

# **A few elements about the vocal mechanism and technical preparation in singing**

Nicoleta Mihaela ARDELEAN<sup>1</sup>

**Abstract:** *It is important to notice that the entire human body participates at the emission of the artistic sound of the instrument called voice. I believe that being a professional singer should be related to performance and that a singer should possess strong knowledge concerning the vocal apparatus (the breathing system, the phonation, muscular, bone, locomotor and nervous system) and to fully understand how they work, how they function and how they are built and structured in the physico-mechanic process of singing. The professional singing implies using several groups of muscles: the breathing muscles, those from the rhinopharyngeal area, the larynx, facial and tongue muscles, performance being achieved only if these muscles, after a necessary preparation, get to be able to support the vocal effort.*

**Key-words:** *vocal mechanism; vocal training; technical preparation; exercises.*

## **1. Introduction**

I do not embrace the idea that one can sing well enough without having done a series of exercises to activate the muscles mentioned above, because without this training the incapacity to control the instrument called voice may appear, as well as problems concerning the resonance, sustenance, execution in the ambitus, extremes, the presence of the uncontrolled vibrato, finally, because of the struggle to compensate the lack of training, there may be tensions in certain structures of the vocal apparatus and also hoarseness.

## **2. Objectives**

It is desirable for a career development, which targets both theoretical and practical component, the formation and development of abilities for the students, and master students, from the specialization Musical interpretation-Canto, related to the vocal mechanism and technical preparation in singing, and for a future singer it is essential the projection, organization, development and capitalisation of researches, through elaborating and utilising some instruments of theoretical-informative and practice-acting nature, and through implementing a pattern of training.

## **3. A few elements about the vocal mechanism and technical preparation**

Regarding certain aspects about the vocal training, although approaches differ from one teacher to another, there are nevertheless a few limits where we can place our activity.

The canto teacher must possess a valid teaching method and prove a meticulous knowledge of their profession, offering thus in the first phase a foundation for the singing technique without which one cannot build what we call the vocal art. One must take into account the psychologico-physiological specificity of each student so as the vocal subject to acquire the general technical data through individual and most of all individualised study.

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<sup>1</sup> Faculty of Arts of the University "Ovidius" from Constanta, nicoletaardelean@yahoo.com.

The technical preparation has a major importance for the vocal training.<sup>2</sup> By definition the art of singing follows the rules of perfect execution technically speaking, the singers, capacity to produce a singing as close to the perfection as possible being extremely appreciated. To illustrate more eloquently this truth, with the help of the composer and musicologist George Sbârcea, I shall bring into attention what happened when the well-known tenor Enrico Caruso had his villa in Napoles redecorated. The singer, famous for the insistence he trained his voice every day, while the workers were at the ground floor, was vocalizing at the upper floor of the building. After a week the team chief came to Caruso and said: "I suppose, maestro, that you would like to see the work ending as soon as possible." "Of course, said the singer." "Then I suggest you stop singing because each time you open your mouth my workers leave the construction site and there is no human power able to convince them to take the trowel in their hands before you have finished singing."<sup>3</sup>

Through vocal technique we understand the totality of processes used to practice the profession of singer. The execution of the melodic line must be as just as possible technically speaking, seeking that each melodic phrase, but also each particular segment, be realized with precision and coordination so that the public should be pleased.

As any other field, the professional vocal training has a specific language, which evolved across time and was accepted by the majority of teachers, becoming quasi-standardized. Besides the denominations there are treaties, studies, courses, which operate a thorough theoretical description of each step that must be taken in the vocal training, in order to ease the practical learning.

But the theoretical component does not restrain only to transmitting and explaining the terms, it also has a major importance in the lessons with practical content, because the teacher explains, informs, corrects, creates awareness, motivates the students for a better learning and understanding of the practical content.

The list of instructions concerning voice education and student's preparation for the stage is very long and mostly well known, to summarize we mention only a few main essential points which must be known and respected, the teacher having to take into consideration proceeding with patience, without haste, purposely, always appreciating the quality of the sound rather than spectacular successes, like the extremes of the ambitus or the forte sounds. There shall be no persistence beyond the point where the smallest tension appears in any area, which the teacher must detect by hearing and by seeing. If this happens the student is firstly stopped from practicing and advised to take a rest, then it is suggested an evaluation of what happened, a rethinking of the sound and sensations, before trying again. If the problem is still there, they pass to another type of exercise and try once more later on.

