

Breath and Dynamics in Bamboo flute Playing

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Abstract: By analyzing the scientific use of breath and dynamics in bamboo flute performing, this paper studies the relationship between breath and dynamics in bamboo flute performing. The paper expounds the regularities of breathing, exhaling and expiration in three steps during the breath in bamboo flute performing. And the six links of power control in playing as well, including Koufeng, Koujin, oral cavity, tongue, abdomen and fingers. Considering by identifying the problems apparently in bamboo flute teaching, combining with the use of breath and dynamics, the paper analyses the principle of breath application and power control in performing.

1. Introduction

Bamboo flute is a Chinese national wind instrument, which can be traced back to the bone blowpipe unearthed from the Hemudu Cultural Site. It is one of the oldest instruments of the Chinese nation. Bamboo flute has its own special sound cavity structure and sounding principle. In its performance, there are two interrelated core playing techniques, such as breath application and power control, which require unique control methods and application skills. When playing bamboo flute, the breath runs through all the time and it can be strong or weak; the dynamics can be broken and connected, urgent and slow. Bamboo flute is a vibrating wind instrument. It is difficult for beginners to pronounce compared with stringed instruments and plucked stringed instruments due to the fact that it requires coordinated use of breath and dynamics. If improperly applied, the angle of the depression or the external friction is greater than the internal friction, there will be problems with the pitch and the noise is bigger than the tone.

In the long history, the performance of the bamboo flute has accumulated a lot of valuable practical experience and skills, and has formed flute music genres. Since the founding of the People's Republic of China, with the establishment of professional music colleges and performance groups, the bamboo flute has moved from the folk to the classroom and the concert. The discipline of bamboo flute playing has developed rapidly, and the teaching of the bamboo flute has gradually matured. However, over the years, due to the lack of systematic teaching theories and methods, many bamboo flute teaching workers often teach in a single oral communication mode, followed by feelings in teaching. They are very sensitive to the intensity marks and speed of the music and they have no fixed standards. Therefore, students are very vague about the concept of the performance speed and their breath is not accurate enough. Thus, they hinder the teaching progress. For the learners, some bamboo flute learners often have an eagerness to seek success. Although the practice time is sufficient, they do not pay attention to breath training and basic theoretical knowledge learning. They are not good at learning from the playing rules in terms of breath application and strength control. That they pay attention to quantity rather than quality can only achieve the inertia effect of mechanical repetitive practice. The stability is weak. When playing the repertoire, the use of breath and dynamics is often too random, resulting in failure to complete the performance with high quality.

This paper analyzes the use of breath and dynamics in bamboo flute performance from the author's stage practice and teaching experience, finds and analyzes the three steps of the use of breath and the six aspects of dynamics application, trying to explore the role of breath and dynamics in bamboo flute performance in terms of principles and rules.

2. Breath in bamboo flute playing

Zhuangzi believes that "the life of a person is the gathering of breath. The gathering is the life and the scatter is the breath. The breath is the spirit and source. In the bamboo flute playing, the breath has the same core position and directly determines the "life" of the music, and that is the performance of volume, pitch, and tone. Reasonable use of breath can not only beautify the sense of hearing, but also play a good role in promoting the length of the bamboo flute and the emotional expression contained in the melody. Breath is fluid, Abstract, and more relevant to the breath body parts. Specifically, it is a scientific, rule-based gathering and producing of breath.

The breath mentioned in this article mainly refers to the breathing control in the performance of the bamboo flute. The bamboo flute is a bamboo cross-winding instrument. When playing, it uses the breath as the power to blow the breath into the blowhole and produce a cyclone vibration in the flute. At the same time, the bamboo flute is a kind of edge vibrating wind instrument. When playing, the lower lip is placed at the edge of the blow hole. When the breath enters the blow hole, the wall of the blown pipe is divided into two air flows, and the friction is pronounced with the edge of the blow hole. You need to inhale before playing the bamboo flute, exhale when playing and expire when finishing playing. This is the process of using the breath in the bamboo flute. Since the pronunciation of the bamboo flute is based on breath, the use of breath in the bamboo flute is very important.

The speed, thickness, and urgency of the breath are crucial in the playing of the bamboo flute. To learn how to inhale and exhale, the player will blow long sounds, strong and weak sounds, gradually strong sounds, faded sounds, breath shocks, belly trembling and cycling to train.

