exhaling. And remember, nothing should move back there unless the breathing moves it.” According to him, elongation of the spine should be coordinated with the inhalation and not be an independent motion. He went on to explain that powerful respiration should be the only source of energy that causes movement of any part of the vocal tract. That includes the lower back, the throat, the back of the tongue, and the larynx. The entire area of the throat, and especially the back of the tongue, must be kept soft and relaxed, without any flexing of the muscles in the throat, the jaw, the tongue and the neck. The back of the tongue and the larynx descend only as far as the strength of the inhalation can lower them. The larynx must never be depressed downward independently by muscular action. It should descend only as a response to the strength of the inhalation.