

Technical Analysis and Method Research of Erhu Bowing

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Abstract

“30% of fingering, 70% of bowing.” Bowing is the key technique in playing Erhu, and it is also the most important part in evaluating the level of Erhu performance. Taking control of the force, speed, and strength of the bow and pitch and tones of the strings are important factors in playing Erhu. This article discusses the requirements of Erhu bowing, the practice method of Erhu bowing, and the technique of Erhu bowing in various styles of music and speed.

Key words: Erhu; Pitch; Tone; Bowing; Technique

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INTRODUCTION

In the traditional instruments, Erhu is a stringed instrument with a wide range of sounds. It has a soft timbre and is very expressive with traditional characteristics. It has a unique artistic charm. In the technique of stringed instruments, the right-handed bowing technique is one of the important means of completing and expressing the song. A gripping and fascinating piece of music cannot be achieved without beautiful tones, pure sound quality, the static and dynamic in music, and changes of volumes, speed, and pitch of the music. The style of music and its charm is reflected in the technique of bowing. Therefore, the ability and method of bowing is one of the most

important means of varying the sound of Erhu and revealing the content of the music.

1. TECHNICAL REQUIREMENTS OF ERHU BOWING

1.1 Straight-Line Bowing

The sound of Erhu requires that the bow always runs perpendicularly to the strings, while the bow and the rod are always in a state between contacting and not contacting during bowing so that the bow is substantially perpendicular to the snakeskin surface of the cylinder. When the bow hair and the string are rubbing against each other, the direction of the string vibration will be substantially perpendicular to the surface of the cylinder, and the vibration of the string can effectively impact the center of the cylinder surface through the bridges and spread to the entire surface. In this way, the entire instrument can resonate effectively. If the bow is not perpendicular to the string, and the bow hair is separated from the rod, the vibration direction of the string is no longer perpendicular to the surface of the cylinder. Therefore, the vibration wave of the string obliquely impacts the bridge and the cylinder. The surface is subjected to an oblique impact, and the entire surface of the cylinder cannot vibrate sufficiently. The resonance effect of the entire cylinder is also affected. In this way, the sound and resonance effect of Erhu is not ideal.

1.2 Holding the Bow

Holding the bow correctly is the foundation of Erhu bowing. The wrong way will inevitably affect the quality of Erhu bowing and the sound of it. The specific method of holding the bow is to use the thumb and index finger of the right hand to hold the bow. The middle finger and the ring finger are inserted between the bow and the bow hair from below the bow. The bow rod is placed between

the first joint and the second joint of the index finger. The inner side of the thumb is gently in contact with the bow rod, and the second joint of the thumb slightly protrudes outward into a natural and relaxed state. The fingertip of the thumb is directed toward the second joint of the index finger, and the middle finger and the ring finger are in contact to the bow hair. While bowing, each joint of each finger of the right hand adjusts and stretches as the position of the bow changes. It is especially important that the thumb can't exert excessive pressure on the bow during the bowing. The thumb and the index finger should not hold the bow too tight. When you move the bow, the thumb should be gently placed on the bow, and rotate the bow using the inside of the thumb as the fulcrum. We know that the vibration of Erhu strings is caused by the friction between the bow and the strings. If the wrong method of bowing is used, noise will be caused by the bow touching the side plate of the cylinder. This also causes a waste of energy. Part of the bow hair will press on the panel of the cylinder, causing it unable to vibrate with the strings and resulting in a waste of energy.

When holding a bow, each finger of your right hand and even your entire hand should be natural and relaxed. In order to achieve it, it is important to avoid holding the bow too tight with the right thumb and forefinger. Don't over-actively grab or hold the bow with your fingers and hands, which can cause unnecessary tension on your fingers and entire right hand easily. When the bow is held, the bow is gently placed on the natural, relaxed right hand, so it is easy to avoid the tension caused by the active holding of the bow. This is very important for correctly holding the bow.

