# The Practice of String Sound Source in Computer Music Production--Take Pop Music Production as an Example

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Abstract: In the new era background, the computer music production industry has been continuously developed, the music industry has also entered a new digital era. Instead of relying on special hardware equipment, music producers can use a single computer to complete the music production work that requires more human resources and complex hardware facilities in the traditional mode. In the process of music production, the production of string parts is the key and difficult point, and it is difficult to find a simulation instrument. This paper will focus on the selection and application of string sound sources in pop music in computer music production. With the continuous innovation and development of science and technology, the function of music production software is more and more powerful, and music production has become more convenient and fast. Under the new technical background, music arrangers of different levels can make full use of music production software to compile music and apply it to the creative practice.

### 1. Introduction

For computer music production, string part production has always been the key content, and it is also one of the most difficult to imitate the instrument. If the music gets bigger, the sound becomes more real, and the string instrument gets bigger. String music has its own characteristics. As far as the current situation is concerned, there is no string music source that can totally meet the production requirements. Through the superposition of a variety of sound sources, the timbre of string music can produce new effects, which can realize the role of learning from each other.

# 2. An Introduction to Computer Music Production and String Sound Sources

# **2.1 Computer Music Production**

Computer music production itself is the use of modern scientific and technological achievements, based on the related music software to music production again, that is, the use of modern computer music arrangement and music composition work. Before there was no computer music production, music production under the traditional mode was mainly in the form of real people to present different tones and timbre, which would not only consume more human and material resources, but also difficult to ensure the quality and efficiency of work. With the support of modern science and technology, music can be made by computer, and music software can be used to input relevant

music data to present different timbre and accompaniment effects, so as to better present wonderful music.

# 2.2 Sound Source of String Music

At present, the music academic circle mainly divides the string music sound source into two types, one is the hard sound source, the other is the soft sound source.

First of all, the main presentation way of hard audio source is electronic music. The internal hard audio source has a relatively rich music library, which can better support the music production. However, this method of music production has its own disadvantages, which need to record different sounds and then to edit the production. But when we record the sound on cassette, the quality of the sound changes during the conversion. Therefore, the hard audio source can also be called a solid audio source, this kind of audio source volume is larger, use and carry the process will have difficulties, and the production method will cost more money, so it has not been widely used in the actual process.

Secondly, compared with the hard audio source, the soft audio source is relatively convenient in the process of use, and the price is lower, and is favored by the majority of music producers. Soft audio source commonly appears in our real life, it is a kind of music production for the application of the use of audio source, also can be called soft audio source plug-in. The use principle of soft sound source is to mix the audio track, and it does not need to be recorded in the process of use, so to a certain extent, get rid of the restriction of audio source sampling, and will not affect the final sound quality. In addition, the powerful function of the soft audio source, not only is conducive to fully reflect the effect of the audio source, but also can facilitate the management and application of the audio source.

# 3. Practice of String Sound Source in Pop Music in Computer Music Production

# 3.1 Basic Principles

On the one hand, the choice of the sound source of string music should be based on the playing techniques. For pop music, the choice of sound source needs to be based on the playing technique, because the real emotion to be expressed in pop music needs to be fully considered. For example, in the popular music we are studying now, some will express the emotion of sadness or happiness, and these different emotional expressions can be reflected through different playing techniques. Therefore, in the process of selecting sound sources, the singer's timbre can be highlighted and the effect of music can be comprehensively improved according to the control of the rhythm and fluency of the sound source, as well as the control of the strength of the string in the string sound source. For string music, the span of different notes and the application of playing techniques can be appropriately improved in order to express the intense and rapid feelings, while the long notes of string music can be used more often in order to express the gentle mood.

On the other hand, the choice of strings should be based on the timbre of the sound source. In the process of sound source development, the production and timbre of music are greatly different due to the difference of the equipment used and the players, the way of playing and the form of playing. Therefore, in the production of modern music, some strings have very heavy sound sources, while others show a very light and slow feeling. This requires consideration and analysis from many aspects such as music selection, music setting and the integration of sound sources, and at the same time, it is necessary to summarize the emotional expression of different music.

# 3.2 Application Method

In the production process of pop music, the compilation of string parts is mainly completed by computer. According to the actual needs of musicians, different sound sources are selected to produce the desired timbre effect. However, there is a gap between the effect of computer music production using software and the effect of real person demonstration, which is mainly shown in the two aspects of the intensity of emotional expression and the grasp of the intensity of music. In practice, there is a certain difficulty and complexity in the process of real performance and recording, and the production is generally made by using soft sound sources, resulting in a certain difference between the production effect and the real music. Therefore, in the production of string music based on computer software, attention should be paid to achieve a more realistic and real effect.

#### 3.3 Attention Problems

First of all, it is necessary to clarify the actual role of strings in song expression, that is, strings can realize the transmission of song emotions. In order to make string music express more realistic effect and emotion, the most basic is to make clear the real function of string music. These functions are reflected in the medium and long notes and harmonies of the strings in the song. The performance of these two aspects can comprehensively improve the thickness and width of the song.

Secondly, we should pay attention to the mutual integration between the instrument and the instrument range. For each string instruments, all have their own the most beautiful sound source area, so the music producers want to present the best effect of string music, requires its in the process to to take full advantage of these beautiful sound source factors, consciously with the harmonic part of the song, try to avoid possible incompatible situation.

Finally, the strength of musical notes should be accurately grasped, so as to strengthen the sense of reality between musical parts, which the main form of expression is the existence of the strong and weak relationship between notes. At the same time, in the process of string music production, it is necessary to divide the emotional lines of the string parts, so as to help depict the real effect of sound. When a music producer arranges a song, each song expresses different emotions, so the division of emotional lines also varies greatly.

# 4. Conclusion

In the new era, popular music has been widely welcomed, especially the sound source of string music needs in-depth analysis and research. In the process of using computer software to make music, in order to effectively choose the appropriate string music source, it is necessary to understand what string music source is and what role it can play, so that the performance techniques and characteristics of string music source can be organically combined with Musical Instruments and singers. In the future development, if music producers want to achieve innovative development, they need to apply string music sound source to the practical development of pop music and flexibly use music production software, so as to present higher quality music works to the audience.

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