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Comparison Between Banhu and Erhu Art

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Abstract

Banhu art and Erhu art represent two major categories of Chinese bow string musical instruments, namely, bow string musical instruments with wooden board surface vibration and bow string musical instruments with skin film surface vibration. Their development leads the development of Chinese bow string musical instruments. This paper is divided into four chapters, using the methods of literature review and comparative research to discuss the differences between them and seek the problems existing in their development. Finally, a reasonable development method and direction are deduced according to the problem.

Keyword: Banhu, Erhu, playing technique, music

1.Introduction

1.1 Research background

Both Erhu and Banhu belong to the Chinese bow string musical instrument group, and they are of the same origin. The most obvious difference in their shape is that the sound and vibration sources are different. Erhu uses skin film as the vibration source, while Banhu uses wood as the vibration source. In addition, there are still some differences. First, the effective playing position of Banhu is shorter than that of Erhu. Second, the strings of Banhu are thicker than those of Erhu, and the hardness of the strings is much higher than that of Erhu. Third, the Erhu daughter is to pull the strings towards the rod, while the Banhu daughter is to push the strings outward. Fourth, the Erhu barrel (loudspeaker box) is longer than the Banhu barrel. The Erhu barrel is made of thick wood, while the Banhu barrel is made of thin coconut shell. Fifth, the bow of Banhu is longer and thicker than that of Erhu.

The upper part of the figure below is Banhu sound, which is made of wood. The lower part is erhu sound, made of Python skin (artificial). It can be clearly seen from the picture that the vibration materials produced by the sound of the two instruments are obviously different.

Banhu performance method is almost the same as Erhu performance method, especially after Banhu separated from opera and formed the development achievement of Banhu solo art. People used to call Banhu in solo art "opera Banhu". This paper also takes opera Banhu as the main body of comparative research. Banhu performance is based on Erhu performance skills from holding the piano, holding the bow, touching the string and skills. While Banhu performance is close to Erhu performance technology, it is also constantly looking for and innovating its own unique performance technology.

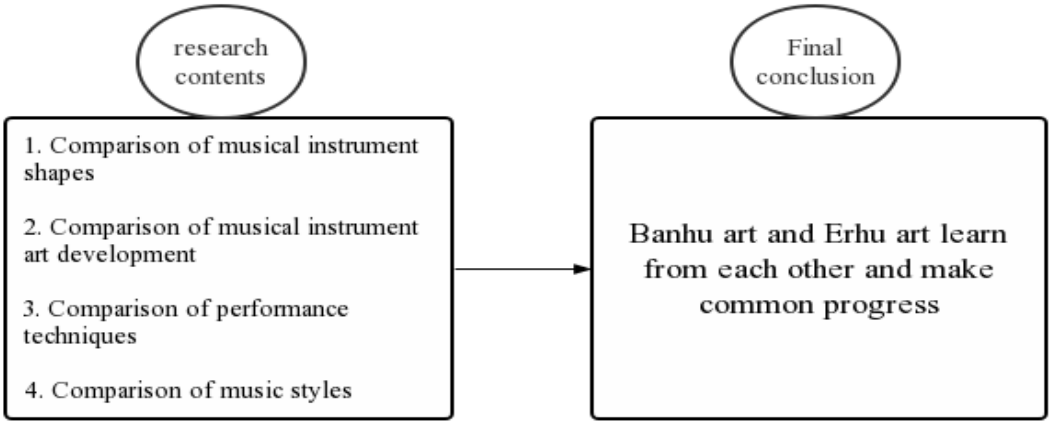
The development of Banhu and Erhu is a leader in the whole family of Huqin musical instruments, which is ahead of other Huqin in terms of professional students, number of music and popularity. Of course, Banhu art is not as good as the development of Erhu art due to its short development history, strong timbre personalization and other factors. Therefore, the development direction and mode of Banhu art still need a lot of insights into the development mode of Erhu art. As the two most representative Huqin instruments today, Banhu and Erhu are the representatives of board vibration and skin membrane vibration bowstring instruments respectively. A comparative study between the two will greatly promote the development of the two musical instruments, and can become an example for other types of Hu Qin.

