



# The Characteristics of the Chinese Orchestra of the Sichuan Conservatory of Music

Tengteng Wu

A Thesis Submitted in Partial Fulfillment of Requirements for  
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### ABSTRACT

The dissertation investigates the characteristics of the Chinese Orchestra of the Sichuan Conservatory of music. The objectives of this study are twofold. Firstly, the aim is to study the development of the Chinese Orchestra of the Sichuan Conservatory of Music. Finally, the dissertation shows the in-depth analysis of the musical characteristic of the Chinese Orchestra of the Sichuan Conservatory of Music. Using the theoretical methods of musicology and music analysis, the researcher the data collected from a literature review and field work were analyzed and made into description.

It is found that the Chinese Orchestra of the Sichuan Conservatory of Music changes, pertaining to sizes, a number of players, the use of musical instruments and instrumentation, and the adoption of various Chinese traditional repertoires. It is noticeable that although the orchestral breadth is reduced in size, there is a development in the members playing music more professionally and stylistically with the help of musical instruments being technically modernized. By the four selected pieces of music divided into two types – Chinese Orchestra music and the solo with Chinese Orchestra music – for analysis, it is better to use the modern composition technology theory of both China and the West into exploring the national musical characteristics, and humanistic connotation of the Chinese orchestral works of the Sichuan Conservatory of Music. The musical characteristics are analyzed through melody, harmony, and orchestration. The melody mostly uses the theme of Chinese style. I, IV, and V are frequently used in the harmony. In orchestration, the composer used string wind, and percussion instruments in which each type of instrument is arranged in pitch from high to low, with the improved instruments and Chinese national percussions being used to render the musical atmosphere.

Keyword : Chinese Orchestra, Musical characteristics, Sichuan Conservatory of Music, Chinese Orchestration

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# CHAPTER I

## INTRODUCTION

### 1.1 Statement of the Problem

It is argued that the thriving of Chinese national music is greatly mobilized by the use of the advanced technology, continuous breakthroughs in new technological revolutions, along with convenient transportation, economic and information globalization with the Chinese Orchestra of the Sichuan Conservatory of Music being a typical example. The orchestra is invested with a high reputation of professional play band, making a great contribution to the development of Chinese national music (Yunjiang Liang, 1999) such as "Shu Gong Ye Yan" (Zhou Zhu, Shu Yu, Weijie Gao, 1981), "Capriccio of Dabo River", (Xuntian He, 2008), "Narration of flute and band A Shi Ma" (Ke Yi, Jiayi Yi, Baoqing Zhang, 1982), "Tai Yang Chu Lai Xi Yang Yang" (recompose by Wengong Cao, 2016) "Jiang He Yun Meng" (Yunjiang Liang, 1988). Most excellent musical repertoires are still famous as representations of national instrumental music. The Chinese Orchestra of the Sichuan Conservatory adheres to the people as the center to create and perform a variety of people's musical favorites, with Chinese style and unique local characteristics of folk music works in an effort to promote the development of China's national musical creation and performance. In recent years, Chinese Orchestra is active on the world stage, such as: China National Traditional Orchestra, Hong Kong Chinese Orchestra, Chinese Orchestra of the Sichuan Conservatory of Music. Chinese Orchestra is still in a process of cultivating a full development (Jiping Zhao, 2019). The researcher wants to analyze characteristics of the Chinese Orchestra of the Sichuan Conservatory of Music research, in attempt to find more scientific and practical ways to prove that Chinese Orchestra of the Sichuan Conservatory of Music system is strong. At present, there are some articles about Chinese Orchestra; however, a little data about the characteristics of the Chinese Orchestra of the Sichuan Conservatory of Music were acquired, so that there is more information to explore. The researcher was graduated from Sichuan Conservatory of Music, majoring in Erhu performance, an important fiddle playing in Chinese Orchestra and music performance. As the researcher has worked in the Chinese Orchestra of the Sichuan Conservatory of Music for decades,

positioning as the orchestra chief, and having certain knowledge of Chinese Orchestra, this provides the research foundation and ascertains the feasibility of studying.

Study the characteristics of the Chinese Orchestra of the Sichuan Conservatory of Music mainly include the following. With the advent of reforming and opening up (12.1978), a lot of western culture, art, ideas and aesthetic arose in China, including the western music, painting, sculpture, and dance. Influenced by the western music and western symphony orchestra, the Chinese Orchestra of the Sichuan Conservatory of Music continued to improve (Hongbin Sun, 2016). This is not only because Chinese and western culture have an influence on Chinese Orchestra, but also it is to know that all composers, performers, conductor and music experts were keen to express emotion demand, and the change of China's national public and international public hearing aesthetic thoughts on Chinese Orchestra. In this study Chinese Orchestra characteristics is not only my learning needs, but also in the demand that Chinese Orchestra is to meet international standards requirements. Studies of characteristics of the Chinese Orchestra of the Sichuan Conservatory of Music by the demand of the development of the Chinese Orchestra of the Sichuan Conservatory of Music, since the Chinese Orchestra, as one organization, to develop from a few simple main instruments into dozens of different instruments. It is still developing as Chinese orchestra establishment has not completely formed. Here are the questions: what is a more development of the Chinese Orchestra of the Sichuan Conservatory of Music, how to make the Chinese Orchestra of the Sichuan Conservatory of Music emit a beautiful sound, which is more suitable for the Chinese Orchestra of the Sichuan Conservatory of Music, how it expresses more delicate emotions of the composers and performers. Those questions are still unanswered. This dissertation will reveal the Chinese Orchestra of the Sichuan Conservatory of Music all kinds of musical instruments sounds, the sound image characteristics of artistic conception, all the instruments of the national orchestral in detail, and by the orchestra each parts fusion acoustics characteristics to explore emotion demand of the Chinese Orchestra of the Sichuan Conservatory of Music. Therefore, the current Chinese Orchestra of the Sichuan Conservatory of Music needs improving, and these improvements have never stopped until now.

## **1.2 Research Objectives**

1.2.1 To study the development of the Chinese Orchestra of the Sichuan Conservatory of Music, China.

1.2.2 To analyze the musical characteristics of the Chinese Orchestra of the Sichuan Conservatory of Music, China.

## **1.3 Research Questions**

1.3.1 What is the development of the Chinese Orchestra of the Sichuan Conservatory of Music.

1.3.2 What are the musical characteristics of the Chinese Orchestra of the Sichuan Conservatory of Music.

## **1.4 Importance of Research**

1.4.1 We will know the development of the Chinese Orchestra of the Sichuan Conservatory of Music, China.

1.4.2 We will know the musical characteristics of the Chinese Orchestra of the Sichuan Conservatory of Music, China.

## **1.5 Definition of Terms**

Chinese orchestra is a type of band comprising the Chinese traditional instruments plus western instruments such as the cello and the double bass.

Chinese Orchestra of the Sichuan Conservatory of Music refers to a band which is based on Chinese traditional instruments, and under the Sichuan Conservatory of Music administration.

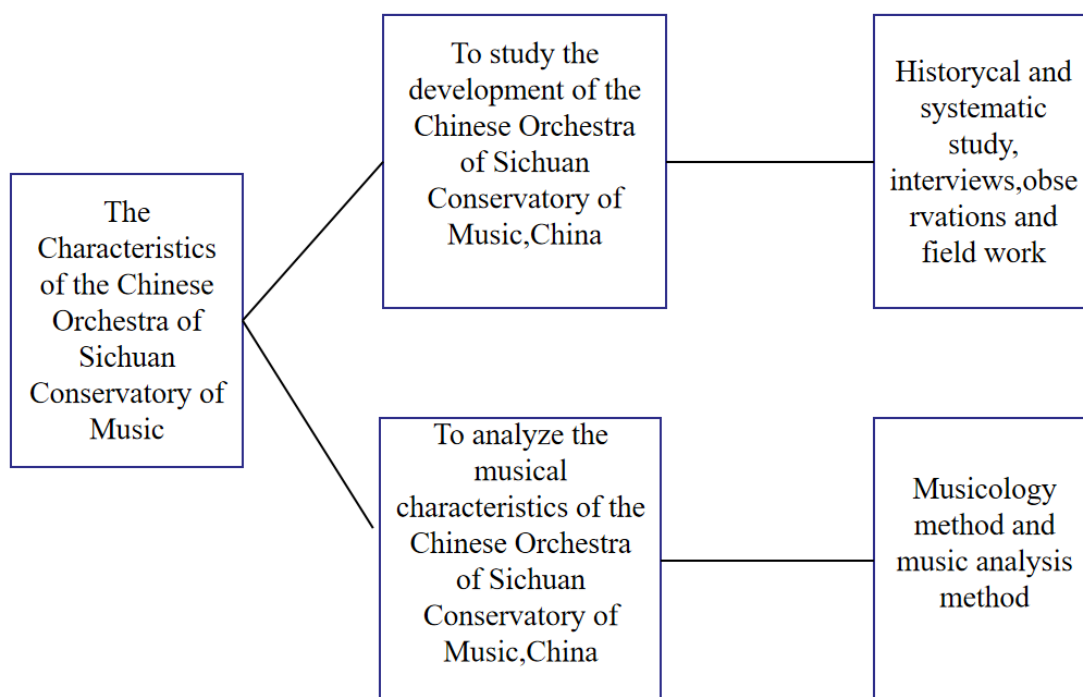
Development refers to the historical background, constantly updating the status and the situation of Chinese Orchestra.

Sichuan Conservatory of music refers to one of the six professional music Conservatory with undergraduate and master education level in China.

The Characteristic refers to the music element: melody, harmony and orchestration.

## 1.6 Conceptual Framework

This dissertation takes the Chinese Orchestra of the Sichuan Conservatory of Music as the research object. Data are collected mainly through qualitative research, including: interviews, observations, literature review and the use of open-ended questionnaire. The researcher uses sociology theory, ethnomusicology theory and musicology theory guidance.





## CHAPTER II

### LITERATURE REVIEWS

This chapter reviews the relevant documents of the Chinese Orchestra to obtain the most comprehensive information, available to be used in this research. The researcher has reviewed it according to the topic and objectives:

- 2.1 The related methodology
- 2.2 Related resources
- 2.3 Related literature

#### **2.1 The Related Methodology**

This research uses the musicology method and music analysis as follows.

##### 2.1.1 The Musicology Method

“Musicology” has many ways of meanings and concepts depending on each vision. The principle and the method of musicology have been assigned systematically. The concept of learning is to get works from the research. Many of the scholars gave the meaning of musicology.

Mentions that musicology is the study of certain musical styles deeply and including all of the musical contents including music performance, composition and music resources. The contents are about the theory of music such as music elements, harmony, and melody. (Christine Ammer, 1987 quoted in Narongruch Woramitmaitree, 2001)

Musicology is the general term for all theoretical subjects that study music. The general task of musicology is to elucidate the nature and laws of various phenomena relating to music. For example, studying on the relationship between music and ideology includes music aesthetics, music history, music ethnology, music psychology, and music pedagogy. (Yandi Yang, 1995) Musicology includes concepts and the focus on Western music education such as music theory, musical contents, history of music. It also includes the musical sound and other fields of knowledge such as physics, psychology, social science and ethnomusicology. At

present, musicology embraces the study of performing skill and composition. (Narongruch Woramitmaitree, 2001)

The study of the material and material characteristics of music includes musical acoustics, jurisprudence, instrumental science, etc. The study of musical form and its composition includes melody, harmony, acoustics, counterpoint, and the process of composing music. There are also from the performance aspects to consider such as performance theory, and methods (David Beard and Kenneth Gloag, 2005)

The word "musicology" is applied to include all music, and it is believed that all music can be studied by all methods. My definition of "musicology" refers to the study of music in the broad senses and perspectives including historical, theoretical, analytical, anthropological, ethnographic, physical, physiological, mechanical, digital, cognitive, psychological and philosophical aspects. Musicology is all-encompassing in my eyes, and the redefinition of musicology is the result of adopting the above-mentioned global perspective (Cai Kuanliang & Xu Lufan, 2020) .

According to above literature, it includes the research, music theory, musical contents, history of music, the musical sound and other fields of knowledge such as physics, psychology, social science and ethnomusicology. At present, musicology includes the performing skill and composition. This paper analyzes the collected music works by means of musicology. Through the analysis of music, the musical characteristics and changes of Chinese Orchestra of the Sichuan Conservatory of Music are observed. Using the research method of musicology to track the development of Chinese Orchestra of the Sichuan Conservatory of Music is crucial. The analysis of music characteristics objectively explains the connotation of the music of Chinese Orchestra of the Sichuan Conservatory of Music.

### 2.1.2 The Theory of Chinese National Mode

Chinese national mode refers to the pentatonic mode composed of Gong, Shang, Jue, Zhi, and Yu in Chinese harmony and the hexatonic mode and the heptatonic mode arisen from the pentatonic one. Under the same key signature, Gong, Shang, Jue, Zhi, and Yu belong to five different tones in the same Gong system. The Gong tone is seen as the tonic, the Shang tone is the supertonic, the Jue tone is the mediant, the Zhi tone is the dominant, and the Yu tone is the submediant. (Li& C.G, 1990)

## Scales in C Major



## The Scales of C Gong Scale with five-tone mode

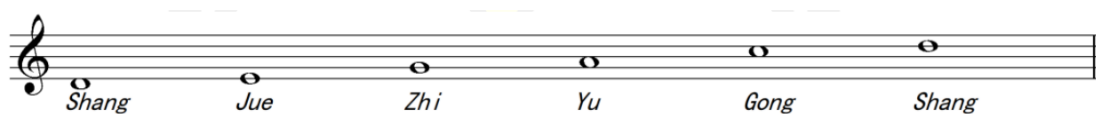


Chinese pentatonic mode is a Chinese national mode which is composed of five tones: Gong, Shang, Jiao, Zheng, and Yu in the same key signature. There are five types: 1) Gong mode; 2) Shang mode; 3) Jue mode; 4) Zhi mode; 5) Yu mode. It is named the pitch of the first tone of the mode, and the tonic name of the position is combined with the mode type. The five types of modes under the same key signature belong to the same Gong system (Huang Yanjun, 2022).

## C Gong Scale with Chinese pentatonic mode



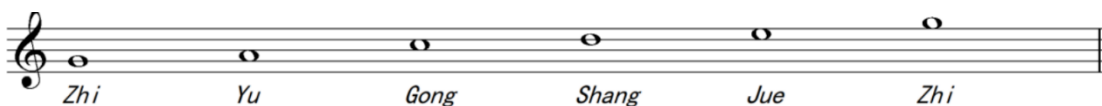
## D Shang Scale with Chinese pentatonic mode



## E Jue Scale with Chinese pentatonic mode



## G Zhi Scale with Chinese pentatonic mode



### A Yu Scale with Chinese pentatonic mode



This dissertation mainly collects, arranges, interprets, and analyzes the score of Chinese Orchestra of Sichuan Conservatory of Music with the above theory.

#### 2.1.3 Music analysis

In this research, the researcher will use the methods of melody analysis, harmonic analysis and orchestration analysis for study. And the analysis of music in this research based on the following ideas.

Walter Pitson (1990 quoted in Wittaya Woramit, 2001) mentions that orchestration is a study about how to use the musical instruments that have balance of sonority, unity and variety of tone color as well as the brightness and clarity of music. Walter divides the orchestration into each texture as follow.

1. Orchestral unison: single note playing.
2. Melody and accompaniment
3. Secondary melody that consists of main theme, sub theme and the accompaniment.
4. Part writing meaning four-part writing, such as soprano, alto, tenor and bass or more than four parts. Each part is equally important.
5. Contrapuntal texture which consists of many melodies with more than one line in one piece.
6. Chord that is the combination instruments which are divided into four kinds. This is the same idea with Nongluck Prasopsuk (1993: 49-50 quoted in Wittaya Woramit, 2001: 15-16) as follow.

6.1 Juxtaposition or super position is the mixing of sound by using the instruments in ordering from the top to the bottom.

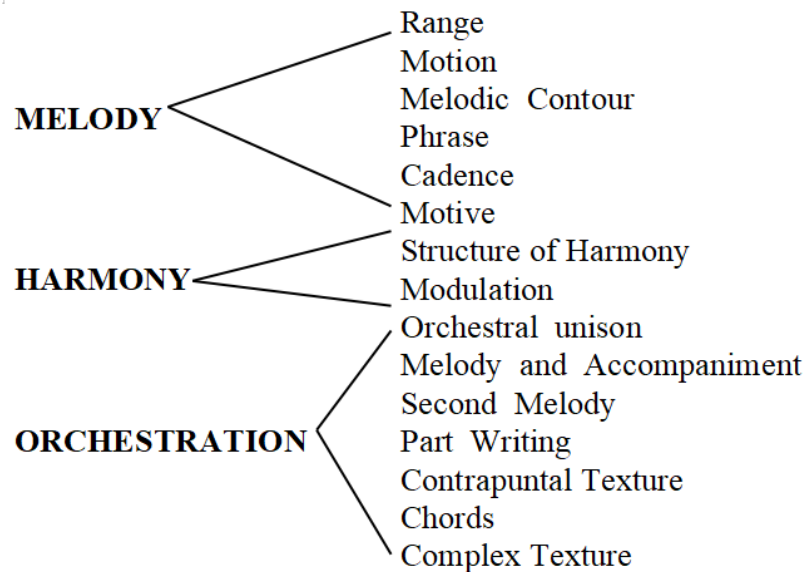
6.2 Interlocking is alternation of instruments in ordering from the top to the bottom.

6.3 Enclosure means one instrument is playing enclose with others.

6.4 Overlapping is using of different instruments doubling some notes in each chord.

7. Complex texture: is the combination of many kinds of texture and playing together, such as part writing and playing chords together.

As follows the concepting from Wittaya Woramit (2001: 9)



According to above literature, the analysis of music in this research based on the above idea, concluded as follow.

Melody as melodic contour, Motive, extension, transition, antecedent and consequent.

Harmony that includes structure of harmony.

Orchestration comprising orchestral unison, melody and accompaniment, secondary melody, part writing.

The rationality of orchestration and the music research of this paper are based on the Chinese Orchestra of Sichuan Conservatory of Music, among which orchestration is a very important part. The use of orchestration and combination of orchestral instruments is very important to reflect the characteristic of the Chinese Orchestra of the Sichuan Conservatory of Music. The correct orchestration means and combination mode can maximize the cultural connotation of the music through the orchestral form and the unique music style of the orchestra. Based on the analysis and explanation of the Chinese Orchestra orchestration, it plays an important role in

exploring the musical characteristics of the Chinese Orchestra of the Sichuan Conservatory of Music.

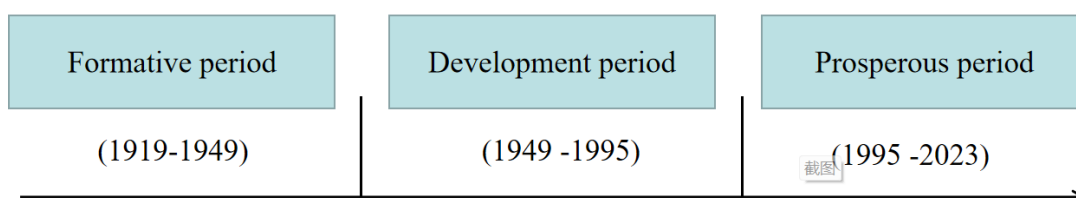
The researcher will study and analyze the melody, harmony and orchestration of the Chinese Orchestra of the Sichuan Conservatory of Music to further understand the musical characteristics of the current orchestra, so as to discover the unique musical value of the orchestra and explore the differences and characteristics between the Chinese Orchestra of the Sichuan Conservatory of Music and other orchestras. Through the current research and analysis of the characteristics of the future orchestra better development to provide reference value.

## 2.2 Related Resources

### 2.2.1 The historical background of Chinese Orchestra

Analyzing the historical background of Chinese Orchestra, it can be divided into three parts for analysis. The first part is the formative period of Chinese National Orchestra (1919-1949), the second part is the development period of Chinese National Orchestra (1949 -1995), and the third part is prosperous period of Chinese Orchestra. (1995 -2022).

#### The development stage of Chinese Orchestra



Source: Reseacher

#### 2.2.1.1 Initial formation stage of Chinese Orchestra (1919-1949)

From "The May 4th Movement of 1919, China " to 1949 in the thirty years is the development period of modern national orchestral music in China. It has experienced the transformation from an amateur society band to a new national band. We can clearly see that this period of history not only extends in time with the construction of the national orchestra in the early years of the People's Republic of China, but also inherits in form and concept (Xiangbo Li, 2012).

During this period, some iconic bands were established, including the "Chinese Music Research Association" (1919), the "Tian Yun Association" (1919), and the "DaTong Music Association". (1919), "Chinese Music Improvement Association" (1927), "Chinese Orchestra of the Music Group of China Central Radio Station" (1935), "Chinese Orchestra" (1941), "Fujian Music Orchestra" (1944). These orchestras made contributions to China's national orchestra in varying degrees by organizing, studying and revising traditional music. The musicians in China's national orchestra improved traditional musical Instruments, developed new musical instruments, and organized rehearsals and performances, which proved a certain social impact. At present, the most representative national orchestra before 1949 is the "DaTong Music Club" which was founded by Jinwen Zheng in Shanghai, and is widely recognized as an exemplar of China's national orchestra in the academic community. Today's Chinese Orchestra is directly inherited from the structure of The Chinese Orchestra of the Music Group of China National Radio. Influenced by the new cultural movement, Jinwen Zheng had the idea of reforming the form of folk music ensemble and establishment a new folk music band. He named the new band as "Da Tong Yue Hui" (Da Tong Music Club) in order to "bring Chinese and Western music together". Jinwen Zheng, an advocate of Chinese folk music, is the first person who practiced and explored the band from the aspects of band compilation, repertoire creation, and initiated an instrument reform. The band originally gave a priority to with the elegant musical instrument, with the deepening of research, reference the Western musical instruments in the orchestra group distribution method. The ethnic musical instruments can be divided into the blown, plucked, and percussion in four groups. It is worth noting that the band has been at the time of instrument internal set high, medium and low combining issues for consideration, although in the instrument used is presented in the distribution system and informal system of orchestration. We have to preliminarily determine the early peoples that founded the orchestral framework to its development in becoming an outstanding national orchestra. Faces the society recruit players in 1929, with the fresh blood to join, "Da Tong Music Club" system has also made great progress in the exploration of the band's establishment. At this time, the band adopted the twelve-tone equal temperament into

use, along with staff notation, and on the surface of the score to the bow, fingering, playing method to make a unified label (Siyu Liu, 2019).

At the beginning of its establishment, Datong Music Association mainly arranged and played ancient music, and later devoted to studying of arranging ethnic orchestral ensembles, which had a profound impact on the development of Chinese ethnic orchestral music. The Datong Music Association gathered and arranged many classic folk music ensembles, such as “Spring River Flower Moon Night” (Chun Jiang Hua Yue Ye), “General's Order” (Jiang Jun Ling), “Ni Shang Song”, “Yue Er Gao”, etc. Among them, “Spring River Flower Moon Night” revised in 1925 achieved the most far-reaching achievement, and this novel form caused a strong response in the society at that time (Xide He, 1999).

In addition, the Da Tong Music Club also had great achievements in musical instrument reform. In January 1931, the Da Tong Music Club made a complete set of archaized musical instruments, a total of 163 kinds. There are 35 plucked stringed instruments, 20 stringed instruments, 43 blown instruments, 60 percussion instruments, and 5 musical temperament instruments. The 163 archaized musical instruments and "National Music" were included in the news documentary filmed by Shanghai Star Film Company, which not only left the image memory for the public, but also played a role in promoting the development of China's national orchestra career.



Figure 2. 1 Photo of the DaTong Music Club concert performance  
(Source: Xiangbo Li, 2012)

This is the first part of the historical background of Chinese Orchestra. From "The May 4th Movement of 1919 " to 1949 was a stage of development to modern



Chinese Orchestral music. It has experienced the transformation from an amateur society band to a new national orchestra that can be seen since the period of the construction of the national orchestra in the early years of the People's Republic of China, and inherits in form and concept.

#### 2.2.1.2 Development stage of Chinese Orchestra (1949 -1995)

In this stage, many people with vision represented by Xiuwen Peng kept innovating, learned from experience, and gradually optimized the compilation and works of national orchestral music. He made a great contribution to the final decision of the contemporary national orchestra. Study from the excellent reform experience of "DaTong Music Club", Xiuwen Peng decided to use of string, plucking, wind and percussion instruments as the compilation concept of China's contemporary national orchestra, and further increase the volume, extend the range and enhance the sound quality on the basis of it.

Since the founding of the People's Republic of China in 1949, a large number of folk musicians have done a great deal of work to expand the performance scale of folk instrumental music, increase the mutual coordination of timbre and range of different instruments, and expand the musical expression of folk instrumental music. After the experiment of early construction of the new national orchestra, cooperate, instrument improvement works creation, band rehearsals and concerts and a series of practical work, and gradually formed the Chinese Orchestra shape now. After 1949, the Chinese national music workers in the long-term practice of music constantly expand the scale of the national instrumental music band shape, explore folk instrumental music performance in sound, music texture, there are some national orchestra appeared: the Shanghai Chinese Orchestra established in 1952, the China Broadcasting national Orchestra established in 1953, and the Central Chinese Orchestra established in 1961 have successively explored the possibility of Chinese instrumental music becoming orchestral and symphonic (Yanan Sun, 2013).

The founding of new China ushered a new era in the construction of musical culture. During this period, Chinese people gradually opened their minds, and the introduction of Western music ideas provided new ideas to Chinese national music pioneers, and Chinese Orchestral music also developed rapidly. In June 1951, as a result of national policy, "National art ensemble conference" was held in Beijing, as

well as across the country set up a professional art groups policy has opened up a new way of art. And in the second year put forward the "build theatre art", decided on the basis of the original art ensemble establishing all kinds of professional performing arts groups, respectively, the cultural and artistic performance art career toward specialization, and normalization. As a result, some national orchestras, established in several big cities, marked the new stage of the development of Chinese Orchestra (Zhonghui Chen, 2016).

The founding of New China from 1949 to 1995 is specific period can be divided into: the beginning of establishment (1949--1956), prosperity and development (1957--1966), tortuous course (1966 -- 1976), returned to the stage (1977--1985), the new trend of thought injection (1985--1995) (Xiangbo Li, 2012).

The Central Chinese Orchestra founded in 1960 is the national Chinese Orchestra with a national orchestra, chorus and studio. With Huanzhi Li as the head and Pengzhang Qin as the commander, the group has visited dozens of countries in the world and won the gold medal in the Folk Art competition of the 8th World Youth Festival. From 1998 to 1999, under the baton of the famous conductor Bianyang Chen, the Central Chinese Orchestra voyaged on tour to Europe twice and performed in Vienna's Golden Hall, which was highly praised by the world. The Hong Kong Chinese Orchestra, founded in 1977 and having regular concerts annually, conducts free charity performances in schools and communities for young people and citizens. The Hong Kong Chinese Orchestra also performs on the mainland. China's national orchestra is still developing. Every region and even some universities and primary schools have formed their own folk bands (Jingzhi Liu, 1994).

In this part we study the development stage of Chinese Orchestra (1949 - 1995). Many people with vision represented by Xiuwen Peng kept innovating, learned from experience, and gradually optimized the compilation and works of national orchestral music. Studying from the excellent reform experience of "DaTong MusicClub", Xiuwen Peng decided to use the string, plucking, wind and percussion instruments as the compilation concept of China's contemporary national orchestra, and further increase the volume, extend the range and enhance the sound quality on the basis of it. It is very important for Chinese Orchestra.

### 2.2.1.3 Current situation of Chinese Orchestra. (1995 -2022)

Although the real development of national orchestral music is less than one hundred years, its development situation is very strong. Up until now, there is no significant difference in the number of national orchestras compared with professional orchestras. The number of non-professional orchestras is even higher than that of symphony orchestras in some fields. The current combination of professional and corporate bands shows a variety of development trends with the Hong Kong Professional Orchestra as the example. Since its establishment in 1977, it has produced more than 2,100 new musical works in various styles and genres, and has made remarkable achievements in the field of musical instrument reform, such as the Gehu and the environmental Huqin (Shiwei Luo, 2019).

With the improvement of our economic level, the cultural industry has been paid greater attention to by all walks of life, and the vigorous development. The number of stage performances, orchestras and professionals in the art management industry of Chinese Orchestra are increasing year by year. The optimization of Chinese Orchestra and the improvement of music quality play a crucial role in the development of China's cultural industry and performance industry (Ting Li,2017).

This was the period when Chinese Orchestra was diversified and reached its establishment (1995-2010). The early 2000s were a period of flourishing, diversification, and integration for Chinese Orchestra. China's national orchestra is still developing. Every region, and even some universities and primary and middle schools have formed their own folk bands. The Chinese Orchestra will surely give more excellent performances and make greater contributions in promoting Chinese folk music (Weixuan Chen, 2012).

Studying three parts of the historical background of Chinese Orchestra reveals that the first part is initial formation stage of Chinese Orchestra (1919-1949), the second part is the development stage of Chinese NationalOrchestra (1949 -1995), and the third part is the current situation of Chinese Orchestra (1995 -2022). We know the history and background of Chinese National Orchestra.

The music of Chinese Orchestra will be divided into two parts for analysis. The first part is the development of National orchestral music in China, the second part is the instrument reform of Chinese Orchestra.

### 2.2.2 Instrument reform of Chinese Orchestra

An instrument reform refers to the change of the local or overall structure of the instrument in order to improve the performance of the instrument and adapts it to the new needs of performance.

In the long history of China, both indigenous and foreign musical instruments have undergone more or less reformation or improvement in the form of musical instruments for better development.

Each musical instrument reform is closely related to the social, political, economic and cultural background at that time. one could say that the existing traditional Chinese musical instruments are exactly the same as their ancestors in terms of shape, sound, and playing skills. China's existing traditional musical Instruments, either domestic or imported ones, have always been adapted to the needs of different times. Reform is the embodiment of adaptation. The musical instrument reform in ancient China and the contemporary musical instrument reform has the same essence, which is to improve the performance of musical instruments and develop instrumental music culture, but there are differences in scale. The musical reform in ancient Chinese history was gradual, and it was often to improve the performance of a single instrument, and there were few kinds of musical instruments. After 1949, the musical instrument reform was centered on the construction of the new national orchestra, which was large in scale and large in number. The reason why there were such large-scale musical instrument reform and practice activities in this period was firstly because there were profound changes in all aspects of social life during this period, and new music was needed to reflect it. One is that the new national orchestras need a lot of new instruments to meet their needs. The musical instrument reform carried out after 1949 inherited the tradition of the development of Chinese national instrumental music, adapted to the needs of social development, and tried to meet the new aesthetic needs of music and spontaneous movement.

The founding of New China opened a new voyage of China's cultural construction. At the beginning of the founding of the People's Republic of China, the country's cultural construction has entered a new period of construction. The time when the Chinese were considered uncivilized is over, and we will emerge as a highly cultured nation." In July 1949, the first Literary and Art Congress was held, and the All-China Federation of Literary and Art Circles and various art associations were

established, which played a great role in mobilizing literary and art workers to actively participate in the construction of socialist culture and art in New China. The conference clearly put forward the basic principle that literature and art should serve the people, the workers, peasants and soldiers. Under the inspiration of the greatly inspired the creation of the literary and art workers enthusiasm, positive practice, involved in the passionate life, creating a large number of excellent works of literature and art, culture and art appeared a vibrant scene, the formation of the new China the first climax of the development of cultural and art (Jun Yu, 2012).

After the 1950s, with the establishment of the new national orchestra, instrument reform has become an important and urgent issue. In order to carry out this task better, the Chinese Musicians Association listed "promoting the reform of national Musical Instruments" as the main point of its work plan in 1954. Since then, various musical instrument reforms and practice activities have been carried out across the country. Among the many practical activities of music reform, there are several prominent representatives: The National Orchestra of China National Radio, the National Orchestra of the Avant-garde Song and Dance Group of the Jinan Military Command of the People's Liberation Army, and the Hong Kong Chinese Orchestra. China National Radio Orchestra is one of the earliest and most successful groups to improve the band through instrument reform. The avant-garde song and dance group learned from the experience of China National Radio Orchestra, and developed wind music according to the characteristics of its own military orchestra, and successfully developed Liuqin. The Hong Kong Chinese Orchestra is one of the most representative national orchestras in non-mainland China. It is still committed to the instrument reform and has made great achievements. (Jing Lin, 2012)

Chinese Orchestra is the most prominent folk music group in the current music reform. In addition, in the huge tide of music reform, ethnic minority areas to their own minority musical instruments, bands also carried out reform.

