On the Basic Requirements and Problems of Piano Performance Technology

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Abstract: This article focuses on the analysis of the basic requirements of piano performance technology, and the author believes that the formation of piano performance technology mainly has three parts: slow training, reading scores and coordination. The relationship between piano performance technology and music performance is a dialectical unity. Secondly, this article analyzes the problems in the use of piano performance technology from the perspective of teaching and performance, focusing on the three aspects of touch keys, pedals, and arpeggios.

Keywords: piano performance technology, basic requirements, touch key, pedal, arpeggio

1. Introduction

Any kind of musical instrument cannot have rich artistic expressive force or the musical appeal that draws people into the scene without the support of performance technology. Different musical instruments have their own performance technology system and specific training requirements. Therefore, for musical instrument learners, they should fully understand the basic performance and musical performance of the musical instrument they are learning, so that they can train performance skills in a planned and purposeful manner. As an expressive and infectious musical instrument, the piano mainly benefits from the influence of different musical styles and the joint efforts of artists in the course of hundreds of years of development. Therefore, in the practice of contemporary piano performance technology teaching, piano performance and so on, how to fully understand the basic requirements of piano performance technology and how to avoid problems that hinder the performance of playing technology must arouse the great attention of piano players. This article intends to discuss the author's views from this perspective.

2. The basic requirements of piano performance technology

2.1 Three parts of the formation of piano performance technology

In the teaching and training practice of piano performance technology, the mastery of piano performance technology needs to go through three stages. First, master the technology step by step on the basis of slow training. Slow training is the most stable and effective way of technical training, especially in finger technique training [1]. For any beginner, even the practice of the most basic scale or simple sound-type needs to start with slow training. Because in the process of slow training, you can well experience the body's position of applying force, force transmission process and the active participation of various muscle tissues, so as to effectively drive your fingers to touch keys. At the same time, you can experience the use of breathing and breath. For example, the basic requirements for fingers are to master independence and flexibility, as well as experience the feeling of strength and speed. If the beginner does not know how to train slowly, the whole body will not be exercised, and the source of strength will not be kept well fixed. Then the strength control will be unstable. In this way, the fingers cannot maintain a continuous movement when touching the key, and they will be hurt to some extent.

Second, fully exercise the ability to read scores and train with scores. From the point of view of teaching, reading scores is an ability that students must master. Strictly speaking, reading scores is not a part of piano performance technology, but the students with strong ability to read scores will have great convenience when practicing technology. The reason why some students do not have a good grasp of performance technology is largely because they lack the ability to read scores. After the students are proficient in using the skills through slow training, they need to combine the comprehensive exercises or music to consolidate the skills. Therefore, with regard to music with different themes, styles or special skills, it is necessary to identify various skills through reading scores. For example, there is a clear difference in the use of techniques when playing the works from the classical period and the romantic period. The former requires players to pursue the rationalization and clarity of musical sound, which reflects the sense of sound symmetry and balance from the

structural point of view, and reflects the pursuit of rationality and light. When playing the works from the romantic period, it is necessary to analyze the various musical elements in the score from the perspective of personal emotional input, and strive to make every note and every chord full of personality.

Third, the technical movements should be in coordination. Piano performance technology does not only pay attention to the application of a specific performance technique, the application of each technical movement is connected. For example, when touching a key, the joint action of different parts such as the arm, wrist, palm joint, etc. is required, and the movement of the limbs needs to be added to form different styles of touching the key.

2.2 The relationship between piano performance technology and music performance

The ultimate goal of piano performance training is musical performance, which is an indisputable problem [2]. From any angle, piano performance technology is externalized with sound to shape the image and express specific emotions in musical works. Therefore, it is the basic requirement of piano performance technology training to form the relationship between piano performance technology and music performance. In the practice of teaching and playing, both teachers and students should proceed from this relationship and do a good job in the following two aspects.

First, it is necessary to clarify the genre characteristics of the music. In the art of music, the genre of music determines the form and style of specific works, but in the genre of piano music, some music genres have thematic significance. Taking etudes as an example, Cherney's etudes are mainly to train some performance technology, and pay attention to the design from the perspective of speed. On the other hand, Chopin's etudes have a great theme, such as "Revolutionary Etude in C minor" surpass the general piano etudes in the sense of genre. This is mainly because this work has a profound creative background, which expresses the composer's deep love for the motherland and nation and his indomitable revolutionary spirit in the face of foreign aggression. Therefore, when playing this work, we should not only pay attention to the training of arpeggio and octave chords performance skills, but also combine these skills with the specific music image and the expression of the performer's inner emotion. Only in this way can we realize the combination of performance technology and music performance.

Second, there needs to be a difference in the application of a specific performance technique. Piano performance technology are made up of many different forms of skills. A specific skill can be divided into different ways of playing according to the difference of angle and strength. Taking the key touch technology as an example, it can be divided into quick key touch and slow key touch according to the different speeds. Among them, the quick key touch can be divided into finger quick key touch, wrist quick key touch, forearm quick key touch, big arm quick key touch and so on, while slow key touch has different views such as raising finger, sticking key and so on.

Of course, according to the different application of specific practice, key touch technology can be described from a variety of angles. Why can key touch technology be divided into many different forms? The reason is still that different key touch technologies can show a variety of sounds. These sounds can shape and express different music images or music emotions, and still reflect the relationship between performance technology and music performance.

