

Thinking and Research on the Management Skills of Timbre in Contemporary Chinese Pop Music Production

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Abstract: With the rapid development of music culture in China this year, people have higher and higher requirements for the quality of music. Professional music production technology also ushered in a period of rapid development. However, the rapid development of systematization also leads to different quality of technical means. More and more musicians realize the importance of learning how to scientifically manage and customize their own timbre library. In this paper, we will think about and study the management skills of timbre in Contemporary Chinese pop music production.

Keywords: Pop music; Production of musical instruments; Software sound source; Voice library management

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In recent years, with the rapid development of music and culture industry in China, the market has put forward higher requirements for music production technology. Musicians continue to seek new breakthroughs in order to produce music that is more in line with people's aesthetic standards and can meet the market demand. The development of digital technology brings new development direction and diversified popular trend to all kinds of powerful music production software platforms. Many timbre libraries and sound sources bring convenience and speed to music producers and open the door of imagination. At the same time, they also pose new challenges for musicians to make rational use of resources to build timbre libraries.

1 Overview of music production technology

using digital technology

1.1 The beginning of digital music production

In recent years, the more popular music technology originated in foreign countries. After a long-term development, it has basically formed a mature theoretical framework and technology. The large-scale formal use in China will be traced back to the 1970s. With the gradual rise of Hong Kong's record industry and film industry, the digital format music technology began to replace the traditional analog equipment, and the demand for computer music production technology is gradually increasing. Gradually prosperous, promoting the rapid development of music production technology.

1.2 Characteristics of computer music production technology

The production methods and forms of pop music are diversified. However, the emergence of computer music production technology has overturned people's cognition of music production conceptually, eliminated the complicated steps in traditional music production technology, simplified the process, and provided conditions for the rapid emergence of a large number of pop music works. With the improvement of computer hardware performance, more and more musicians have joined in the production, creation, post-processing of electronic music and the improvement of audio editing and recording.

2 Production and recording of digital plug-ins for popular musical instruments

There are many kinds of audio source plug-ins used in the digital audio workstation (DAW) of music

production. DAW: Digital audio workstation, usually translated as "digital audio workstation" in China. Different formats are different in different Daws. The mainstream ones are VSTi from Steinberg, Au from apple, AAX (RTAS) from Avid, etc. plug-ins on different platforms cannot be used in common. Many audio manufacturers will issue different platform versions when they issue them. Now, some bridging technologies can also be used across platforms, even across hosts. For example, the independent program VE Pro can also be used for switching to realize cross version use of the whole platform. The specific use of voice color is also different according to the producer's composition habits.

2.1 Guitar audio plug-in

Guitar is a kind of plucked instrument. It has pillars and fingerboards. It resonates with the wooden box by plucking the strings. The sound is delicate and beautiful. Due to the delicate details of guitar performance, such as string rubbing, sliding, and touching force, it is very difficult for computer music production technology to reproduce the "natural" original music and "uncertain" simulated vibration at this stage. In the recording studio, in addition to vocal recording, the most commonly used is guitar recording^[1]. Therefore, in the production of independent guitar sound source, real sampling is preferred, mainly including electric guitar and wood guitar, as well as some special plucked instruments, such as mandolin, banjo and so on. Electric guitar timbre involves more effect timbre. In the real scene, it can be divided into two forms: guitar speaker microphone pickup and line direct recording. Therefore, one part of the sound source adds the guitar to the effector for sampling, which is convenient for the producer to call directly, but there is less adjustability; Some of them only record the "dry sound" of the electric guitar, also known as the "plain piano" timbre, that is, without any external equipment, the producer gets the original material, and can use a special guitar peripheral effect plug-in, which is more flexible.

2.2 Hit group plugin

There are a large variety of percussion music sources, which are generally divided into drum, beat, electronic strike, Symphony strike and special strike. When encountering fast music, computer music has advantages in speed accuracy and strength uniformity. In addition, the recording of percussion music has high requirements for recording environment, microphone,

microphone amplifier and other peripherals. The percussion music source is then produced by computer music which is most widely used. The drum rack is widely used in the accompaniment and live performance of pop music. The high-quality sound source is mainly based on the real instrument sampling. According to different styles, different drums, microphones and rooms will be used for sampling, so the classification will appear such as funk, hard rock, country, ballad and Latin Rock, punk and other classification methods, at the same time, each hit point can be replaced by its own voice, so as to facilitate the free "combination" of new percussion groups. Different from the sound source ideas of the percussion, symphonic percussion and drum stand, the real instrument sampling is the main idea. The electronic percussion and other timbres form the timbre library, which is designed by the voice developer using the synthesizer or sampling. The designed timbres are sampled and recorded and then combined into a library for the producer to use. These voices that have not appeared in the nature are given the system. As an endless imagination, rhythm can also make many dense and complex rhythms that can not be completed by real people, which are widely used in electronic music and film music.