### 2.2.3 The General Knowledge of the Sichuan Conservatory of Music, China

The predecessor of the Sichuan Conservatory of Music was the "Sichuan Provincial Drama Education Experimental School" founded in 1939. It became more famous in 1959 and became one of the six professional music colleges with undergraduate education level in China at that time. The school has two campuses,

Wuhou and Xindu, covering a total area of more than 1200 mu. It has 26 teaching departments and 10 research institutions. The school level covers graduate education, undergraduate education, junior college education, adult education and secondary art education. It has more than 16,000 students. It is one of the 11 independent professional music colleges in China. Adhering to the school running philosophy of "running art education well, cultivating first-class talents and promoting literary and artistic prosperity", the school adheres to the school motto of "advocating beauty and innovation", adheres to the school running idea of basing on the present, carrying forward the tradition and facing the future, deepens reform and innovation, promotes the construction of first-class disciplines, strives to form a high-level art talent training system, and solidly promotes the construction of innovative talents with high professional level, strong teaching and research ability, based on Sichuan and facing the whole country Open, characteristic and high-quality art colleges and universities. The school takes music and dance as the main discipline, and the comprehensive and coordinated development of art theory, drama and film and television, art and design and other disciplines. The discipline construction is continuously improved and the discipline layout is continuously optimized. The provincial key disciplines are: composition, keyboard instrument and painting. The construction points of national first-class undergraduate majors are: music performance, the theory of composition and composition technology, recording art. The provincial first-class undergraduate majors include musicology, dance, painting and product design. The provincial application-oriented demonstration majors are: recording art, environmental design and product design. The provincial excellent teaching teams are: the main teaching and Research Office of composition department, the main teaching and Research Office of Piano Department, the string music teaching and Research Office of orchestral department, the bel canto teaching and Research Office of vocal music department, and the accordion teaching team of accordion electronic keyboard department.

The Chinese Orchestra of the Sichuan Conservatory of Music, formerly known as the National Orchestra of the Sichuan Conservatory of Music, has a high reputation in China in terms of works and band performance level, and made great contributions to the development of China's ethnic music. Up to now, many excellent

music works, such as "Shu Gong Ye Yan" (Zhou Zhu, Shu Yu, Weijie Gao, 1981), "Capriccio of Dabo River"(Xuntian He, 2008) "Tai Yang Chu Lai Xi Yang Yang" (Adapted by Wengong Cao, 2016), "Bu Gu Niao Er Gu Gu Jiao" (Qingyun Xiong and Wengong Cao, 2016), "Kang Ding Qing Ge" (Adapted by Wengong Cao, 2016)

"Narration of flute and band AShiMa" (Ke Yi, Jiayi Yi, Baoqing Zhang, 1982), "Jiang He Yun Meng" (Yunjiang Liang, 1988) are still popular among national instrumental works. The "Shu Gong Ye Yan" performed by the troupe won the first prize in the first national instrumental music competition; "Capriccio of Dabo River" and "Narration of flute and band AShiMa" won the first prize and the second prize of the second national instrumental music competition respectively. In 1996, the concerto "Jiang He Yun Meng" won the first prize in the sixth "Autumn of Chengdu" concert composition competition, and in 1998, won the third prize of Bashu Literary Award.

In 1982, the Chinese Orchestra of the Sichuan Conservatory of Music went to Beijing ZhongNanHai (residential compound in Beijing housing top party leaders) to report the performance, which was highly praised by most commentators, and then performed hundreds of times in universities.

#### 2.2.4 The Study of the orchestration of Chinese Orchestra

The Study of the orchestration of Chinese Orchestra will be divided into two parts for analysis. The first part is the analysis of orchestration, the second part is the analysis of instruments of Chinese Orchestra.

##### 2.2.4.1 The analysis of orchestration

The objective in analysis of orchestration is to discover how the orchestra is used as a medium to present musical thoughts. Its immediate purpose is the simplification of the score so that order is seen in what to the layman is a "sea of notes." It is a means of studying how instruments are combined to achieve balance of sonority, unity and variety of tone color, clarity, brilliance, expressiveness, and other musical values. Ultimately, the analytical process shows the differences in an orchestral style between various composers and periods. The first step for analysis is the examination of the musical texture, apart from orchestration, to see what component elements make up the fabric of the music.

As the second step, after the number and character of the textural elements is determined, the distribution of the instruments and sections of the orchestra among the elements is to be noted. Here, a difficulty will be encountered, owing to the fact that good orchestral music continually changes in the arrangement of the instruments, and often in the type of texture as well. It is therefore necessary to apply the analytical process to short sections of music at a time, sometimes to only a few bars. Passages should be selected that are most easily comprehended in their texture and distribution, leaving the more problematical places until skill is acquired through practice.

In the third step, a comparison of the elements should be made, evaluating the result of the distribution as to balance and contrast, and make a remark of any other qualities that may become evident.

The fourth step is the close examination of each element taken separately. This will take note of the choice and combination of tone colors, doubling and spacing, reinforcing of accents. It often happens that an element is further divided into what may be called sub-elements.

The importance of judging the movement as a whole should not be lost. Proportions of tutti, unity and variety of textures and orchestral procedures, are marked for considerations in relation to the form and content of the movement. The process is not to be underestimated. But the inexperienced student is counseled to be patient with the analysis of short sections as a means of gaining technical facility.

A word of warning is sounded against a too pedantic and literal approach to the analysis. One seeks an answer to the question why certain procedures are followed. Imperfections may exist even in the works of the masters, and these are worth discovering, but it must not be forgotten that the unaccountable stroke of genius is also a real (Walter Piston, 1969).

There are four main types of Chinese folk instruments, namely string pulling, string plucked, blown wind instruments and percussion. Taking the arrangement of string music as an example, this paper describes the combination of music breath and rhyme in orchestration of Chinese orchestra. There are a variety of instruments for string music. Generally, three or four instruments with distinct local styles are used. There are five notes in string music, and the timbre of these instruments has a distinction, with the treble being very loud, the mid-range being



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beautiful and soft, and the bass being very thick. Erhu is a representative stringed instrument, which mainly expresses emotion and brings the listener artistic sensibility with rhyme. One of the famous works is “Er Quan Ying Yue”, which is familiar to everyone. “Er Quan Ying Yue” is mainly composed of six parts, each of which has corresponding image characteristics. Its melody is mainly composed of three phrases. The first sentence is relatively quiet and gentle, by the expression and disclosure being brought about by the introduction. The second sentence moves from calm to bright short sentences, with a strong bow and a variety of rhythmic patterns. The performance of the researcher's emotions gave an audience strive for the feeling of satisfaction. The third sentence is the main part of the melody. The repetition and emphasis remind people of the floating of the broken moon in the spring, giving people a deep thinking. This is the combination of music breath and rhyme performance form (Wei Wang, 2018).

The main feature of the configuration of our national musical instruments is the harmony. For example, plucked instruments and stringed instruments have different characteristics of sound quality, so it is common to combine them to play in harmonious configuration. The combination of plucked and pulled string instrument is a common means of combining traditional national musical instruments. The combination of pulling and plucking is the harmony of two styles. It is a combination of slow and fast-paced movements which are beautiful and lively. The combination of string instrument and wind instrument is crucial in a way that musical instruments combine. The instruments used were mainly Dizi, Sihu and dulcimer, and later Sanxian, Erhu and Pipa were added. The combination of plucking and stringing is a harmonic result. Taking the stringed instrument Erhu as an example, the timbre of Erhu gives expression of emotion, while plucking can profoundly express music, so the combination of the two is relatively common in the orchestration of Chinese orchestra. Some instruments are extremely difficult to fit into each other, for example, blown and plucked instruments. They have a big gap in all aspects, and the two kinds of instruments will not be combined in the performance. The combination of blown instruments and plucked instruments must involve the participation of string instruments. The combination of pulled, plucked, and blown instruments is the most basic configuration method in Sizhu music. In addition, the combination of string

instruments and wind instruments is particularly common, and the harmonic effect between them is also prominent. The combination of the two is like producing a new instrument, which is a powerful way of expression. Percussion has a fresh and lively role. The configuration of these instruments is mostly used for indoor performance, the style is generally simple and elegant, but also has a fresh and lively sense. (Hongjie Zhang, 2012)

Now, when we talk about the establishment of the Chinese Orchestra, some people will think of the question whether the configuration of the national orchestra is unified. It leaves the question of whether everywhere, and every music style, according to their own characteristics to configure the orchestra, due to various constraints, some orchestra, for many years in the construction aspect is not sound enough, still lack of some important parts, which to some extent, also brought some influence to the creation of the composer, also greatly hindered the growth and development of national music. However, from the perspective of historical development, many places and various types of music are gradually improving and perfecting the configuration of bands according to their own abilities. However, the researcher believes that no matter what size the organization is, each group, and voice part should be complete. This is a very important topic that cannot be ignored. For example, the instrumental performance of the group of plucked instruments requires Liuqin, Yangqin (Dulcimer), Pipa, Ruan, Zheng, Sanxian (big three strings) and so on. The high, middle and low voice parts of the group should be complete. With the unique timbre of the big three strings and Zheng, the plucking group can give full play to its powerful power in the musical ensemble, and make the music to be performed with a beautiful color (Zhanbao Wang, 2022).

An important role of an orchestral arranger is to balance the sound of the chord structure in the orchestra. A good orchestral composer and arranger need to have a good understanding of the role of the orchestral instruments, especially the timbre characteristics of each instrument, and how each instrument can better express emotion.



#### 2.2.4.2 The instruments of Chinese Orchestra.



There were many musical instruments in ancient times. For example: Pipa (first appeared in the Qin Dynasty, belonging to the plucked musical instrument, with


a beautiful and ethereal tone), Erhu (very popular in the Tang Dynasty, with a unique and tragic tone, widely welcomed by the Chinese people), Chime bells (originated in the Western Zhou Dynasty, very popular in the Spring and Autumn and Warring States periods and the Qin and Han Dynasties, and now also used in the performance of Chinese Orchestra), Xiao (has a long history and is generally suitable for graceful and lyrical music), Bamboo flute (the most representative instrument of blown instruments, which has a history of more than 8,000 years), Sheng (a folk blown instrument with bright music and strong appeal), Chinese drum (with a history of more than 4,500 years ago, it was used for sacrifice, music and dance, and driving away wild animals in ancient times, and is widely used in Chinese Orchestra). The instruments of Chinese Orchestra will be classified in four kinds: string instruments in Chinese Orchestra, plucked instruments in Chinese Orchestra, blown wind instruments in Chinese Orchestra and percussion instruments in Chinese Orchestra.

#### 1) String instruments in Chinese Orchestra

Table 2. 1 String instruments in Chinese Orchestra


Instrument image	Name of the instrument	Instrument introduction
 <p>Source: Tengteng Wu (2021)</p>	Gaohu	The structure, manufacture and materials of Gaohu are basically the same as Erhu. The biggest difference is that the drum of Gaohu is thinner.
 <p>Source: Tengteng Wu (2021)</p>	Erhu	Erhu originated in the Tang Dynasty and is called "Xiqin" with a history of more than 1,000 years. It is a traditional Chinese stringed instrument. The Erhu is widely loved by the Chinese people, and it plays a very important role in the Chinese Orchestra.
	Zhonghu	Zhonghu is a musical




 <p>Source: Tengteng Wu (2021)</p>		<p>instrument reformed on the basis of Erhu, which is short for tenor erhu. It is best at playing some of the express, broad singing melody, long harmonic and not very complex tone, less play fast colorful melody.</p>
 <p>Source:Luhong Jia(2015)</p>	Lahulei	<p>The Chinese Orchestra of the Sichuan Conservatory of Music often uses Lahulei to play bass parts. Lahulei plays an important part like Chinese cello in the orchestra.</p>
 <p>Source: Tengteng Wu (2021)</p>	Cello	<p>The cello is about twice as long as the violin, the total length is about 120 centimeters, the bow is a little thicker and shorter, and the chord is eight degrees lower than the viola.</p>



 <p>Source: Tengteng Wu (2021)</p>	Double bass	The double bass is the backbone of the sound in the band, the foundation of the basic rhythm. The double bass is about 180 to 220 centimeters tall, with a pillar at the lower end, like a cello.
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## 2) Plucking instruments in Chinese Orchestra

Table 2. 2 Plucking instruments in Chinese Orchestra

Instrument image	Name of the instrument	Instrument introduction
 <p>Source: Reseacher</p>	Pipa	Pipa, plucked instrument head seat, plucked string music instrument. Made of wood or bamboo, the sound box is half pear shaped, with four strings, originally with silk thread, now more steel wire, steel rope, nylon made.




	Yangqin	Yangqin is a percussive stringed instrument commonly used in China. It is from the same family as the piano. It has distinct timbre characteristics.
Source: Reseacher	Guzheng	Guzheng is a plucked instrument with many strings and many columns. Its shape is approximately long box shape, slightly protruding in the middle, the bottom plate is flat or approximately flat.
	Ruan	Ruan rounded sound box, twelve tone column, four strings, with artificial nails or pick play, can be used for solo, song and dance accompaniment or participate in the national band performance, has a rich artistic expression.
	Source: Reseacher	

		Liuqin	Liuqin is the high-pitched instrument of the plucked instrument. Its sound effect is unique, and it is not easy to be hidden by other instruments. It is often used to play the main melody of the high-pitched region, and sometimes it also plays the gorgeous and skillful cadenza.
Source: Reseacher			
		Konghou	In terms of the sound range, a large professional Konghou over six octaves, or even up to seven octaves. However, an ordinary Konghou will still be five octaves.
Source: Reseacher			

### 3) Blowing wind instruments in Chinese Orchestra

Table 2. 3 Blowing wind instruments in Chinese Orchestra

Instrument image	Name of the instrument	Instrument is introduced
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 <p>Source: Reseacher</p>	Dizi (Zhudi)	Bamboo flute, Chinese traditional musical instrument. Dizi is a widely spread blowing instrument in China. It is made of natural bamboo.
 <p>Source: Reseacher</p>	Sheng	Sheng belongs to the family of reed instruments and is the originator of most reed instruments in the world.
 <p>Source: Reseacher</p>	Suona	The body of Suona is mostly made of rosewood or sandalwood and conical in shape. The top is equipped with a double reed piece made of reed connected to the body of the wood through a copper or silver core, and the bottom is covered with a copper bowl.





## 4) Percussion instruments in Chinese Orchestra.

Table 2. 4 Percussion instruments in Chinese Orchestra.

Instrument image	Name of the instrument	Instrument is introduced
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 <p>Source: Reseacher</p>	<p>Gongs (Luo)</p>	<p>As a round curved surface, the gong is usually made of copper, and its sides are fixed by its own border. The gong hammer is a wooden instrument.</p>
 <p>Source: Reseacher</p>	<p>Yungong (Yunluo)</p>	<p>The Yun gong is a kind of diacritic percussion instrument in the metal-type musical instrument family. It has a clear, round, pleasant sound and a long-lasting sound, but the volume is low.</p>
 <p>Source: Reseacher</p>	<p>Cymbals (Cha)</p>	<p>Cymbals are metal - type instruments with an indefinite pitch.</p>

 <p>Source: Reseacher</p>	<p>Pengling</p>	<p>Pengling is widely used in Chinese song, dance, opera music accompaniment and percussion instrument in folk instrumental ensemble.</p>
 <p>Source: Reseacher</p>	<p>Bangzi</p>	<p>Bangzi, also known as Wooden Clappers, is a Chinese percussion instrument.</p>
 <p>Source: Tengteng Wu(2021)</p>	<p>Muyu</p>	<p>Muyu is like a fish shape, the abdomen is hollow, the head is open in the middle, the tail is coiled, the head is held up and the tail is retracted.</p>
 <p>Source: Reseacher</p>	<p>Zhuban</p>	<p>Zhuban is said to have been invented by Zhu Yuanzhang (Zhu Hongwu), the first emperor of the Ming Dynasty.</p>



Source: Reseacher

## Bangu

Bangu are short form single drum, drum body made by wood, birch, robinia, mulberry or teak and other hard wood.



Source: Reseacher

## Paigu

Paigu consists of five drums of different sizes and different sounds. Drum height 29 to 33.3 cm, upper mouth surface diameter 16.7 to 37 cm, lower mouth surface diameter 11.7 to 37 cm.



Source: Reseacher

## Chinese big drum(Dagu)

Chinese big drum, the largest drum in the Chinese Orchestra, nearly a meter in diameter.

Traditional Chinese instruments of Chinese Orchestra all have long history. Many musical instruments in China have a history of thousands of years ago. There were many musical instruments in ancient times. There are four kinds of instruments of Chinese Orchestra of Sichuan Conservatory of Music: string instruments in Chinese Orchestra (Gaohu, Erhu, Zhonghu, Gehu, Lahulei), Plucked instruments in Chinese Orchestra of Sichuan Conservatory of Music (Pipa, Yangqin, Guzheng, Ruan, Liuqin, Konghou), Blowed wind instruments in Chinese Orchestra of Sichuan Conservatory of Music (Zhudi, Sheng, Suona) and percussion instruments in Chinese Orchestra of Sichuan Conservatory of Music (Gongs, Yunluo, Cha, Pengling, Bangzi, Muyu, Zhuban, Bangu, Paigu, Chinese big drum). Traditional Chinese instruments play an important part in Chinese Orchestra.

### 2.3 Related literature

Tian Shen (2021) Thesis – entitled “The Symphony and Sound Reinforcement Production of Chinese National Instrumental Music” – introduces the development status, existing value and problems of the Chinese Orchestra. It discusses the relationship between the various parts of the orchestra, the relationship between the various instruments in the voice, and the method of sound pickup, so as to provide references for the sound reinforcement production of Chinese national instrumental music.

Siyu Liu (2019) Thesis entitled “Research on the management and operation Mode of National Orchestra”. As an important manifestation of the rapid development of Chinese comprehensive national strength, the improvement of cultural soft power, especially in the area of national music, has been highly concerned and valued by all sectors of society. The Chinese Orchestra, as one of the most attractive forms in the cultural industry, despite in a large number, most of them have not found a perfect and suitable management and operation mode, which is in an awkward situation. Therefore, the researcher selected two representative Chinese Orchestras at home and abroad, the China National Traditional Orchestra and the Singapore Chinese Orchestra as the case studies. More than ten key members were interviewed, including the head of the orchestra, the chief executive, the conductor and the main administrative personnel. Through field research, in-depth interviews, case studies,

literature surveys, the National Orchestra was studied. The management and operation mode of the delegation is studied in depth.

Ting Li (2017) Thesis – entitled “The Development and Prospect Analysis of National Orchestra” – makes an in-depth analysis of the reform and development of Chinese ethnic orchestral music, and finds that the current development of ethnic orchestral music still needs a large amount of investment and continuous innovation, such as enriching the number of repertoires, strengthening the overall technical level of band members, attracting more and more people's attention. All these factors are closely related to the future development of ethnic orchestral music.

Na Pan (2016) Thesis – entitled “On the Considerable Development of National Orchestral Music in China” – tells about Chinese Orchestral music having made great progress since the founding of New China, especially since the reform and open policy was implemented. This idea was reinforced after attending the Concert of the Ethnic Orchestral Works by the famous composer Jiping Zhao. This article analyzes the development of Chinese orchestra music works, which is helpful to my music analysis.

Xiangbo Li (2012) Thesis entitled “Research on the development of National orchestral music in the early period of the founding of China”. Thesis entitled after about 7 or 8 years of the foundation of new China, the new national orchestra began taking its form. The establishment of new China secured a stable environment and necessary talents and materials for the formation of large national orchestra. The supportive cultural and art policies and efforts by many artists and instruments reformers directly contributed to the formation and prosperity of national orchestra. This article first introduces the historical background of the national orchestra, then moves on to introduce and summarize the progress of the national orchestra from its formation, instruments improvement, representative artists, works creation, significant events to make this stage of national orchestra growth rate, find the forms and guidelines of the new national orchestra in its initial stage, prepare for the study of the overall history of national orchestra and instruct the current development of national orchestra.

Narongruch Woramitmitree (2001) Thesis – entitled “Wittaya Woramit:

Musical materials and structures of music in the movie “Star Wars” composed by John Towner Williams” – makes an in-depth analysis of musicology. It includes the historical musicology, systematic musicology and comparative musicology. Music analysis from this for parts: rhythm, melody, harmony and orchestration.



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## CHAPTER III

### RESEARCH METHODOLOGY

In this research is qualitative research, with Chengdu (southwest of China) being the research area of the theme of Chinese Orchestra of the Sichuan Conservatory of Music. Since this area is the birthplace of Chinese Orchestra of the Sichuan Conservatory of Music, the researcher chose key informants as my research clues. The research process is as follows.

#### 3.1 Research Scope

##### 3.1.1 Content

3.1.1.1 To study the development of Chinese Orchestra of the Sichuan Conservatory of Music

3.1.1.2 To analyze the musical characteristics of the Chinese Orchestra of the Sichuan Conservatory of Music

##### 3.1.2 Scope of research site

3.1.2.1 Sichuan Province, southwest China.



Figure 3. 1 Map of Sichuan Province, China.

From: <https://chinafolio.com/provinces/sichuan-province/>

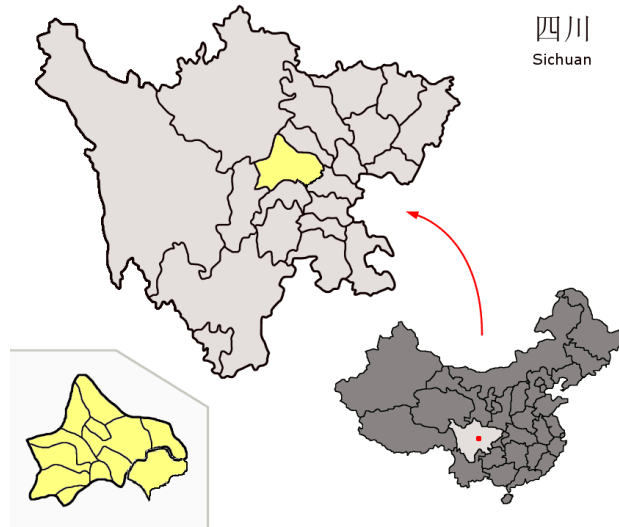


Figure 3. 2 Map of Chengdu, Sichuan Province, China.

From: #/media/File: Location\_of\_Chengdu\_Prefecture\_within\_Sichuan\_(China).png

### 3.1.2.2 Sichuan Conservatory of Music



Figure 3. 3 Map of Sichuan Conservatory of Music

Source: Researcher

### 3.1.2.3 Chinese Orchestra of the Sichuan Conservatory of Music, China.

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Figure 3. 4 Map of Chinese Orchestra of the Sichuan Conservatory of Music

Source: Yunjiang Liang (2021)

### 3.1.3 Scope of time

February 2022 to March 2023.

## 3.2 Research process

### 3.2.1 Research site and key informants

Research site: Located in the Sichuan Province, China. Wuhou District, Chengdu City.

The reason:

Chinese Orchestra of the Sichuan Conservatory of Music is situated in Wuhou District, Chengdu, Sichuan province, China. The Chinese Orchestra of the Sichuan Conservatory of Music is under the jurisdiction of the Sichuan Conservatory of Music and therefore named after its the establishment. Wuhou District, subordinate to Chengdu, Sichuan province, is one of the five old districts of Chengdu, located in the southwest of the central urban area of Chengdu. Selecting the place for research can help us deeply study the characteristic of Chinese Orchestra of the Sichuan Conservatory of Music. Some of music and instruments of Chinese Orchestra of the Sichuan Conservatory of Music are different from the other Chinese Orchestra. This

is not only led to the researcher's dynamic investigation and analysis of the social function and value of the Chinese Orchestra of the Sichuan Conservatory of Music, but also to the researcher's comprehensive understanding of the development and musical characteristics of the Chinese Orchestra of the Sichuan Conservatory of Music.

Key informant: Yunjiang Liang, Hongbin Sun, and Tao Chen. The criteria for selecting key informants are as follows. He was a local or raised in Chengdu, Sichuan Province. He knows the culture and development of Chinese Orchestra. He knows the development of Chinese Orchestra of the Sichuan Conservatory of Music. He is middle-aged or old-aged and experienced in Chinese Orchestra. He is the professor in Sichuan Conservatory of Music.

Based on the above selection criteria, the key informant the researcher selected including: Yunjiang Liang, Tao Chen, and Hongbin Sun.

- Casual informant:

Yi Xia, Jianqiao Yang, Taotao Zhou, Huan Fan, Shuai Wang, Yinying Duan, Jiayi Yi, Luhong Jia, Feng Wen, Geer Lin, Chuncheng Yao, Bing Li, Jiang Du, Xiaoyu Huang, Li Zhang, Fei Shen, Xi Zeng, Lei Shi are all the Chinese Orchestra of the Sichuan Conservatory of Music members with 30 years of experience in playing Chinese ethnic instruments, and they have a pool of experience in how to play instruments in an orchestra to make music more integrated. Here, the researcher has selected four representative actors for interview. One for string instruments, one for plucking instruments, one for percussion instruments, and one for winding instruments.

- General informant:

- Audience representatives: Random interviews with live audiences at different ages.



Figure 3. 5 Yunjiang Liang  
Source: Yunjiang Liang (2021)



Figure 3. 6 Hongbin Sun  
Source: Hongbin Sun (2021)



Figure 3. 7 Tao Chen  
Source: Tao Chen (2021)

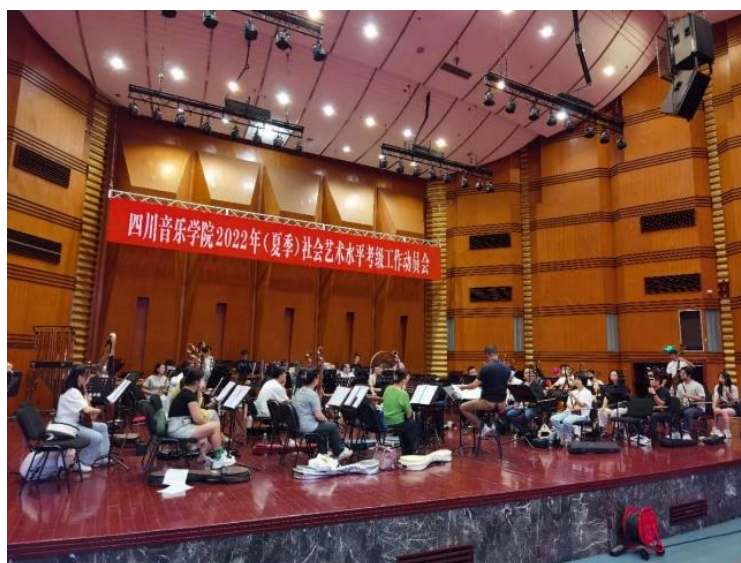


Figure 3. 8 The Orchestra rehearsing in the hall  
Source: Reseacher



Figure 3. 9 The orchestra preparing in the hall

Source: Researcher

### 3.2.2 Research equipment

- 1) Voice recorder: Record information about the interview.
- 2) Camara: Record information about the observation.
- 3)VCR: Record information about interview and observation.
- 4) Laptop: Store photos and videos, record text and information.

### 3.2.3 Research Tools

The research tools used in this dissertation are mainly interview and observation. In order to obtain the research data, the researcher designed the questionnaire and the corresponding interview form and observation form for using in different research objects.

Process of making the questionnaire (based on research objective).

- 1) Bring it to the advisor to examine.
- 2) Be modified according to advisor editing.
- 3) Send it to an expert for inspection before using
- 4) Modified according to specialist advice before being used in the field work.

### 3.2.4 Methodology

The researcher will collect data by means of observation and interview research. In the process of field investigation, the researcher will acquire data materials by observing the natural environment, social environment and cultural environment in Chinese Orchestra of Sichuan Conservatory of Music, as well as interviewing the expert in Sichuan Conservatory of Music. The conclusion will be drawn after the multi-dimensional in-depth study of these materials.

Interview: The researcher will use this data collection technique to collect information from sources based on fieldwork. During the interview, two schemes "structured interview" and "unstructured interview", will be used. The advantages of the two interview methods are highlighted in various scenes. In the "structured interview" scenario the researcher will interview the players and professors who worked in Sichuan Conservatory of Music. The interviewer will also be responsible for recording all interviewees' answers in person on the interview list, and may also use audio recording after the interview. In the "unstructured interview" scenario, the researcher will collect some rough questions in advance and ask the audiences in a flexible manner. Interviewees can freely express themselves during this process. To collect opinions from the audiences, the interviewer must arrange for video and audio recordings, which are important research materials.

Observation: From an outsider's perspective, the researcher will primarily observe the Chinese Orchestration of Sichuan Conservatory of Music and the audiences who listened the performance of the orchestra. The researcher will observe the place where the orchestra performance and rehearsal. The researcher may be required to participate in the activities to varying degrees depending on the research objectives and the actual needs of fieldwork. The researcher is an Erhu player in Chinese Orchestra of Sichuan Conservatory of Music. When immersing himself in the environment, the researcher will observe from the perspective of an insider. Overall, the observation aims to gather more reliable insights. In other words, researchers need to capture what participants "do," not what they "say."

The researcher will classify, interpret and summarize the relevant literature around the topic of the dissertation and also tried to obtain relevant literature materials

from the library and online database, so as to find new and more valuable fields for later analysis and research.

### 3.2.5 Data Collecting

The researcher will use classification and validation methods to manage the collected data. The researcher will divide the collected data into three categories: social function and value, development process, and musical characteristics, and also based on time sequence: live video before, during and after the show, and lastly using interview notes. The researcher will collect the representative musical scores of Chinese Orchestra of the Sichuan Conservatory of Music, such as: “Shu Gong Ye Yan” (Zhou Zhu, Shu Yu, Weijie Gao), “Chun Jie Xu Qu” (Huanzhi Li), “Bu Gu Niao Er Gu Gu Jiao” (Boheng Huang, Qingyun Xiong), “Sai Ma” (Chunquan Zhai), “Tai Yang Chu Lai Xi Yang Yang” (Wengong Cao), “Hong Lou Meng Xu Qu” (Liping Wang).

### 3.2.6 Data Analysis

In the first objective, the researcher compared the data consulted before the "field investigation" with the data the researcher collected during the "field investigation"; Then the researcher will conduct field survey and sampling in Chengdu, Sichuan province by way of observation and interview, and acquire experience and relevant data from main informants. The video data and literature data obtained during the investigation were studied. Learn monographs or papers on Chinese Orchestra research from other disciplines, use their relevant research perspectives for reference, and apply them to the writing.

### 3.2.7 Presentation

In this dissertation, the researcher will present 6 chapters:

1. Chapter I: Introduction
2. Chapter II: Review Literature
3. Chapter III: Methods of Research
4. Chapter IV: The development of the Chinese Orchestra of the Sichuan Conservatory of Music
5. Chapter V: The musical characteristics of the Chinese Orchestra of the Sichuan Conservatory of Music
6. Chapter VI: Conclusion, Discussion and Suggestions

## CHAPER IV

# THE DEVELOPMENT OF THE CHINESE ORCHESTRA OF THE SICHUAN CONSERVATORY OF MUSIC

In Chapter 4, through questionnaire, investigation and observation, we can understand the development process of Chinese Orchestra of Sichuan Conservatory of Music. The researcher conducted interviews and surveys with older artists who worked in the Chinese Orchestra of Sichuan Conservatory of Music. And in the process of field investigation, the researcher collected 49 popular music works of Chinese Orchestra of Sichuan Conservatory of Music. The Chinese Orchestra of the Sichuan Conservatory of Music plays a very important role in Chinese traditional music. The Chinese Orchestra of the Sichuan Conservatory of Music is characterized by the Sichuan style music work and improved use of reformed instruments. Sichuan Conservatory of Music has improved many kinds of Chinese ethnic Musical Instruments, keeping the original timbre on the basis of making the sound produced by the instruments more pleasant and rich, which greatly improves the musical performance of the Chinese Orchestra of Sichuan Conservatory of Music. The researcher elaborates the following views:

- 4.1 The compositions of Chinese Orchestra of Sichuan Conservatory of Music, China.
- 4.2 The players of Chinese Orchestra of Sichuan Conservatory of Music, China.
- 4.3 The instruments of Chinese Orchestra of Sichuan Conservatory of Music, China.

Sichuan Conservatory of Music is located at No.6 Xincheng Road, Wuhou District, Chengdu City, Sichuan Province, China. Sichuan, abbreviated as Chuan or Shu, has Chengdu as its capital. Located in the hinterland of southwest China and the upper reaches of the Yangtze River, it is known as the "Land of Abundance". The Chinese Orchestra of Sichuan Conservatory of Music belongs to Sichuan Conservatory of Music. The researcher interviewed some leaders and teachers of the Sichuan Conservatory of Music and organized information about Sichuan



Conservatory of Music and the Chinese Orchestra of the Sichuan Conservatory of Music. The Department of Chinese Folk Music of the Sichuan Conservatory of Music was established in 1957. Around 1987, with the deepening of education reform, the teachers of the Department of Folk Music boldly explored the breadth and depth of teaching, and made great efforts in teaching content, teaching method, performing method, playing aesthetics, musical instrument development and musical instrument reform research, and made remarkable achievements. On November 2, 2011, the Chinese Orchestra of the Sichuan Conservatory of Music held a large-scale folk symphony concert with improved folk music instruments in the Concert Hall of National Center for the performing arts with the theme of "Shu Style and Elegant Charm".

#### **4.1 The compositions of Chinese Orchestra of Sichuan Conservatory of Music, China.**

The compositions are very important for the Chinese Orchestra of Sichuan Conservatory of Music. For the Chinese Orchestra of the Sichuan Conservatory of Music, the compositions to be performed are generally selected by the conductor and the head of the orchestra. The rationales of selection were the actual performance of the musicians, and the difficulty of the skills of the works reflects the performance level of the musicians to a certain extent, and also further reflects the performance level of the orchestra.