1.2 Research objectives

① A comparative study of the similarities and differences in performance and musical styles between Banhu and Erhu

② A comparative study on the development of Banhu and Erhu art

1.3 Conceptual framework



1.4 Research question

① What is the difference between erhu and Banhu playing skills and music style
② What is the historical development of Erhu and Banhu

1.5 Definition of terms

Vibration source: refers to the panel that causes the final vibration and sound during the sound production of Banhu and Erhu. Banhu is made of wood and Erhu is made of leather. Although they have different materials, they have the same principle. The bow vibrates by rubbing the strings, and then the code is transmitted to the panel for sound. The material of vibration source also directly leads to the similarities and differences of timbre.

Vibrato：It is a unique performance technology of Banhu, Erhu and other musical instruments. The most basic principle is to realize the slight change of pitch by touching the string and rolling the fingers up and down. On this basis, many different vibrato technologies are derived. For example, vibrato with force changes the pressure of the string to change the pitch, and glissando vibrato changes the rolling action into sliding to change the pitch.

Hu Qin musical instrument group: the general name of bow string musical instruments in Chinese national musical instruments. They are all derived from Xi Qin. In ancient times, the Chinese nation called the people in Northwest China "Hu people", so their musical instruments were also called Hu Qin. Later, Hu Qin continued to grow in China. In order to adapt to the music style and playing habits of various places, Hu Qin with different shapes appeared. Finally, in order to unify their names and classifications, there is a description of Huqin musical instrument groups.

2. Literature review and performance practice

2.1 The shape of Banhu and Erhu

There are many differences in the shape of Banhu and Erhu. For example, as described in 1.1 above, this section will further analyze the shape relationship and similarities and differences between the two through literature.

The article "On the origin of Banhu from the development of bow string instruments in China" is a landmark article published by Mr. Ji Zhe in the Journal of the first Conservatory of music, focusing on the origin and development process of Banhu. The article also introduces the shape of Banhu. After 1949, musicians engaged in the art of Banhu have greatly improved the shape of Banhu. So that Banhu has a unified definition of regulation, and then there is the distinction and name of large, medium and small Banhu. This paper explains the data definition of its classification with the numerical values of the length of the piano rod and the sound diameter. On this basis, the author also describes the timbre characteristics of Banhu of three sizes. In today's society, the names of large, medium and small Banhu have changed, that is, sub baritone Banhu, baritone Banhu and treble Banhu. My view is that this classification is more scientific and easier to understand, and it classifies Banhu from the perspective of pitch, which is more suitable for the needs of music creation. After all, the size of Banhu is mainly for Banhu players. As a professional Banhu player, they don`t need to define the name according to the size of the instrument. On the contrary, defining the name of Banhu according to the concept of pitch can provide more convenience for composers.

The size of Banhu shape mentioned above is related to the production of Banhu. The production technique of musical instruments is an important factor to determine the timbre and feel of musical instruments. Moreover, as a professional performer, people are not familiar with the whole process and details of musical instrument production, so it is very necessary to read the article "Banhu production skills". The article first briefly describes the historical origin of Banhu, which will not be repeated because it is not the focus of this paper. In the second paragraph, the author introduces the basic shape and musical characteristics of Banhu. The narrative process is similar to Mr. Ji's article above. However, on the basis of Mr. Ji's article, the author also introduces the differences of Banhu's fixed string in different styles of music around the world. The third paragraph is the focus of the article, which introduces the whole process of Banhu production from three aspects: the main structure, production materials and tools, and production process. First, the main structure of Banhu. The author introduces that it is mainly composed of piano neck and barrel, which are divided into piano shaft, piano head, branch code and so on, and describes the functions of these parts respectively. The author does not make too much description of ban Huqin bow. Second, the production materials are divided into hardwood and cork. Hardwood is the main body of Banhu (not easy to deform), and cork is the sound board of Banhu (easy to resonate).In addition, there are a large number of accessories, such as buffalo horn, acrylic, mechanical shaft, movable screw and so on. Thirdly, the author describes the whole process of Banhu production in detail. The narrative sequence is: material selection - production - barrel production - bow production - auxiliary parts production - overall assembly. Reading this article can understand the production and material selection of Banhu, which is conducive to the fine-tuning of musical instruments when playing Banhu. From the perspective of professional performance, my view is that should set an optional string, and then add the description of bow making. Because these are the two most direct contact parts for players, and they are also the similarities and differences between Banhu operation and other types of Huqin operation.