In the application of breath, the first step is to inhale. You can use the chest-abdominal breathing method. The diaphragmatic muscle pressure increases the length of the thorax, and requires the simultaneous expansion of the muscles of the chest, ribs, waist and abdomen. It ensures the continuity and explosiveness of the breath and better control the breath to be natural, relaxed and unobstructed. Inhalation is divided into two ways, one is to inhale deeply and slowly, and the other is to inhale slowly and quickly. Deep and slow inhalation is mostly used between slow-motion phrases such as whistle or bass flute, and is also used for the introduction or loose board of music. The introduction and slow board of "Makeup Autumn", "The Flowing Water" and "Flying partridge" adopt the deep and slow inhalation method, and the melody played is calm and elegant, just like the white-clad literati pacing between mountains and rivers with books. Inhaling lightly and quickly, also known as arrogance, is used in the lyrics of the three-sounding technique of the whistle flute, the northern-style vocal techniques, and the southern-style vocal techniques, such as "New Song of The Herdsman ", " The Boy Scout Broke Through The Blockade ", "Happiness", " Walk The Street ", "Happy Song", after the eight-notes of the three sounds of the music and the completion of the voice and the gift. The melody played by the deep and slow inhalation method has a strong sense of rhythm and plays a key role in cleverly connecting phrases.

The second step in the use of breath is to exhale. When we have finished inhaling, we will exhale immediately. The rhythm of exhalation must be properly controlled. The sound of the bamboo flute is high, medium, and low, and different sound zones have different requirements for exhalation. It is worth noting that after inhalation we shouldn't exhale very casually. The correct way is to save a little breath first, take a breath of inhalation, and then play the sound after judging the volume of the first sound of the phrase and the height of the zone. In fact, the habit of playing a breath and a sense of arrogance is a good control of the exhalation of breath, rather than playing the bamboo flute. It is better to control the bamboo flute. Why? Because when you use the breath to play the bamboo flute, if you do not control it, regardless of the size of the mouth, the strength of the sound, the front and back of the tongue, hurriedly exhale the inhaled breath quickly, the sound will be very unstable, and it is difficult to achieve the expected effect in the performance. In the professional training of practicing breath with long tone, the training of breath is in the natural state. You should suck nine points of air and spit eight points of air. That is, do not inhale too much to support, so as not to cause body tension. Exhalation should not be exhaled without a trace and the exhalation process should leave room through the control of the breath and let the breath slowly exhale. The process

requires the breath uniform, smooth, not strong or weak at the same time according to the music volume requirements to complete the exhalation process.

The third step in the use of breath is to expiration. The breath is stopped after the phrase is played, blocking the pronunciation, and the effect is to stop the sound. There is a sudden stop, such as a single voice at the end of the phrase. The breath at this time is very short and mostly used for the end of the strong volume. The breath does not leave the remaining sound, good and clean; there is a quiet weak reception, such as the melody that gradually disappears in the phrase or the ending of the fading sound, the breath velocity gradually slows down when the breath is collected, and the performance state should pay attention to a "forbearance" word, and the performance requirement should pay attention to a "stable" word.

The use of breath in the bamboo flute playing requires more thinking and practice in the three steps of inhaling, exhaling, and expiration. Inhalation is the preparation movement. The amplitude and speed of inhalation determines whether the breath is sufficient or not when playing. The greater the inhalation is, the better. Just like throwing a shot in sports, lifting the top of the head, the upper part of the body is slightly bending backwards. Preparing for a large movement and throwing out an explosive force in an instant can throw the shot ball far away, and the inhalation in the flute playing is also the same. As the inhalation amplitude of the preparation movement is larger, it is easier to force when playing. Exhalation is the movement between performances. A powerful quick exhalation can produce a sound with a higher sound range and a louder volume. At this time, the breath is applied like water from a high-pressure faucet, with high pressure and fast speed; A weak and slow exhalation can produce a low-pitched, low-volume sound. At this time, the breath is applied like a syringe that removes the needle, and the pressure is small and the speed is slow. The breath is the end of the action, whether the collected sound is clean, and the rhythm of the collection is accurate. It is necessary for the player to control the tightness of the performance. Particularly, it is necessary to think and practice the various dynamics used in the performance in advance. Therefore, our use of breath in performance can be improved.