Yunjiang Liang (personal communication, February 15, 2022) suggested that the Department of Chinese Folk Music of the Sichuan Conservatory of Music was established in 1957. The first important thing is the solution of a lack professional teachers and quality control. In this regard, the school and department leaders have carried out a lot of work, proceeding from the actual situation, and taking a lot of bars from different people. These bars greatly promoted the construction and development of the department, and soon established ten majors, including Erhu, Banhu, Dizi, Sheng, Suona, Pipa, Yangqin (dulcimer), Zheng, Guqin and percussion, with more than 30 teachers. The Department of Folk Music is already a relatively complete department. Professor Feng Wen, President of the Sichuan Conservatory of Music, is the head of the orchestra, Professor Yunjiang Liang is the executive head, Professor

Bing Li is the executive director of the orchestra, Jiang Duis the executive deputy head of the orchestra, and Tao Chen is the conductor of the orchestra. Thanks to the careful guidance of Sichuan music leaders and experts, the orchestra adheres to the people-centered orientation, takes creating and performing folk music works with Chinese style, Sichuan style and distinctive regional characteristics as its own mission.

Yinying Duan (personal communication, February 25, 2022) suggested that around 1987, with the deepening of education reform, the teachers of the Department of Folk Music boldly explored the breadth and depth of teaching, and made great efforts in teaching content, teaching method, performing method, playing aesthetics, musical instrument development and musical instrument reform research, and made remarkable achievements. Their research on the activity of "open teaching" has been developed and effective. For example, the initial "moving style" developed to multi-level, thematic open teaching, such as the professional teachers, the director of the teaching and research department and the head of the department jointly composed of "many to one" collective open teaching in order to cultivate "top students". For experienced teachers, open teaching is a kind of information exchange, mutual observation, can learn from each other, for young teachers, is a way of enlightenment and training. Due to the strengthening of the horizontal contact between teachers, in the teaching guiding ideology, teaching content, teaching method, teaching language, teaching level and teaching procedures, has achieved significant benefits. At the beginning of the department of Folk Music, there were only a few teachers and students. By 2008, the school has set up 4 teaching and research departments for string, plucked, wind and ensemble, including 12 majors such as Zhudi (bamboo flute), Sheng, Pipa, Guzheng, Yangqin, Ruan, Liuqin, Guqin, Erhu, Banhu and ethnic bass. There are a total of 382 students and 41 in-service teachers in affiliated high School, undergraduate school and graduate school.

Jiayi Yi (personal communication, May 15, 2022) suggested that in 1981, the Chinese Orchestra of the Sichuan Conservatory of Music performed "Shu Gong Ye Yan" and won the first prize in the first Chinese National Folk Instrumental Music Competition. The "Dabo River Rhapsody" and the "Narrative Poem of the Flute and Band Ashima" won the first prize and the second prize respectively in the Second

National Instrumental Music Competition. In 1982, the orchestra went to Beijing Zhongnanhai to report the performance was well received by all circles, and then went to various colleges and universities to perform hundreds of performances, which played a very important role in the development of Chinese Orchestra. In the 1980s, Chinese Orchestra of the Sichuan Conservatory of Music used Xiuwen Peng's guidance to advocated by famous national orchestra organizational system played a number of large national orchestral ensemble, such as "Dabo River Rhapsody" (Xuntian He), "Shu Gong Ye Yan" (Zhou Zhu, Shu Yu, Weijie Gao) and other works. These works have a wide range of themes, novel creation, magnificent music, rich and diverse textures, and distinct local and national characteristics. They have won many awards in China and been praised by people from all walks of life, which fully reflects the creation and performance strength of the Sichuan Conservatory of Music. In the 1980s, inspired and influenced by the concepts, thinking and techniques of Western culture, China's traditional instrumental music underwent some changes in terms of creation and band configuration. In terms of creation, some traditional Western composition techniques and concepts were borrowed, and the band configuration also overcame various forms of changes. In 1982, three composers from Sichuan Conservatory of Music co-wrote "Ashima Narrative Poem" for flute and band, which won many awards in various national competitions and caused a great response. The reason is that this work used some relatively modern creative ideas and techniques at that time, so it should be a relatively successful attempt to combine traditional national music with modern creative ideas.

Luhong Jia (personal communication, May 29, 2022) suggested that on the evening of May 13, 2004, the large-scale special concert of the Chinese Orchestra of the Sichuan Conservatory of Music was successfully brought to a close by the famous conductor and Music Director of the Hong Kong Chinese Orchestra, Huichang Yan, and the famous conductor Professor Xilin Li. And on the evening of May 28, 2005, the large-scale Chinese Orchestra music concert of the Sichuan Conservatory of Music brought a wonderful performance to the audience under the powerful waving of Huichang Yan, the conductor and music director of Hong Kong Chinese Orchestra, amid the sound of the folk orchestral music "Along the Yellow River". On the evening of November 2, 2011, the Chinese Orchestra of the Sichuan Conservatory of

Music held a large-scale folk symphony concert with improved folk music instruments in the Concert Hall of National Center for the performing arts with the theme of "Shu Style and Elegant Charm". This is a comprehensive demonstration of the improvement of Musical Instruments and new works of the Sichuan Conservatory of Music.



Figure 4. 1 Photo of the Performance in 2004

Source: Luhong Jia (2022)



Figure 4. 2 Photo of the Performance in 2011

Source: Luhong Jia (2022)

Feng Wen (personal communication, July 7, 2022) suggested that before 2014, the Chinese Orchestra of Sichuan Conservatory of Music consisted of teachers and outstanding students of the school. The Department of Folk Music arranged rehearsal courses twice a week. Students who chose the rehearsal courses would study and rehearse in the folk music rehearsal Hall on the 14th floor of Music Building of the Sichuan Conservatory of Music. Since there are no full-time performers, teachers from the Department of Folk Music will participate in rehearsals for large performances, which greatly improves the performance quality of the orchestra. It also creates instability in the orchestra. In 2015, Sichuan Conservatory of Music established a professional Chinese Orchestra named Chinese Orchestra Sichuan Conservatory of Music. Sichuan Conservatory of Music holds an open recruitment round the world. Many excellent folk instrumental players participated in the recruitment, and finally some excellent players formally joined the orchestra. Since its re-establishment in May 2015, the orchestra has become a professional orchestra composed of professional performers and some excellent teachers. The Chinese Orchestra of Sichuan Conservatory of Music rehearses regularly twice a week, on Tuesdays and Thursdays from 9 a.m. to 12 a.m. Rehearsals become more regular before the performance. Although the Chinese Orchestra of Sichuan Conservatory of Music is funded by the school and 800,000 RMB is used for the expenses of the orchestra every year, the orchestra can also generate income for the school.

Huan Fan (personal communication, July 9, 2022) suggested that in terms of the selection of repertoire, different works present different types, difficulties and highlights. For the Chinese Orchestra of the Sichuan Conservatory of Music, the works to be performed are generally selected by the conductor and the head of the orchestra. The rationales of selection were the actual performance of the musicians, and the difficulty of the skills of the works reflects the performance level of the musicians to a certain extent, and also further reflects the performance level of the orchestra. We can select music from several aspects, which are whether we have the basic skills to complete the performance skills of the work; whether we can fully present the music and achieve certain effects; whether we can grasp the style type of the work; or whether we can accurately express the key points of the music. And the feedback of the audience is also very important for the orchestra to choose the

repertoire. In addition to performer and conductor's evaluation of their own performance, audience's feedback is the most intuitive evaluation of performance effect and performance level. Here, we do not consider audience's individual differences in music understanding. Generally speaking, the emotional resonance caused by the audience through the performance of the works is an important basis for judging the performance level of the orchestra. The criteria for this part can be from the audience's expectation index before the orchestra whether the audience are fully integrated into the performance during the performance; whether the performance effect is consistent with the audience's expectation; whether the audience's evaluation of the orchestra's performance after the performance is set; or whether they will enjoy the orchestra again. The orchestra play many Sichuan style music, it is a characteristic for the orchestra.

Through interviews and data collection, the researcher found that there are 49 pieces of music frequently performed by the orchestra:

Table 4. 1 The music frequently performed by the orchestra

Number	Name	Composer/Arrange ment	Type
1	《Chun Jie Xu Qu》	Huanzhi Li	Orchestra
2	《Cai Yun Zhui Yue》	Guang Ren	Orchestra
3	《Song Wo Yi Zhi Mei Gui Hua》	Xiaofei Huang	Orchestra
4	《Xi Yangyang》	Mingyuan Liu	Orchestra
5	《Sai Ma》	Haihuai Huang	
6	《Hua Hao Yue Yuan》	Yijun Huang	Orchestra
7	《Jin She Kuang Wu 》	Er Nie	Orchestra
8	《Jiang Nan Hao》	Wengong Cao	Orchestra
9	《Liang Xiao》	Tianhua Liu	Solo and Orchestra
10	《Guan Xian Si Zhu Zhi Duo Shao》	Naizhong Guan	Orchestra
11	《Long Teng Hu Yue》	Minxiong Li	Orchestra
12	《Bai Niao Chao Feng》	Pujian Wang	Solo and Orchestra
13	《Xi Xiang Feng》	Zicun Feng	Orchestra
14	《Yu Zhou Chang Wan》	Pujian Wang	Solo and Orchestra
15	《Ye Shen Chen》	Hua Wu	Solo and Orchestra
16	《Hao Han Ge》	Jiping Zhao	Solo and Orchestra

17	《Wu Ge Fang Yang》	Wengong Cao	Orchestra
18	《Wu Zhi Guang Ying》	Lin Zhu	Orchestra
19	《Yun Xiang Hua Xiang》	Danhong Wang	Orchestra
20	《Qing Chun Wu Qu》	Ke Meng	Orchestra
21	《Cha Ma》	Bochan Li	Orchestra
22	《Jia Rong Zang Xi》	Yingzhong Chang	Orchestra
23	《Tai Yang Song》	Danhong Wang	Orchestra
24	《Qing Yuan Tian Fu》	Hongbin Sun	Orchestra
25	《Jiang He Yun Meng》	Yunjiang Liang	Solo and Orchestra
26	《Long Men Zhen》	Taotao Zhou	Orchestra
27	《Suo Suo Gang》	Taotao Zhou	Orchestra
28	《Chu Han Zhi Zhan》	Tao Chen	Solo and Orchestra
29	《Jin Cheng Si Zhu Suite》 (7 pieces)	Hongbin Sun	Orchestra
30	《Hong Lou Meng Suite》 (15 pieces)	Liping Wang	Solo and Orchestra
31	《San Guo Yan Yi Suite》 (6 Pieces)	Wengong Cao	Orchestra
32	《Bu Gu Niao Er Gu Gu Jiao》	Wengong Cao	Solo and Orchestra
33	《Cai Hua》	Wengong Cao	Solo and Orchestra
34	《Da He Zhang Shui Lang Sha Zhou》	Wengong Cao	Solo and Orchestra
35	《Gao Gao Shan Yi Xia Tiao He》	Wengong Cao	Solo and Orchestra
36	《Gao Liang Gan Jie Jie Tian》	Wengong Cao	Solo and Orchestra
37	《Hu Dou Kai Hua》	Wengong Cao	Solo and Orchestra
38	《Huai Hua Ji Shi Kai》	Wengong Cao	Solo and Orchestra
39	《Huang Yang Bian Dan》	Wengong Cao	Solo and Orchestra
40	《Jian Jian Shan》	Wengong Cao	Solo and Orchestra
41	《Kang Ding Qing Ge》	Wengong Cao	Solo and Orchestra
42	《Liu Liu Shan Ge》	Wengong Cao	Solo and Orchestra
43	《Mei Er Duo Qin Kuai》	Wengong Cao	Solo and Orchestra
44	《Shi Liu Hua Kai Ye Zi Qing》	Wengong Cao	Solo and Orchestra
45	《Tai Yang Chu Lai Xi Yang Yang》	Wengong Cao	Solo and Orchestra
46	《Wang Lang》	Wengong Cao	Solo and Orchestra
47	《Xiao Fang Feng Zheng》	Wengong Cao	Solo and Orchestra
48	《Xiu Cai Guo Gou》	Wengong Cao	Solo and Orchestra

49	《Xiu He Bao》	Wengong Cao	Solo and Orchestra
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Through research, the researcher found that the Chinese Orchestra of Sichuan Conservatory of Music mainly takes the above 49 pieces of music as its representative works, which are also the most frequently performed pieces in recent years. Some of them are unique in a Sichuan style. The orchestra strives to promote the improvement and development of Chinese folk music creation, performance and teaching. Due to the requirements of the college, the number of the orchestra is not big, and by 2022, the orchestra has basically had 25 members and been stabilized. The large Chinese orchestra music works of the past is not suitable for this group. Sichuan Conservatory of Music invited Professor Wengong Cao from China Conservatory of Music to adapt the “Hong Lou Meng” and Sichuan folk song series. The music is specially designed for the orchestra, and praises ensue. The Chinese Orchestra of Sichuan Conservatory of Music is funded by the school and 800,000 RMB is used for the expenses of the orchestra every year, and the orchestra can also generate income for the school. Although there are many Chinese Orchestras in China, there are very few professional Chinese Orchestras affiliated with music academies. The Chinese Orchestra of Sichuan Conservatory of Music rehearses regularly twice a week, on Tuesdays and Thursdays from 9 a.m. to 12 a.m. The Chinese Orchestra of the Sichuan Conservatory of Music is different from the general professional Chinese Orchestra and the student orchestra. It not only enjoys a high reputation in Sichuan province, but also has a certain research significance for Chinese Orchestra.

#### **4.2 The players of the Chinese Orchestra of the Sichuan Conservatory of Music**

Chinese folk music is the spiritual wealth of Chinese traditional culture and embodies the national spirit and cultural connotation. Chinese Orchestra, as a group performing folk music, plays an irreplaceable role in the inheritance and development of Chinese folk music. For the Chinese Orchestra, the performance level and tacit understanding of the orchestra players have a direct impact on the orchestra. The researcher collected some information from surveys and interviews with Chinese Orchestra of Sichuan Conservatory of Music members. Inspired by cultural confidence, China further strengthens the education and popularization of folk music,



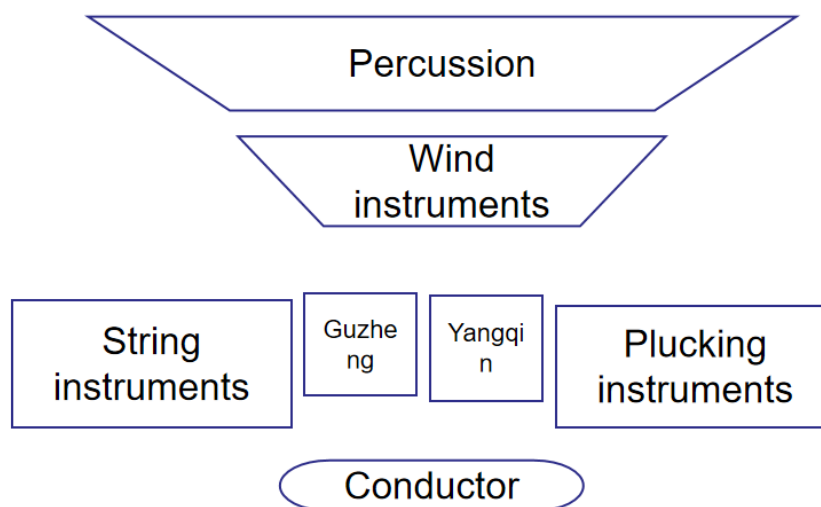
giving a full play to the importance of folk music. Making it close to reality and life promotes the development of folk music, and carries forward the culture of Chinese folk music.

Geer Li (personal communication, March 11, 2022) suggested that at present, large Chinese Orchestras generally set the size of the orchestra within the range of 60-80 members. The Chinese Orchestra has a permanent conductor, and the parts are arranged according to the four core parts of the string instrument, the plucked instrument, the wind instrument and the percussion instrument. The string part consists of approximately 20 members, the plucked part is 15 members, the wind part is 15 members, and the percussion part is between 5 and 10 members. In addition to the special folk instruments, each voice art is generally divided into common instruments according to the tone area. String instruments include Gaohu, Erhu, Zhonghu, Cello (Gehu), Double bass but the plucked sounds include Liuqin, Pipa, ZhongRuan, DaRuan, Guzheng, Guqin, Yangqin, Konghou. The part of blown pipes includes Bamboo flute (Zhudi, Qudi), Sheng, Suona and Xiao. Percussion parts include metal (such as Pengling and Linggu), bamboo and wood (such as Bangzi and Muyu), leather (such as Chinese big drum, Paigu, Xiaogu), cymbals (such as large cymbals and small cymbals) and gong (such as large gong and small gong). Chinese Orchestra of Sichuan Conservatory of Music is currently a small and medium-sized orchestra, which is committed to creating exquisite folk music with distinct styles and characteristics. When founded, the orchestra had 25 cast members, including 9 string players, 9 plucked string players, 6 wind players and 2 percussion players. The orchestra rehearses regularly twice a week, on Tuesdays and Thursdays from 9 a.m. to 12 noon. Rehearsals are more frequent before the performance. The members of the National orchestra of Sichuan Conservatory of Music all earn a fixed stipend, which ensures that the players can devote themselves to the daily performance of the orchestra, while having enough time to improve themselves and develop folk instruments. Because in addition to playing the regular music of the traditional national orchestra, the orchestra players also played a lot of music in the characteristic style of Sichuan. Therefore, under the care of the school and people from all walks of life as well as the continuous efforts of the orchestra members, this small Chinese

orchestra continues to improve and mature, making contributions to Sichuan folk music.

Chuncheng Yao (personal communication, March 22, 2022) suggested that both solo and ensemble are important ways to show the art of instrumental music, especially in the Chinese Orchestra, but there are great differences in the function of musical expression and the way of performance. The solo is a way of emphasizing the performer's high professional quality and solid professional standards, on the basis of the completion of the composer's intention to fully show the music personality. On the contrary, ensemble emphasizes the cooperation of each player in the team. On the basis of the complete professional skills and musical quality of the players, under the overall planning of the orchestra conductor, grasp the tone of the works, fully highlight the commonness and appropriately reduce the individuality. For the general school orchestra, the cultivation of ensemble ability is the focus of its construction and development. That way, it not only improves the performance level and various musical ability of the members, and improve the cultural accomplishment and patriotic feelings of the members; but also cultivates the sense of unity and cooperation. One hundred percent of the members of the Chinese Orchestra of the Sichuan Conservatory of Music come from professional music colleges, and more than 90 percent of them have master's degrees. Most of the orchestra's players studied at the Sichuan Conservatory of Music. Sichuan Conservatory of Music attaches great importance to the ensemble course of ethnic instrumental music, so these players have experienced strict training in their previous studies, which has laid the foundation for the high-level performance of the Chinese Orchestra of the Sichuan Conservatory of Music.

After the investigation of the players of Chinese Orchestra of Sichuan Conservatory of Music, the researcher drew the orchestra's seating arrangement icon:



The Chinese Orchestra of Sichuan Conservatory of Music will increase the number of players according to the performance and the repertoire, and the orchestra's full-time players will always participate in the orchestra. When it is necessary to expand the staff, the excellent master students of the Sichuan Conservatory of Music are often added. The following is a list of full-time orchestra members of Chinese Orchestra of Sichuan Conservatory of Music:

Table 4. 2 The full-time orchestra members of Chinese Orchestra of Sichuan Conservatory of Music

Name	Gender	Major	Position
Jiang Du	Male	Administrator	Assistant orchestra captain
Tao Chen	Male	Conductor	Orchestra conductor
Tianhui Teng	Femal	Gaohu	Player
Tengteng Wu	Femal	Erhu	Orchestra chief
Huan Fan	Male	Erhu	Player
Min Gu	Femal	Erhu	Player
Xiaobao Sun	Femal	Erhu	Player
Xinyu Huang	Femal	Cello (Lahulei)	Player
Jiajun Liu	Femal	Cello (Lahulei)	Player
Xujia Li	Male	Double bass	Player

Jianyu Zhu	Male	Yangqin	Player
Xuan Zhou	Femal	Pipa	Plucking instrument chief
Ping Luo	Femal	Pipa	Player
Jingxuan Tang	Femal	ZhongRuan	Player
Xi Zeng	Femal	DaRuan	Player
Yunyu Wen	Femal	Guzheng	Player
Tian Zeng	Femal	Guzheng	Player
Yuan Li	Femal	Guzheng	Player
Taotao Zhou	Femal	Guzheng	Player
Jianqiao Yang	Male	Suona	Player
Xiaoping Shen	Femal	Zhudi	Player
Fei Xia	Male	Zhudi	Player
Yangqing Ou	Male	Sheng	Wind instrument chief
Keren Liu	Femal	Sheng	Player
Yong Xu	Male	Sheng	Player
Shuai Wang	Male	Percussion	Percussion instrument chief
Yanrong Jing	Male	Percussion	Player

The players of the Chinese Orchestra of Sichuan Conservatory of Music are the main body of the orchestra, and are very important to the orchestra. For the micro individual musicians under the macro composition of the orchestra, their performance level will have a direct impact on the orchestra's performance level. As the main player of the orchestra, this factor is mainly reflected in the professional basic skills of the musicians, the rapid mastery of the music score, the understanding of the emotion and tone of the works, the coordination with the conductor, and the sense of solidarity and cooperation with other members of the orchestra. More than 90 percent of the members of the Chinese Orchestra of Sichuan Conservatory of Music have master's degrees. All of them have received professional bachelor's degree training in music. Most of them graduated from music colleges in China. All the members of the Chinese Orchestra of the Sichuan Conservatory of Music come from professional music colleges, and more than 90 percent have master's degrees. Most of the orchestra's players studied at the Sichuan Conservatory of Music. Sichuan

Conservatory of Music attaches great importance to the ensemble course of ethnic instrumental music, so these players are adept in music performance.

#### **4.3 The instruments of the Chinese Orchestra of the Sichuan Conservatory of Music, China.**

The researcher conducted interviews and surveys with professor Luhong Jia who was the leader of Instrument improvement Department of Sichuan Conservatory of Music and the other teachers who works in the Chinese Orchestra of Sichuan Conservatory of Music. Through the process of field investigation, the researcher collected four parts of Chinese instruments (string instruments, plucking instruments, blowing wind instruments and percussion instruments) and some improved instruments of Chinese Orchestra of Sichuan Conservatory of Music. The researcher found that not many recently-developed instruments had been used in Chinese Orchestra of Sichuan Conservatory of Music. The researcher through the field investigation have sorted out the mostly used recently-developed instruments of Chinese Orchestra of Sichuan Conservatory of Music. The researcher will write from two part: first part is the instruments used in Chinese Orchestra of Sichuan Conservatory of Music, the second part is the improve instruments of Sichuan Conservatory of Music.

##### **4.3.1 The general instruments used in the Chinese Orchestra of the Sichuan Conservatory of Music**

The researcher will write the instruments used in Chinese Orchestra of Sichuan Conservatory of Music in four parts: the string instruments in Chinese Orchestra, the plucked instruments in Chinese Orchestra, the blown wind instruments in Chinese Orchestra, the percussion instruments in Chinese Orchestra. And every part will write in three parts: the characteristics, the playing technique and the function.

Bing Li (personal communication, March 20, 2022) suggested that China is a large country, full of musical instruments. In its 5,000 years of development, thousands of musical instruments have emerged, and the music played by these instruments is national instrumental music. It is a kind of music with inherent morphological characteristics created by Chinese people using the native methods and

forms of the nation with the long history, rich, and distinctive characteristics. The 20th century was the most intense 100 years of musical fusion between Chinese and Western culture. Chinese traditional Music in all periods of history has been changed from the development of the shape, structure, and raw materials of Chinese traditional instruments. The development of current Chinese music also starts with the improvement of the Chinese traditional instruments. The improvement of the instruments in Chinese Orchestra of the Sichuan Conservatory of Music are closely related to the social environment and the background of the times. At that time, facing the dissemination of global culture, the Chinese musicians caused a conceptual change in China. They hoped that the traditional Chinese music at that time could also be innovated, and through the improvement, it would also have better performance on the national musical instruments. It also conformed to the background of the time when Chinese society was striving to change. This chapter will mainly examine the traditional Chinese instruments in Chinese Orchestra of the Sichuan Conservatory of Music in the contemporary period.

Jiang Du (personal communication, March 23, 2022) suggested that traditional Chinese instruments all have long history. Many musical instruments in China have a history of thousands of years. There were many musical instruments in ancient times; for example, Pipa (first appeared in the Qin Dynasty, belonging to the plucked musical instrument, with a beautiful and ethereal tone), Erhu (very popular in the Tang Dynasty, with a unique and tragic tone, widely welcomed by the Chinese people), Chime bells (originated in the Western Zhou Dynasty, very popular in the Spring and Autumn and Warring States periods and the Qin and Han Dynasties, and now also used in the performance of Chinese Orchestra), Xiao (has a long history and is generally suitable for graceful and lyrical music), Bamboo flute (the most representative instrument of blowing instruments, which has a history of more than 8,000 years), Sheng (a folk blowing instrument with bright music and strong appeal), Chinese drum (with a history of more than 4,500 years ago, it was used for sacrifice, music and dance, and driving away wild animals in ancient times, and is widely used in Chinese traditional orchestra).

However, due to the long history and lack of related literature and historical records, it is difficult to verify the way the traditional Chinese instruments were made.

This thesis only focuses on the traditional Chinese instruments commonly used in modern Chinese Orchestra which will be divided into four parts for analysis.

#### 4.3.1.1 The string instruments in Chinese Orchestra

Listening to a professional performance of the Chinese Orchestra is a very enjoyable thing, the wonderful notes always bring the audience unlimited daydream space. As everybody all know in a Chinese Orchestra that the most indispensable part is the string orchestra. The performance level of the string orchestra members will directly affect the music presentation of the entire Chinese Orchestra. In this part, the performance of strings in the Chinese Orchestra will be deeply analyzed and explored. string instrument in Chinese Orchestra (Huqin) is one of the most musical expressive and representative instruments in China's national orchestra. It is the general name of Gaohu, Erhu, Zhonghu, Banhu, Jinghu, Gehu, Lahulei and other national stringed instruments. The predecessor of Huqin started from the "Xiqin" in the Tang Dynasty. With the continuous development, evolution and inheritance for more than one thousand years, Huqin musical instruments have an irreplaceable position in the forest of national musical instruments. The string section of the Chinese Orchestra of the Sichuan Conservatory of Music mainly includes Gaohu, Erhu, Zhonghu, Gehu and Lahulei.

#### 1) The characteristics of string instruments in Chinese Orchestra

##### Gaohu



Figure 4. 3 Gaohu

Source: Reseacher

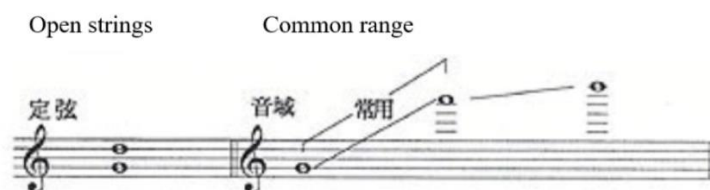


Figure 4. 4 Gaohu open strings and Range

Source: Reseacher

The production of Gaohu is closely related to Guangdong music, Chinese folk music. It is also closely related to Cantonese opera in Guangdong, and used to be the main instrument to accompany the Cantonese opera. Therefore, Gaohu is often called "Yue Hu". The structure, manufacture and materials of Gaohu are basically the same as Erhu. The biggest difference is that the drum of Gaohu is thinner. Since the Gaohu was only born in the 20th century, instrument makers had few concerns and constraints when they modified it. Some instrument makers changed the round drum of early Gaohu into an oblate shape to increase the volume. Some instrument makers have changed the two-string Gaohu to a three-string one, resulting the wider range of five tone below the standard one.

The drum of Gaohu (sound box) is smaller than Erhu's, and its pitch is four to five degrees higher than Erhu's. It is called Gao Hu ("Gao" means high). The string has a steel wire core that is wound with thin steel wire. When played, the player's two legs clamp the drum to control the volume and reduce sand sound. The tone is clear. Gaohu has been widely used and has become a tenor string instrument in national bands. It is used for ensemble, accompaniment and solo. However, there are some differences between Gaohu and Erhu in shape: the drum of Gaohu is thinner and round in shape, different from the hexagonal shape of Erhu, and the back mouth of the drum does not have various styles of sound Windows(box) like that of Erhu.

Erhu



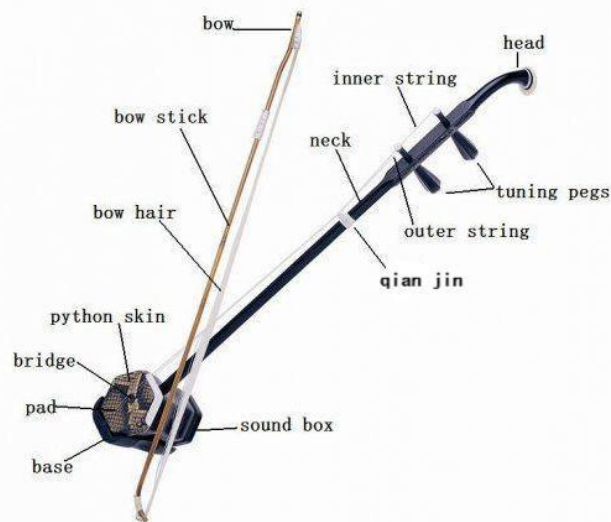


Figure 4. 5 Erhu

Source: Ye Lei (2020)



Figure 4. 6 Erhu Open Strings

Source: Reseacher

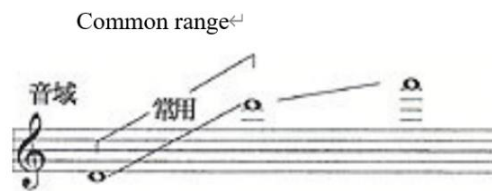


Figure 4. 7 Erhu Range

Source: Reseacher

The Erhu originated in the Tang Dynasty and is called “Xiqin” with a history of more than 1,000 years. It is a traditional Chinese stringed instrument. Erhu also known as "NanHu", "WengZi". Erhu is the Chinese national Musical Instruments in the family one of the main bowed string instruments (wipe a stringed musical instrument). Erhu originated from a group of a minority in the ancient northern region of China. The Erhu, widely adopted by the Chinese people, plays a very important role in the Chinese Orchestra. The sound box is an important part of the Erhu, which vibrates the sound of the skin through the up and down movements of the bow. The

texture and shape of the barrel (sound box) have a direct impact on volume and sound quality. Generally made of rosewood. The shape has hexagonal, octagonal, circular, octagonal before and after the circle, etc., commonly used is hexagonal. A sound window (usually carved wood window) is inlaid behind the barrel, which not only plays a decorative role in the barrel, but also has certain benefits in pronunciation, transmission and filtering.



Figure 4. 8 The drum of the Erhu

Source: Reseacher

The python skin in front of the sound box is called the skin of the Erhu, also known as the membrane of the Erhu. It is an important device for Erhu to sound. Generally speaking, python skin or snake skin produces the lowest level of Erhu skin. Snakeskin has fine scales, regular lines, and toughness, but thin texture. The sound quality is easily affected by climate, room temperature and other factors. Python skin scales coarse and smooth, color contrast coordination, good resonance, appropriate thickness and elastic, not easy to be eaten by worms.

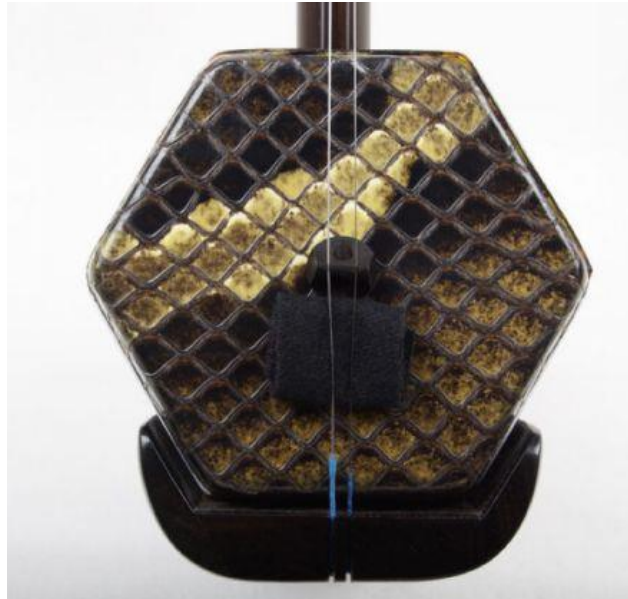


Figure 4. 9 The python skin of the Erhu

Source: Reseacher

The stick (neck) is the backbone and torso of the Erhu. It not only plays a supporting role of connecting the top and the bottom, but also has a certain influence on the overall vibration pronunciation. There are two tuning pegs, the upper and the lower ones, which are used to adjust the pitch. The upper peg is tied to the inner string, and the lower axis is tied to the outer string. The string is one of the sounds of Qin and one of the sound sources of Erhu. The bow is composed of bow rods (stick) and bow hairs. A good bow should first be long and straight. Qianjin plays the role of fixing and cutting the Erhu string. It also has a certain effect on intonation. It is made of cotton thread, silk thread, plexiglass, plastic and other materials. The code is the vibrating medium between the string and the skin, which plays an important role in pronunciation.

