

PROFESSIONAL TRAINING OF STUDENTS IN THE PROCESS OF “BEL CANTO” EXERCISE

Bel canto, as a classical type of vocal performance, is characterised by a rich expressiveness and deep artistic charm, which are due to the subtle application of breath control techniques. Based on abdominal breathing, the study examines mechanisms such as coordinated vocal cord closure and airflow control, analyses the physiological basis of breath support and singing duration, and explores basic physiological training methods to improve breath control.

To systematically assess the impact of breathing endurance, a comprehensive testing system based on acoustic analysis, aerodynamic measurements and breath pattern tracking was established, combined with field observations and self-feedback mechanisms for comprehensive evaluation and certification. Since 2016, there has been a gradual increase in the number of studies focusing on breath control in bel canto, with the relevant literature increasingly emphasising the importance of endurance breathing training.

The main part. In his 2016 article ‘A brief analysis of breath control and its application in bel canto’, Tian Lei noted that breath control is crucial for bel canto performance, as good breath support can not only enhance the penetration of the voice, but also increase the richness of timbre. Subsequent studies have also emphasised the fundamental role of breath in singing, and Mu Shan, in his 2019 publication *On the Relationship Between Breath and the Foundations of Bel Canto Singing*, further explored the intrinsic relationship between breath and singing, seeing the control and application of breath as key to establishing bel canto singing technique.

In the 21st century, research on flexible breath application has gradually gained academic attention. In the 2021 article ‘Research on Flexible Breath Application in Bel canto’, Zhang Yuan emphasised the significant influence of flexible breath application on artistic expression in various musical forms through analysing the technique of breath application. Meanwhile, Fan Yuhong suggested in her 2017 study ‘On Breath Control Training in Bel Canto’ that systematic control training can effectively improve breathing endurance, thereby comprehensively enhancing singing.

Given the importance of breath control training in bel canto, scholars such as Wu Peilong and Ni Cheng, in their 2020 articles, discussed the relationship between breathing and singing fundamentals and practical methods of breath control, respectively. They believe that breathing endurance training is not only to improve technical level, but also an integral part of artistic expression for singers. Moreover, Chen Xi pointed out in his 2022 study ‘Exploring the Flexible Application of Breathing in Bel Canto’ that future research should pay more attention to the diversity and practicality of breathing training methods to contribute to the overall quality improvement of bel canto singers.

Scholars have put forward various views and methods in their research, providing many references for breathing endurance training in bel canto. However, there is still considerable room for improvement in the systematic and practical aspects of breathing endurance training, and future research should continue to deepen on this basis.

Bel canto began to spread gradually in China from the early 20th century, accompanied by the deep penetration of Western culture. It began to collide and integrate with Chinese singing methods, and new combinations with Chinese folk singing, opera and local music emerged. In the early formative years of New China, many musicians returned home from all over the world, bringing with them bel canto from the United States, Japan, Europe, and elsewhere. From basic education in schools to university education to music academies and choirs, bel canto has influenced the whole world.

From a political point of view, the early years of New China came during the War of Resistance against Japanese aggression, which produced many outstanding musicians. Beginning with the May Fourth Movement in 1919, musicians such as Zhou Xiaoyan, Ying Shanneng, and Huang Yukui became active in the Chinese music scene. They began to hold concerts throughout the country, introduced Italian classical songs, technical skills and methods of expression, and nurtured a large number of talents such as Xi Yigui.

Against the background of the Chinese national singing style, the introduction of bel canto greatly enriched the technique and methods of vocal music in our country and formed a unique singing method.

From an economic point of view, with the founding of New China, various industries and sectors began to gradually resume production and economic activities. People's material standard of living steadily improved, and the pursuit of spiritual pleasures became more and more widespread. People began to praise the wealth and prosperity of the motherland, which largely served as a material guarantee for the development of bel canto. Especially with the advent of reform and openness, the national economy underwent tremendous changes.

In terms of culture, Chinese culture has a long and rich history, with strong vitality in literature and art. In addition, our country has produced many outstanding artists who are constantly innovating and breaking through. Many fine works have appeared on the opera stage, such as 'Liu Sanjie', 'Red Guard on Honghu', 'Sister Jiang' and 'The Marriage of Xiao Erhei'. The combination of bel canto with elements of drama and folk songs made the opera majestic and powerful. Today, on the international vocal stage, we see the enthusiasm of the contestants. They constantly win first place in all major international competitions, becoming a formidable force on the international stage, attracting the attention of the whole world.

In bel canto, breath duration is a key factor in determining the quality and expressiveness of the voice. Training the duration of breathing can be achieved by various methods, among which the most commonly used are 'diaphragmatic breathing' and 'whirling breathing'. Diaphragmatic breathing involves lowering the diaphragm completely to increase the efficiency of lung ventilation. Typically, this involves the abdomen expanding during inhalation and gradually contracting during exhalation to maximise the efficiency of breathing. This method involves exercising daily for 20 minutes, gradually increasing the duration of inhalation and exhalation to strengthen vital lung capacity and breathing control.

In particular, an important part of improving duration is the inclusion of steady breathing exercises. It is recommended to practice sustained notes at a tempo of 80-100 beats per minute, gradually increasing the duration of each note to 8 seconds, maintaining vocal cord tension during exhalation to ensure a steady flow of air. This effectively increases the stability and duration of breathing. Due to individual differences, it is necessary to adjust the volume and duration according to lung volume.