The development history of Erhu art is relatively early, and its shape is much earlier than that of Banhu.With the great development of Chinese national instrumental music after

the founding of new China, the shape of Erhu has only been slightly improved. Its improved products also vary from person to person and from music style to music style. The article "On the improvement and influence of Erhu production" summarizes the results of various improvements of Erhu. This paper discusses the improvement behavior of Erhu from two aspects. One is the specific method of Erhu shape improvement. The second is to analyze the influence of the improved Erhu on performance from the perspective of performance. The author is more accurate in the description of the improvement of Erhu shape and system, focusing on the improvement of Erhu barrel shape and the improvement of vibration source material. The writer agrees with this. Since 1949, the improvement of Erhu has mainly focused on the change of the shape of the barrel. Nowadays, equilateral hexagonal barrel is the most common form of Erhu. Among them, there are many barrel shapes, such as flat barrel, cylinder, the first eight deformed and then round. The article mentioned that in 1963, the state promulgated the production standard of Erhu and listed the specific data. The author consulted the document: the light industry standard of the people's Republic of China - Erhu, which only stipulated the length of the piano rod, and the circular, octagonal and hexagonal barrel were stipulated in the document, but other types of barrel did not appear. In this regard, the shape of Erhu barrel is basically determined as octagonal and hexagonal. The circular barrel is mostly used in the production of Gaohu (many people classify Gaohu as the same kind of Erhu instrument, namely treble Erhu).

2.2 The development of Banhu art and Erhu art

The development of modern Banhu art and Erhu art has to mention three artists. Their ideas and works even determine the style of these two musical instruments. This section will discuss the musical style of Banhu art and Erhu art by analyzing the relevant literature of the three artists.

The article "The influence of folk music culture from Liu Mingyuan" explores the relationship between his music works and folk music culture based on the achievements of Banhu artist Liu Mingyuan. Firstly, the article introduces Mr. Liu Mingyuan and analyzes the reasons why Mr. Liu Mingyuan can succeed. The first is that he is really based on tradition and has collected and accumulated a large number of Chinese traditional cultural materials. The second is that he is diligent in playing practice and has been active on the stage of Hu Qin all his life. The second chapter introduces Liu Mingyuan's methods of absorbing folk culture and the national emotion and aesthetic value of his music works. In this regard, my view is that Mr. Liu Mingyuan's artistic achievements should be divided into three fields: performance, creation and adaptation, which can better reflect Mr. Liu Mingyuan's great contribution to Chinese folk music. It can also highlight Mr. Liu Mingyuan's artistic achievements in different fields, and also show the existence value of other great composers and performers in the same period. Finally, the article only discusses the aesthetic connotation of Chinese national music, so it does not comment. Generally speaking, the writing method of the article is relatively novel, which can clearly discuss the relationship and contribution between an Banhu (mainly Banhu, and other types of Huqin) art master and national music.

In recent years, the development of Erhu has undergone earth shaking changes. After Erhu masters Liu Tianhua and Hua Yanjun, the two artists who have the greatest impact on

Erhu performance and Erhu music creation are Mr. Liu Wenjin and Mr. Wang Jianmin. In particular, Mr. Liu Wenjin created a large number of classical Erhu music on the basis of traditional Erhu music and combined with western composition techniques. These music have made great breakthroughs in playing difficulty, length, accompaniment form and so on.

"Liu Wenjin's Erhu music theory" is a paper published by Mr. Qiao Jianzhong, a famous Chinese musicologist. Its importance is to talk about Mr. Liu Wenjin's contribution to Erhu music creation and Erhu performance. Firstly, the article analyzes the Erhu works created by Mr. Liu Wenjin in his life one by one, and evaluates that each work of Mr. Liu Wenjin is surpassing himself, his predecessors and the times. Whether studying Erhu performance in the writer since childhood or teaching students Erhu performance today, we can't avoid the Erhu works created by Mr. Liu Wenjin. These works are not only the crystallization of culture and art, but also the advanced improvement of Erhu performance technology. After that, the article discusses the culture one by one according to the chronological order of Mr. Liu Wenjin's music creation. Coincidentally, the music created by Mr. Liu Wenjin in his life is from simple to difficult, and the length is from small to large. The description background is divided into three stages, that is, writing society, writing history and writing faith. These three stages also represent the 60 years of Erhu development, from the progress and innovation of performance technology, from the enrichment and innovation of music style, from the diversity of creative culture and the innovation of composition method.