Zhonghu



Figure 4. 10 Zhonghu

Source: Reseacher



Figure 4. 11 Zhonghu Open Strings and Range

Source: Reseacher

Zhonghu is a musical instrument that was created on the basis of Erhu, which is short for tenor Erhu. All the skills on the erhu are suitable for Zhonghu performance. It is best at playing some of the express, broad singing melody, long harmonic and not very complex tone, but it is rarely used to play fast colorful melody. The structure is the same as Erhu, but the shape is a little larger. The Zhonghu rod is 86 cm long, and the head of the Zhonghu is more than carved or in the shape of a crescent moon. The drum (sound box) is large, mostly round, has 15 in length, and 10.5 cm in diameter at the front mouth, covered with python skin, and equipped with a sound window at the back mouth. The barrel (sound box) is larger and the rod is longer than Erhu. It has two kinds of dragon head hu and bend neck Hu in the color. The drum is mostly round. The vibrating film covered by the Zhonghu tube is python skin, which should be suitable for the scale and thickness, otherwise it will affect the sensitivity of pronunciation and sound thickness. When silk strings are used, middle strings are used for outer strings and old strings are used for inner strings.

## Cello

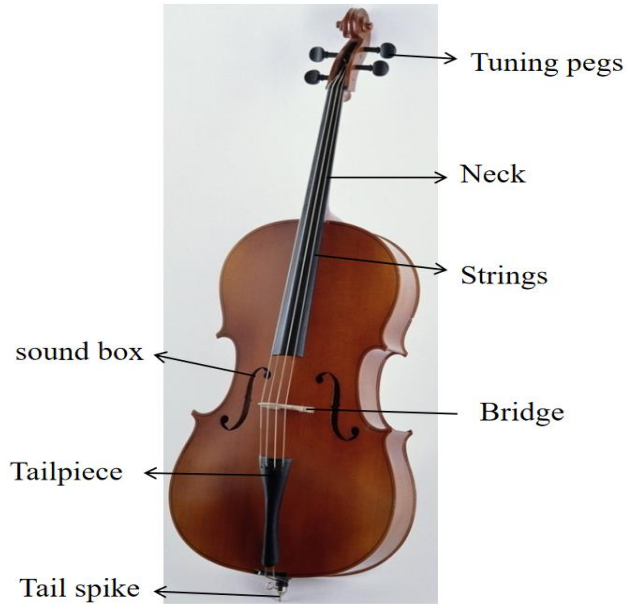


Figure 4. 12 Cello

Source: Reseacher



Figure 4. 13 Cello open strings

Source: Reseacher

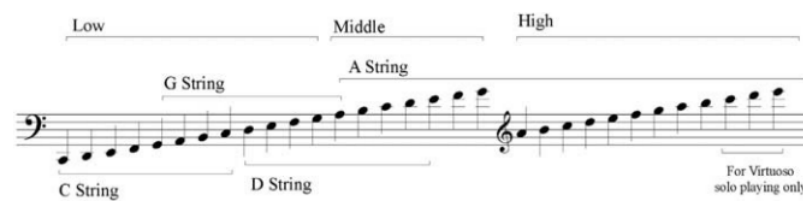
**Cello Range**

Figure 4. 14

Source: Reseacher

Cello is an essential alto or bass string instrument in the orchestra, and belongs to the lower alto instrument in the violin family. Cello has a rich tone and cheerful character. It is good at playing lyrical melody and expressing deep and complex

feelings. It also shares the bass part of harmony with the double bass. The cello is about twice as long as the violin, the total length is about 120 centimeters, the bow is a little thicker and shorter, and the lowest note is eight degrees lower than the viola's. The cello comprises body wooden structure, string: wire, bow, and horsetail.

#### Double bass



Cello

Double bass

Figure 4. 15 Cello and Double bass

Source: Reseacher



Figure 4. 16 Open Strings of Double bass

Source: Reseacher



Figure 4. 17 String range

Source: Reseacher

The double bass is the backbone of the band, underpinning the foundation of the basic rhythm. The actual sound of the double bass is an octave lower than written. The double bass is about 180 to 220 centimeters tall, with a pillar at the lower end, like a cello. When playing, it should be placed on the ground, standing or leaning on a high stool to play a solemn and low tone, the bow is about 68-70 centimeters long. The playing technique is less flexible than other bowed string instruments due to the limitation of the instrument's structure. While being a little monotonous when used in solo, but when added to ensemble, the double bass makes the whole ensemble sound and three-dimensional effect, thus becoming the foundation of all ensemble types such as orchestral music, chamber music and jazz music.

## 2) The technique of string instruments in Chinese Orchestra

There are many kinds of playing techniques of string instruments. The main performance techniques of Gaohu are the right-hand bow method, which is often played with the split bow, the fast bow method is frequently used, and the bow is often pushed when the strong beat is played. Left-hand fingering mainly include various kinds of glide and melodies free pad is referred when the player adds more tones. To increase the volume and reduce the noise, the player tightens the drum (sound box) with his legs when playing high tones. The timbre of Gaohu is clear. It was originally used to accompany Cantonese operas and play Cantonese ditty, as well as for ensemble and solo.

Gao Hu's tuning generally has four or five tones higher than Erhu, usually defined as (a1, e2) or (g1, d2). Its common range in the band is (a ~ e4) or (g1 ~ d4), in the ensemble, it is best not to exceed this register. In solo, it can be five or more degrees higher, but if it is too high, the sonority will be tense and sharp.

When playing Erhu, the player always keeps the fingers "suspended" above the phoneme. The Erhu's open strings are tuned 1 fifth degrees apart, with the outer string in the A and the inner string in the D. Music is divided into seven major keys, so the Erhu has seven tuning strings: 1=D (1-5 strings) 1=G (5-2 strings), 1=F (6-3 strings), 1=Bb (3-7 strings), 1=C (2-6 strings), 1=A (4-1strings), 1=Eb (7- # 4 strings). The inner space string is (do, 1), the outer space string is (sol, 5), and there is a difference of 5 degrees between (do, 1) and (sol, 5); 1=C (2-6 strings) the inner space string is (re, 2), and the outer space string is (La, 6). The notes from (re, 2) to (La, 6) are also 5 degrees. Therefore, no matter what strings are fixed on the Erhu, they are all have the interval of fifth.

The playing technique of Zhonghu is the same as Erhu. The center line of the body is tilted to the left, so that the left side of the body is of the center of gravity. The back is upright, and the chair is seated at one third of the place, forward. The drum (sound box) was at the bottom of the left leg close to the lower abdomen. When playing, a player always keeps the fingers "suspended" above the phoneme. Zhonghu should pay attention to avoid direct sunlight, lest the wood deformation and cracking; In the north of China, it is advisable to avoid it being close to the heating equipment. After use, the player puts it back in the box. For safety, in the south of China every year in June in the rainy season or other areas of continuous wet season, Zhonghu should be put in the case of some "camphor". In order to achieve the Zhonghu's longevity, it is recommended to loose the strings after use, so that the rods and python skin of Zhonghu can often get a rest and prolong the service life.

As for cello playing skills, the cello is different from the violin in size, string arrangement and length, and so is its playing method which has to be placed between two legs. When playing, the performer holds the body gently between his knees, and the bottom is supported by a metal rod with adjustable height. The way of playing is to bow the string with horsetail, pluck the string with a finger and strike the string with the bow rod.

The most basic skills of double bass include the right hand holding bow position, the right-hand holding technique, the monophonic arch, the three-section arch, the string changing technique, the left-hand holding position, the changing



handle. The two octaves monophonic, the scale and arpeggio in C major, D major, G major, F major and A minor.

There are many kinds of playing techniques of string instruments: DaYin, DouGong, TiaoYin, ShuangYin, HuaYin and so on. Following examples show the playing techniques of string instruments:



The above example is Dou Gong technique: the performer play tremolo by using a very short part of the bow to quickly vibrate the string from side to side, so that the sound emits a coherent dither sound, and plays according to the rhythm and intonation marked by the score.



The above example is DaYin technique. It is the sound of mordent with quickly striking the upper note after the given note with the fingers and pulling the finger back. In the playing technique, the finger is kept on the note. The finger of trills should be naturally bent, and the finger is lifted by the left palm knuckle movement, then the finger is flexibly struck. Then use the string to bounce the fingers off the string.



The above example is TiaoYin technique: there are some dots under the notes, that indicates the jumping bow technique when the right hand utilizes the elasticity of the bow make the short sound produced by the barrel on a regular basis.



The above example is HuaYin technique. When playing, the player uses the left hand responsible for the speed of glissando, and the right hand is responsible for the intensity of glissando. Special attention should be paid to the smooth sound rendition and proper proportion. This technique is often used to imitate a horse's bark.

### 3) The function of string instruments in Chinese Orchestra

The string instruments in Chinese Orchestra is similar to the string instruments in the Western orchestra. The greatest characteristic of the string part is coherence, which makes the music more beautiful and coherent. The string instruments in Chinese Orchestra include soprano, alto, tenor and bass parts. In the band, they play a role of unifying the sound of collective instruments. For example, Gaohu is the general name of "treble erhu", which is restructured on the basis of Erhu and plays the treble part in Chinese Orchestra. Gaohu players should control the velocity of the Gaohu instrument itself, since the actual volume of other parts and the volume required in the development of music. So controlling the performance volume of this part and other parts is crucial. Because of the clear timbre of the Gaohu itself, the sound is more penetrating than that of the Erhu and Zhonghu. If the Gaohu players have no control over the volume and timbre of the performance when they enter the local part, it will make the entering of the Gaohu part appear very abrupt, and destroy the coherence and development track of the music.

Usually, Erhu is only played in group to transmit multiple voices, often in polyphony, continuance, harmony and rhythm. In Chinese Orchestra, Erhu mostly appears in groups, so players can be required to unify the timbre, balance the volume, and unify the fingering and bow methods of the left and right hand, so as to achieve the overall perfection.

The role of Zhonghu in supporting the bass part in the band is mainly reflected in playing the low-ranged harmony to consolidate the foundation. The combination of Zhonghu, Lahulei and bass Ruan forms a more stable bass part, which can not only be used as the basic voice part to support the sound of the whole band, but also it does not lose its distinctive, clear, and profound characteristics, despite low pitches. It has great recognition in the band, making the sound of the whole band full and thick.

The traditional Chinese folk musical instrument is generally in the high register, and the lack of bass instruments leads to the lack of solid acoustics of the whole Chinese Orchestra. Therefore, in order to broaden the range, the cello was introduced into the Chinese folk orchestra to enrich the low part. At the same time, in the integration of Chinese and Western creation, under the trend of thought, by

integrating ethnic characteristics into the works and using modern ways to deduce traditional ethnic rhyme, so the cello has gradually emerged in the Chinese orchestra characteristics, and had more ethnic characteristics. Sometimes, Lahulei will be used in Chinese Orchestra of Sichuan Conservatory of Music to replace the cello.

The double bass is used to play the lowest part in Chinese Orchestras and symphonies. It mostly plays the role of accompaniment and is rarely used as a soloist. However, its strong majestic sound is undoubtedly the embodiment of the powerful force in Chinese folk orchestra music. Sometimes, bass Lahulei will be used in Chinese Orchestra of Sichuan Conservatory of Music replace of double bass.

#### 4.3.1.2 The plucked instruments in Chinese Orchestra

The plucked instrument is a general term for instruments that produces the sound by plucking the strings with fingers or plectrums, or striking strings with bamboo. The plucked instruments play a very important part in Chinese Orchestra. Plucked Musical Instruments have long history, a variety of shapes and forms, and is a highly characteristic string instrument. As far back as three thousand years ago in the Zhou Dynasty, the instruments such as "Qin" and "Se" were already made or imported, Ruan (the Han Dynasty), Pipa (the Sui and Tang Dynasties), Sanxian (the Yuan Dynasty), and Yangqin (the Ming Dynasty), etc. There are two types of plucked instruments: horizontal and vertical. Horizontal, such as: Zheng (Guzheng and transposition Zheng), dulcimer etc.; Vertical, such as: Pipa, Ruan, Yueqin, Sanxian, Liuqin, etc.

The sonority of plucked instruments in Chinese Orchestra is featured as being distinctive, compared with the Western symphony orchestra. They have formed their own system, and gradually formed a larger scale, brought profound memory to national orchestra, making national orchestral music art attain the surround sound on a three-dimensional aspect, color diversity, and rich performance. This part takes plucked instrument as the main research object and prosperous period of plucked instrument as a starting point to discuss the role of the plucked instrument in order to promote the continued development of national orchestral music.

##### 1) The characteristics of plucked instruments in Chinese Orchestra

###### Pipa

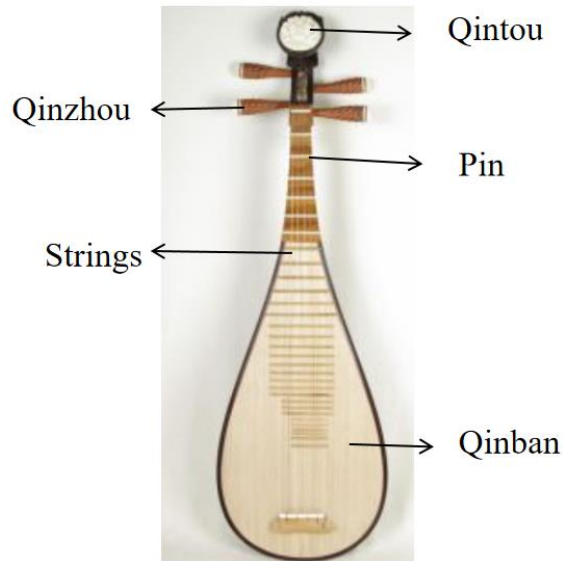


Figure 4. 18 Pipa

Source: Reseacher



Figure 4. 19 Pipa Open Strings and Range

Source: Reseacher

Pipa, known as the plucked instrument head seat, is a plucked-string musical instrument that is made of wood or bamboo. The soundbox is in a half pear shape with four strings. Originally with silk thread, the Pipa's strings now use more steel wire, steel rope, nylon. The neck and panel are provided with "Pin" and "Xiang" for determining phonemes.

With the left hand pressing the string and using the right-hand fingers playing, it is an important national instrument for solo, or accompaniment in a musical ensemble.

The Pipa has a history of more than 2,000 years as a traditional Chinese plucked musical instrument. The first musical instrument known as the Pipa appeared around the Qin Dynasty in China. The "Yu" in the Chinese character "Pipa" means two jade colliding with each other, making a pleasant percussion sound, indicating that it is a musical instrument that sounds by touching the strings.

Yangqin



Figure 4. 20 Yangqin

Source: Reseacher

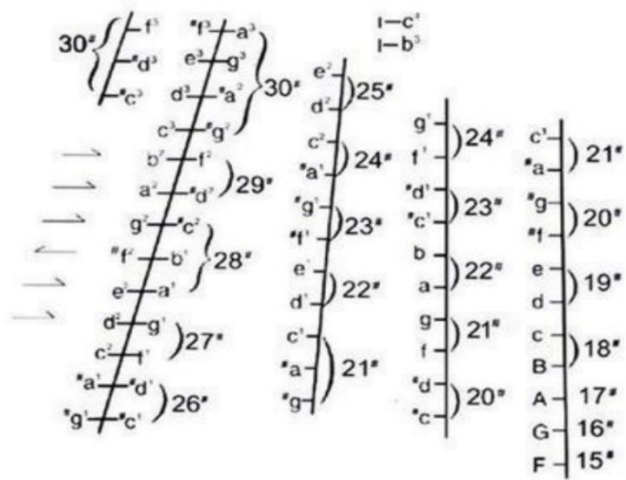


Figure 4. 21 The tunes of Yangqin

Source: Reseacher

Common range

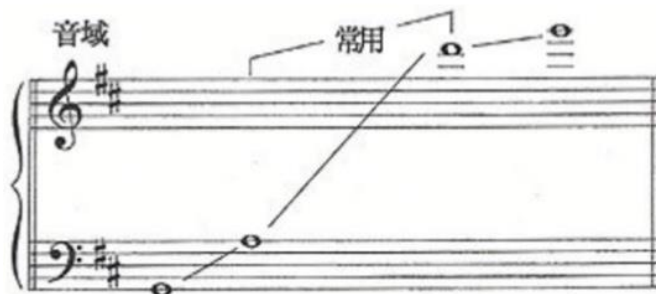


Figure 4. 22 Yangqin Open Strings and Range

Source: Reseacher

Yangqin (Chinese Dulcimer) is an indispensable instrument in Chinese Orchestra. Yangqin is a percussion stringed instrument commonly used in China. It comes from the same family as the piano. It has distinct timbre characteristics. When playing slowly, the timbre is like tinkling spring, but when fast it reflects the sound of babbling water. The tone is bright, like the small beads fall jade plate crisp. The expressive force is extremely rich. Yangqin can be played solo, ensemble, rap and opera accompaniment. In folk instrumental ensembles and ethnic bands, Yangqin often play the role of "piano accompaniment", attesting its indispensability. The timbre of the Yangqin should be granular and shave its own individual characteristics. Without its own timbre characteristics, the sound would be flat and scattered, or might be attenuated by other instruments. This is the reason why Yangqin is rarely used in the orchestra. Therefore, the sound quality of dulcimer directly affects the quality level of the orchestra. In the performance method is very important, the production of good timbre, not only to have high-quality instruments, but also the correct performance method.

#### Guzheng

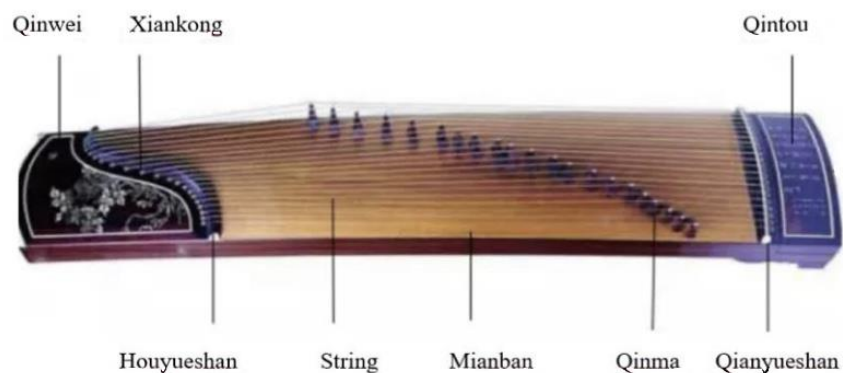


Figure 4. 23 Guzheng (Zheng)

Source: Researcher

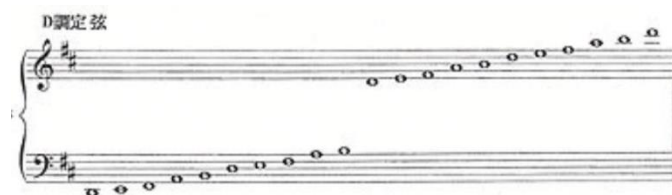


Figure 4. 24 Guzheng Open Strings

Source: Researcher

Guzheng, also known as Han Zheng and Qin Zheng, is an ancient national musical instrument of the Han, and popularized throughout China. It is often used as an accompaniment for solo, ensemble, instrumental ensemble and song and dance and opera. Known as the "King of Music" and also as the "Oriental Piano", it is one of China's unique and important national musical instruments due to being wide ranged, beautiful, rich in playing skills, and strong expressive force. As early as the Warring States Period from the 5th century BC to the 3rd century BC, Guzheng was widely spread into the area of Qin (now Shanxi Province), hence the name Qin Zheng, which has a history of more than 2500 years.

The structure of Guzheng is composed of panels, pillars, strings, front Yue mountain, string nails, tuning box, qin foot, back Yue mountain, side plate, sound outlet, bottom plate and string hole. Shaped as a rectangular wooden sound box, the string frame "Zheng column" can move freely, set to one string one tone following the rule of pentatonic scale arrangement.

The unified specification of Guzheng is 1.63 meters and 21 strings. Guzheng is a plucked instrument with many strings and many columns. Its shape is approximately long box shape, slightly protruding in the middle, the bottom plate is flat or nearly flat. The head of the Guzheng has a slowly falling Zheng foot. A string is set on the panel of the wooden box. Under each string, there is a number marked, which can be moved from side to side to adjust pitch and quality. There are various types of Guzheng, having different structure and size. In addition to the original note, each string can also be pressed by the left hand on the string and columns to press each note to change the pitch, either higher or lower, by the interval of third. Bass strings are usually long and thick, so that the player barely press the strings, even to raise the tone by a major second. The chords of a Guzheng are arranged in D pentatonic scales. Guzheng's unique timbre makes it indispensable in Chinese Orchestras, especially in the representation of traditional Chinese classical music.

Ruan

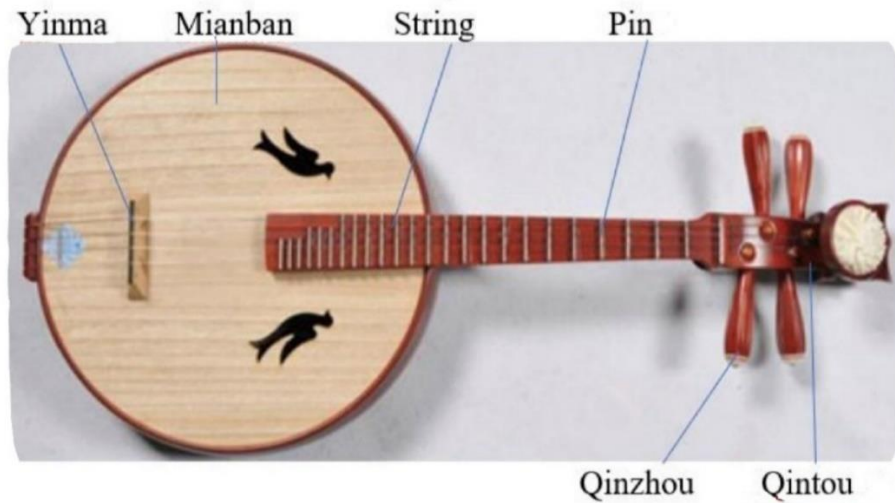
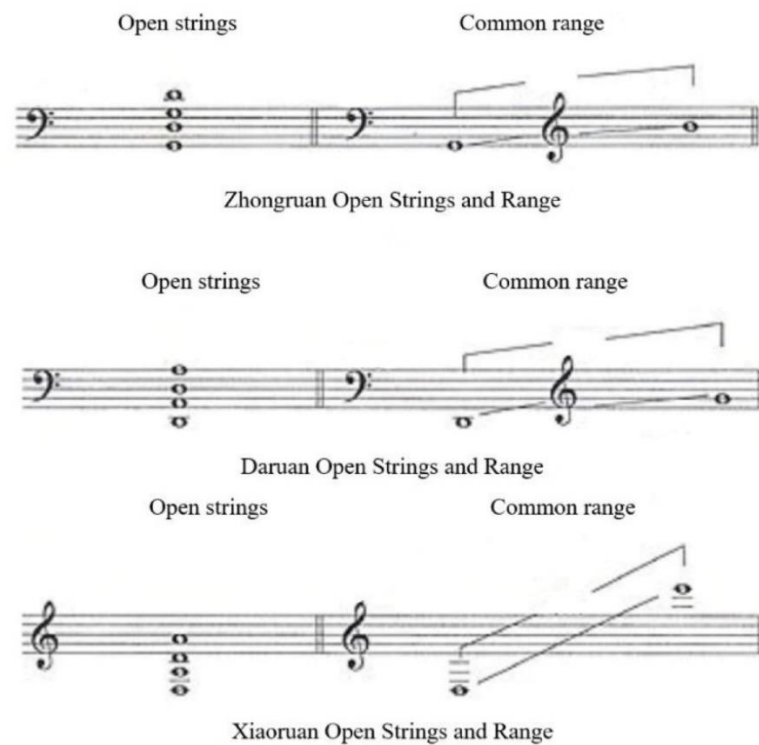


Figure 4. 25 Ruan

Source: Reseacher



Source: Reseacher

Ruan, short for Ruan Xian, also means the long-necked Pipa, which is different from the Quxiang Pipa. Ruan Xian, one of the seven sages in the Bamboo Forest of the Western Jin Dynasty, was good at playing the Ruan. During the Kaiyuan period of the Tang Dynasty, a bronze pipa was unearthed from Ruan Xian's tomb and



named Ruan Xian, or Ruan for short. The structure is a wooden circular sound box with a straight handle, four strings and twelve columns.

Among the Chinese Orchestras developed in modern China, the Ruan and DaRuan Musical Instruments are ZhongRuan and DaRuan. The alto part of a plucked instrument.

After 1949, the Ruan musical instruments were improved and categorized into Ruan Family Musical Instruments, including treble Ruan, small Ruan, middle Ruan, big Ruan and low Ruan. The treble Ruan is used to replace the Liuqin as the treble plucked instrument in the Hong Kong Chinese Orchestra, and the Zhong Ruan and Da Ruan are the bass plucked instruments commonly used in various Chinese orchestras.

Ruan's soundbox is round with twelve tone column, four strings. The player uses artificial nails or plectrum to play. The Ruan can be used for solo playing, song and dance accompaniment or the national band performance.

#### Liuqin

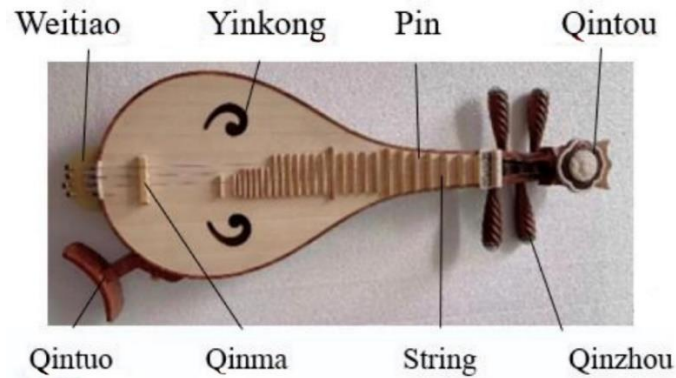


Figure 4. 26 Liuqin

Source: Reseacher



Figure 4. 27 Liuqin Open Strings and Range

Source: Reseacher

Liuqin, traditional Chinese musical instruments. The earliest Liuqin is very simple in structure. Because of its civilian-style appearance, the Chinese people affectionately call it the "Tupipa". When playing the Liuqin, the player sits upright with the instrument at an Angle in front of his chest, holding the instrument by the strings in the left hand while holding the plectrum in the right hand. The playing technique of Liuqin is similar to that of Pipa. In some places, the Liuqin is played in the same way as Ruan.

#### Konghou (Chinese harp)

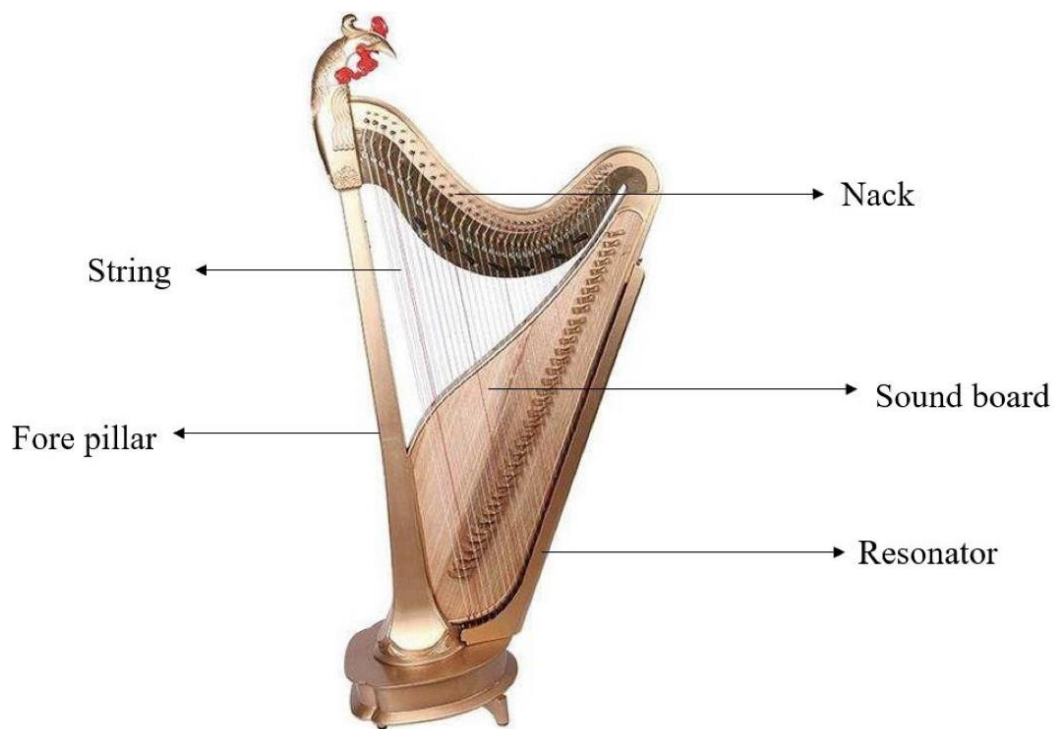


Figure 4. 28 Konghou

Source: Reseacher

Konghou is an important instrument in Chinese Orchestra. In terms of the sound range, a large professional Konghou over six octaves, or even up to seven octaves. However, an ordinary Konghou is limited in range to five octaves. Compare the sound of the Konghou with the sound of the harp, it is found that the harp sounds seem to come from under the water when the whole water has absorbed some of the scattered energy, so the harp is pure, soft and stable. The sound of the Konghou seems to be made from clear water, and the surface is slightly shaken, clearer, and floating.

The sound of the Kouhou is compared with that of the Guzheng: the Guzheng is mellow and distant, easier to merge, and the Konghou will dissolve like the green water of the lotus pond at night; Konghou is clearer and more vivid, like the sound of a clear spring on a snowy mountain

## 2) The technique of plucking instruments in Chinese Orchestra

There are many kinds of playing techniques of plucked instruments such as the of pipa: the names "PI" and "Pa" are based on the right-hand technique of playing these instruments. That is to say, pi and pa are the names of two playing techniques. Pi is the right hand to play outwardly, pa is the sound of plucking the string backward. Before the Tang Dynasty, Pipa was also the Chinese general name for all plucked instruments of the Lute tribe. The Chinese pipa spread to other parts of East Asia and developed into the modern Japanese pipa, Korean pipa and Vietnamese pipa. The pipa plays a very important role in the orchestra because it is plucked and the sound produced by the instrument is very granular, which also makes the orchestra players more cooperative. In history, the so-called pipa not only refers to the quxiang pipa with a pear-shaped soundbox, but also a variety of plucked instruments. Therefore, the "pipa" at that time had similar shapes but different sizes, such as Yueqin and Ruan, which can be regarded as pipa type instruments. The pipa is a major plucked instrument with long history in China. Through the improvement of generations of players, the shape and structure of the pipa has been unified so far, and it has become a four-string pipa with six "Xiang" and 24 "Pin". The pipa has a wide range of sounds, and its performance skills are the first among the national instrumental music, and its expressivity is the most abundant instrument in the Chinese folk music. The tuning method commonly used for pipa is to tune each string into one note: the four strings comprise four notes A, D, E and A.

For Ruan's playing techniques, the principle is relatively simple. With the reform of musical instruments, they are now gradually enriched. Ruan plays a lot with plectrum. Many Chinese music colleges set up Ruan's undergraduate program, and the solos of Ruan and Ruan emerged successively. Through the performer's inheritance, practice, and creation, there are more than 30 fingerings' pattern on the right hand, such as flicking, picking, stitching, sweeping, cutting, swiping, brushing, parting, shaking, rolling. Also, there are more than 10 fingerings' pattern on the left hand,

such as pan, hitting, band, sliding, pushing, pulling, singing and weaving which significantly improve the artistic expression of the Chinese Orchestra.

All kinds of Ruan's tunings and registers are different, so are their various roles in the band. The open strings of the large, medium and small Ruans are tuned using the interval of fifth, while low-pitched Ruans are set each string with the interval of fourth apart, so the small one is tuned in C, g, d1, a1; the medium Ruan is tuned in G, d, a, e1; the big Ruan is tuned in C, G, d, a; and the bass Ruan is tuned with the interval of fourth as E1, A1, D, G. The common range is small Ruan from C ~ a3, middle Ruan from G ~ e3, large Ruan from C ~ a2, bass Ruan from E1 ~ e.

When playing the Liuqin, the player sits upright and leans the instrument over his chest. He holds the instrument on the string with the left hand and holds the plectrum with the right hand. The plectrum is made of nylon plate, plastic sheet or horn and other materials in a shape of equilateral triangle. The plectrum is as important as the bow of the string instrument, and has a direct relationship with the intensity, speed and timbre of the performance. The method of holding the right hand is to put 2/3 of the plectrum between the thumb and the first joint of the index finger, and use 1/3 that is visible to pluck the string.

Konghou plays a similar part in Chinese Orchestra like Guzheng. Compared with Guzheng, playing guzheng requires wearing artificial nails, but playing Konghou is without ones. That is because Konghou is different in the way it strikes and the way it is set, and the angle at which the fingers touch the strings is different from that of a harp, a harp instrument, so you could reach a sufficient volume with a smaller naked finger. And for Konghou, a vertical state, would be plucked at the left and right side of the fingertip, wearing an artificial nail would not help, but hinder the instrument from directly touching the string with your nail.