In addition to the methods of practice, proper physiological and psychological regulation should not be forgotten. Relaxing the muscles and concentrating the mind can contribute to a steady output of breath. The use of 'progressive relaxation' and 'meditative exercises' can help reduce psychological tension and improve awareness and control of the breath. In conjunction with physiological regulation, exercisers should maintain good posture to allow expansion of the chest and abdomen, avoiding the accumulation of stale air.

Future research could focus on the correlation between breath duration and vocal performance, using more accurate measurement tools such as spirometers, and combining physiological and phonetic studies to further investigate the effects of different training methods on breath duration and to find optimal individualised training programmes. At the same time, the study of breath training methods from a cross-cultural perspective also deserves in-depth investigation, especially due to the diversity of breath application in different singing techniques.

Breath duration training is one of the basic elements of bel canto, and its effectiveness and development potential lies in the constant optimisation of training methods and tools, the focus on the coordination of body and mind, and the enhancement of singers' expressiveness and artistic achievement.

In the training of breath duration, mastering breathing technique is equally important. Proper breathing technique ensures smooth and even breath output, eliminating intermittency and instability during singing. For example, the breath point concept emphasises maintaining a certain amount of breath pressure during sound production, which helps control the flow of breath and makes the voice more stable and powerful. In addition, the rhythm of breathing, coordinated with the rhythm of the music, is also an important factor in enhancing vocal expression. Through practice, singers can learn to adjust their breathing to different musical rhythms to achieve the best vocal effect.

In practical application, singers should combine their vocal characteristics and singing style to choose breathing techniques and training methods that suit them. For example, in works that

require holding high notes for long periods of time, singers may need to rely more on diaphragmatic breathing to maintain a stable sound transmission. In works that require frequent pitch changes, singers may need to be more flexible in their use of breathing techniques to adapt to rapid pitch changes.

In vocal training, dynamic breathing exercises not only help students learn proper breathing techniques, but also improve their perception of musical rhythm and melody. Through this practice, students can better understand how to control their breathing while singing to achieve better sound quality and expressiveness. In addition, dynamic breathing exercises will help students maintain breath stability during long performances, which will reduce fatigue and improve overall singing efficiency.

During the learning process, teachers should encourage students to try different musical passages during practice, combining breathing exercises with actual singing, thereby constantly optimizing and adjusting their breathing techniques in practice. Ultimately, through constant practice and application, students will be able to flexibly apply dynamic breathing techniques to a variety of vocal pieces, demonstrating richer and more fluid musical expression.

Breath control technique plays a crucial role in bel canto singing, directly affecting the quality and expressiveness of the voice. Effective breath control aims to achieve stability and continuity of airflow, thereby demonstrating the penetration of high notes and the richness of low notes. Common breath control techniques include the following:

1. Diaphragmatic Breathing: With diaphragmatic breathing, the diaphragm is effectively used to inhale deeply, increasing lung capacity and breath control. As you inhale, the abdomen rises and as you exhale, the abdomen naturally retracts. It is recommended to practice diaphragmatic breathing for 15 minutes daily, gradually increasing to 30 minutes to improve breathing control.

2. Practice long tones: Select notes in the middle register of the scale to produce long tones, holding each note for 4 to 8 beats, practicing for 15 minutes each day. Pay attention to relaxing the lips and jaw during vocalization, maintaining continuity of sound and evenness of timbre.

3. Dynamic control: Practice changing the volume and softness of the voice within the breath by practicing coherent vocalizations that gradually increase and decrease in volume. Select appropriate musical passages to practice crescendo and decrescendo, noting volume changes on each note and practicing precise control of silence and volume.

4. Comprehensive Vocalization Practice: Based on syllables or simple melodies, gradually incorporate complex sounds and chord tones, practicing layer-by-layer breath release to ensure that each timbre is consistently played with breath support. Establish benchmarks to ensure clear control of volume and smooth transitions during each lesson.

Conclusion. Breath control techniques should be integrated into daily practice by persevering through the above exercises, combining technique with expressiveness. Through effective breath control techniques, a variety of timbres in bel canto singing can be achieved, subtly expressing emotion and enhancing the overall artistic expression of the performance. Breath Support Training: Ensure a steady and even release of breath during vocalization by controlling the contraction of the diaphragm and abdominal muscles. You can practice exercises with the syllables ‘ssssss’ or ‘ffffff’, pronouncing these sounds softly and maintaining a steady output. Time each exhalation and aim for a duration of 15 seconds or more.

Breath length training is thus a complex process that requires not only scientific teaching methods, but also singers' deep understanding of their own voices and sensitivity to music. Through constant practice and research, singers can gradually improve their ability to control their breathing and thus reach a higher artistic sphere in bel canto.

List of cited sources:

1. Chen, Z.L. Speech in the National Intangible Cultural Heritage Protection Conference / Z.L. Chen // Chinese Culture Newspaper. – 2005. – No. 1.
2. Bohua, Yang. Formation of the musical educational system in schools in China: the first curriculum / Bohua Yang // News of the Russian State Pedagogical University. – 2008. – No.74. – P. 306–309.
3. Chang, Liying. Folk song as a phenomenon of Chinese musical culture: author. for a job. uch. art. cand. art history. – SPb., 2007. – 23 p.
4. Bennett, Reimer. Facing challenge: Music education in the 21st century // Journal of Yunnan Arts Institute. – 1998. – 53 p.