The classes of singing should be started with the physical *awakening* (muscular tonus) – because the vocal activity is compromised if necessary physical support is not assured-continued then with voice and hearing warming up, but never on amplified sound intensities. Lately in the international literature it is mentioned about good vocalists rather than good singers. Each vowel has its own spectre of frequency and it is formed not so much by modifying the mouth cavity position, but especially by the tongue's position, each vowel having its own formation elements. All vowels are projected on the bone palate, as close to the teeth as possible. Exercises of going through all vowels on the same tone and breathing are necessary. I should like to emphasize that the vocal interpreter must understand the

<sup>2</sup> „A singer with a beautiful voice has the obligation to learn a vocal technique that allows them to have a proper technical, stylistical and artistic interpretation of the most varied pieces of the history of vocal music.” Duțescu, Mircea. 2002. *Great voices, strange voices*. Bucharest: Protel Publishing House, p. 97.

<sup>3</sup> Sbârcea, George. 1972. *The Merry Muse*, musical gags, aphorisms and snapshots told by George Sbârcea, ed. III. Bucharest: Musical Publishing House of the Composers Union, pp. 197 - 198.

difference between musical note and sound, to speak in the old canto school terms, to fill the note with the sound.

Breathing. Enrico delle Sedie, one of the main vocal educators at the Paris Conservatoire from the end of the XIXth century, the author of several influent singing treaties, leaning on his predecessors, rules, who believed singing was “the school of breathing”, asserts that “the first condition, the most important, to be able to sing well, is to wisely know how to control and manage your breath”<sup>4</sup>. The vocal educator Viktor Fuchs speaks in his treaty, *Die Kunst des Singens*,<sup>5</sup> about three guardian angels of the voice: breathing, legato and head voice. A proper breathing does not mean to sing a long phrase or a strong, long tone, but a proper support (*appoggio*) of the air flow and singing *sul fiato*, that is ON and not WITH air. „The exercises for breath control are specific depending on the intended result: amplitude, elasticity, force a.s.o.”<sup>6</sup>.

The singer should realise that even from the beginning of voice training, a nice legato can easily be obtained, on the other hand learning a correct *portar la voce* is much more difficult, taking a lot of time, patience and determination.

The student must feel the way vowels are formed on different registers, according to vocal cords, vibration. The resonance of either head or chest must not be mistaken for head or chest register. For example a good vocalist knows how to put a chest resonance on head voice, producing this way a broad tone even in piano. Being able to feel the resonance of the sound in one’s own body, but at the same time in the remotest corner of the hall, is a great quality and a first step to success. Permanent and concentrated attention on the correct tonal emission (attack, intonation, tone interruption), especially in the study outside classes. The tone interruption exercises, spontaneously, from rib-diaphragma support without additional noise, rerunning it, without breathing in, on the absolute same tonal hight, must practiced daily.

The student must differentiate between articulating and diction and must know their way of training.

Without a correct execution of all ornaments (*canto di agilita*) and learning to integrate them in the melodic line on a sustained breathing, the style cannot be respected. The student must know the fact that all voices must be educated following the same generally valid criteria. Only after reaching a certain level, only then a voice can be categorised (soprano, mezzosoprano, alto, tenor, bariton) or the voice type be determined (lyric or dramatic, a.s.o.) and settle the technical capacities necessary to approaching a certain repertoire (opera, operetta, musical, oratorios, lieder, a.s.o.). The only method to have a brilliant career is for the lyrical artist to sing just for the composer’s creation, with the necessary stylistic expressiveness to transmit the text to the audience.

Knowing the main pedagogic principles of the vocal training and the manner of collaboration between student and educator are of utmost importance in voice training. Only through hard work- reading and studying the old and new speciality treaties and not only, learning a right method of vocal technique, avoiding self -sufficiency with passing victories- a singer of international value can be formed.

Singing is an art of performance, that is expression, intention and communication, the psychologic element playing a big part. Within the modern vocal training the canto professor must firstly clarify certain specific psychologic aspects, in understanding the meaning of some terms- like development, learning, capacities, skills, habits, performance, information a.s.o.- and gathering a proper vocabulary, truely giving the guarantee of success: a correct rendering

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<sup>4</sup> Delle Sedie, Enrico. 1876. *Arte e fisiologia del canto*. Milano: Editura Ricordi, p. 13.