Then look at the article "From Wang Jianmin's Erhu Rhapsody to see his creative concept and musical characteristics", which is an analysis of the culture, composition techniques and creative elements of the Erhu series Rhapsody created by Mr. Wang Jianmin. The first paragraph of the article is "both elegance and vulgarity, with a degree of innovation", which reflects that Mr. Wang Jianmin has well inherited Mr. Liu Wenjin's composition concept. That is, traditional music is not distinguished from folk music and elegant music, but emphasizes audibility. Creation is also on the basis of traditional music. It's good to have some innovative elements and information. It can't be chaotic or strange. In the second paragraph of the article, the author gives examples to describe Mr. Wang Jianmin's creative ideas. At the end of the article, the author analyzes the composition techniques of the Erhu music created by Mr. Wang Jianmin.

3.Research Method

3.1 Literature Review Method

Through authoritative literature review, this paper expounds the shape and modern development of Banhu and Erhu. Through literature reading and review, we can analyze the differences between Banhu and Erhu from two aspects: shape and development. In terms of both shapes, this paper selects the literature of musical instrument production, because the experts of musical instrument production are the leaders of musical instrument shape finalization. On the development of Banhu and Erhu, this paper selects three art representatives. These two achievements and the development direction of their musical instruments are enough to illustrate their artistic achievements.

3.2 Comparative study method

Comparative research method, as one of several basic scientific exploration methods, is to arrange a group of objects or objects with different properties with certain similar factors together for comparison: by comprehensively comparing their differences in structure and properties, we can get what and what factors cause the properties of this object or object. The research object of this paper is two different Huqin musical instruments in line with this certain law. They have certain similarities in origin, operation and shape. The comparative study can more clearly reflect the respective artistic characteristics and development advantages of the two kinds of Hu Qin.

3.3 Theoretical derivation

According to the differences in the shape, development and playing technology of Banhu and Erhu, this paper infers the advantages and disadvantages of the two reasonable musical instruments by using the method of theoretical derivation. Then infer reasonable improvement methods and development direction through their advantages and disadvantages. Finally, the conclusion of this paper is drawn.

4. Findings and Recommendations

4.1Findings

The playing technology of Banhu is very similar to that of Erhu, so that the marking method, etude and teaching method of Erhu playing technology are extended in the process of Banhu playing teaching. But in reality, students majoring in Erhu performance often can't adapt at the first time when playing Banhu. On the contrary, students majoring in Banhu performance are the same. This is because the two musical instruments do have many similarities from the perspective of playing technology, but due to different shapes, different playing styles of musical instruments, different sizes of strings and bows, there are no small differences in actual performance.

Pantograph difference

The bow of Banhu is thicker and longer than that of Erhu, and its bow hair is also more than that of Erhu. Naturally, the quality of Banhu's bow is greater than that of Erhu. This difference will inevitably lead to two results: first, Banhu's bow holding is more laborious and has a large action. Erhu's bow grip is more labor-saving and less action. Second, Banhu bow movement requires more power of the right hand and right arm, while Erhu bow movement does not require much power. Based on these two points, the bow technique of Erhu is more flexible and lighter than that of Banhu. The quality and shape of the bow is one of the important factors that determine the movement form of the bow technique. In addition, the vibration source will also determine the strength control of the bow. The vibration source of Banhu is wood surface, while Erhu is skin surface. The vibration amplitude of the board must not be as large as that of the skin film, and the Erhu has a large piano barrel to reverberate the sound, so the vibration sound of the board must be more direct and fuller of penetration. According to this characteristic, if we consider the bow movement based on the sound, the bow movement of Banhu needs to give enough friction to the strings to avoid the occurrence of noise. The fault tolerance rate of Erhu bow movement is greatly enhanced, leaving a greater amount of space for the player to move the bow.