1.3 Physical Statue During Bowing

Erhu's bowing is based on the natural, relaxed, coordinated, and balanced movements of the right shoulder, arm, wrist, and fingers. The power of the bow comes from the right shoulder. This force from the right shoulder is transmitted to the forearm through the upper arm, passed onto the wrist and fingers, and finally the bow is carried away by it. The shoulder joint, elbow, wrist, and joint of each finger are the links connecting the upper arm, forearm, wrist, and hand. They are the pivots for conducting and regulating the movements of the bow, while the shoulder joint is the key part. When a relaxed, natural, balanced and coordinated system from the shoulder joint to the upper arm and fingers is established, we can easily create a sense of easiness with the movement of the bow. The naturalness and relaxation of the movements of the joints, shoulders, arms, wrists, and fingers must be kept during the bow movement, especially the statue of wrists and fingers. Emphasis on the relaxation of the thumb is never enough.

If we practice bowing correctly, then we can control the operation of the bow well. If we gradually speed up bowing in the practice, then we can slowly build a good

sense of the bow movement. As long as we can perform the above exercises well, the wrist and elbow can move naturally and effortlessly, and the movements of the right arm and shoulder can be easily relaxed. As long as our bowing has been well-trained, other bowing methods, such as *detache*, *legato*, *martele*, *spiccato*, etc., will become easier to master.

Regardless of the intensity of our performance, the bowing method should be relaxed and natural. The contact between the bow and the string should be flexible, without the feeling of pressure or heaviness. When increasing the strength of performance, it is important not to exert excessive pressure on the bow to bend it or to press the bow firmly on the side plate of the drum.

2. THE EFFECT OF LEARNING METHODS ON ERHU BOWING

For an Erhu player, a correct Erhu playing method can help generate fascinating sound from the instrument. With good artistic talents and self-cultivation but incorrect Erhu playing method, one can't play beautiful sounds on Erhu despite his or her hard training. This shows that playing beautiful sounds on Erhu is inextricably linked with the correct and scientific methods of the performers. The bowing method of Erhu is like this. We need to further explore the learning and practice methods of Erhu bowing.

2.1 A Well-Established Concept on Tones

Correct hearing means that the player has a well-established concept on the beauty and purity of the tone. That is to say, the player must have the ability to distinguish different sounds emitted by the same instrument. How can we get such ability? It is very important to constantly listen to other excellent Erhu performers or their recordings and analyze and compare the sounds of these outstanding Erhu performances in order to continuously improve one's appreciation and analysis skills and establish a good standard. Only by often appreciating, analyzing, and comparing the music played by all kinds of excellent Erhu performers can an Erhu player slowly establish a good concept of the tone. It is impossible for one to play a beautiful sound on Erhu without it.

2.2 A Correct Method of Holding and Playing the Bow

We should not and cannot force every player to have the same posture and movement when playing Erhu. Because each person's hands are not the same size and one's proportion of the limbs is different, it is impossible to have a unified left and right hand playing posture and movement. We can't use an arbitrary bowing method for 100% control over the bow. It is impossible to achieve. It is necessary to be able to play Erhu in various ways and to hold the bow in various ways.

The performer knows the fact that once a player has a detailed and correct feeling of the perfect relationship between the bow and the strings and a correct method of holding the bow, a good sound can be played. Therefore, although the posture and movement of the bow vary from person to person, it is crucial.

2.3 A Correct Method Is the Foundation of Complex Skills

Erhu's skills such as legato, martele, spiccato, and portamento are complex, difficult, and enviable, but playing beautiful sounds using Erhu is the most difficult part. The sound is usually sent through the performance of the instrument. Some people often blame the bad sound on the quality of the instrument. Of course, the difference in the quality of the instrument will make a difference in the sound produced. However, using the wrong bowing method on a good Erhu will never produce sound that is pure and beautiful. With the correct bowing method, a player can unexpectedly produce a beautiful and fascinating sound even on a very ordinary Erhu. Because the instrument itself does not make a sound, the sound of the instrument is produced by the player's performance. For the skills of legato, martele, and spiccato, the correct and appropriate bowing method is necessary for performance.

Therefore, when practicing, we must meet the following requirements: a good bowing should be correct, the power transmission should be smooth, the pressure ratio should be appropriate, and the sound should be round, loose, clean, clear, and uniform. When you first practice, you need to pay attention to your bow movement. After you become proficient, it will gradually become a subconscious movement. In the end, you will reach the level of "movement follows the consciousness, and sound follows the movement."

3. IMPORT METHOD AND SKILLS OF BOWING

Erhu is a traditional Chinese instrument. The musical style of the performance is characteristic and very important. The so-called "taste" is very important. Different speeds, methods, and strengths will have effects on the performance.