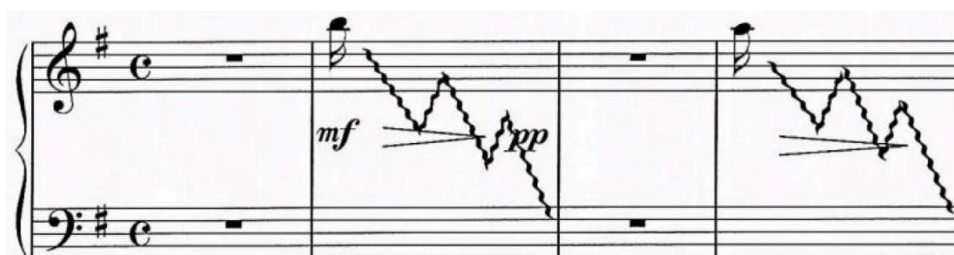
There are many kinds of playing techniques of plucking instruments: LunZhi (LunZhu), ShuangYin, PaYin, YaoZhi, GuaZou technic and so on. Following examples show the playing techniques of string instruments:



The above example is PaYin technique of Yangqin or Guzheng: Generally, the player plays the lowest note first, and then plays the higher note quickly in turn, completing all notes in the shortest time. The sound is a combination of decomposition and harmony spin. This is a technique often used in orchestra playing.



The above example is LunZhu technique of Yangqin: It refers to the intensive and coherent wheel movements made by one or two hands on one or several notes in turn, giving people the feeling of continuity. It is mainly accomplished through the work of shoulders, arms, elbows, wrists and fingers under the premise of natural relaxation. When pipa plays a long note, they must use the fingering method of LunZhi to combine the single notes of the same pitch into a long note.



The above example is GuaZou technique of Guzheng: It refers to the playing method of moving up or down the scale from one note to another. Upward GuaZou usually use the right index finger to play the performance, pay attention to keep the hand shape is half empty fist. The first joint is upright and does not break the finger, the fingertip should give a little pressure to the string. The finger is stable and relaxed, the arm drives the finger from the bass to the treble in a continuous rapid play up the scale, the body with the arm movement to adjust the center of gravity. The same applies to the left hand. Downward GuaZou is usually played with the thumb of the right hand.

### 3) The function of plucked instruments in Chinese Orchestra

The plucked instruments play a very important part in Chinese Orchestra of Sichuan Conservatory of Music. The greatest musical characteristic of Chinese

Orchestra of the Sichuan Conservatory is using the plucked instruments to make the music beautifully and coherently.

In the system of contemporary Chinese Orchestral music, the plucked instrument music is favored by composers because of its wide ranging, rich timbre, and techniques. Plucked instruments, originated from traditional folk music, are closely related to regional culture in the historical evolution. Through typical timbre, techniques, special sound effects, resulting it novel representative works with the audience being able to have a sense of regional cultural aesthetic identity. This sense of identity, through years of influence and oral inheritance, finally enables people to listen to the sound and clearly perceive the regional symbol and cultural charm in the sound of strumming music. In the accumulation of time and the slow flow of Chinese Orchestra music has been shaped subtly, and the plucked instrument is also placed in it, interpreting the beauty of the Chinese traditional music culture.

#### 4.3.1.3 The blown wind instruments in Chinese Orchestra

The timbre of national wind instruments is harmonious, and graceful. In the Chinese Orchestra, it is especially important for the orchestra. It can play a role in harmonizing the tone of the orchestra, setting off the climax atmosphere, greatly enriching the performance effect of the orchestra, and playing a pivotal role in the Chinese folk music stage.

When we talk about ethnic instrumental music, we usually refer to the function and musical performance of one instrument. In fact, there are not many opportunities for each instrument to play a solo, but more often it plays a role in the band. Each instrument plays a different role in the traditional orchestra following its own characteristics. Stringed instruments usually play a fast-paced melody in the traditional orchestra, while plucked instrument is more about the performance of rhythm. Percussion instruments are very diverse in Chinese music.

The role of the wind instrument in the band is usually to reinforce the intensity, at the climax of the music which the instrument is fully expressed. In addition, in the music the melody, rhythm, wind instruments are needed to perform. In a word, the role of wind instruments in the Chinese Orchestra is very important. Let's talk about the performance of the folk wind instruments in the classical folk music ensemble or national orchestra.

During Chinese traditional holidays, the people can often hear some festive music, "Hua Hao Yue Yuan" which is one of the pieces that characterize the auspicious mood in the music, adding a lot of happy atmospheres to the festival. In addition, there are many factors also greatly contribute to the effect of the pieces. Among them, the wind instruments play a very important role in Chinese Orchestra.

1) The characteristics of blown instruments in Chinese Orchestra

Zhudi (Bamboo flute, Dizi)

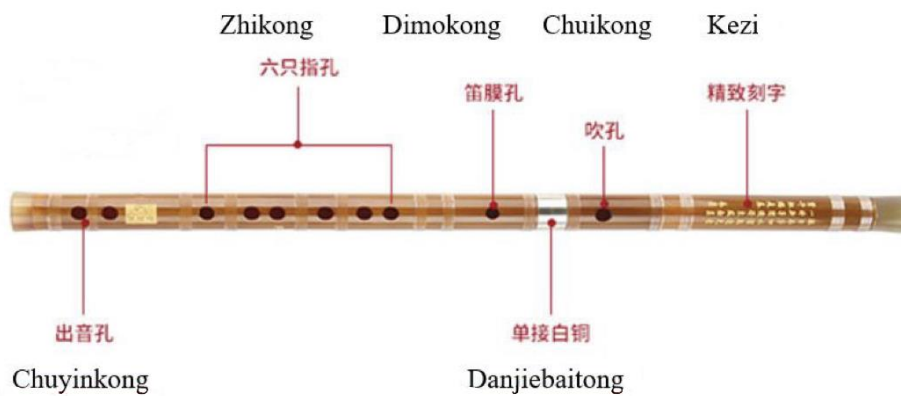


Figure 4. 29 Zhudi

Source: Reseacher



D key Qudi Range



G key Bangdi Range



G key Xindi Range

Source: Reseacher

Bamboo flute, the name of Han musical instrument, Chinese traditional musical instrument. Dizi is a blown instrument, widely known in China. It is also called "bamboo flute" because it is made of natural bamboo. Bamboo flute spread in a wide range of regions, a wide variety. The most commonly used are Qudi, Bangdi and Dingdiaodi (tune-setting flute). There are jade screen flute, seven-hole flute, ten-hole flute, piccolo and cis flute. Chinese Dizi has strong Chinese national characteristics, pronunciation emotional, tactful. Dizi is an important melodic instrument in Chinese Orchestra. It is mainly used for solo or ensemble.

Sheng  
 Chuizui Shengdou Ankong Shengmiao



Figure 4. 30 Sheng

Source: Reseacher



## Common range



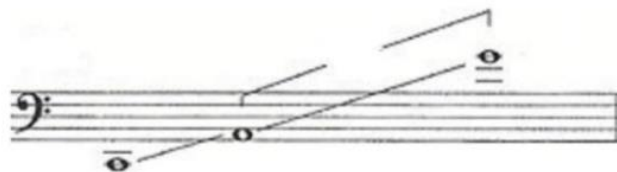
## Gaoyinsheng Range

## Common range



## Zhongyinsheng Range

## Common range



## Diyinsheng Range

Source: Reseacher

Sheng – an ancient blown instrument originated from the Han nationality in China – is the earliest reed instrument used in the world and has played a positive role in promoting the development of Western Musical Instruments. Sheng belongs to the family of reed instruments that influenced the musical aspects of most reed instruments in the world. Its sound is clear and elegant; the tone quality is soft; and the singing is strong, which all reflect the strong characteristics of Chinese folk style.

Sheng is a unique orchestral instrument in China. It is also the only instrument that can play harmony, which fully highlights its unique charm of music performance. It is mainly composed of three parts: Huangpian, Shengmiao (bamboo pipes of different lengths on the body of the sheng) and Shengdou (the base of the sheng connecting the mouthpiece). Each Shengmiao has one tone and the corresponding pitch is fixed, which makes the fingering, lip control, and other playing techniques comply to the given pitch, which is different from other blown instruments, such as Suona and Zhudi. It is based on the performance characteristics

of Sheng that its unique performance charm has been achieved. It has also been played by the court band since ancient times, and its status as a fixed pitch instrument is incomparable to other orchestral instruments.

Suona

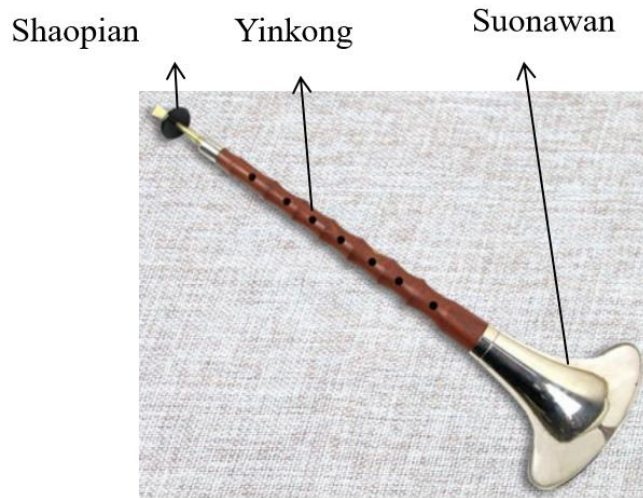


Figure 4. 31 Suona

Source: Reseacher

Common range

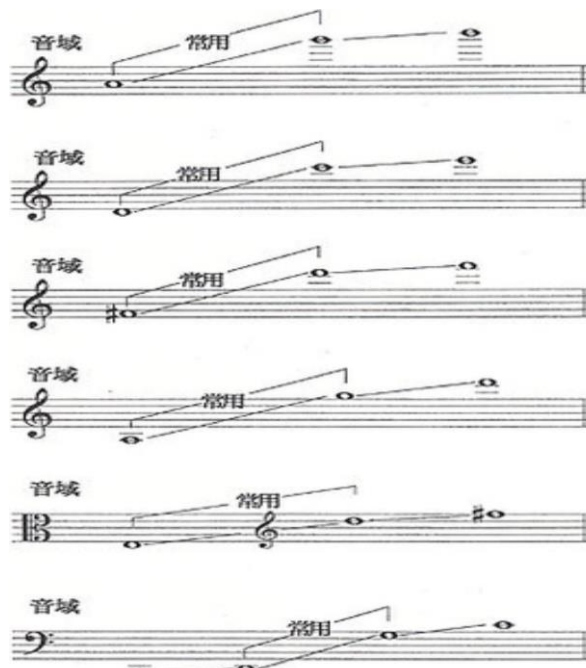


Figure 4. 32 Suona Range

Source: Reseacher

Suona is a Chinese traditional double reed woodwind instrument. As early as in the 3rd century AD, Suona was introduced to China from the Eastern area of Europe and the West of Asia, in tandem with the discovery of the Silk Road. It is a member of the oboe family. After thousands of years of development, Suona has its unique temperament and tone, and has become a representative of the national wind instrument in China.

The body of Suona is mostly made of rosewood or sandalwood and conical in shape. The top is equipped with a double reed piece made of reed connected to the body of the wood through a copper or silver core, and the bottom is covered with a copper bowl. Suona also has semitone keys and treble keys, which extend the range and increase the performance of the instrument.

Suona is a pure melody instrument. The sound of the treble Suona has strong penetration, and it was previously used in folk drum classes and opera accompaniment. After continuous improvement, it has developed from the traditional Suona into the modern one by having keys added to enrich the playing skills and improve the expressiveness. It has become a solo instrument with its own characteristics. The treble, low and double bass Suona tone are rich and they are mostly used in Chinese Orchestra. Small Suona has a pole length 22 ~ 30 cm. The most commonly used is the one with a rod length of 23 cm. Soft tone, ethereal, mostly used for solo or ensemble – especially playing with Erhu ensemble makes the sound more beautiful – and often for singing and dancing accompaniment. Medium Suona, pole length 32 ~ 40 cm. The most commonly used is the 37 cm rod (aka "Heiganzi"). It is popular in Jiangsu, Zhejiang and Anhui provinces. The volume is between the size of the medium and small Suona, the tone is soft. Often used in song and dance. Small and medium Suona is widely spread in southern provinces of our country, and is called the "southern Suona" in the north. Suona volume is not large, used in song and dance accompaniment, very melodious. Large Suona, Pole length 42 ~ 57 cm. The most commonly used is a 50 cm rod (aka "Daganzi"). It is popular in Northeast, Shanhaiguan and eastern Hebei. The whistles are made of reeds and are pocket-shaped. When blown, the sound is majestic and grand. They are often used to play large music.

Adding keys to Suona, developed successfully in the 1960s. There are four kinds of Suona: treble, alto, tenor and bass. Compared with the traditional Suona, the tone color is rich, the volume is increased, and the sound range is expanded. It is also often used in Chinese Orchestras.

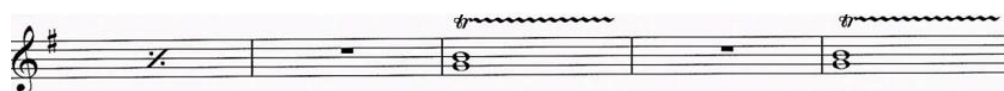
## 2) The technique of blown instruments in Chinese Orchestra

There are many kinds of playing technique of blown instruments. The technique of wind instrument music depends on the coordinated movements of the lips, tongue, breath and fingers. Therefore, the use of tongue is an important part of the blowing technique. When the tongue is used, a stable and radical high pressure air velocity is formed to power the spitting effect. On the contrary, the gas speed is not stable, and the loose, non-gathering force, uncontrolled breathing is not correct chest and abdomen breathing, and the accepted technique is not used, even the use of tongue to trigger the sound is not effective. Therefore, it is necessary for students to practice breathing carefully, and by practicing long sounds, to form an appropriate, accurate, stable and radical high pressure air velocity for each sound.

The single utterance method is often used to play crisp and fast passages. When this syllable is uttered at the head of the voice, it can improve the stability of the tongue action, and the action is simple, so this syllable is called "basic tone-tone", so that the players can produce a variety of expressions and characteristic musical effects such as long, short, fast, slow, strong, weak, but the principle of u syllables remains the same. The "seal" method of spitting, also known as "soft overtone", the position and movement of the tongue are roughly the same as the basic method of articulation. The head can be slightly flat, and the tip of the tongue can be slightly rounded. The articulation action should have gentle ideas, so as to make the sound softer and more coherent. "La" type spitting method is useful. Tongue in the whistle tip along the slight sweep is not next to next, broken very weak spit, so that you can feel but actually can not hear the effect, processing dexterity and subtlety. This kind of spit fully shows the artist's artistic expertise. There are many kinds of playing techniques of blown instruments: Dantu, Shuangtu, Chanyin, Huayin techniques. Following examples show the playing techniques of blown instruments:



“Huayin” technique is like using a lip slur, making tones from low to high or from high to low. In this process, the lower lip is driven by the lower teeth to change the vibration area and length of the reed to get the lower glissando and the upper glissando. A descending glissando is played with the lower teeth driven down to relax what strength control at the same time to extend outward, the vibration area of the reed increases. An ascending glissando is to practice the upper glissando on the basis of the lower glissando. The practice method of the upper glissando is opposite to the process of the lower one. The lower lip is driven by the lower teeth first, and the state of stretching and relaxing is restored to the normal pronunciation. The use of glissando to the style of music and emotional characteristics of the need to listen to good jazz and light music, master and increase the skills of glissando.



Chanyin technique is the number of eighth notes per beat that depends on the emotion and speed of the music. In addition to the standard trill, sometimes the major third trill or perfect fourth is also used. For example, in some folk music of Inner Mongolia and Tibet, this kind of trill is used to play. In the practice of finger trills, you can try to make the speed faster than usual in order to train the flexibility of each finger. However, in practical application, this technique should be used purposefully and emotively according to the fast, slow and emotional needs of the music, and requires the finger to move evenly, push accurately and balance the volume.



Dayin technique refers to the making of a quick "hit" with your finger at the next hole in the tonic. When playing, gently hit the sound hole with your finger to create a sound effect. Accents are also called leading tones. Dayin technique belongs to a grace note, which can enrich the expressive force and increase the sense of colorful music.

### 3) The function of blown instruments in Chinese Orchestra

In the Chinese Orchestra, each instrument has its own unique timbre, and its appeal in the music is also unique. The wind instrument in Chinese Orchestra has a strong melody, which is one of the reasons why it plays such a role in the Chinese Orchestra. The wind instrument plays the role of accompaniment to fulfill the music, which is especially evident in the Sheng's characteristic. Even the instruments with distinct personalities, such as Suona and Zhudi, they often play the supporting role in the band, because their appearance makes the music more abundant and vivid, and further increases the artistic appeal of the music itself. In the climax of the music, especially in the emotional intensity of the explosive point, it is usually to join the performance of wind instruments, which is also determined by the timbre and volume of the blown instrument itself.

#### 4.3.1.4 The percussion instruments in Chinese Orchestra

The music of Chinese traditional folk percussion has not only a long history, but also a wide variety. In ancient times, in order to celebrate the harvest of crops and the return of hunting, men, women and children were happy to hit wood, stone, soil, leather, bamboo, copper or iron, accompanying songs and dances. In the late Ming dynasty, the folk percussion instruments became more colorful. Not only that, as long as it is a folk opera, there is percussion. Since the reform and opening up in China, Chinese Orchestra and national instrument music have become increasingly prosperous, and the status of percussion music has gradually improved. In Chinese Orchestra, various percussion music not only complement each other, but also has become an independent voice part in the orchestra, realizing a qualitative leap from folk music to professional music, from square art to stage art. At present, the percussion instruments in ensembles are not only widely used in many folk music works in our country, but also in solo and other musical performance. In China's long history and culture of thousands of years, Chinese national percussion of the folk instrumental music, with its long history, the most lasting appeal of culture, grand verve and grounding of extraordinary performance form is famous throughout the world, has a favorite for the people, and also became the important part of Chinese traditional music culture.

Percussion instruments plays an increasingly important role in Chinese Orchestras as the voice that guides the band's speed, controls the strength and changes

in color. Percussion instruments are common in the traditional music orchestra, and their development history is relatively long. No matter what kind of percussion instruments, they will have a certain impact on the overall feeling of folk music. Players should understand the difference between different percussion instruments and the role of the actual use of percussion instruments in performance. For example, cymbals and drums can be used, together playing a complementary role to a certain extent, which will enhance the effect of the music and greatly improve the performance effect of the traditional orchestra. In many traditional orchestra music, the beginning and climax, percussion play a leading and supporting role that can not be ignored. In some tunes, a large drum section is inserted to set off the atmosphere.

Compared to other parts of the traditional orchestra, some instruments have no fixed pitch, but they are also divided into high, middle and low parts according to timbre and pitch. There are many kinds of folk percussion instruments, the percussion instruments in the Chinese Orchestra will divide into three types: metal type, wood type, leather type.

#### 1) The characteristics of percussion instruments in Chinese Orchestra

##### Gong



Figure 4. 33 Gong (Luo)

Source: Reseacher

As a round curved surface, the gong is usually made of copper, and its sides are fixed by its own border. The gong beater is a wooden instrument. There are various sizes of gongs. For small gongs, the body is lifted by the left hand and the beater is struck by the right hand. Large gongs are played suspended from gong frame.

It is a metal type sound instrument with the indefinite pitch. Its sound is low, sonorous and strong, and its sustained sound is long and lasting. Usually, gong sound is used to express a tense atmosphere and ominous omen, which has a very unique artistic effect.

#### Yun gong (Yunluo)



Figure 4. 34 Yun gong (Yunluo)

Source: Shuai Wang (2022)

The Yun gong is a kind of diacritic percussion instrument in the metal-type musical instrument family. It has a clear, pleasant sound. The sound is well sustained, but the volume is low. There is no certain use of such Chinese traditional instruments in a small band, but it is commonly used in large Chinese Orchestra. Its effect is like



the triangle in the Western orchestra, having a loud volume and ornate ornamentations.

The small gongs that make up the full set of Yungong are of the same size but of different thickness and have fixed pitch. According to the tone level, it is mounted on a wooden frame with a handle at the bottom. Each small gong is tied with three ropes and suspended between several wooden frames.

### Cymbals



Figure 4. 35 Cymbals (Cha)

Source: Reseacher

Cymbals are made of metal with the indefinite pitch but loud and strong, good at setting off the atmosphere. There is a variety of Chinese orchestra and local bands with the essential color of percussion instruments, especially in local music to display a strong and imposing show of passion. When used for weak playing, its role is similar to the Chinese big drum which belongs to the beat instrument.

### Bells (Pengling)



Figure 4. 36 Pengling

Source: Reseacher

Pengling is widely used in Chinese song, dance, opera music accompaniment and percussion instrument in folk instrumental ensemble. Also known as double qing, bell cymbals. It's made of copper. It is shaped like a pair of cup-shaped bells, with a diameter of 5.5 cm and a height of 4.5 cm. The bell has a hole at the bottom of the bell and is connected by a rope. The two bells strike each other for sound. The bell of brass has a long delay.

### Bangzi



Figure 4. 37 Bangzi

Source: Reseacher

Bangzi (aka Wooden Clappers) is a Chinese percussion instrument. Around the late Ming and early Qing Dynasties (17th century), the Bangzi became popular with the rise of Bangzi Opera. Bangzi consists of two solid wooden sticks of different lengths and thicknesses. One is cylindrical with 25 cm long and 4 cm in diameter, while the other is short and thick and rectangular, 20 cm long, 5-6 cm wide and 4 cm thick. One of the four major tones of traditional Chinese opera, it is named for its hardwood wooden clappers. Bangzi are used in various ethnic bands in China include Chinese Orchestra. It was first used to accompany various Bangzi opera, and it is often used on the downbeat to increase the dramatic atmosphere. When playing, the left hand holds a rectangular stick, while the right hand holds a cylindrical wooden stick, with cylindrical percussion rectangular stick pronunciation, sound clear, solid, but having indefinite pitch.

#### Muyu



Figure 4. 38 Muyu

Source: Shuai Wang (2022)

The Muyu is like a fish shape, the abdomen is hollowed, the head is open in the middle, the tail is coiled, the head is held up and the tail is retracted, the back (percussion be hit part) is sloping, both sides of the triangle, the bottom ellipse; Wooden maul olive shaped like a fish.

Muyu varies in size and sound. The large Muyu used in the temple has a front circular diameter of about 40 cm, and the largest reaches more than 90 cm.

The small wooden fish is only 4 cm in diameter and is only used in the Buddhist ritual of "circling the lotus" (circling the temple). There are five kinds of medium-sized Muyu that are often used, and they are 7-16 cm in diameter. Made by Multi-purpose mulberry or toon wood.

Muyu is a kind of a wood product in shape of fish head, appeared very early in China, but the documented history is relatively late. This particular artifact is not usually found in temples. The Muyu used in temples are roughly divided into two types: one is round, and the other is long. Generally speaking, round Muyu is in a variety of sizes, while long ones are mostly around one meter. Muyu is used in Chinese Orchestra according to the needs of the music style.

#### Zhuban



Figure 4. 39 Zhuban

Source:Shuai Wang (2022)

Zhuban is said to have been invented by Zhu Yuanzhang (Zhu Hongwu), the first emperor of the Ming Dynasty. Because of the number of Zhuban artists worshipped Zhu Yuanzhang (Zhu Hongwu) as the ancestral master, worshipped the portrait of Zhu Yuanzhang (Zhu Hongwu) for the hand-held Zhuban. Zhuban is suitable for the rhythm accompaniment of various folk arts and rap. Depending on the type of accompaniment, the number of boards can be divided into two, five, and seven

pieces. Zhuban is made of moso bamboo. It is better to choose bamboo without bamboo joints, splits and worms. The Zhuban consists of two tiles 16 ~ 19 cm long, 7 ~ 8 cm wide and 1 cm thick. The upper end is connected by ropes, and the lower one can be opened and closed freely. Zhuban and Jieban are either used together, or individually. they prove as the main accompaniment instruments of Quyi music, such as Allegro Shandong, Allegro Tianjin, and Sichuan Jinqianban. It is often sung by performers to create an atmosphere and set off the mood. The Chinese Orchestra of the Sichuan Conservatory of Music sometimes performs the Sichuan Jinqianban "Xiu Cai Guo Gou".

### Bangu



Figure 4. 40 Bangu

Source: Reseacher

Bangu are short single drum. The body is made by wood, birch, robinia, mulberry or teak and other hard wood, with 5 pieces of thick planks, 25 cm in diameter. But the vast majority of wooden board, middle vibration pronunciation raised only 5 ~ 10 cm, drum edge 9.5 cm high. Drum skin is made from cowhide, tensioned across the board until the bottom edge. The drum chamber part of the skin is also called "drum light", which is the part of percussion sounding. The sound of the Bangu depends on the size of the chamber and the tightness of the skin. In order to maintain the tension of the drum skin, the drum is nailed, and the bottom hoop with iron ring. Drum structure is unique. With the development of opera art in Ming and Qing Dynasties. In accompaniment or ensemble, it often plays the role of conductor and lead.

#### Paigu



Figure 4. 41 Paigu

Source: Reseacher

Paigu is a new type of drum instrument. It appeared in the early 1960s, and was made by Cai Huiquan and Yang Jingming of the Chinese Orchestra of China

Central Broadcasting according to the reform of the medium-sized drum and waist drum commonly used by the folk, and has been improved continuously since then. Paigu is a set of five drums of different sizes and different sounds. Drum height 29 to 33.3 cm, upper mouth surface diameter 16.7 to 37 cm, lower mouth surface diameter 11.7 to 37 cm. The diameter of the two sides of each drum is identical, but the inner diameter is different, so each size can produce two different pitches, so the five drums have ten sounds in total. The sound of Paigu is fierce, swing, strong treble, middle and bass drums, broad and grand, especially good at expressing warm jubilant mood.

#### Chinese big drum



Figure 4. 42 Chinese big drum (Dagu)

Source: Reseacher

Chinese big drum, nearly a meter in diameter, is the largest drum in the Chinese Orchestra. Made from a wooden frame with animal skin, it is usually played upright, and although there may be one or both eardrums, only one is actually used.

The drum is struck by the drumstick covered with wool or felt which can be used on both sides of the head. Usually, it is between the center of the drum membrane and the edge of the drum. The center of the drum is only used for short and fast beats (staccato) and special effects. Although widely used in Chinese Orchestra, the modern drum was first introduced to Europe in the late 18th century, along with

other Turkish military band percussion instruments, and was generally used only to mimic the sound effects of military bands until the middle of the 19th century. Percussive instruments of the Han and Tibetan nationality are percussive instruments which are popular all over the country. Through the ages, Chinese big drum (Dagu) has been a popular folk instrument of all ethnic groups. Because of the popularity of the region, the use of different objects and form is different.

## 2) The technique of percussion instruments in Chinese Orchestra

There are many kinds of playing technique of percussion instruments. Percussion instruments are groups of instruments that produce effects by tapping, rubbing, shaking, or scraping. The percussion instrument is arguably the oldest musical instrument. Some percussion instruments produce not only rhythm, but also melodic and harmonic effects.

Cymbals playing skills mainly include four kinds. First is double click, both sides of the cymbals at the same time, so that the music is naturally formed. This stroke is pronounced loudly. Second is grinding click, two cymbals cross collision, to make the rhythm continue. This stroke has a raucous tone. Third is a stuffy hit: an immediate hit after the two cymbals stick to the chest, to stop the sustenance which makes the pronunciation short and stuffy. Fourth is click, with the drumstick (soft, hard hammer can be) hit a side of cymbal creating a bright sound. The drumstick can also be used for rolling click or smudging click. The performance technique of the Bangu is delicate. To play the Bangu, it is necessary to hang the Bangu on a wooden frame, and then use two rattan or bamboo drum arrows to hit the heart and edge of the drum. The result is a distinct difference in pitch. In addition, there are two different playing techniques. One is called "point arrow", which is used to click the drum head with the arrow to make a sound. The other is "full arrow", using the drum arrow flat beat drum surface, two different playing methods issued by the sound effect is very different. Playing skill and action is the same as the big drum. This is because the two sides drum one is big, one is small, its range is different also, each row of two sides drum tuning relationship for four or five degrees. The reason is that while playing on one side only, but on the other side of the head is not static, can produce resonance. So, on the one hand, the two sides of drum tuning for consonance to stabilize the sound. On the other hand, it can make the pure articulation, because the percussion is the stuff of



music itself. Make sweet voice, the rhythm is bright, in the Paigu playing and teaching, regardless of the wheel to play, a solo play, also the sound quality is needed at the etude, solo special efforts.



As is shown in the figure above, the score of Yungong is marked with a lot of acento symbols. When the performer plays, the upper arms should exert strong stress where the acento is marked, while the fore arms should exert force to play a weak volume where the acento is not marked. This technique requires the player to play notes quickly and continuously on the drum to create a continuous sound.



As is shown in the figure above, it is very difficult to master the alternate playing skills, but the performance is excellent, its musical expression is also very rich. This rolling technique requires the player to play notes quickly and continuously on the drum, creating a continuous sound,

### 3) The function of percussion instruments in Chinese Orchestra

Among the four parts of the Chinese Orchestra, the blown, plucked and stringed instruments are all composed of various kinds of Chinese national instruments. However, the percussion part has indeed exceeded the scope of folk music. It is borrowed from many western percussion instruments on the basis of Chinese traditional percussion, further enriching the artistic expression and color of Chinese national percussion instruments, such as timpani, snare drum, marimba and other musical instruments, in a way that Chinese gongs are absorbed into the symphony orchestra, or Western percussion and national percussion blend and make up for each other. However, ethnic percussion should always be in the dominant position. They have taken root and sprouted in the nourishment of Chinese culture. After a long historical evolution, they contain profound national culture and integrity. In today's Chinese Orchestra, ethnic percussion is an important symbol showing the essence, spirit of the Chinese nation, conveying a strong local characteristic. So, the

percussion instrument is an essential part in Chinese Orchestra. In addition, we should dig deeper into the characteristic national percussion instruments, and make use of their special sound and color, so as to maximize the advantage of the rhythm combination of percussion parts in the band and the unique color sound: a Chinese big drum as one of the four major parts of Chinese Orchestra, percussion with a role in rendering atmosphere, leading rhythm and shaping image, and its noticeable importance. Therefore, in band performance, performers should pay more attention to applying the percussion in the Chinese Orchestra, constantly improving the percussion skills, enriching the percussion forms, and fully considering various influencing factors; for example, to make the orchestra as a whole, and the communication and tacit understanding between each part is solid. Therefore, the percussion should be played in association with other parts, in several reasonable ways, so as to present a more perfect music stage.

#### 4.3.2 The improved instruments of Sichuan Conservatory of Music

##### 4.3.2.1 The improved string instruments of Sichuan Conservatory of Music

For a long time in our national band, only the bass and string instruments have been used in the Western orchestra. The use of these instruments both in appearance and integration always makes people feel that they cannot also be used in the folk band with Chinese characteristics in a real sense. How to solve this problem has always been a heartfelt concern for Chinese folk music people, and it is also the most important problem among priorities in a folk band that everyone is looking forward to the solution. As early as 1964, the beloved Premier Zhou Enlai put forward that we must develop our own folk bass instrument to replace the western cello in the folk band.

Feng Wen (personal communication, March 23, 2022) suggested that at the beginning of the 20th century, China was forced to open to the outside world, and Western music and information continuously diffused to China. The sound effects, performance styles, and the historical experience of the development and reform of musical instruments in Western musical instruments and orchestras shocked the traditional Chinese music and the Chinese people at that time. At this time, China's national musical instruments and folk artists lived a life of poverty. Most of the national musical instruments were barely maintained by accompaniment and

ensemble in folk opera and rap. The traditional Chinese instruments were almost regarded by the world as tools for begging and selling. Western music and Western musical instruments are highly respected in concert halls, which makes Chinese musicians and practitioners start thinking about the revitalization of traditional musical instrument. When Western music brought pressure on Chinese traditional musical instruments, the Soviet Union and China's neighboring countries also successively implemented national musical instrument reforms, which became another factor in promoting the improvement of Chinese national musical instruments. In 1952, Soviet art groups visited China during this period. Soviet music experts mentioned the issue of "improvement" of Chinese musical instruments, and introduced the Soviet and Azerbaijan reforms of folk instrumental music and band performance experience, discussed the timbre of the instrument group on how to be relatively unified, and use harmony to enrich the overall sound of the band, as well as setting up high-pitched part, mid-range part, and low-pitched part.