Press the string and vibrato difference

Stringing is one of the most basic playing techniques of Huqin instruments, which determines the pitch change of Huqin. The string pressing movements of Banhu and Erhu are almost the same, but the difference in strength is very obvious. And because the handle length of the treble Banhu is limited, there will be a large number of situations in which one finger presses multiple tones. The strings of Banhu are thicker than those of Erhu, especially the inner strings. This leads to the fact that Banhu is easy to press the string incorrectly, resulting in noise. Moreover, due to the different vibration sources of the two Huqin, the pressure of Banhu string is greater than that of Erhu string. The string pressure will make a great change in the sound of touching the string, that is, the greater the pressure, the greater the area of fingers touching the string and the greater the force of pressing the string, otherwise there will be noise. Therefore, comparing the string pressing techniques of the two Huqin, the intensity and area of Banhu need to be greater than that of Erhu. For the placement of the treble Banhu, the intonation of the Banhu after pressing the string is also difficult to the Erhu. In the figure below, the Banhu strings are on the left and the Erhu strings are on the right. It is obvious that the thickness of the two is different. Banhu strings are thicker.

Vibrato is a unique performance technology of Huqin instruments. In addition to bow and string pressing technology, it appears most frequently in Huqin performance. Because Banhu and Erhu have no limitation of fingerboard, their vibrato types are very rich. There are rolling vibrato, glissando vibrato, vibrato with force, etc. With the newly created Erhu works, the playing technology is becoming more and more difficult, which is mainly reflected in the melody and rhythm of the music. As a result, Erhu vibrato becomes more and more fixed and unified. In the national Erhu conference in recent years, many Erhu artists also put forward the concept of reducing vibrato, so that Erhu music can better reflect the beauty of melody and rhythm. This is slightly different from the concept of vibrato advocated by Banhu, because the development of Banhu music is still close to the local style characteristics, and few Banhu music is created far away from the regional culture. Moreover, the style of Banhu music is largely concentrated in the north, mostly expressing the bold and unrestrained character of northerners in an exaggerated vibrato way. The continuous pressing string technology and buckle vibrato technology embodied in the Banhu playing skills have changed the action focus of these two vibrato technologies from changing the position of touching the string to changing the tightness of the string. That is, press the string with your fingers, so as to have the effect of pitch change. Its sound effect is more exaggerated than vibrato, and the amplitude of audio

jump is greater. Because Banhu strings are tighter and the sound of vibration source is more sensitive, the duration of pressing vibrato and buckle vibrato will appear in the performance. This is quite different from Erhu vibrato.

4.2 Discussion

According to the discussion in Chapter 2.1, the shape of Banhu is essentially different from Erhu. The sounding principle of the two instruments is the same, but the essence is that the materials of vibration sources are completely different, resulting in great differences in the timbre of the two instruments. The picture below shows the author playing Banhu (left) and erhu (right) respectively, which can more clearly show the different shapes of the two instruments.

The difference of timbre is an important factor determining the final attribute and musical style of an instrument, which can be proved by the musical image of South and North China and the specific use of Huqin instruments. The music style of southern China is more gentle, tender and meticulous, while that of northern China is mostly passionate, high pitched and bold. In addition, membrane vibrating instruments such as Erhu and Gaohu are often used in Southern music, while wooden vibrating instruments such as Banhu and Erhu strings are often used in northern music, which is created by music style. On the contrary, the timbre of Erhu is soft and lyrical, just like people's singing is very singing. Due to the shape of Erhu, there is no need to use too much power sound when playing, so it is relatively peaceful. These characteristics are just in line with the characteristics of Southern music style, which is also known as the music style of Erhu performance. The timbre of Banhu is high pitched and bright. Compared with Erhu, Banhu lacks the characteristics of soft style. However, Banhu's forthright voice personality and the need for vigorous performance make the style of Banhu music extremely in line with the characteristics of the northern style. Therefore, the difference in shape directly leads to the difference in the musical style of Banhu and Erhu, and also determines the uniqueness of the musical style of Banhu and Erhu.