<sup>5</sup> Fuchs, Viktor; Melchior, Lauritz. 1967. *Die Kunst des Singens*. Kassel: Bärenreiter.

<sup>6</sup> Budoiu, Marius Vlad. 2007. *Breathing, between myth and truth*, vol I. Cluj-Napoca: MediaMusica Publishing House, p. 34.

of the message from the musical work, an interpretation based on the content awareness of the interpreted play.

The notion of development in the art of singing refers not only to the result of confrontations with the environment, from the social, economic, intellectual, physical point of view, but mostly to the vocal achievements that must be polished to perfection in the process of training and beyond it.

All these student's manifestations and states are observed by the general and special psychology, ordering each of these components as well as the moments when the transformations appear.

Learning, a broad and complex notion, implies an accumulation of knowledge and activities achieved by systematic and continuous repeating and practicing. Skills differ through a student's relatively stable individual particularities, which may be influenced by education, that implies several situations, states, attitudes. They depend on numerous genetic elements, assembling at the same time the student's general potential. When talking about vocal-interpretative skills we refer to sound and humane qualities among which we count: force, flexibility, dexterity, coordination, attention, capacity to react to different stimuli, affectivity, attachment, capacity to understand situations (which usually have an individual responsibility), perfect execution.

About the terms of skills and habits in vocal art it is difficult to give a definition, we shall restrain only to say that they ask the singer to take the most correct information concerning the particular aspects of the unfolding of the artistic act. Making decisions and rightfully perceiving the unfolding conditions have a major effect on the student's behaviour along their educational course as well as on the career's. The success in singing is always the result of concentration and focusing and never of chance and it needs the activation of student's physic and mental capacities. In order to do that a system of methods must be realized with the purpose to render the capacity of physic and emotional self-control. The concentrated manner in which vocal exercises are executed may bring not only a plus of efficiency in the student's technical education but also in a future artistic career.

The motivation is tightly connected to passion, well-being and competences, but without the effort centered on motivation, ideas, wishes and potential are left unexploited. This effort capacity should be achieved permanently, knowing the fact that performance becomes essential for the career. Regarding the optimization of a canto student, I must point out the fact, not at all neglectable, that the teacher is obliged to constantly assure an increased exigency in the education process, in planning and programming the objectives that must be achieved, as well as in using the methodic procedures of vocal preparation to increase the chances of success.

Informing is the modality through which one can accumulate new knowledge of vocal technique and interpretative art, as well as the most correct information concerning the particular aspects of the educational process and performance itself. The efficiency of transmitting information requires a just communication sharing, depending on the utilization frequency and degree of credibility. Treaties have an important part in forming and educating the future singers, because they enlarge the knowledge horizon and contribute not only to developing a technique-interpretative language but mostly to establishing the principles and concepts in vocal art, studying them being an essential activity closely supervised by the teachers, first by suggesting certain works and then by guiding them.

The course of modern canto incorporated also the psychologic component which can solve many and diverse problems that appear during teaching. In my opinion the teaching pattern which succeeds, along with providing data, to convince about the spoken truth and to determine the achievement of the things firstly mentioned theoretically, is the one that pays priority attention to the empathic elements, assuring a maximal teaching efficiency in the

actual teacher-student relationship. It is necessary to get to a more active teaching method, student oriented, which involves the latter in the learning process, it trains them in the skills of learning all the principles of the vocal art, as well as the fundamental capacities of working on stage, as a team, overcoming the obstacles during the artistic act. Teaching reaches this way its essential specific condition, to determine learning at the level of setting the objectives, saving effort, elaborating strategies, permanently involving self-control and self-evaluation, with structures completely incorporated in the functioning system of any training activity.

#### **4. Conclusions**

This analysis is trying to lead to a better understanding of the technical training role in the art of singing as well as to learning some basic concepts, this deciphering representing a possible training pattern. It is recommended that the lyrical artist be aware of their limitations of the vocal resources and develop them based on methodic exercises. The technical training must be executed along the entire career, first supervised, than by themselves, it is recommended constantly, the purpose being to progressively achieve a determinate vocal technique which allows performances set by hight, intensity, pitch and resistance.

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