Luhong Jia (personal communication, June 10, 2022) suggested that the Lahulei series, Ruan series and Erhu series of Chinese Orchestra of Sichuan Conservatory of Music are innovative and scientific in the following aspects. First, there is a layer of longitudinal bamboo glue inside the side plate of the sound box case, which makes the vibration transmission speed five times faster and improves the function of the side plate. Second, the bass series is full of oriental charm, and the shape has a coordinated style with the Pipa and other Chinese instruments. Third, compound resonance tube is installed at the vibration source, and the single cavity resonance structure is changed to compound resonance structure, so that the volume of the instrument is increased; the timbre is beautiful; and the bass area is unified. The bass series of instruments in the band and the bowed string instruments such as the Erhu is good; Fourth, it maintains the existing bass instrument playing method, which has good practicability and is easy to be widely popularized and applied. Gaohu, Erhu, Zhonghu and Large and Medium-sized Hu instruments, which reached the consummate development by the work of the Sichuan Conservatory of Music, won the first prize of the Ministry of Culture for Scientific and Technological Progress in 1999; and the second prize of the National Scientific, and Technological Progress in 2000. Since the founding of our country, the vigorous development of folk music has

produced the demand for high performance folk musical instruments. This will inevitably lead to the development of folk musical instruments to improve the work, our folk musical instruments due to historical reasons, in the production process, the performance of musical instruments can not fully adapt to the needs of the development of modern folk music cause, such as sound range problems, timbre problems, volume problems, transferring problems and so on. Since the founding of the People's Republic of China, many people have devoted themselves to undertaking the research and improvement of musical instruments, trying to solve these problems with the teachers and students in Sichuan Conservatory of Music being no exception. In 1953, after the establishment of Southwest Music College, the predecessor of Sichuan Conservatory of Music, Wenyi Shen set up a simple instrument improvement studio. He first studied and improved the bamboo flute, and succeeded in developing the nine-hole bamboo flute in 1954. Later developed into ten holes, and opened the professional course of Zhudi. Starting from scratch, Wenyi Shen made all kinds of special tools by himself, and successively developed instruments such as the middle and bass-key larynx and the bass-sheng, which set a good start for the musical instrument research of Sichuan Conservatory of Music. Over the past years, the improvement of Sichuan accent musical instruments has flourished: thanks to Shen's ideas. Shen was the first editorial board member of musical instrument technology, the predecessor of musical instrument magazine. Until his death in 1985, he was diligent and dedicated all his life. Over the past decades, teachers and students of Sichuan Conservatory of Music have developed more than 20 kinds of improved local musical instruments, and won nine national and provincial government science and technology awards, making their contributions to the development of Chinese folk music. There are several improved instruments that play an important role in the Chinese Orchestra of the Sichuan Conservatory of Music.

Xiaoyu Huang (personal communication, June 11, 2022) suggested that the most important feature of our newly developed national bass string instrument, LaHuLei, is the sound quality, timbre and volume are kept intact. On the basis of not changing the conventional bass instrument playing method, the timbre is maximally close to the national band, which is used in practice. It has a large volume, sound quality of high, medium and bass balance is good, full of penetrable qualities, shock

power, sound color close to the part of the Huqin (Gaohu, Erhu, Zhonghu), and the modern folk band is very consistent, so that it is more appropriate in the integration of timbre. As early as 1993, under the leadership of the Ministry of Culture and with the concern of many experts and scholars, the National Instrument reform Seminar was held in the Central Conservatory of Music. At the seminar, "Development of National bass string Instrument" was identified as one of the key topics. After determining the key topic, several experiments were carried out, but because of the difficulty, there was no feasible plan found and the plan was finally abandoned because of various reasons. At the end of 1999, during the review meeting of the Ministry of Culture's Scientific and Technological Progress Award, the ministry's experts on musical instruments convinced Professor Ze Chen from the Musical Instrument Laboratory of Sichuan Conservatory of Music to accept the difficult work. After careful consideration, Professor Ze Chen, made a comprehensive consideration of the urgency and complexity of this subject. He has many successful experiences in the development of musical instrument reform. In 1999, he won the first prize of the Science and Technology Progress Award of the Ministry of Culture; and in 2001, he won the first prize of the National Science and Technology Progress Award. At the beginning of this century, it was applied to the Department of Education of the Ministry of Culture through the Sichuan Provincial Department of Culture in 2000, and the Ministry of Culture to officially approve the project in June 2000. Therefore, Sichuan Conservatory of Music established a research group with Professor Ze Chen as the head of the research group.

Li Zhang (personal communication, June 19, 2022) suggested that in terms of an appearance design, the following principles are followed. First, appearance modeling should have an obvious national style. The head of the instrument adopts the "Ruyi" modeling in perfect coordination with the Pipa and ZhongRuan. In order to ensure the volume of sound, the lines of the lower part of the sound box are consistent with the cello, and the upper part is similar to "Hulei" and "Huobusi". The overall color is consistent with the basic hue of the national instrument. In this way, it has the characteristics of national style, and is rich in the charm of the eastern nation. By retaining the acoustic structure and key features of the cello: panel length, effective string length, four strings, fingerboard and code bridge, sound post, bass beam are still

adopted into becoming the main features of the instrument. In the newly developed national bass "La Hu Lei", in its sound box added two new technological tools. One is the side plate of the violin box, which is glued with a layer of longitudinal bamboo spring material, which makes the vibration transmission speed five times faster than usual and improves the function of the side plate. Second, a composite resonance tube is installed at the bass beam source, and the single cavity resonance structure is changed into a composite resonance structure. In this way, the spread of sound, created by the string vibration, is accelerated; the harmonic energy is enhanced; and the body resonance is better increased. By improving the acoustical quality of the instrument, the newly developed national bass volume increase sensitive pronunciation, beautiful timbre, high, middle and low areas of unity. Chinese Orchestra parts sound coordination is excellent to achieve a perfect relationship between auditory and visual sensations. The invention and application of two new technologies are especially mentioned: these are two new technologies that Professor Chen has spent nearly 10 years developing and securing a patent. This high-tech configuration is one of its inventive and innovative points, which has a certain advanced nature. In June 2004, the national bass Lahulei successfully passed the expert appraisal committee organized by the Ministry of Culture. After the success of the ethnic bass Lahulei, it's series project; Double bass Lahulei, Hulei development is also successful trial production. The only difference is slightly modified in the shape. This is because the whole body was enlarged to be more convenient to play and make a small change. The Appraisal meeting of Double bass Lahulei was successfully held in University of Science and Technology Beijing on December 5, 2008, sponsored by the Chinese Ethnic Orchestral Society. China Broadcasting Chinese Orchestra was invited to perform live at the meeting, and the participants participated in the audition in person. After the representatives made a full speech, the double bass Lahulei won the appraisal of committee. The birth of these two new types of national bass instruments can be said to have added endless power to the bass and string parts for the national band.”



Figure 4. 43 Photo of the Prize of Lahulei series

Source: Xiaoyu Huang (2022)



Figure 4. 44 Photo of the Lahulei series

Source: Luhong Jia (2015)



Figure 4. 45 Photo of the Lahulei series in performance

Source: Luhong Jia (2022)

Yunjiang Liang (personal communication, June 18, 2022) suggested that the absence of the national bass instrument is always a problem for Chinese Orchestra. This is because the Chinese Orchestra prefers to use the cello, double cello. However, the effect and appearance of the integration with the band is difficult to be satisfactory. For decades, Chinese artists have never given up their dream of owning their own bass instruments. Products such as Dapaqin, LaRuan and Gehu have been published one after another, but none of them have taken off. Lahulei is Professor Ze Chen (professor of the Sichuan Conservatory of Music) of achievers group after more than five years of doing good research: the thorough research on the basis of predecessors' achievements, the invention of a number of new technology and new material. The name is taken from the early northern grasslands plucked instrument "Hulei" and "Huobusi", has a distinctive national style appearance, pronunciation sensitive, has good acoustic performance.

#### 4.3.2.2 The improved plucking instruments of Sichuan Conservatory of Music

The lack of plucked strings in the bass part in Chinese national instruments has troubled the whole folk music circle. Throughout the improvement process of national bass plucking instruments, almost all the reforms ended in stagnation. The



improvement of the SF10 subwoofer Ruan is based on the old subwoofer Ruan while focusing on the the shape size and sound quality. Its purpose is to allow more people to play the subwoofer more conveniently, so as to fill in the blank of the subwoofer national plucked instrument so as to build a relatively complete the orchestral system.

Fei Shen (personal communication, June 15, 2022) suggested that at the beginning of the 1950s, the Western instrument cello and double bass played the role of the low voice in the Chinese national band (group) in the formation and development of the last century. The lack of bass instrument in Chinese traditional national instrument has been troubling the whole folk music field. Many instrumentalists, producers, and performers tried to transform many instruments, but they never succeeded. Some of them changed the instrument's appearance and forced national characteristics to reform. However, due to the production concept, technology, materials and other reasons, the sound quality, timbre of these instruments declined, dawdling behind the original instruments. The other part is based on the prototype of traditional national instruments, and the size of its shape is increased for reform. For example, the basic shape of the Gehu is several times larger than the Erhu. The defects of this instrument are narrow-ranged and lack in volume, which cannot compete with the loud instruments in the national orchestra, resulting in the imbalance of voice parts. Another example is the bass Guzheng, which is also limited in vocal range, volume and other aspects, so it is difficult to popularize. In the late 1980s, the bass Ruan appeared in our country, but because of the instrument's large size, coupled with the lack of professional players and other historical factors, it is difficult to popularize. However, the SF10 bass Ruan was improved by Professor Fei Shen, the Ruan musician in Sichuan Conservatory of Music. The resonant box shape and size of the SF10 bass Ruan underwent the crucial reforms. It breaks the inherent concept of circular resonator box and becomes vertical oval. 58 cm long, only 51 cm wide, 12.5 cm thick, the middle of the waist is divided into 10.5 cm, the average thickness is about 11.5 cm, the lower left side circle to 1 string contact string point straight line distance is about 26 cm. According to the calculation and analysis above and through practice, players with a height of about 160 cm can easily play the instrument, which greatly reduces the requirement of the height limit of players, so that it has a huge potential for promotion.

Zeng Xi (personal communication, June 5, 2022) suggested that through the comparative analysis of the SF10 bass Ruan and the old bass Ruan head, strings and the whole body, the Ruan playing posture is inclined to 45 degrees, so the benefit of reducing the weight of the head is self-evident. As for the strings, the SF10 bass Ruan adopts special strings. The sound does not decrease despite the smaller size, while the timbre is brighter, the having a sensitive and voluminous tone. String vibration is stable, sustained, low noised, and high in resistance. By comparing and analyzing the SF10 bass Ruan with the old bass Ruan and the general Ruan from the sound box, fingerboard, head and strings, the advantages of SF10 bass Ruan in playing are confirmed. At present, SF10 bass Ruan is widely used in various types of groups, orchestras (teams), especially in the Chinese Orchestra of the Sichuan Conservatory of Music, its performance effect is self-evident. At present, the production of many ethnic musical instruments (including Ruan musical instruments) is still in the developing stage, and the improvement of ethnic musical instruments has research value and exploration significance in the field of scientific research.



Figure 4. 46 Photo of the improved Ruan series

Source: Luhong Jia (2022)



Figure 4. 47 Photo of the improved Ruan series in performance

Source: Luhong Jia (2022)



Figure 4. 48 Photo of the Patent Certificate of improved Ruan series

Source: Fei Shen (2022)

Hongbin Sun (personal communication, June 2, 2022) suggested that improvement of the sound quality and timbre of Gaohu, Erhu and Zhonghu (series) is with Professor Ze Chen completing and passing the ministerial appraisal in 1999. This project is a key research subject of the Ministry of Culture. The key technologies are the setting of high sound quality materials on the inner wall of the cylinder and the installation of complex resonators at specific positions in the resonating cavity of the instrument. This project improved the sound quality and volume of the high-pitched area and the overall sound quality of the Erhu family. This technique can be extended to other stringed instruments, such as the Ruan's and violin's. It has a broad prospect of use and development. This work won the first prize of the Ministry of Culture Science and Technology Progress Award in 1999 and the second prize of the National Science and Technology Progress Award in 2000. It is the top award for Chinese musical instrument science and technology.



Figure 4. 49 Photo of the Prize of improved Erhu series

Source: Xiaoyu Huang (2022)

Tao Chen (personal communication, June 2, 2022) suggested that in Chinese history, Shaomei Zhou, a famous folk musician, was the first to reform the shape and system of the Erhu. He took the lead in expanding the Erhu's handle from one to three, enlarging the cylinder, increasing the rod, increasing the Erhu's rod to 90

cm, replacing the snakeskin as the film, replacing the strings (both the inner and outer strings to be thicker), and configuration of soft bow. In the era of Tianhua Liu, the famous Chinese music master, a series of reforms of Erhu could be seen including its appearance, teaching materials, a systematic method of teaching. The Erhu entered China's higher musical institutions and created the Erhu specialty as a subject. Nevertheless, after decades of development, especially after the founding of New China, with the emergence of a large number of works eulogized the new era and the rapid development of Chinese folk band symphonic, both solo works and ensemble works, a series of problems in the Erhu itself have been gradually exposed. The simple structure of Erhu in solos, quartets and bands comes with the defects of serious attenuation of the sound quality and volume in the high register, which seriously hinders the expansion of Erhu to the high register. This problem alone has troubled countless players to play the high register, and has lowered the confidence of composers to challenge the treble limit. Therefore, many experts and scholars have put forward suggestions on this issue for many times, trying to enhance the high-pitched area. Under the appeal of various aspects, the China Ministry of Culture also attached great importance to this problem, and held a seminar on the reform of ethnic musical instruments in Beijing in February 1993. At the meeting, the research on the quality and volume of the high-pitched area of ethnic stringed instruments was identified as one of the key issues to be addressed. Professor Ze Chen from Sichuan Conservatory of Music was entrusted by the Department of Education of the Ministry of Culture to contrive a team to tackle the topic. After the research and gradual improvement, it has made good achievements, which won the first prize of Science and Technology Progress of the Ministry of Culture in 1999, and the second prize of National Science and Technology Progress in 2000. Professor Ze Chen has further improved and perfected the high-pitched tone quality of the Erhu and the coordination and integration of the original position, and the newly-developed GaoHu, Erhu and Zhinghu have made breakthrough progress.

Lei Shi (personal communication, June 20, 2022) suggested that professor Ze Chen accidentally found Jinghu, a musical instrument of the same family with excellent high-frequency resonance, and got inspired. Professor Ze Chen carefully studied the structure of Jinghu and found that the high-grade Jinghu barrel was made

of bamboo with thicker inner wall of bamboo spring. The inner wall of bamboo is called Zhuhuang (bamboo reed), which has a hard texture and great density, which is very conducive to the response of high-frequency acoustic radiation and the conductivity of acoustic wave vibration. Another discovery made by Professor Ze Chen is the bamboo rod inserted into the barrel of the Jinghu. In the middle of the vertical bamboo section, there are rectangular square holes called "air doors". It is precisely this "air doors" that forms a compound resonance in the cylinder, especially for high-frequency sound waves with strong high-frequency resonance. Jinghu sound quality is particularly good. The reason one is that the thick inner wall of the bamboo reed in the barrel has excellent radiative response to high-frequency sound waves and excellent conductivity. The other is that the vertical cylindrical resonating cavity, inserted into the bamboo rod inside the Jinghu, produces strong compound high-frequency resonance to high-frequency sound waves. This is the Jinghu instrument acoustic structure that has a good scientific and rational, sound quality. Professor Ze Chen did not change the shape of the Erhu tube when thinking about the problem of serious attenuation of the Erhu high pitch area, nor did he completely copy the shape of the Jinghu tube. Instead, he kept the shape of the Erhu without any changes, and only thought of ways inside the tube. According to the principle of "Jinghu compound resonance form" and "bamboo reed phenomenon", Professor Ze Chen specially developed the "double tube compound resonator" with different sizes and specifications (which has been patented by the state). After numerous tests, he installed this unique "double tube compound resonator" in the cylinder near the vibration source, that is, between the rod and the python skin. After installing this "double-tube composite resonator" device, Professor Ze Chen did not think that it was the final step. In his opinion, with only a single technology, it cannot make a complete change to the attenuation problem of Erhu series in the high-pitched area (this is the conclusion reached after years of experiments), but only by applying the technology that has been invented and mastered together, can the purpose of improving the attenuation of Erhu high pitch area be achieved. In this way, in addition to installing the "double-tube composite resonator", he also separated the "bamboo reed phenomenon" in Jinghu and installed it on the golden section of the inner wall of the Erhu cylinder. Of course, it was not just to paste the bamboo reed randomly.

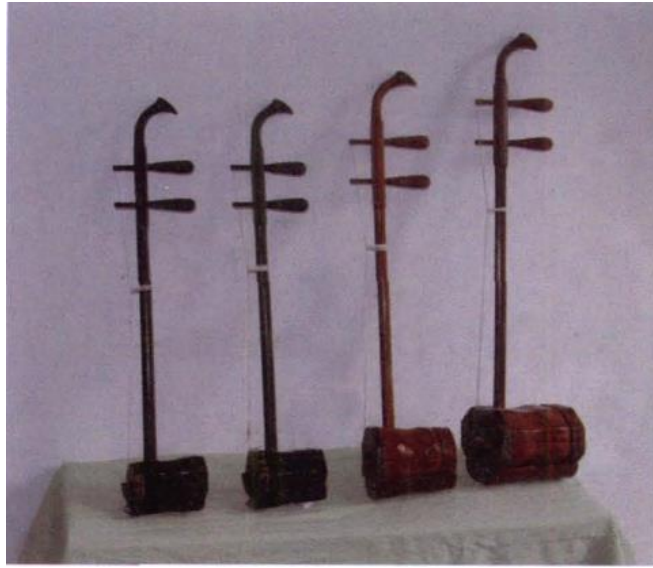


Figure 4. 50 Photo of the improved Erhu series

Source: Luhong Jia (2022)



Figure 4. 51 Photo of the improved Erhu series in performance

Source: Luhong Jia (2022)

The music of the Chinese orchestra has adopted a large corpus of traditional musical instruments into use. Different instruments play different roles in the Chinese orchestra. According to the opinion of Lei Shi, Huan Fan, Xi Zeng, Hongbin Sun, Jiang Du, Tao Chen, Yunjiang Liang, Luhong Jia. Most of them suggest that to improve instruments is an essential part of the orchestra. It was still

after countless tests on the "bamboo reed phenomenon" that he finally found the best method of bamboo reed paste. In this way, "bamboo reed" and "double-tube composite resonator" two new technologies were used simultaneously, resulting in the Erhu's high pitch area being changed into a "new sound". The outcome of Erhu experiment using these two techniques are incredible because the process made Erhu bright and strong in the high register. According to the report issued by the Science and Technology Department of the Central Conservatory of Music, "its acoustic characteristics are basically the same as that of the double cello, and it is completely feasible to use it as a bass string instrument in a Chinese Orchestra." The Chinese Orchestra of the Sichuan Conservatory of Music often uses Lahulei to play bass parts, but sometimes a double cello is used, instead of Lahulei due to the need of a musical style. The Chinese Orchestra of the Sichuan Conservatory of Music is characterized by the Sichuan style music work and the use of reformed instruments. The Sichuan Conservatory of Music has improved many kinds of Chinese ethnic musical instruments, keeping the original timbre on the basis of making the sound produced by the instruments more pleasant and rich, which greatly improves the musical performance of the Chinese Orchestra of the Sichuan Conservatory of Music.

The researcher focused on two parts for analyzing. The first part is from the historical background of Chinese Orchestra of the Sichuan Conservatory of Music. The second part is from the improved instruments of Chinese Orchestra of the Sichuan Conservatory of Music. From Research methods of survey and interview with the informants, the development process of Chinese Orchestra of the Sichuan Conservatory of Music is clear. Traditional Chinese instruments all have a long history. Many musical instruments in China have held a history of thousands of years. There were many musical instruments in ancient times. Also, every traditional Chinese instrument has its own role in the Chinese Orchestra.

## Conclusion

The orchestra strives to promote the improvement and development of Chinese folk music composition, performance, and teaching. Due to the requirements of the college, the number of the orchestra is medium-sized, and by 2022, the orchestra has basically formed around 25 members and stabilized. The large Chinese



orchestra music works of the past is not suitable for this group. Sichuan Conservatory of Music invited Professor Wengong Cao from China Conservatory of Music to adapt the “Hong Lou Meng” and Sichuan folk song series. The music specially designed for the orchestra and received an immense praise.

The players of the Chinese Orchestra of the Sichuan Conservatory of Music are the main body of the orchestra, and are very important to the orchestra. More than 90 percent of the Chinese Orchestra of the Sichuan Conservatory of Music members have master's degrees. All of them have received professional bachelor's degree training in music. Most of them were graduated from music colleges in China. All the members of the Chinese Orchestra of the Sichuan Conservatory of Music come from professional music colleges, and more than 90 percent have master's degrees. Most of the orchestra's players studied at the Sichuan Conservatory of Music. Sichuan Conservatory of Music attaches great importance to the ensemble course of ethnic instrumental music, so these players have undergone strict training in their previous studies, which has laid the foundation for the high-level performance of the Chinese Orchestra of the Sichuan Conservatory of Music.

The music of the Chinese orchestra's is made up of various instruments. Different instruments play different roles in the Chinese orchestra. Improved instrument is very important part of the Chinese orchestra. The Chinese Orchestra of the Sichuan Conservatory of Music is characterized by the Sichuan style music work and improved use of reformed instruments. Sichuan Conservatory of Music has improved many kinds of Chinese ethnic Musical Instruments, keeping the original timbre on the basis of making the sound produced by the instruments more pleasant and rich, which greatly improves the musical performance of the Chinese Orchestra of the Sichuan Conservatory of Music. From Research methods of survey and interview with the informants, the development process of Chinese Orchestra of the Sichuan Conservatory of Music is clear. Traditional Chinese instruments all have a long history. Many Musical Instruments in China have a history of thousands of years ago. There were many Musical Instruments in ancient times. And every traditional Chinese instrument have its own role in the Chinese Orchestra.

## CHAPTER V

### THE MUSICAL CHARACTERISTICS OF THE CHINESE ORCHESTRA OF THE SICHUAN CONSERVATORY OF MUSIC

In Chapter V, the researcher asserts the following views:

- 5.1 The Chinese Orchestra music “Chun Jie Xu Qu”
- 5.2 The Chinese Orchestra music “Hong Lou Meng Xu Qu”
- 5.3 The solo and Chinese Orchestra music “Bu Gu Niao Er Gu Gu Jiao”
- 5.4 The solo and Chinese Orchestra music “Tai Yang Chu Lai Xi Yang Yang”

Chapter V selects 4 most representative works of the Chinese Orchestra of Sichuan Conservatory of Music as the research object: two of the works are for the orchestra, and the other two are for accompaniment. The purpose of this chapter is to analyze the Chinese Orchestra works of two types by using the modern composition technology theory of China and that of the West; to summarize the musical characteristics of this four music works; and to explore the national characteristics, and humanistic connotation of the work of the Chinese Orchestra of Sichuan Conservatory of Music. There are 3 reasons why the researcher chose the four music works of the Chinese Orchestra of Sichuan Conservatory of Music for this research. Firstly, the four works of the Chinese Orchestra of the Sichuan Conservatory earned the recommendation and recognition of many experts and scholars. Secondly, they share commonalities and differences. Thirdly, these music works are well-known in Sichuan province. The translated music score can be found in the appendix. Through the study of musical characteristics, we can understand the musical characteristics of the Chinese Orchestra of Sichuan Conservatory of Music.

### The name of instruments

Full name	abbreviation
Gaohu	Gh., G.
Erhu	Eh., E.
Zhonghu	Zh., Z.
Lahulei	La., La.H., L.H.L.
Violoncello	Cell., Cl.
Double bass	B.Cl., Bass. Cl., B.Kl., Cl. b.
Pipa	P.P., Pi., Pi.P.
Yangqin	Y.Q., Yang. Q., Yang.
Guzheng	Zheng., G. Z., Gu. Z.
Ruan	R., Ra.
Liuqin	L.Q., Liu., Liu.Q.
Konghou	K.H., Kong.H.
Zhudi	Z.D., Dizi., Zhu.D.
Bangdi	B.D., Bang.D.
Suona	S.N.
Sheng	Sh., S.

#### 5.1 The Chinese Orchestra music “Chun Jie Xu Qu”

The music work “Chun Jie Xu Qu” is an overture to the Spring Festival Suite composed by Huanzhi Li. It is also one of the most popular compositions, focusing on the lively scene of Chinese people celebrating the Spring Festival. This piece of music is an orchestral piece composed of Yangko tones, rhythms, whose materials are derived from folk songs of northern Shanxi province. It has strong characteristics of Chinese folk music culture. The composer has skillfully shaped the development of melody, harmonic techniques, changed in strength and the use of Chinese percussion

instruments, which can be regarded as the perfect combination of Chinese music culture and western string art. Huanzhi Li is a famous Chinese composer. His large-scale orchestral piece “The Spring Festival Suite”, especially the first movement the Yangko Overture, is often performed separately under the title of the “Chun Jie Xu Qu” (Spring Festival Overture) . It has become a fundamental piece for Chinese New Year concerts every year.

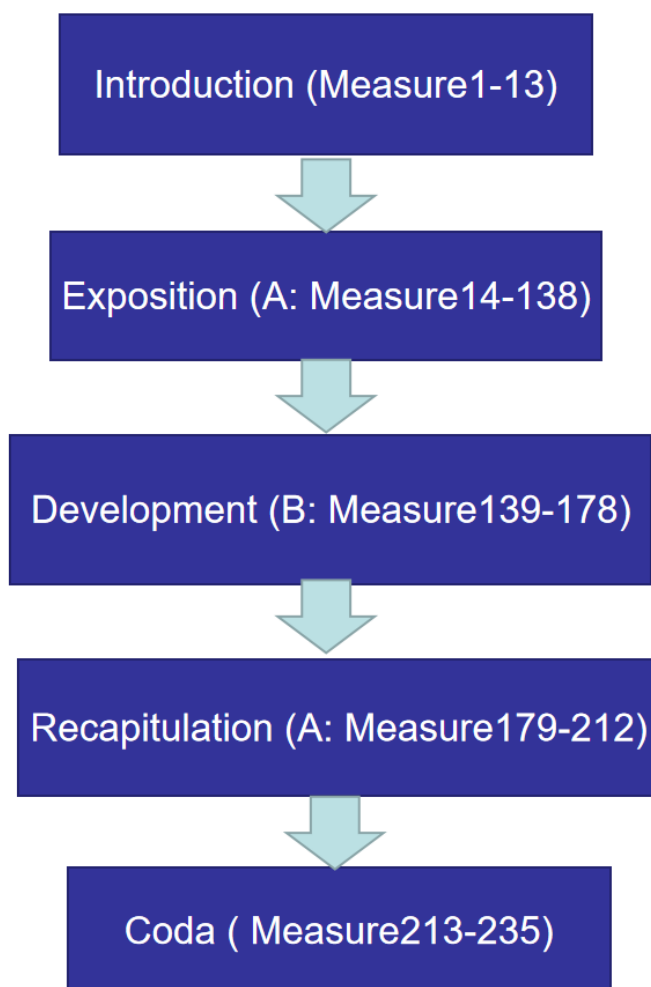
In 1938, Huanzhi Li studied in the music department of LuYi in Yan 'an and stayed in the school to teach after graduation. Having the deep folk life collection and excavation, Huanzhi Li is very fond of northern Shanxi folk music, so on the basis of northern Shanxi in the fifteenth day of the Lantern Festival performance and national orchestral music. It has an influence on the current symphony orchestral work "Spring Festival Overture"("Chun Jie Xu Qu"). There are factors of ingenious use of nationalized materials, national harmony and national percussion instruments, as well as a large number of Western composing techniques and the use of orchestra, that make it a strong Chinese national style. It is an excellent work of "using foreign as Chinese".

The structure of the whole piece is a complex trilogy with recapitulation. It is composed of three parts and contains two introductory themes, that precede. The exposition part is quite complex, and the middle part is a "three-tone middle part" with strong independence and integrity, in D major.

### **Melody**

For the melodic analysis, the researcher analyzes the melodic line section only, which consists of the introduction section, exposition section, development section, recapitulation section, and ending section. This study uses the Western sonata form for analysis. The analysis excludes the transition part. The following chart shows the formal structure of "Chun Jie Xu Qu", which can be divided as follows:

## The structure of "Chun Jie Xu Qu"



The contents of analysis are included:

## Introduction (bar 1-13)

In the introduction part is bars 1–13 a motif (bar 1) and the motif repetition (bar 2-3) are found before a half cadence takes place.

## Exposition (Section A: bar 14-138)

## A (Exposition)

a	b	c	d	a'	b'	a''
a	b	c	d	e	f	g
(14-34)	(35-50)	(51-61)	(62-75)	(76-88)	(89-108)	(109-138)

In the table above, the first row is the form, and the second row is the subsection.

## Section a (bar 14-34)

The musical score for Section a (bars 14-34) is shown in three staves. The first staff (bars 14-17) shows an antecedent phrase (bars 14-15) and a consequent phrase (bars 16-17). The second staff (bars 21-24) shows another antecedent phrase (bars 21-22) and consequent phrase (bars 23-24). The third staff (bars 27-34) shows a continuation of the theme, with a dotted red line indicating a phrase that spans from bar 27 to bar 34. Dynamics include *mp*, *f*, and *ff*.

The composer used the antecedent (bar 14-15) and consequent (bar 16-17) technique in section a (bars 14-34) as the main theme. Bars 28-34 is the extension and at the end of this part, he uses the motif (bar 32) again.

## Section b (35-50)

The musical score for Section b (bars 35-50) is shown in two staves. The first staff (bars 35-38) shows an antecedent phrase (bars 35-36), a consequent phrase (bars 37-38), and another antecedent phrase (bars 39-40). The second staff (bars 44-47) shows an antecedent phrase (bars 44-45) and a consequent phrase (bars 46-47). Dynamics include *mf* and *mp*.

In section b, which is bard from 35 to 50, there are four phrases. The composer uses the technique of question and answer: the first and third phrases are the former" while the second and fourth are the latter.

## Section c (bar 51-62)

Section c is found between bar 51-61. The composer uses new material (motif b) in this section, then repeat the new material. At the end, the composer uses the extension.

Section d (bar 62-79)

Section d is found between bar 62-79. The composer uses the technique of question and answer, followed by the transition phrase in this section before. The repetition the ask and answer part are found.

Section e (bar 80-88)

The section e is found between bar 80-88. It is a transition section.

Section f (bar 89-108)

The image shows three staves of musical notation for Section f. The first staff is labeled 'antecedent' and 'consequent' with red boxes around the phrases. The second staff is labeled 'contraction' with a red dashed box around a compressed version of the antecedent phrase. Bar numbers 90, 95, 100, and 105 are marked. Dynamics include *ff* and *f*.

Section f is numbered from 89 to 108. The composer used the techniques of antecedent, consequent and contraction in this section.

Section g (bar109-138)

The image shows four staves of musical notation for Section g. The first staff is labeled 'contraction' and 'repetition' with red dashed boxes. The second and third staves are enclosed in a large red box. The fourth staff is labeled 'transition' with a red box. Bar numbers 105, 110, 115, 120, 125, and 130 are marked. Dynamics include *mf*, *rit.*, *mp*, and *f*.

Section g is in between bars 109-138. At the start, the composer repeats the preceding phrase (bar 62) before utilizing the technique of contraction imitation. He repeated the preceding phrases (bar 89). At the end, the use the transition phrase to change the key from D to G (section H) are seen.

Development (Section B: bar 139-178)



## B ( Development)

a	a'	b	a''	c
a	b	c	d	e
(139-146)	(147-154)	(155-160)	(161-168)	(169-178)

The development section is bard from 139 to 178. In the table above, the first row is the form, and the second row is the subsection. The composer used five subsections in this section: a, a', b, a'', c. Because this part is the development section of this music, the key has been changed to G. At the end, the composer used the transition to change the key from G to D.

### Section a (bar 139-146)

Section a is in bar 139-146. The composer used the syncopated rhythm and dotted rhythm in this section.

### Section b ( bar 155-160)

Section b is found in bar 155-160 with the first bar of the section being a transition part. After the transition the composer used the extension.

Recapitulation (Section A:179-212)

A ( Recapitulation)



Recapitulation is found from 179 to 212 (a: 179 to 192, b: 193-212). The key signature changes from G to D. This part is called the recapitulation. There are two phrases in this section.

The Coda (bar 213-235)

The coda is found between bar 213-235. The composer used the technique of question and answer. Then the composer used the transition part in this section. And repeat the motif (bar 1) at the end.

There are five sections in this music: introduction section, exposition section, development section, recapitulation section, and ending section. The introduction part is between bar 1–13; there is a motif (bar 1) and a motif repetition (bar 2-3). And finish with a half cadence. The exposition section is between bar 14-138, there are seven subsections in this part. The development section is from 139 to 178. In the table above, the first row is the form, and the second row is the subsection. The key has been changed to G. This part is the development section of this music. The composer used five subsections in this section: a, a', b, a'', c. At the end, the composer used the transition to change the key from G to D. The recapitulation section is from 179 to 212 (a: 179 to 192, b: 193-212). The key is changed from the G key to the D key. This part is the recapitulation section of this music. There are two phrases in this section: phrase a and phrase b. There is a transition in phrase a. The coda is between at 213-235. The composer used the technique of question and answer. Then the composer used the transition part in this section. And repeat the motif (bar 1) at the end.