4.3 Recommendations

The development of Banhu solo art is not long, which makes the accumulation of Banhu music and theory scarce. According to the description of Mr. Liu Mingyuan in the literature, it is not difficult to find that the mainstream music of Banhu art is still small in length, not difficult to play, simple in structure, market background and so on.In the context of the development of Erhu music creation mentioned in Mr. Qiao Jianzhong's article, that is to describe society, history and faith. So looking at the mainstream Banhu music today, it still stays at the level of describing the society. In recent years, many large-scale Banhu newly created music have come out, but it still needs time to confirm whether it can be recognized by the society and Banhu performance practitioners. The current development of Banhu urgently needs medium and large-scale new creative music with universal feelings to improve the performance technology of Banhu and broaden the stock of Banhu music. Secondly, as the representative of wooden surface vibrating bowstring instrument, Banhu should seek to adapt to its own development direction. In terms of teaching, we can't blindly use the teaching methods of Erhu. According to the characteristics of Banhu performance technology, we can design methods or teaching materials suitable for Banhu system training. Finally, composers and Banhu performers must communicate closely. Both of them must abandon the habit and thinking of Erhu performance and give full play to the characteristics of Banhu performance technology. It provides strong support for the quality and adaptability of Banhu music creation.

Compared with Banhu, Erhu has no shortage in teaching system, theoretical research, music stock and so on. However, the rapid development of Erhu leads to the aesthetic self of Erhu art, and there is no nationality in a large number of new music. Coupled with the rise of transplanting foreign works in the 1990s, Erhu urgently needs to find its national attribute. In the past two years, there are also excellent new Erhu music, such as "Ode to Chu", "String singing", "Chu Xin" and so on. These excellent works that take into account the nationality and difficulty of performance are the direction that Erhu art should pursue. In terms of Erhu performance technology, we should broaden, learn from some performance technology of Banhu, and improve the tension of Erhu performance, so as to change the image of Erhu which was too soft in the past. In addition, on the basis of Banhu vibrato technology, the continuous pressing string suitable for Erhu strings and the strength, amplitude and frequency of buckle vibrato are developed. And in order to adapt to the enhancement of the range of Erhu performance, the length and quality of Erhu bow should also be increased. Tin the actual performance, he writer specially customized the bow longer and thicker than the unified regulation. After adapting to its weight and bow width, its musical expression has been greatly improved. Enough to prove that this is feasible.

The development of Banhu art and Erhu art have their own advantages and disadvantages, which are mainly caused by the shape and historical development of musical instruments. We cannot change their original attributes and artistic essence, because it will be creating a new instrument rather than improving it. Therefore, it is necessary to compare the various of the two instruments, so as to find the outstanding style characteristics, problems in development and the coincidence of mutual reference of the two instruments. Many differences between Banhu and Erhu provide excellent space and conditions for these two musical

instruments to promote and learn from each other. They must also promote each other's development. Because of their essential commonness, that is, they are of the same origin. They all shoulder the mission of the development and inheritance of Chinese national instrumental music. They jointly represent and lead the Chinese bow string instrument group.

Reference

Qiao, J. (2013). Liu Wenjin's Erhu music. *People's Music,* 37-44.

Ru, Y. (2008). From Wang Jianmin's Erhu Rhapsody to see his creative concept and musical characteristics. *Chinese Music,* 219-221.

Ji, Z. (1986). On the origin of Banhu from the development of bow string instruments in China. *Journal of Xi'an Conservatory of Music,* 44—47.

Zhang, X. (2010). *Sixty years of research on the history of Chinese string music (1949-2009)*. Fujian Normal University.

Xu, D. (2012). On the influence of folk music culture from Liu Mingyuan. *Popular literature and art,* 169-170.

Zhao, J. (2017). Banhu making technique. *Oriental Arts,* 117-119.

Lin, D. (2011). Erhu shape and prototype. *Hundred Schools in Arts,* 38-240.

Qiao, J. (2015). Historical sound and cultural construction of Hu Qin art in the 20th century, *Art of Music,* 121-127.

Xue, S. (2009). *Banhu training set.* Shanxi Education Press, Shanxi Province, China.

Chen, W. (2007). *History of Erhu Art.* Anhui people's Publishing House.

Shen, C. (2010). *Thirty classical Banhu music-interpretation of performance.* People's Music Publishing House.