3. Dynamics in bamboo flute Playing

In the three steps of the use of breath in playing the bamboo flute, the dynamics have always existed from beginning to end. This article divides the dynamics in the bamboo flute performance into: Koufeng, Koujin, oral cavity, tongue, abdomen and fingers. These changes in dynamics can directly or indirectly change the pressure, shape, speed and angle of the bamboo flute breath resulting in weak, strong, very weak, very strong sounds of different volume; it can also produce bass of different ranges, midrange, overtone, treble, doubled, etc.

The strength of the koufeng is the longitudinal dynamics used when the upper and lower lips alternately change the size of the damper. It belongs to the control of the sacral muscles. The size of the Koufeng determines the width and narrowness of the sound quality. The big Koufeng is the process that the upper lip pushes forward. The breath exhalation block is small and the sound quality will appear wide and thick. The small koufeng is a process that the lower lip pushes forward. The breath exhalation block is strong and the sound quality will appear narrow and thin. Whether it is the push of the upper lip or the push of the lower lip, it is inseparable from the power of the mouth when the lips are licked.

The strength of the Koujin is the lateral force used for the size of the corner of the mouth. It belongs to the control of the laughing muscles. The strength of the Koujin determines whether the sound is strong or scattered. When the strength of the Koujin is strong, the combination of the laughing muscle and the sacral muscles strengthens the binding force of the breath, so that the pronunciation effect is strong and concentrated; on the contrary, the pronunciation effect is weak, leaking and scattered.

The strength of oral cavity is the dynamics used when the soft palate is lifted or pressed. It is often controlled by the pharyngeal muscles and the genioglossus. The volume of the oral cavity and the tightness of the soft palate are combined to determine the thickness and thinness of the flute. The Koujin is increased, and the softness is raised. It seems that there is an egg in the mouth. At this

time, the pronunciation point will be close to the scorpion, which makes the tone more thick and three-dimensional. On the contrary, the tone will appear thin. In order to pursue a better tone, the oral strength training should also add the auxiliary training of the upper lip to raise the muscle strength of the lip and the muscle strength of the lower lip. These two muscles can further expand the space of the oral cavity up and down, respectively, and increase the self-resonance. The volume makes the tone more full and generous.

The strength of the tongue is divided into three ways. The first is the moment when the sound is played, the tongue sinks away from the dynamics of the upper jaw; the second is the dynamics that the tongue floats between the upper and lower jaws during the long sound; The third is the power of the tongue to slap on the inner side of the upper teeth when playing the tongue technique. The strength of the tongue from the upper jaw is large and decisive, and the sound of the voice is strong and short; the endurance of the tongue is strong, and the long sound is smooth; the tongue is “mute” and the force is even and even, and the tongue is consistently clear.

Abdominal strength is divided into two kinds of movements. The first is the outward expansion when inhaling; the second is the inward contraction during exhalation. The strength and speed of expansion and contraction are affected by abdominal strength. The key point is that the diaphragm of the abdomen needs to be actively involved. As a powerful radioactive respiratory muscle tissue, the diaphragm is contracted from the upward convex shape to the flat shape when inhaling, expanding the chest volume and ensuring the total amount of inhalation. And speed, breath flow rate and strength can be well controlled.

The strength of the finger is divided into two parts. The first part is the force of the finger rising and falling above the finger hole of the flute. When it is lifted high, it is powerful, and it is lifted vertically. It is accurate when it falls, and it is lifted quickly. When playing silk-silk style works, the finger falls down to quickly and forcefully hit the state, which will enhance the skeleton sense of the linear melody; when playing the portamento technique, the finger will fall down and the state will be pressed at a slower speed to enhance the delicate feeling of the point melody. The second part is the support force of the thumb and the little finger outside the whole finger. Take the six-hole flute as an example. If you want to play a strong sound and not dry, the thumb of the left hand should be pressed inward and upward. Increase, then the function of the thumb not only plays a supporting role, but also plays a role in adjusting the size of the mouth and reducing the noise.