From the above discussion, we can see that in terms of the basic requirements of piano performance technology, it is necessary to think from the perspective of training, but also from the perspective of the relationship between performance technology and music performance. Therefore, in the process of piano teaching and performance, the piano players should not only work according to the characteristics and laws of piano performance training, but also be familiar with the function and significance of piano performance technology.

3. Problems that often arise when using piano performance technology

The piano performance technology system is huge and rich in content. The formation of this characteristic is closely related to the practice of piano art for hundreds of years. It can be said that the formation of piano performance technology and piano music creation and music performance mutually promote and achieve each other. For contemporary people, when playing works of different periods, different regions, and different styles, the application of piano performance technology cannot be generalized, but must be specific. In the current piano teaching and performance, there are often problems in the application of performance technology. The author found in practice that these problems are mainly concentrated in three aspects: the angle of touching keys, pedal switching, and the use of arpeggios. Now these three aspects are analyzed respectively.

3.1 The angle of touching keys

The angle of touching keys refers to the angle formed by the fingers and the keys. The smaller the angle, the larger the contact surface between the fingers and the keys, which is called the finger pulp key touch [3]; on the contrary, the smaller

the contact surface between the fingers and the keys is called the fingertip key touch. The former is easy to play soft and delicate timbre, while the latter is more sharp and bright. Therefore, the piano tone displayed by different touch angles is very different. The author found in teaching that students have poor ability to handle key touch angles when playing, and lack the ability to distinguish between different angles of key touch technology, so it is difficult to match the timbre required by the music when playing. Take Beethoven's "Dawn Sonata" as an example. The first movement of this song is "Energetic Allegro". The composer shows the magnificent scene of nature through the use of dotted rhythms and circuitous sound patterns, thus showing a broad vision, full of hope and expectation. When playing this part, we should touch the keys with your fingers raised at a large angle, and express an exhilarating mood with a bright and clear timbre. Many students do not think from the angle of touching keys when playing, but play at a smaller angle of touching keys. As a result, the timbre is slightly dry and lacks the expression of the theme of the music.

3.2 Pedal switching

Pedal switching is the main performance technology to change the tone quality and timbre of the piano. Although it has no major effect on articulation, it has a very important meaning for the "reprocessing" of sound [4]. In piano performance, the most likely problem is the switch of the pedal. Specific switching methods mainly include speed switching, harmony switching and style switching. Among them, style switching is one of the most used pedal technologies and the most frequently problematic pedal technology, which is mainly determined by the diversity of piano music styles. For example, when people play piano music works in the classical period, pedals are generally not used frequently, but in order to be able to show the elegant and clear artistic effects of classical music, pedals should be added appropriately. Take Mozart's "A Major Piano Concerto" as an example. The theme of the first movement of this piece is the main key harmony structure. The right hand is a singing melody with a positive feeling, and the left hand is a broken chord form. When playing, people need to gently step on the pedal at the accent, so that it can effectively polish the rhythm and melody. Some students step on a bar when they are playing, which will easily cause the ambiguity of the music structure, leading to the fusion of the melody part and the chord accompaniment part. Therefore, this method of pedal application is not suitable for expressing the classical style of Mozart music.

3.3 Arpeggio use

Arpeggio is the most basic monophonic technology in the piano, and it is also one of the most frequently used finger techniques [5]. In the training of arpeggios, it mainly examines the learner's ability to control scales and chords and the flexibility of fingers and wrists. From the practical application point of view, there are two main problems in the arpeggio technology. First, they have not mastered the fixed fingering of arpeggios. The so-called fixed fingering means that the fingers commonly used in playing are 1, 2 and 5 fingers, while 3 and 4 fingers have special rules. That is, when the third and fourth notes of the arpeggio are separated by four degrees, the third tone uses 3 fingers; when they are three degrees apart, the third tone uses 4 fingers. This kind of fixed fingering can effectively realize the orderly cohesion of the various components of the arpeggio, forming a coherent performance [6]. But many students ignore this fixed fingering in practical applications. The second is the large-span big finger conversion problem. It needs to be in constant response to all changes, and the front and back notes must form a legato effect. In the process of the big finger conversion, we must be good at using the wrist to assist the fingers. However, many students are less concerned about the use of the wrist, so staccato phenomena are prone to appear during the conversion process.

It can be seen from the above analysis that there are still many problems in the application of piano performance technology. There are not only reasons of teaching methods, but also factors of not fully discriminating piano performance technology. Therefore, in the process of teaching and performance, the training or application of any performance technology should be based on the actual situation of the music, and the relationship between performance technology and music performance should be clarified.

4. Conclusion

In summary, piano performance technology is a means of expression that is summarized through the practice of piano art from many aspects and angles. Its ultimate goal is to realize the connection with music performance. Because piano music works are different in genre, style, etc., it is necessary to distinguish and analyze when using piano performance technologies, and choose corresponding technologies according to the requirements of the music. At the same time, in piano teaching, no matter what stage of teaching, it is necessary to master the basic skills of piano performance. Only if the basic skills are solid can the basic requirements of performance technology be met. During the teaching process, piano teachers should be good at discovering the various problems that arise during the performance training and performance

of the students, summarize these problems through multi-angle observations, and then find out effective solutions, so as to guide students in the future teaching. This plays a key role in inheriting and innovating piano performance technology.

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