### **Harmony**

This study will only cover the structure of harmony and modulations in terms of harmonic analysis. The full score of the orchestra has been reduced to piano staves. The top line shows the melody, while the other line shows the harmonic part. The chord progressions to be analyzed are indicated in Roman numerals as follows:

Harmony of the “Chun Jie Xu Qu” Music



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Chun Jie Xu Qu

Huanzhi Li(1919-2000)

Measures 1-9. Treble clef with notes and rests. Bass clef with chords and bass notes. Dynamics include *ff* and *p*. Chords include D and I (m.b).

Measures 10-19. Treble clef with notes and rests. Bass clef with chords and bass notes. Dynamics include *f*, *sf*, *mp*, and *f*. Chords include A/E, V<sup>7</sup>, D<sup>7</sup>, B<sup>7</sup>, A, G/B, D, IV, and I.

Measures 20-29. Treble clef with notes and rests. Bass clef with chords and bass notes. Dynamics include *mp*, *f*, *mp*, *f*, *mp*, and *f*. Chords include G/B, D, IV, and I.

Measures 30-39. Treble clef with notes and rests. Bass clef with chords and bass notes. Dynamics include *ff* and *mf*. Chords include D<sub>m</sub>, i (m.b), and I.

Measures 40-49. Treble clef with notes and rests. Bass clef with chords and bass notes. Dynamics include *mp*. Chords include B<sub>m</sub>/F<sup>#</sup>, VI, A/E, V, D, I, D<sup>#</sup>/E, I, and B<sub>m</sub>/F<sup>#</sup>, VI.

Measures 50-59. Treble clef with notes and rests. Bass clef with chords and bass notes. Dynamics include *mp* and *mf*. Chords include A/E, V, D, I, and B<sub>m</sub>, VI.

Measures 60-69. Treble clef with notes and rests. Bass clef with chords and bass notes. Dynamics include *mf*. Chord includes E, V/VI.

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The musical score is written for guitar and piano. It consists of 12 systems of music. The guitar part is in the upper staves, and the piano part is in the lower staves. The score includes various dynamics such as *mf*, *mp*, *f*, *ff*, *p*, and *rit.*. Chord markings are provided for the piano part, including *D/A*, *D*, *D/A*, *D*, *Bm*, *F*, *Ab*, *D*, *B*, *A*, *V*, *V/II*, *F*, *Ab*, *G*, *Bb*, *D*, *A*, and *D*. Measure numbers 65, 70, 75, 80, 85, 90, 95, 100, 105, 110, 115, and 120 are indicated. The score also includes performance instructions like *arco*, *div.*, and *rit.*.



Musical score for guitar with piano accompaniment. The score is in G major and 2/4 time. It features a melody line for guitar and a piano accompaniment. The guitar part includes various techniques such as slurs, accents, and dynamic markings like *f*, *mp*, and *ff*. The piano accompaniment provides harmonic support with chords and bass lines. Chord diagrams are provided for the guitar part, and Roman numerals are used to indicate chord functions. Measure numbers 170, 175, 180, 185, 190, 195, 200, 205, 210, 215, 220, and 225 are marked throughout the score.

**Chord Diagrams:**  
 Cn ii, F V, Fb I, F V, Bb I, Eb IV, I I, C7 V/V, F V, F I, F I, Bm VI, D I, vi, F/C IIIb, Am, Am, F#m, D, Bb, A, D, V(m.b) vii/IV, I, V/II, V, I, D/A I, D/F# I, Em ii, D I, Bm7 vi7, A V, D I, D/A I, D/F# I, Em ii, D I, Bm7 vi7, A V, D I.

**Dynamic Markings:** *f*, *mp*, *f*, *ff*.

5

$\begin{matrix} D/A & D & D/A & D \\ I & I & I & I \end{matrix}$

According to the above example, discussed again by sections as follows.

#### Introduction (bar 1-13)

Following are the chord progression of an introduction section.

-D Dm A7/E D7 B7 A

-D A D B A

-I V I V/II V

The structure of chords of this section is I V I V/II V. In bar 8 the composer used mode borrowing (m.b)

#### Exposition (bar 14-138)

##### Section a (bar 14-34)

- G/B D G/B D G/B D G/B D Dm D

- G D G D G D G D

- IV I IV I IV I IV I

##### Section b (bar 35-50)

###### Phrase 1(35-38)

- D Bm/F# A/E

- D B A

- I vi V

###### Phrase 2(39-42)

-D D5/E

- I

###### Phrase 3(43-46)

-D Bm/F# A/E

-I vi V



## Phrase 4(47-61)

-D Bm E

-I vi V/VI

The structure of chords of this section is IV I IV I IV I IV I vi V I  
vi V I vi V/VI.

## Section d (bar 62-79)

-D/A D D/A D Bm F Ab D

-I vi F: I Ab: I D: I

The structure of chords of this section is I vi I.

## Section f (bar 89-108)

-D F Ab

-D: I F: I Ab: I

The structure of chords of this section is I

## Section g (bar 109-138)

-G Eb Bbm A7 D C Am G

-I Bb: IV Db: vi D: V7 I G: IV ii I

The structure of chords of this section is I VI vi V I IV ii I.

## Development (bar 139-178)

a (bar139-146) :

-G Bm Am G D G Bm G D Am D

-G: I iii ii I V I iii I V ii V

a' (bar 147-154)

-G Bm Am G C Am G Bm Am G

-I iii ii I IV ii I iii ii I

b (bar 155-160)

-Em/G A/E D G Bm/F# Am D Am D Dm

-vi ii V I iii ii V ii V

a'' (bar 161-168)

-Bb Dm Bb Cm F

- Bb: I iii I ii V

c (bar 169-178)

- B $\flat$  F B $\flat$  E $\flat$  B $\flat$  C7 F F

- B $\flat$ : I V I IV I II V F: I

The structure of chords of this section is I iii ii I V I iii I V ii V I iii ii I IV ii I iii ii I vi ii V I iii ii V ii V I iii I ii V I V I IV I II V I.

Recapitulation (bar 179-212)

-D Bm D Bm F/C Am F $\sharp$  D B7 A D

-D: I vi I vi III $\flat$  v (m.b) vii/VI I V/II V I

The structure of chords of this section is I vi I vi III $\flat$  v (m.b) vii/VI I V/II V I. In bar 190 the composer used mode borrowing (m.b)

The coda (bar 213-235)

-D Em D Bm A D Em D Bm A D

-I ii I vi V I ii I vi V I

This section is the coda of the music. The structure of chords of this section is I ii I vi V I ii I vi V I.

In the harmonies of “Chun Jie Xu Qu”, the composer not only used a large number of I IV and V, chords but also used a lot of, iii and mode borrowing. The structure of chords of the introduction section is I V I V/II V. In bar 8 the composer used mode borrowing (m.b). The structure of chords of the exposition section (bar 14-138) is IV I IV I IV I IV I vi V I vi V I vi V/VI I VI vi V I IV ii I. The structure of chords of the development section (bar 139-178) is I iii ii I V I iii I V ii V I iii ii I IV ii I iii ii I vi ii V I iii ii V ii V I iii I ii V I V I IV I II V I. The structure of chords of the coda section (bar 213-235) is I ii I vi V I ii I vi V I. This use of harmony makes the whole piece of music more abundant.

### Orchestration

For the orchestration analysis, the researcher analyzes the whole score, which consists of the introduction section, exposition section, development section, recapitulation section, and ending section. This study uses the western orchestration

analyze. The analysis excludes the transition part. The following chart shows the orchestration of "Chun Jie Xu Qu", which can be divided as follows:

The musical score for "Chun Jie Xu Qu" is presented in a multi-staff format. The instruments and voices are listed on the left side of the score. The score is divided into two main sections: Element A (Melody) and Element B (Accompaniment). Element A includes parts for Bangdi, Qudi, Soprano Sheng, Alto Sheng, Soprano Suona, Alto Suona, Tenor Suona, Bass Suona, Yangqin, Pipa, Zhongruan, Sanxian, Daruan, Yunluo, Folk percussion (Luo, Shuicha, Xizou), Timpani, Gaohe, Erhu, Zhonghu, Violoncello, and Double bass. Element B includes parts for Soprano S, Alto S, Tenor S.N, Bass S.N., Ruan, Sanxian, Cell, B.C., and Percussion. The score is marked with dynamics like *ff* and *p*.

Bar 1-8:

Element A (Melody): Zhudi, soprano S.N., Alto S.N., Y.Q., P.P., Yunluo, G.H., E.H.,  
Z.H.,

Element B (Accompaniment): Soprano S, Alto S, Tenor S.N, Bass S.N., Ruan,  
Sanxian, Cell, B.C., Percussion.

The image shows a musical score for a traditional Chinese ensemble. The instruments listed on the left are: Bangdi, Qodi, Soprano Sheng, Alto Sheng, Soprano Suona, Alto Suona, Tenor Suona, Bass Suona, Yangqin, Pipa, Zhongruan, Sanxian, Duanan, and Yunluo. The score is divided into two systems, labeled '1B' and '2B'. Red annotations highlight specific elements: 'Element A' is circled in red and includes the melody lines for Soprano S.N., Alto S.N., and Yunluo. 'Element B' is boxed in red and includes the accompaniment lines for Soprano S, Alto S, Tenor S.N, Bass S.N., Ruan, Sanxian, Cell, B.C., and Percussion. 'Element C' is also boxed in red and includes the accompaniment lines for Soprano S, Alto S, Tenor S.N, Bass S.N., Ruan, Sanxian, Cell, B.C., and Percussion. The score includes dynamic markings such as *mp* and *f*.

Bar 14-17:

Element A (Melody): Zhudi, soprano S.N., Alto S.N., Y.Q., P.P., Yunluo, G.H., E.H.,  
Z.H.,

Element B (Accompaniment): soprano S, Alto S, Tenor S.N, Bass S.N., Ruan,  
Sanxian, Cell, B.C., Percussion.

Bar 18-25:

Element A (Melody): Zhudi, soprano S.N., Alto S.N., Y.Q., P.P., Yunluo, G.H., E.H., Z.H.

Element B (Second Melody): Qudi, soprano S, Y.Q., P.P., Sanxian.

Element C (Accompaniment): soprano S, Alto S, Tenor S.N, Bass S.N., Ruan,  
Sanxian, Cell, B.C., Percussion.

The musical score for Element C (Accompaniment) is presented across multiple staves. The instruments and parts are as follows:

- Element A (Melody):** Highlighted in red boxes, it includes the parts for Yangqin, Pipa, Zhongruan, Sanxian, Daruan, Yunluo, Folk percussion, Timpani, Gaohu, Erhu, and Zhonghu.
- Element B (Second Melody):** Highlighted in blue dashed boxes, it includes the parts for Soprano Saona, Alto Saona, Tenor Saona, Bass Saona, and Double bass.
- Element C (Accompaniment):** Highlighted in green ovals, it includes the parts for Soprano Sheng, Alto Sheng, and the vocal parts of Soprano S, Alto S, Tenor S.N, and Bass S.N.

Other instruments shown in the score include Bangdi, Qadi, and Violoncello. The score includes dynamic markings such as *ff*, *mf*, *mp*, and *pizz.*

Bar 26-34:

Element A (Melody): Zhudi, Y.Q., P.P., Yunluo, G.H., E.H., Z.H., ZhongRuan, Y.L.

Element B (Second Melody): Z.H., Alto S, Tenor S.N, Bass S.N., P.P., Sanxian.,  
Ruan, Cell, B.C.

Element C (Accompaniment): soprano S.N., Alto S.N., Soprano S, Alto S, Percussion.

The image shows a musical score for bars 36-45. The score is divided into three main sections: Element A, Element B, and Element C. Element A is a melody in the Soprano Sheng part, highlighted with a red box and labeled 'Element A'. Element B is a second melody in the Alto Sheng part, highlighted with a blue dashed box and labeled 'Element B'. Element C is the accompaniment, which includes the Yangqin, Pipa, Zhongruan, Sanxian, Daruan, Yunluo, Folk percussion, Timpani, Gaohu, Erhu, Zhonghu, Violoncello, and Double bass parts, all highlighted with a green oval and labeled 'Element C'. Arrows indicate the flow of information: an arrow points from Element A to Element B, and another arrow points from Element C to Element B.

Bar 36-45:

Element A (Melody): Zhudi, soprano S.

Element B (Second Melody): Alto S.

Element C (Accompaniment): soprano S.N., Alto S.N., Y.Q., P.P., Yunluo, G.H., E.H., Z.H., Tenor S.N., Bass S.N., Ruan, Sanxian, Cell, B.C., Percussion.

The image shows a musical score for bars 46-54. The score includes the following parts: Bangdi, Qudi, Soprano Sheng, Alto Sheng, Soprano Suona, Alto Suona, Tenor Suona, Bass Suona, Yangqin, Pipa, Zhongruan, Sanxian, Daruan, Yunluo, Folk percussion, Timpani, Gaohu, Erhu, Zhonghu, Violoncello, and Double bass. The score is annotated with three elements: Element A (a red box around the Qudi and Bangdi staves), Element B (a blue dashed box around the Soprano Sheng and Alto Sheng staves), and Element C (a green oval around the Yangqin, Pipa, Zhongruan, Sanxian, Daruan, and Double bass staves). A vertical line is drawn between measures 50 and 51. The score includes dynamic markings such as *mp* and *mf*, and a measure number 50 is indicated above the Qudi staff.

Bar 46-54:

Element A (Melody): Zhudi, G.H., E.H.

Element B (Second Melody): Alto S., soprano S.

Element C (Accompaniment): Y.Q., P.P., Z.H., Bass S.N., Ruan, Sanxian, Cell, B.C.



The image shows a musical score for Bar 55-61. The score is divided into three main sections: Element A (Melody), Element B (Second Melody), and Element C (Accompaniment). Element A is highlighted in red and includes the Bangdi part (measures 55-60) and the Gaohe and Erhu parts (measures 55-60). Element B is highlighted in blue and includes the Bass Suona, Yangqin, Pipa, Zhongruan, Sanxian, and Daruan parts (measures 55-60). Element C is highlighted in green and includes the Soprano Sheng, Alto Sheng, Soprano Suona, Alto Suona, Tenor Suona, Bass Suona, Yangqin, Pipa, Zhongruan, Sanxian, Daruan, Yulinuo, Folk percussion, Timpani, Gaohe, Erhu, Zhonghu, Violoncello, and Double bass parts (measures 55-61). The score is in 2/4 time and features various instruments including wind instruments (Bangdi, Suona), string instruments (Yangqin, Pipa, Zhongruan, Sanxian, Daruan, Zhonghu, Violoncello, Double bass), and percussion (Folk percussion, Timpani). The score is annotated with a vertical line at measure 60, and a horizontal line at measure 55. The annotations are: Element A (red box), Element B (blue dashed box), and Element C (green oval).

Bar 55-61:

Element A (Melody): Bangdi, G.H., E.H.

Element B (Second Melody): Bass S.N., Ruan, Sanxian.

Element C (Accompaniment): Bangdi, Soprano S., Alto S., Y.Q., P.P., Z.H., Ruan,  
Sanxian, Cell, B.C.

The image shows a musical score for Bar 62-70. The score includes parts for vocalists (Bangdi, Qudi, Soprano Sheng, Alto Sheng) and various instruments (Soprano Suona, Alto Suona, Tenor Suona, Bass Suona, Yangqin, Pipa, Zhongruan, Sanxian, Daruan, Yunluo, Folk percussion, Timpani, Gaohu, Erhu, Zhonghu, Violoncello, Double bass). Three elements are highlighted: Element A (Melody) in a red box, Element B (Second Melody) in a blue dashed box, and Element C (Accompaniment) in a green oval. Element A is primarily in the vocal parts. Element B is in the Pipa, Sanxian, and Daruan. Element C is in the Suona instruments and the lower strings (Zhonghu, Violoncello, Double bass).

Bar 62-70:

Element A (Melody): Zhudi. soprano S.

Element B (Second Melody): Y.Q., P.P. Sanxian,

Element C (Accompaniment): Zhudi, Soprano S., Alto S., Bass S.N., E.H., Z.H.,  
Y.Q., P.P., Ruan., Cell, B.C.

The image shows a musical score for bars 89-95. The score is divided into three main sections: Element A (Melody), Element B (Second Melody), and Element C (Accompaniment). Element A is highlighted in red and includes the parts for Yangqin, Pipa, Zhongruan, Sanxian, and Gaohu. Element B is highlighted in blue and includes the parts for Bangdi, Qudi, and Soprano Sheng. Element C is highlighted in green and includes the parts for Alto Sheng, Bass Suona, Daruan, Violoncello, and Double bass. The score also includes parts for Folk percussion, Timpani, and Erhu. The key signature is one sharp (F#) and the time signature is 4/4.

Bar 89-95:

Element A (Melody): Y.Q., P.P., ZhongRuan., Sanxian., G.H., E.H., Z.H.

Element B (Second Melody): Zhudi. soprano S.

Element C (Accompaniment): Alto S., Bass S.N., DaRuan., Cell, B.C.

The image shows a musical score for Bar 104-110. The score is divided into two main sections: Element A (Melody) and Element B (Accompaniment). Element A is highlighted with a red box and includes the vocal parts (Bangdi, Qudi, Soprano Sheng, Alto Sheng, Soprano Suona, Alto Suona, Tenor Suona, Bass Suona) and the Yangqin, Pipa, Zhongruan, and Sanxian. Element B is highlighted with a green oval and includes the Daruan, Yulan, Folk percussion, Timpani, Gaohe, Erhu, Zhonghu, Violoncello, and Double bass. The score is written in staff notation with various instruments and voices. The key signature is one sharp (F#) and the time signature is 4/4. The score includes dynamic markings such as *ff* and *mf*.

Bar 104-110:

Element A (Melody): Zhudi. soprano S., soprano S.N., Alto S.N., Tenor S.N., Y.Q., P.P., ZhongRuan.

Element B (Accompaniment): soprano S., Alto S., soprano S.N., Alto S.N., Tenor S.N., Bass S.N., Sanxian, DaRuan., G.H., E.H., Z.H., Cell, B.C. Bass S.N.

The image shows a musical score for Bar 118-124. The score is divided into three main sections: Element A, Element B, and Element C. Element A is the main melody, highlighted in red, and is performed by the Bangdi, Qudi, Gaobu, Erhu, and Zhonghu. Element B is the second melody, highlighted in blue, and is performed by the Soprano, Alto, and Tenor voices. Element C is the accompaniment, highlighted in green, and is performed by the Piano, Pipa, Zhongruan, Sanxian, Daruan, Yulao, Folk percussion, Timpani, Violoncello, and Double bass. The score is written in a Western staff system with a key signature of one sharp (F#) and a time signature of 4/4. The tempo is marked 'Allegretto'.

Annotations in the score include:

- Element A:** A red box highlights the main melody in the Bangdi, Qudi, Gaobu, Erhu, and Zhonghu staves.
- Element B:** A blue dashed box highlights the second melody in the Soprano, Alto, and Tenor staves.
- Element C:** A green oval highlights the accompaniment in the Piano, Pipa, Zhongruan, Sanxian, Daruan, Yulao, Folk percussion, Timpani, Violoncello, and Double bass staves.

Bar 118-124:

Element A (Melody): Zhudi., G.H., E.H., Z.H.

Element B (Second Melody): soprano S.N., Alto S.N., Tenor S.N.

Element C (Accompaniment): Bass S.N., Y.Q., P.P., Ruan., Sanxian, Cell, B.C.

The image shows a musical score for Bar 32-138. The score is annotated with three elements: Element A (Melody), Element B (Second Melody), and Element C (Accompaniment). Element A is highlighted in red, Element B in blue, and Element C in green. The instruments listed on the left are: Bangdi, Qudi, Soprano Sheng, Alto Sheng, Soprano Suona, Alto Suona, Tenor Suona, Bass Suona, Yangqin, Pipa, Zhongruan, Sanxian, Daruan, Yunluo, Folk percussion, Timpani, Gaohu, Erhu, Zhonghu, Violoncello, and Double bass.

Bar 32-138:

Element A (Melody): Zhudi., G.H., E.H., Z.H.

Element B (Second Melody): Zhudi., Y.Q., P.P., Ruan., Y.L.

Element C (Accompaniment): soprano S., Alto S., Bass S.N., Y.Q., P.P., Ruan., Cell,

B.C.

The image shows a musical score for a symphony orchestra and vocal soloists. The score is in 4/4 time and G major. The instruments and vocal parts are listed on the left: Bangdi, Qudi, Soprano Sheng, Alto Sheng, Soprano Suona, Alto Suona, Tenor Suona, Bass Suona, Yangqin, Pipa, Zhongruan, Sanxian, Daruan, Yunluo, Folk percussion, Timpani, Gaohu, Erhu, Zhonghu, Violoncello, and Double bass. The score is divided into measures, with a rehearsal mark [140] at the beginning. Three elements are highlighted: Element A (Melody) is a red box around the Soprano Sheng part; Element B (Second Melody) is a blue dashed box around the Alto Sheng part; and Element C (Accompaniment) is a green oval around the Yangqin, Pipa, Zhongruan, Sanxian, Daruan, Yunluo, and Erhu parts. The score includes dynamics such as *mp* and *mf*.

Bar139-143:

Element A (Melody): soprano S., Y.L

Element B (Second Melody): Alto S.

Element C (Accompaniment): Y.Q., P.P., Ruan., E.H., Z.H., Cell.

The image shows a musical score for bars 144-148. The score includes staves for various instruments: Bangdi, Qudi, Soprano Sheng, Alto Sheng, Soprano Suona, Alto Suona, Tenor Suona, Bass Suona, Yangqin, Pipa, Zhongruan, Sanxian, Daruan, Yunluo, Folk percussion, Timpani, Gaoju, Erhu, Zhonghu, Violoncello, and Double bass. Annotations include:

- Element A:** A red box highlights the melody in the Soprano Sheng, Bass Suona, and Zhonghu staves.
- Element B:** A blue dashed box highlights the second melody in the Alto Sheng staff.
- Element C:** A green oval highlights the accompaniment in the Qudi, Yangqin, Pipa, Zhongruan, Sanxian, Daruan, Yunluo, Gaoju, Erhu, and Double bass staves.

Bar144-148:

Element A (Melody): soprano S., Bass S.N., Z.H., Cell.

Element B (Second Melody): Alto S.

Element C (Accompaniment): Qudi., Y.Q., P.P., Ruan., E.H., Z.H., Cell. Y.L



The image shows a musical score for Bar 149-153. The score is written for a large ensemble, including vocalists (Bangdi, Qudi, Soprano Sheng, Alto Sheng), woodwinds (Soprano Suona, Alto Suona, Tenor Suona, Bass Suona), strings (Yangqin, Pipa, Zhongruan, Sanxian, Daruan, Yunluo), and percussion (Folk percussion, Timpani). The score is in G major and 4/4 time. A rehearsal mark [150] is present at the beginning of the section. Two elements are highlighted: Element A, a melodic line in the Bass Suona part, and Element B, an accompaniment pattern in the Qudi, Yangqin, Pipa, Zhongruan, Sanxian, Daruan, and Double bass parts. The score includes dynamic markings such as *mp*, *p*, and *mf*.

Bar149-153:

Element A (Melody): Bass S.N., Z.H., Cell.

Element B (Accompaniment): Qudi., Y.Q., P.P., Ruan., G.H., E.H., Bass

The musical score for bars 163-167 is presented in a multi-staff format. The instruments and parts are as follows:

- Element C (Accompaniment):** Indicated by a green oval, it includes the parts for Bangdi, Qudi, Alto Sheng, and Sanxian.
- Element B (Second Melody):** Indicated by a blue dashed box, it includes the parts for Soprano Sheng, Yangqin, Pipa, Zhongruan, and Daruan.
- Element A (Melody):** Indicated by a red box, it includes the parts for Gaohu, Erhu, and Zhonghu.

Other instruments shown in the score include Soprano Suona, Alto Suona, Tenor Suona, Bass Suona, Yunluo, Folk percussion, Timpani, Violoncello, and Double bass.

Bar163-167:

Element A (Melody): G.H., E.H., Z.H.

Element B (Second Melody): soprano S., Y.Q., P.P., ZhongRuan.,

Element C (Accompaniment): Alto S., Zhudi., Sanxian., DaRuan., Cell., Bass

The musical score for bars 180-185 includes the following parts and annotations:

- Element C (Green Ovals):**
  - Bangdi (Bar 180-185)
  - Qudi (Bar 180-185)
  - Soprano Sheng (Bar 180-185)
  - Alto Sheng (Bar 180-185)
  - Bass Suona (Bar 180-185)
  - Yangqin (Bar 180-185)
  - Pipa (Bar 180-185)
  - Zhongruan (Bar 180-185)
  - Sanxian (Bar 180-185)
  - Daruan (Bar 180-185)
  - Yunluo (Bar 180-185)
  - Timpani (Bar 180-185)
  - Gaohu (Bar 180-185)
  - Erhu (Bar 180-185)
  - Zhonghu (Bar 180-185)
  - Violoncello (Bar 180-185)
  - Double bass (Bar 180-185)
- Element A (Red Boxes):**
  - Soprano Suona (Bar 180-185)
  - Alto Suona (Bar 180-185)
  - Tenor Suona (Bar 180-185)
  - Yangqin (Bar 181-185)
  - Pipa (Bar 181-185)
  - Zhongruan (Bar 181-185)
  - Timpani (Bar 181-185)
  - Gaohu (Bar 181-185)
  - Erhu (Bar 181-185)

Bar180-185:

Element A (Melody): soprano S.N., Alto S.N., Tenor S.N., Y.Q., P.P. G.H., E.H.,  
 Element B (Accompaniment): Zhudi., soprano S., Alto S., Bass S.N., P.P., Sanxian.,  
 Ruan., G.H., E.H. Z.H., Cell., Bass.



32

Element A

Element B

Element C

Bar 213-220:

Bar213-220:

Element A (Melody): Zhudi., Y.Q., Y.L., G.H., E.H., Z.H.

Element B (Second Melody): Soprano S.N., Alto S.N., Bass S.N.,

Element C (Accompaniment): Soprano S., Alto S., P.P., Ruan., Sanxian., Cell., Bass.

The musical score for Bar 227-235 is divided into two main sections: Element A (Melody) and Element B (Accompaniment). Element A is highlighted with a red box and includes the vocal parts (Bangdi, Qudi, Soprano Sheng, Alto Sheng, Soprano Suona, Alto Suona, Tenor Suona, Bass Suona) and the Yunluo. Element B is highlighted with a green oval and includes the instrumental parts (Yangqin, Pipa, Zhongruan, Sanxian, Daruan, Folk percussion, Timpani, Gaohu, Erhu, Zhonghu, Violoncello, Double bass). The score is written in a key signature of one sharp (F#) and a 2/4 time signature. The tempo is marked 'ff' (fortissimo). The score is numbered 34 at the beginning of the first system.

Bar227-235:

Element A (Melody): Zhudi., Soprano S., Alto S., Soprano S.N., Alto S.N., Tenor S.N., Bass S.N. Y.L.

Element B (Accompaniment): Y.Q., P.P., Ruan., Sanxian., G.H., E.H., Z.H., Cell., Bass.

The “Chun Jie Xu Qu” is one of the most popular works, focusing on the lively scene of Chinese people celebrating the Spring Festival. In orchestration, the composer used wind, plucked, stringed, and percussion instruments. Each type of instrument is arranged in pitch from high to low. The composer often uses Zhudi and Soprano Sheng to play the melodic part. Sometimes, melodic parts are played with high-pitched instruments such as Yangqin and Pipa in plucked instruments and Gaohu and erhu in stringed instruments.

This piece of music is an orchestral piece composed of Yangko tones, rhythms and folk songs of northern Shanxi province. It has strong characteristics of Chinese folk music culture. In this work, the composer has skillfully developed the melody, harmony to strengthen its musical perfection. The use of Chinese percussion instruments can be regarded as the perfect combination of Chinese music culture and western string art. What makes it a strong Chinese national style is ingenious use of nationalized materials, national harmony and national percussion instruments, as well as a large number of western composing techniques and the use of orchestra. It is an excellent work of "using foreign as Chinese". The structure of the whole piece is a complex trilogy with recapitulation. It is composed of three parts and contains two introductory themes before it. The exposition part is interesting, and the middle part is seen as a "three-tone middle part" with strong independence and integrity in D major.

## 5.2 The Chinese Orchestra music “Hong Lou Meng Xu Qu”

Liping Wang is a prolific popular contemporary Chinese composer. “Hong Lou Meng” is a literary masterpiece written by Xueqin Cao, a novelist in the Qing Dynasty, who devoted his whole life to it. After the founding of New China, it was made into TV series and movies for many times. “Hong Lou Meng Zu Qu” is a musical work composed by Liping Wang for the 1987 version of the TV series Dream of “Hong Lou Meng”. It is also his favorite and most representative musical work. The music of the whole drama has a distinct theme, unique keynote, beautiful melody, sad and deep mood, and has the ancient and elegant national style, which is recognized by the masses as the most in line with the original “Hong Lou Meng” music. “Hong Lou Meng”, formerly known as “Shi Tou Ji” (The Story of Stone), is one of the four great classical novels of ancient China. The most prominent character

in the work is the word "love", which is described incisively and vividly by Xueqin Cao.

The Suite of "Hong Lou Meng" mainly includes 12 pieces such as Overture ("Hong Lou Meng Xu Qu"), "Wang Ning Mei", "Zang Hua Yin" and "Qing Wen Qu". "Hong Lou Meng Xu Qu" is a piece of music often performed by the Chinese Orchestra of Sichuan Conservatory of Music and is widely attracted by the public. "Overture"("Hong Lou Meng Xu Qu") is a simple piece of music, a single two-part form, is also a song without words. This piece reflects that everything cannot be separated from the word "love". The rhythm is 4/4, and the key is b minor and e minor.

### **Melody**

For the melodic analysis, the researcher analyzes the melodic line section only. "Hong Lou Meng Xu Qu" is a ternary form structure with an introduction section, sections A, B, and C. The following chart shows the formal structure of "Hong Lou Meng Xu Qu," which can be divided as follows:



Introduction (Measure 1-4)



A (Measure 5-19)

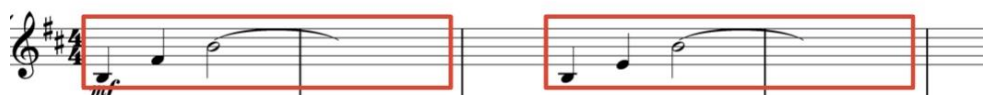


B (Measure 20-33)



C (Measure 34-52)

### Introduction



The introduction part is bar 1-4, there is a motif and motif repetition.

### Section A

Section A is found from 5 to 19 (a: 5 to 7, a': 8-10, b: 11-13, c: 14-15, d: 16-19). The composer used the techniques of antecedent in bar 5-7 and consequent in bar

8-10. The a' is the sequence five degrees down with a. The composer used rhythmic syncopation and triplets in b.

### Section B

Section B is heard from 20 to 33 (e:20 to22, e': 23-25, f: 26-29, f':30-33). The key is G. The e' used the ornamentation develop technique with e. The f' is a variational imitation with f.

### Section C

Section C is found from 34 to 52 (g:34-37, g': 38-41, f': 42-45, f':46-52). The key is G. The g' is a variational imitation with g. The f' is a repetition.

There are four sections in this music: the introduction, A, B, and C. The introduction part is bar 1-4, there is a motif and motif repetition. Section A is found from 5 to 19 (a: 5 to 7, a': 8-10, b: 11-13, c:14-15, d: 16-19). The composer used the techniques of antecedent in bar 5-7 and consequent in bar 8-10. The a' is the sequence five degrees down with a. Section B is found from 20 to 33 (e:20 to22, e': 23-25, f: 26-29, f':30-33). The key is G. The e' used the ornamentation develop technique with e. The f' is a variational imitation with f. Section C is from 34 to 52 (g:34-37, g': 38-41, f': 42-45, f':46-52). The key is G. The g' is a variational imitation with g. The

f' is a repetition. The composer used antecedent, consequence, transition, motif and repetition in "Chun Jie Xu Qu".

### **Harmony**

This study will only cover the structure of harmony and modulations in terms of harmonic analysis. The full score of the symphony orchestra has been reduced to piano staves. The top line shows the melody, while the other line shows the harmonic part. The chord progressions to be analyzed are indicated in Roman numerals as follows:

Harmony of the "Hong Lou Meng Xu Qu" Music

Hong Lou Meng Xu Qu

Liping Wang

Musical score for measures 1-6. Treble clef, 4/4 time, key of B major. Dynamics: *mf*, *mp*. Chords: Bm, Em.

Musical score for measures 7-12. Treble clef, 4/4 time, key of B major. Chords: Bm7, Bm7.

Musical score for measures 13-18. Treble clef, 4/4 time, key of B major. Chords: Em, Bm, F#m, B7(sus4), E7(sus4), Bm.

2

19

Em  
Em: i      Bm  
                 v      Em  
                                 i      Bm  
   v

25

Em      Am      Bm      G      Em      Am  
i      iv      v      III 4      i      iv

32

Bm      Em      C      Am  
v      i      VI      iv

36

Bm      Em      C      Am  
v      i      VI      iv

40

D V/III    G III    A V/VII    C VI    Bm v

45

*mp* \* \*  
Em i    A V/VII    C VI    Bm V

49

*p* arco    *pp*  
Em i    *pp*

According to the above example, discussed again by sections as follows.