2.3 Keyboard plug-in

Keyboard category is mainly divided into acoustic piano and electric piano, electric piano is divided into analog and digital. Acoustic piano is mainly used for real sampling of world famous piano, such as Steinway, Boesendorfer, Yamaha, etc., while electric piano has a kind of electric steel sampling of real analog synthesizer. This kind of electric piano has a real keystroke device, with amplifier and distortion effector, etc., which is similar to the principle of electric guitar, and the voice is beautiful and retro; The other is the electric piano timbre designed by using synthesizer technology, low-frequency oscillator, filter and other sound design technologies, which is real-time calculated in the use of plug-ins. Some new electric steel actually uses the same technology. The two types of timbres are suitable for different styles and scenes, and have their own characteristics.

2.4 Symphonic plug-in

This kind of timbre is also mainly sampled from real musical instruments, and the main classification is determined by the organization. Common classifications such as single pipe, double pipe, three

pipe organization, etc. most manufacturers will divide timbre into four categories: string music, wooden pipe, brass pipe, and percussion. Some manufacturers use the largest organization band to record when recording, so as to restore the timbre absolutely. Some manufacturers record the most famous music in the world Sound studio or concert hall for sampling, in order to reverberation space authenticity, such as VSL Vienna Orchestra, Eastwest Hollywood symphony, Cinematic Orchestra. There are also some manufacturers that split the recording of timbre. For example, the first part of violin may be split into 6 + 6 + 6, and the second part may be 8 + 8, so that composers can choose to make music freely, such as Las string, Kontakt string ensemble, etc.

In symphonic plug-ins, some other manufacturers classify special skills, sample them independently into a library, and even make small pieces with stylized labels, such as mystery, Broadway, Disney animation, etc., or make them into composition inspired pieces for producers, which is of great practical value, such as Horror symphony, ghost songwriter of EASTWEST, etc.

2.5 Bass plug-in

Bass as a bass instrument, is an indispensable and important instrument in pop music. Its frequency is lower than the bass drum. There are both sampling timbre and digital synthetic timbre. It is worth mentioning that the timbre of the big wooden bass as a jazz music is different from that of the double cello as a symphony. It should be distinguished according to the style needs in actual use.

2.6 World musical instrument plug-in

All of them are real instrument samples, which are often classified according to the world's five continents, defining national and folk instruments in various regions, and some of the timbre libraries are also classified according to strike, pluck and play. The Chinese folk music plug-ins started slowly, and in the early stage, they were mainly folk self-made samplers. Later, some foreign music companies joined some folk music timbres, such as silk of Eastwest company Kong Audio is the best comprehensive folk music source at present.

2.7 Vocal plug-in

It is used for simple background harmony accompaniment singing, real voice sampling or synthetic voice singing. The sampling is mainly divided into chorus and solo singing, mainly independent vowel letters, such as a, e, o, i,

u, etc. in special voice colors, such as church choir, hymn, Hollywood dubbing, etc., it is also very convenient. There are also synthesizers of simulated libretto such as lotianyi, which are also used for small-scale production or special works.

2.8 Integrated plug-in

This kind of plug-in is the most special, because the large and complete timbre library is probably the most unpopular in today's world, because its timbre quality is often not amazing, but its timbre coverage is wide, most timbres are synthesized through algorithms, so it takes up less computer resources, so it is also a necessary timbre library for human hands. On the other hand, if all timbres use a brand plug-in, it is easy to achieve relative balance in timbre fusion, loudness control and reverberation, which is also a good choice for teaching or producing samples.

2.9 Electronic

Electronic music is an art form produced with the progress of science and technology. Electronic voice plug-ins are also divided into sampling type and digital computing type, as well as many independent synthesizers^[2]. Because of its excellent algorithm, many third-party voice resources, it is widely used, such as serum serum synthesizer, independent plug-in version of reason, etc.

3 Conclusion

In order to create better music works for the public, we should not only deeply explore the spiritual connotation of the times, keep up with the development of the times, but also have a clear understanding of the advantages and disadvantages of various musical instruments and their corresponding timbre plug-ins, make good use of the scientific classification management of timbre Library in the post-processing, systematically establish composition logic, and carefully handle the mixing of various musical instruments, human voices and harmony. The details can be made into excellent works loved by the public only when every link is perfectly handled.

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