3.1 Slow Bowing Technique

Slow bowing is an important technique in bowing. It requires three constants: constant force, constant friction, and constant speed of the bow. A common problem is that the player plays harder at the beginning and softer at the end or plays softer at the beginning and the end but harder during the performance. This uneven bow speed and strength destroy the flow of the melody, lacking consistency and full tone. From the technical analysis, the sound needs to be dignified and heavy. The bow needs

to be straight, and the player needs to use the weight of his or her upper arm to move the fingers, increasing the friction between the bow and the string by increasing the pressure on the bow. The player needs to control the force, strength, and speed of the bow well.

3.2 Medium Bowing Technique

The medium bowing uses the medium speed to carry the bow, which is a kind of bowing technique between the slow, long bowing and the fast bowing. During the process, the overall requirement is that the bowing is shorter than slow, long bowing but longer than fast bowing. The speed of the bowing is faster than that of the slow, long bowing and slower than fast bowing. When the bow is carried out, the arms and wrists are natural and relaxed. In terms of basic technical requirements such as force and bow change, the requirements are similar to that of the slow, long bowing. It is necessary to use the power of the upper arm.

3.3 Fast Bowing and Semiquaver

The fast bowing is generally used to play fast melody, mostly for semiquaver. It is often used to express emotions of enthusiastic, happiness, excitement, and anxiety. When playing the fast bowing, the inner and outer rotation of the upper arm and the flexion and extension of the wrist are required to be small, the arch is straight and stable, and the right and left hands are well matched. Pay attention to the following points: (1). Focus on the fingers; the wrist is flexible, and the arm is stable. (2). The bow hair needs to be in close contact with the strings to keep the sound full. (3). Force exerted needs to be fast, and make sure the sound is grainy. (4). Pull the bow with consistent force for the uniformity of the sound. (5). Pay attention to the accuracy, time, decisiveness, and the clarity of the sound when change the bowing.

In the performance of expressing lively emotions, the player should apply the left side of the middle arch. The amplitude and strength of the arm and wrist are small. The upper arm needs to remain stable and do not actively participate in the bowing. When expressing emotions of excitement, the player needs to use the middle arch, or even the right side of the middle arch. At the same time, as the emotional range increases, the amplitude of bowing should increase accordingly, and the upper arm should actively participate the bowing.

3.4 Martele

Martele is one of the more difficult skills in Erhu bowing. It is colorful and is often used to express lively and joyful emotions. It is divided into two categories: spiccato and staccato. Spiccato is played with detache. When playing, the right hand should quickly exert the force and immediately relax, the bow hair is off the string, and the discontinuity between sounds should be apparent. The sound is short, full, and bright. Playing a few martele with one bowing, called staccato, is much more difficult

to learn then spiccato. The fingering has to be continuous and well under control, and the sound needs to be light and flexible.

3.5 Tremolo

Tremolo often expresses emotions of excitement and fullness. It is a special technique that uses the rapid shaking of the arm and wrist to make Erhu emit a fine sound. In a real performance, the arm requires a certain degree of stability and tension, and the wrist is relaxed and flexible but not loose. The rotation of the arm and the flexion and extension of the wrist require a consistent amplitude to ensure uniform sound. Different bowing techniques are also used depending on the emotions expressed.

CONCLUSIONS

Bowing is an important technology of Erhu, and an important measurement of a player's skill. The training of bowing ability and technique is a long-term accumulative process, which is inseparable from the hard work and

much effort of the players. Improvement of Erhu skill is gradually achieved in the process of constantly surpassing oneself, and this process is endless. It is waiting to be explored and practiced by us.

REFERENCES

- Chen, K. P. (2006). Tutorial of modern Erhu performance. *China Theater Publishing House*, (5).
- Liao, Y. L. (1994). *Appreciation of Liu Tianhua's masterworks for Erhu*. Hunan Publishing House.
- Liu, Y. H. (2005). Collective work of Liu Tianhua. *People's Music Publishing House*, (5).
- Zhang, H. Y. (1996). *Interpretation of the National Erhu Exams (Amateur)*. Aviation Industry Press.
- Zhao, H. Y. (1999). *Tips and techniques of famous Erhu performances*. Huayin Publishing House.
- Zhao, H. Y. (2002). Becoming an Erhu performer. *People's Music Publishing House*, (7).
- Zhao, Y. C. (1977). *Basic practice of Erhu*. People's Music Publishing House.