When playing the bamboo flute, whether the use of dynamics is free or not determines the accuracy of the player's playing the high and low, strong and weak sound effects, and it also reflects the player's ability to control the flute. When we adjust the strength of the Koufeng, Koujin oral cavity, tongue, abdomen, and fingers, we can achieve the change of sound by doing addition or subtraction on its power. For example, when we play high notes, the tone should be controlled in a small and fine range, the upper and lower lips should be tightened tightly, the lower lip pushed forward, shortening the distance between the upper and lower lips, and at the same time increasing the strength of the mouth and the pressure of the mouth, enhancing the front extension of the tongue. The strength can increase the contraction of the abdomen to exhale quickly. When pushing back, it can play the bass better. Mastering the six links in the bamboo flute performance helps to form a more rational playing habit for the player, thus forming a scientific playing method.

4. Bamboo flute Playing Based on the Combination between Breath and Dynamics

In the process of exploring and summarizing the rules and methods of playing the bamboo flute, we must pay attention to the relationship between breath and dynamics. Breath is the power of the bamboo flute, and dynamics is the factor that controls how the bamboo flute sounds. In the bamboo flute playing, the dynamics can change the coarseness and thinness of the breath, the urgency and the slowness, the thickness and the thinness, the shallowness and the deepness. The breath can change the dynamics of the strong and weak, the real and the virtual, the strong and the weak, the coincidence and the ambiguity.

The relationship between the two can be used as a metaphor in a car. Breath is like the engine of a car. It plays a fundamental driving role in determining whether it can drive and travel distance.

The dynamics is like the gearbox of a car, which is responsible for the transmission and distribution of power and drive fast and smoothly. The matching of a good car, engine and gearbox is extremely important. Similarly, a professional bamboo flute player should have a unique understanding of the interaction between breath and dynamics.

In the bamboo flute performance, many of the techniques used in the music will cause a series of problems due to the improper use of breath and dynamics, such as the ambiguity of the overlap, the excessive noise of the voice, the excessive value of the voice, and the illusion of the tongue, insufficient graininess and so on. In order to correct these performance problems, the requirements for breath and dynamics must be strict in the training of the bamboo flute, accurately distinguishing the strength and weakness of the strength, the softness and the reality of the softness and the breath, the urgency and the slowness, from the very weak - the weak - weak - medium and strong - strong - strong multi-level strength training. When the various volumes are practiced in the mind, the beautiful melody can be easily played.

In the performance of the lively, cheerful, rough music style of the whistle and the accent, the player is required to exhale more quickly, while the pressure of Koufeng, Koujin and the oral cavity are increased, and the addition is performed by the addition of breath and dynamics. In playing the quiet, soft, delicate music style of the whistle works and the fading sound, the player exhales a slower breath, the strength of Koufeng and Koujin is increased, the oral cavity pressure is reduced, and the control method of the afterburner is used.

In the professional classroom, some students were found to play in a strong and tense manner in the double-sounding Allegro melody. On the contrary, the singing melody was handled in an easy way. Actually, these two methods are not correct. They should be dealt with by the concept of playing in the literary and martial arts. The so-called literary music is the work of stretching, feminine slow or slate, the melody of the literary melody. Mainly to the line, the requirements for the breath are smooth and soothing. The requirement for strength is to use the explosive dynamics and endurance of the change to play with a little tension. Civil song is a rough and agile Allegro-based melody, or a melody piece with double spit and three spit techniques. The melody of military song is mainly point-based. The requirement for breath is fast and light and we can use the cleverness to play easily.

5. Conclusion

In summary, the three-step inhalation, exhalation, and expiration in the bamboo flute performance is extremely important for the quality of the performance. Using a large deep inhalation or a small amount of temper determines the playing state. The smooth or rapid exhalation during the playing determines the undulation of the melody volume. When the playing is completed, the style of the melody is determined by the quick dynamics or slow and gentle deflation.

The six links of force control in flute performance are Koufeng, Koujin, oral cavity, tongue, abdomen, and fingers. When playing different volume, range and even tone, it is necessary to use the increase or decrease of the dynamics in the six links, that is, to control the explosive force or endurance used by the muscles corresponding to the six links, so as to accurately control the sound quality and achieve a good grasp of the flute style.

When the player is training the breath, one must take into account the use of dynamics, and feel the interaction of the six links at any time. When practicing the dynamics, it is necessary to simultaneously observe the three steps of the breath, so as to grasp the breath and dynamics in the bamboo flute performance and the principles and rules. The use of breath and dynamics is better integrated in the melody to achieve a degree of relaxation.

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