Introduction:

-Bm Em

-i iv

The structure of chords of the introduction section is i iv.

Section A

-Bm7 Em Bm F#m7 B7(sus4) E7(sus4) Bm

-i7 iv i v(m.b) i iv i

The structure of chords of the section is i7 iv i v(m.b) i iv i.

Section B

-Em Bm Em Bm Em Am Bm G Em Am Bm Em

-i v i v i iv v III i iv v i

The structure of chords of the section is i v i v i iv v III i  
iv v i.

Section C

-C Am Bm Em C Am D G A C Bm Em A C Bm Em

-VI iv v i VI iv V/III III V/VII VI v i V/VII VI v i

The structure of chords of the section is VI iv v i VI iv V/III III  
V/VII VI v i V/VII VI v i.

In the harmonies of “Hong Lou Meng Xu Qu”, the composer adopts a fundamental use of i iv and i chords, as used III, VI and mode borrowing. The structure of chords of the introduction section is i and iv. The structure of chords of the section A is i7 iv i v(m.b) i iv i. The structure of chords of the section B is i v i v i iv v III i iv v i. The structure of chords of the section C is VI iv v i VI iv V/III III V/VII VI v i V/VII VI v i. This use of harmony makes the whole piece of music more abundant.

### **Orchestration**

For the orchestration analysis, the researcher analyzes the whole score. This study uses the western orchestration analyze. The analysis excludes the transition part. The following chart shows the orchestration of "Hong Lou Meng Xu Qu" which can be divided as follows:



稍慢

5

Element A

Element B

Score components and dynamics:

- Element A (Melody):** Soprano Sheng (measures 5-6, *mp*)
- Element B (Accompaniment):** Alto Sheng, Soprano Sheng, Daruan, Guzheng, Percussion, Erhu1, Erhu2, Zhonghu, Violoncello, Double bass (measures 5-6, *mf* and *p*)

Bar 1-6:

Element A (Melody): Soprano S.

Element B (Accompaniment): Alto S., DaRuan., G.H., Percussion., E.H1., E.H2.,

Z.H.

The image shows a musical score for Bar 7-12. The score is written for various instruments and vocal parts. The instruments listed on the left are: Zhudi, Soprano Sheng, Alto Sheng, Soprano Sheng, Suona, Liuqin, Pipa, Yangqin, Zhongruan, Daruan, Sanxian, Guzheng, Percussion, Gaohu, Erhu1, Erhu2, Zhonghu, Violoncello, and Double bass. The score is divided into two main sections: Element A (Melody) and Element B (Accompaniment). Element A is highlighted in red and is located in the Soprano S part. Element B is highlighted in green and encompasses parts for Alto S., DaRuan., G.H., Percussion., E.H1., E.H2., and Z.H. The score includes a rehearsal mark [10] at the beginning of the section. The key signature is one sharp (F#) and the time signature is 4/4.

Bar 7-12:

Element A (Melody): Soprano S.

Element B (Accompaniment): Alto S., DaRuan., G.H., Percussion., E.H1., E.H2.,

Z.H.

The image shows a musical score for Bar 13-19. The score is written for various instruments and vocal parts. The instruments listed on the left are: Zhudi, Soprano Sheng, Alto Sheng, Soprano Sheng, Suona, Liuqin, Pipa, Yangqin, Zhongruan, Daruan, Sanxian, Guzheng, Percussion, Gaoju, Erhu1, Erhu2, Zhonghu, Violoncello, and Double bass. The score is divided into two main sections: Element A (Melody) and Element B (Accompaniment). Element A is highlighted in red and includes the Soprano Sheng part. Element B is highlighted in green and includes the Alto Sheng, Daruan, Guzheng, Percussion, Erhu1, Erhu2, Zhonghu, Violoncello, and Double bass parts. The score is written in a key signature of one sharp (F#) and a common time signature (C). The tempo is marked as 'mf' (mezzo-forte). The score is divided into two systems, with the first system ending at bar 13 and the second system starting at bar 14. The score is written in a standard musical notation with a treble clef for most instruments and a bass clef for the lower parts. The score is written in a standard musical notation with a treble clef for most instruments and a bass clef for the lower parts. The score is written in a standard musical notation with a treble clef for most instruments and a bass clef for the lower parts.

Bar 13-19:

Element A (Melody): Soprano S.

Element B (Accompaniment): Alto S., DaRuan., G.H., Percussion., E.H1., E.H2.,

Z.H.

4

The musical score is divided into three main sections: Element A (Melody), Element B (Second Melody), and Element C (Accompaniment). Element A is highlighted in red and includes the parts for Zhudi, Soprano Sheng, Alto Sheng, Soprano Sheng, Liuguin, Pipa, Yangqin, Zhongruan, and Erhu1. Element B is highlighted in blue and includes the parts for Daruan and Zhongruan. Element C is highlighted in green and includes the parts for Soprano Sheng, Alto Sheng, Soprano Sheng, Saona, Guzheng, Percussion, Sanxian, Guzheng, Percussion, Erhu2, Zhonghu, Violoncello, and Double bass. The score is in 2/4 time and features various dynamics such as *mf*, *p*, and *pizz.*

Bar 20-25:

Element A (Melody): Zhudi., L.Q., PP., Y.Q., G.H., E.H 1.

Element B (Second Melody): Z.Ruan.

Element C (Accompaniment): Soprano S., Alto Sheng., Bass S., DaRuan., Sanxian.,  
G.Z., E.H 2., Z.H., Cell., Bass.

Element A

5

Element C

Element B

Bar 26-32:

Element A (Melody): Zhudi., G.H., E.H 1.

Element B (Second Melody): Bass S., ZhongRuan., Cell.

Element C (Accompaniment): Soprano S., Alto Sheng., L.Q., Y.Q., P.P., DaRuan.,  
G.Z., E.H 2., Z.H., Bass.

The image shows a musical score for Bar 37-41, featuring multiple instruments and vocal parts. The score is annotated with three elements:

- Element A:** A red box highlights the melody of the Zhudi (Zhu Di) instrument in the first staff.
- Element B:** A blue dashed box highlights the second melody of the DaRuan (Da Ruan) instrument in the 11th staff.
- Element C:** A green oval highlights the accompaniment parts for the Soprano Sheng, Alto Sheng, Bass Sheng, Sanxian, Guzheng, and Percussion instruments, spanning from the 2nd to the 10th staves.

The score includes parts for the following instruments and vocalists:

- Zhudi
- Soprano Sheng
- Alto Sheng
- Soprano Sheng
- Suona
- Liuqin
- Pipa
- Yangqin
- Zhongruan
- Daruan
- Sanxian
- Guzheng
- Percussion
- Gaohu
- Erlu1
- Erlu2
- Zhonghu
- Violoncello
- Double bass

Bar 37-41:

Element A (Melody): Zhudi., G.H., E.H 1., Cell.

Element B (Second Melody): DaRuan., Bass.

Element C (Accompaniment): Soprano S., Alto Sheng., Bass S., S.N., ZhongRuan.,

L.Q., Y.Q., P.P., G.Z., Sanxian., E.H 2., Z.H.

The musical score for bars 42-46 is presented in a multi-staff format. The instruments and vocal parts are listed on the left:

- Zhudi
- Soprano Sheng
- Alto Sheng
- Soprano Sheng
- Suona
- Liuqin
- Pipa
- Yangqin
- Zhongruan
- Daruan
- Sanxian
- Guzheng
- Percussion
- Gaohu
- Erhu1
- Erhu2
- Zhonghu
- Violoncello
- Double bass

The score is annotated with three elements:

- Element A (Melody):** Indicated by red boxes, it encompasses the parts of Gaohu, Erhu1, and Violoncello.
- Element B (Second Melody):** Indicated by blue dashed boxes, it encompasses the parts of Daruan and Guzheng.
- Element C (Accompaniment):** Indicated by green ovals, it encompasses the parts of Soprano Sheng, Alto Sheng, Soprano Sheng, Zhongruan, Sanxian, Percussion, Erhu2, and Double bass.

A rehearsal mark [45] is located at the top of the score.

Bar 42-46:

Element A (Melody): G.H., E.H 1., Cell.

Element B (Second Melody): DaRuan., G.Z.

Element C (Accompaniment): Soprano S., Alto Sheng., Bass S., ZhongRuan., Y.Q.,

P.P., Sanxian., E.H 2., Z.H., Bass.

In orchestration, the composer used wind, plucked, string, and percussion instruments. Each type of instrument is arranged in pitch from high to low. The composer often used Soprano Sheng and Zhudi to play the melodic part. Sometimes, melodic parts are played with high-pitched instruments such as Yangqin and Pipa in plucked instruments and Gaohu and Erhu in stringed instruments.

“Hong Lou Meng” is the most representative musical work of Liping Wang. The music of the whole drama has a distinct theme, unique keynote, beautiful melody, sad and deep mood, and has the ancient and elegant national style, which is recognized by the masses as the most in line with the original “Hong Lou Meng” music. “Hong Lou Meng”, formerly known as “Shi Tou Ji” (The Story of Stone), is one of the four great classical novels of ancient China. The most prominent character in the work is the word "love", which is described incisively and vividly by Xueqin Cao. The Suite of “Hong Lou Meng” mainly includes 12 pieces such as Overture (“Hong Lou Meng Xu Qu”), “Wang Ning Mei”, “Zang Hua Yin” and “Qing Wen Qu”. “Hong Lou Meng Xu Qu” is a piece of music often performed by the Chinese Orchestra of the Sichuan Conservatory of Music and is widely loved by the public. "Overture" (“Hong Lou Meng Xu Qu”) is a simple piece of music, a single two parts form, is also a song without words. This piece reflects that everything cannot be separated from the word "love".

### 5.3 The solo and Chinese Orchestra music “Bu Gu Niao Er Gu Gu Jiao”

Sichuan Qingyin, a rap music popular in different parts of Sichuan, emerged as a kind of popular literature to meet the public class's cultural needs at that time. It is a combination of singing and lyric singing. “Bu Gu Niao Er Gu Gu Jiao” was written by Boheng Huang in 1958. There are many versions of the song, solo versions, group versions, scene versions and even a rock version by a heavy metal band. Among the Sichuan Qingyin modern repertoire, this piece of music is the most famous, the most popular, the farthest spread, the deepest influence. It is one of the most classic modern songs of Sichuan Qingyin. It is also one of the most frequently played pieces of the Chinese Orchestra of Sichuan Conservatory of Music, which is more suitable for the orchestra performance, and is very representative.



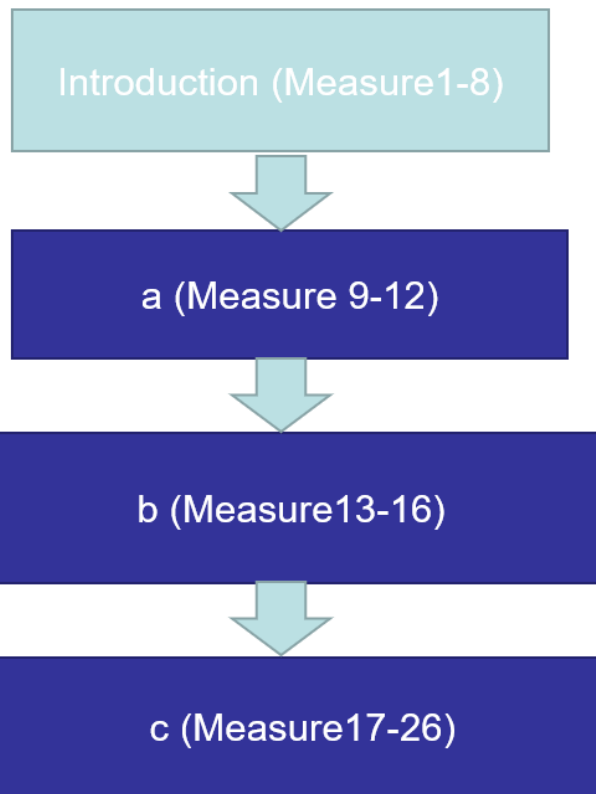
“Bu Gu Niao” scientific name cuckoo. The cuckoo bird is very close to the people of Sichuan, so the people of Sichuan especially respect the cuckoo bird, and there are many other names such as Shu Bird. Generations of Sichuan people, will never harm the cuckoo.

Since ancient times, the main dissemination of Sichuan Qingyin is artists and amateurs. Under the influence of feudal hierarchy, artists used the Yueqin as the main accompaniment instrument, supplemented by the Erhu, which was added or subdivided according to the existing conditions, and the arrangement was relatively arbitrary. Later, the Pipa was the main accompaniment instrument. Gradually formed the Pipa, Sanxian, Erhu and Dizi relatively fixed band system. With the development, the original pattern was gradually broken, and the pattern of small band accompanied by fixed Qingyin music was gradually formed. The delicate and graceful Qingyin music, accompanied by the Chinese Orchestra of Sichuan Conservatory of Music, is well received by the public.

The introduction of the “Bu Gu Niao Er Gu Gu Jiao” is 8 bar long and can be divided into two parts. The first part is bar 1-4. The second part is bar 5-8. The Melodic voice part is focus on Pipa, Yangqin, Gaohu and Erhu.

### **Melody**

For the melodic analysis, the researcher analyzes the melodic line section only. The single-form structure "Bu Gu Niao Er Gu Gu Jiao" is made up of an introduction section and three phrases. The following chart shows the formal structure of "Bu Gu Niao Er Gu Gu Jiao" which can be divided as follows:



The contents of analysis are included:

#### Introduction

The introduction part is from bar 1–8. Phrase 1 is from bar 1 to bar 4. Phrase 2 is from bar 5 to 8. As shown in the picture above, the opening section of the introduction uses a string of sixteenth notes to express a lively mood through the melody ascending and descending.

#### Section a

Section a run from bar 9 to 12. The composer used a repetition of sixteenth notes to express a lively mood through the melody going up and down. The melody finishes in G.

#### Section b



Section b is from bar 13-16. The composer used a row of sixteenth notes to express a lively mood through the melody going up and down. There is a half-beat stop at the start of this section, and the melody finishes in G.

#### Section c



Section C is from bar 17-26. The composer used a half-beat stop, rhythmic syncopation, and sixteenth notes to express a lively mood through the melody going up and down.

This music consists of the introduction section, section a, section b, and section c. The introduction part is from bar 1–8. Phrase 1 is from bar 1 to bar 4. Phrase 2 is from bar 5 to 8. As shown in the picture above, the opening section of the introduction uses a string of sixteenth notes to express a lively mood through the ascending and descending melodic line. Section a run from bar 9 to 12. The composer utilizes sixteenth notes and note repetition to express a lively mood through the melody going up and down. The melody finishes in G. Section b is from bar 13-16. The composer used a lot of sixteenth notes to express a lively mood through the melody going up and down. There is a half-beat stop at the start of this section, and the melody finishes in G. Section C is from bar 17-26. The composer used a half-beat stop, rhythmic syncopation, and sixteenth notes to express a lively mood through the melody going up and down. And the composer used antecedent, consequence, and used a lot of sixteenth notes and rhythmic syncopation to express a lively mood.

## Harmony

This study will only cover the structure of harmony and modulations in terms of harmonic analysis. The full score of the symphony orchestra has been reduced to piano staves. The top line shows the melody, while the other line shows the harmonic part. The chord progressions to be analyzed are indicated in Roman numerals as follows:

Harmony of the “Bu Gu Niao Er Gu Gu Jiao” Music

## Bu Gu Niao Er Gu Gu Jiao

Qingyun Xiong

G D Am G D Am D Em G Em  
I V ii I V ii V vi I vi

7

布谷鸟儿咕咕 叫啊 飞出山林往南 飘哇

D Em G Em D Em  
V vi I vi V vi

13

这边 绕 来 那 边 绕 鼓起 眼睛它在

C Am7 Bm G Am Bm  
IV ii<sup>7</sup> iii I ii iii

2

19

到处哇瞧哇

D C Bm Am7 G A  
V IV iii ii<sup>7</sup> I V/V

23

瞧哇

D Bm Am7 G D  
V iii ii<sup>7</sup> I V

According to the above example, discussed again by sections as follows.

#### Introduction (bar 1-8)

Following are the chord progression of Introduction section.

-G D Am G D Am D Em G Em D

- I V ii I V ii V vi I vi V

The structure of chords of this section is I V ii I V ii V vi I  
vi V.

#### Section a (bar 9-12)

Following are the chord progression of section a.

-Em G Em D Em

- vi I vi V vi

The structure of chords of this section is vi I vi V vi.

#### Section b (bar 13-16)

Following are the chord progression of Introduction section.

-C Am7 Bm G

-IV ii7 iii I

The structure of chords of this section is IV ii7 iii I.

Section c (bar 17-26)

Following are the chord progression of Introduction section.

-Am Bm D C Bm Am7 G A D Bm Am7 G D

-ii iii V IV iii ii7 I V/V V iii ii7 I V

The structure of chords of this section is ii iii V IV iii ii7 I V/V V iii ii7 I V.

In the harmonies of “Bu Gu Niao Er Gu Gu Jiao”, the composer not only used a lot of I, V and vi, but also used ii and iii. This use of harmony makes the whole piece of music more abundant.

### Orchestration

For the orchestration analysis, the researcher analyzes the whole score. This study uses the western orchestration analyze. The analysis excludes the transition part. The following chart shows the orchestration of "Bu Gu Niao Er Gu Gu Jiao" which can be divided as follows:

The musical score for Bar 1-7 is presented in a multi-staff format. The instruments and parts are as follows:

- Sheng:** Accompaniment, marked as Element C (green oval).
- Pipa:** Melody, marked as Element A (red box).
- Yangqin:** Melody, marked as Element A (red box).
- Zhongruan:** Accompaniment, marked as Element C (green oval).
- Guzheng:** Second Melody, marked as Element B (blue dashed box).
- Celesta:** Accompaniment, marked as Element C (green oval).
- Bangu:** Percussion, marked as Element C (green oval).
- Vocal:** No part is shown.
- Gaohu:** Melody, marked as Element A (red box).
- Erhu:** Melody, marked as Element A (red box).
- Zhonghu:** Melody, marked as Element C (green oval).
- Violoncello:** Accompaniment, marked as Element C (green oval).
- Double bass:** Accompaniment, marked as Element C (green oval).

Bar 1-7:

Element A (Melody): Y.Q., P.P., G.H., E.H.

Element B (Second Melody): G.Z.

Element C (Accompaniment): Sheng., ZhongRuan., Z.H., Cell., Bass.



The image displays a musical score for Bar 8-14, featuring multiple instruments and a vocal line. The score is divided into three main elements:

- Element A (Melody):** Highlighted in red boxes, it includes the vocal line and the Gaohu (Gaohe) part. The vocal line contains the lyrics: 布谷鸟儿咕咕叫啊 飞出山林往南飘哇 这边绕来.
- Element B (Second Melody):** Highlighted in blue dashed boxes, it includes the Sheng (Sheng) and Zhonghu (Zhonghu) parts.
- Element C (Accompaniment):** Highlighted in green ovals, it includes the Pipa, Yangqin, Zhongruan, Guzheng, Bangu, and Double bass parts.

The score is written in G major and 4/4 time. The instruments listed are Sheng, Pipa, Yangqin, Zhongruan, Guzheng, Celesta, Bangu, Vocal, Gaohu, Erhu, Zhonghu, Violoncello, and Double bass. The vocal line is in Chinese and includes the lyrics: 布谷鸟儿咕咕叫啊 飞出山林往南飘哇 这边绕来.

Bar 8-14:

Element A (Melody): Y.Q., Vocal. G.H.

Element B (Second Melody): Sheng., Z.H.

Element C (Accompaniment): P.P., ZhongRuan., G.Z. Celesta., Bangu., E.H., Cell.,

Bass.

3

The musical score consists of the following parts:

- Sheng:** Element C (green oval)
- Pipa:** Element B (blue dashed box)
- Yangqin:** Element A (red box)
- Zhongruan:** Element C (green oval), Element B (blue dashed box)
- Guzheng:** Element B (blue dashed box)
- Celesta:** Element C (green oval)
- Bangu:** Element C (green oval)
- Vocal:** Element A (red box), lyrics: 那 边 绕 鼓 起 眼 睛 它 在 到 处 哇
- Gaohu:** Element A (red box)
- Erhu:** Element C (green oval)
- Zhonghu:** Element C (green oval)
- Violoncello:** Element C (green oval)
- Double bass:** Element C (green oval)

Bar15-20:

Element A (Melody): Y.Q., Vocal. G.H.

Element B (Second Melody): P.P., G.Z.

Element C (Accompaniment): Sheng. ZhongRuan., Celesta., Bangu., E.H., Z.H. Cell., Bass.



The composer used Yangqin and Gaohu to play the melodic part with vocal. And used Sheng, Pipa, Zhongruan, Erhu, Zhonghu, Cello and Bass to play the accompaniment part. The introduction of the “Bu Gu Niao Er Gu Gu Jiao” is 8 bar long and can be divided into two parts. The first part is between bar 1-4. The second part is bar between 5-8. The melodic voice part is focus on Pipa, Yangqin, Gaohu and Erhu. With the development and progress of Chinese music, Sichuan Qingyin is one of the most representative and local folk music in Sichuan. Its lyrics are pronounced in Sichuan dialect and composed in accordance with the language tone of Sichuan dialect. It is the living fossil of the inheritance and development of Chinese Folk art culture and the historical essence of regional folk art performance. For the Chinese Orchestra of the Sichuan Conservatory of Music, the performance of Sichuan music not only carries forward the Sichuan music culture, but also makes the performance form of the orchestra more diversified and representative.

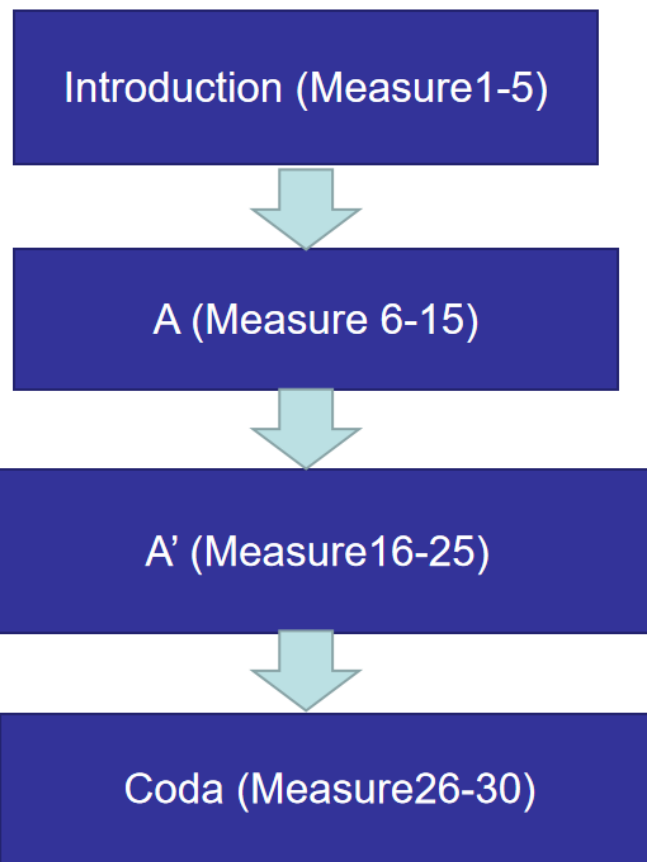
#### **5.4 The solo and Chinese Orchestra music “Tai Yang Chu Lai Xi Yang Yang”**

China is an ancient culture with a vast territory and numerous ethnic groups. With the change of history and the development of the Times, people of all ethnic groups created songs that could represent their own national characteristics, and folk songs came into being on this basis. Folk songs are collectively created by the people in their long-term labor and social life. Folk songs are closely related to people's life. They are a kind of singing art widely grasped by the people and widely spread in the form of oral singing. Folk songs are an important part of Sichuan music. The “Tai Yang Chu Lai Xi Yang Yang” is a representative work of Sichuan folk songs, which is sung with original tunes and describes the optimistic and open-minded spirit of the mountain people in the process of labor. “Tai Yang Chu Lai Xi Yang Yang” is a representative folk song in East Sichuan (now Shizhu County, Chongqing). The lyrics of the song reflect the people's love of labor and mountain life, showing a cheerful and optimistic mood. This song was composed by Lan He (formerly known as Li Dazhong) with lyrics written by Jin Gu. In 2015, Sichuan Conservatory of Music invited Professor Wengong Cao from China Conservatory of Music to adapt for the Chinese Orchestra of the Sichuan Conservatory of Music, forming the piece we analyzed now.

The folk song “Tai Yang Chu Lai Xi Yang Yang” adopts the structure of upper and lower sentences, and its mode is pentatonic quotient mode with a lively rhythm of 2/4 time. The melody is simple and high, smooth and friendly, melodious and stretch, bright and optimistic, with the loud and clear style of Sichuan folk songs. The end of lyrics is often extended to express emotion. The key of " Tai Yang Chu Lai Xi Yang Yang" is e minor and a minor. The Chinese pentatonic mode of " Tai Yang Chu Lai Xi Yang Yang" is E Shang (D Gong system) and A Shang (G Gong system).

### **Melody**

For the melodic analysis, the researcher analyzes the melodic line section only. The single-form structure " Tai Yang Chu Lai Xi Yang Yang" is made up of an introduction section, section A, section A' and the coda. The following chart shows the formal structure of " Tai Yang Chu Lai Xi Yang Yang " which can be divided as follows:



The contents of analysis are included:

### Introduction



The introduction part is from bar 1–5. As shown in the picture above, the opening section of the introduction used sixteenth notes to express a lively mood through the melody going up and down.

### Section A



The section A is from bar 6-15. As shown in the picture above, section A include two subsections: a and b. Phrase a is from bar 6-9, and phrase b is from bar

10-15. The composer used the techniques of antecedent (Phrase a) and consequent (phrase b).

Coda



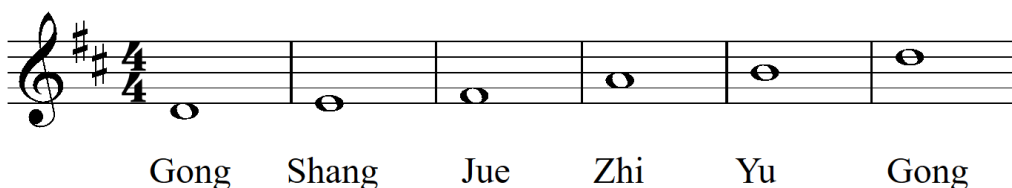
The coda is from bar 26 to 30. As shown in the picture above, this is a repetition part. The composer used the ritardando in bar 26. And the composer used the tempo in bar 27-30.

This music consists of the introduction section, section A, section A', and the coda. The introduction part is from bar 1–5. As shown in the picture above, the opening section of the introduction used sixteenth notes to express a lively mood through the melody going up and down. The section A is from 6-15. As shown in the picture above, section A include two subsections: a and b. Phrase a is from bar 6-9, and phrase b is from bar 10-15. The composer used the techniques of antecedent (Phrase a) and consequent (phrase b). The coda is from bar 26 to 30. As shown in the picture above, this is a repetition part. The composer used the ritardando in bar 26. And the composer used the tempo in bar 27-30. The composer used antecedent, consequence, and used a lot of sixteenth notes express a lively mood.

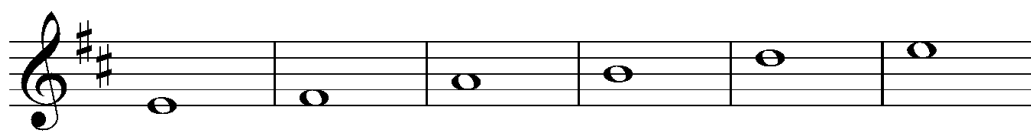
## Harmony

This study will only cover the structure of harmony and modulations in terms of harmonic analysis. The Chinese pentatonic mode of " Tai Yang Chu Lai Xi Yang Yang" is E Shang under the D Gong system and A Shang under the G Gong system. The chord progressions to be analyzed are indicated in Roman numerals as follows:

D Gong Scale with Chinese pentatonic mode

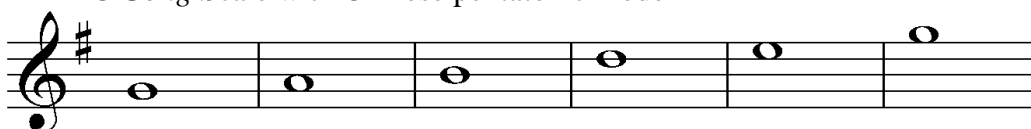


E Shang Scale with Chinese pentatonic mode



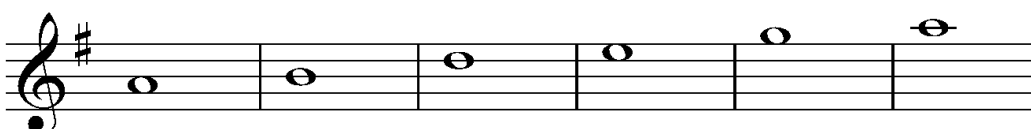
Shang Jue Zhi Yu Gong Shang

*G Gong Scale with Chinese pentatonic mode*



Gong Shang Jue Zhi Yu Gong

*A Shang Scale with Chinese pentatonic mode*



Shang Jue Zhi Yu Gong Shang



295406671



## Tai Yang Chu Lai Xi Yang Yang

Gu Jin

Con brio

1. 太阳出来  
2. 手里拿把  
3. 悬崖陡吹

Bm<sup>7</sup>/D    Em<sup>7</sup>    Bm    D(add<sup>9</sup>)    Bm    Em<sup>7</sup>    Em<sup>7</sup>

Em: V    i    v    vii°    v    i    i

7

(哟 哎) 洋 洋 (欢 啷 哟) 挑 起 扁 担 (啷 啷 扯) (匡 扯)  
(哟 哎) 开 山 斧 (欢 啷 哟) 不 怕 虎 豹 (啷 啷 扯) (匡 扯)  
(哟 哎) 不 稀 罕 (欢 啷 哟) 唱 起 歌 儿 (啷 啷 扯) (匡 扯)

Bm(sus<sup>4</sup>)    Em<sup>7</sup>    Bm    A(add<sup>9</sup>)    Bm    Em    A    Bm

V    i    V    iv    V    i    iv    V

13

上山岗 (欧 哟 哟)。  
和豺狼 (欧 哟 哟)。  
忙砍柴 (欧 哟 哟)。

D.C.

Em    Bm    Em    Am<sup>7</sup>

i    V    i    Am: i

2

18

24

V i V V vi V iv V i

不 愁 穿 (欧 哟

Bm(sus4)  
Em: V

27

哟!

Em(add9)  
i

According to the above example, discussed again by sections as follows.

#### Introduction (bar 1-5)

Following are the chord progression of Introduction section.

- Bm7/D Em7 Bm D/add9 Bm Em7

- V i v vii v i

The structure of chords of this section is V i v vii v i.

#### Section A (bar 6-15)

Following are the chord progression of section A.

- Em7 Bmsus4 Em7 Bm A/add9 Bm E A Bm Em Bm

Em

- i V i V iv V i iv V i V i

The structure of chords of this section is i V i V iv V i iv V i V i.

Section A' (bar 16-25)

Following are the chord progression of section A'.

- Am7 Emsus4 Am Em Em7sus4 F#m Em G/add9 Em

Am

-Am: i V i V V vi V vi V i

The structure of chords of this section is i V i V V vi V vi V i.

The coda (bar 26-30)

Following are the chord progression of coda section.

-Bmsus4 Em/add9

-Em: V i

The structure of chords of this section is V i.

In the harmonies of "Tai Yang Chu Lai Xi Yang Yang", the composer used the Chinese pentatonic mode: E Shang under the D Gong system and A Shang under the G Gong system. And the composer used a lot of i, iv, V and vi. This use of harmony makes the whole piece of music more Chinese style.

### Orchestration

For the orchestration analysis, the researcher analyzes the whole score. This study uses a method of music analysis to investigate the entire piece. The following chart shows the orchestration of "Tai Yang Chu Lai Xi Yang Yang" which can be divided as follows:

曹文工 配

活泼的小快板

Element A

5

Element B

Element A

Element B

Element A

Element B

活泼的小快板

1. 太阳出来  
2. 手悬崖上  
3. 悬崖陡  
4. 走了一  
5. 只要我

Element A

Element B

Bar1-5:

Element A (Melody): Zhudi., L.Q., P.P., G.H., E.H., Z.H.

Element B (Accompaniment): Sheng., Bass S., Y.Q., Ruan., G.Z. Cell., Bass.

Element A

Element B

Element B

Element A

10

3

Zhudi

Sheng

Bass Sheng

Liuqin

Pipa

Yangqin

Zhongruan

Daruan

Guzheng

Percussion

vocal

Gaohu

Erhu

Zhonghu

Cello

Bass

(呀 哎) 喜 洋 洋 (欢 哪 哟) 挑 起 扁 担 (哪 哪 扯) (匡 扯)  
 (呀 哎) 开 山 斧 (欢 哪 哟) 不 怕 虎 豹 (哪 哪 扯) (匡 扯)  
 (呀 哎) 不 稀 罕 山 快 (欢 哪 哟) 唱 起 歌 儿 来 (哪 哪 扯) (匡 扯)  
 (呀 哎) 又 多 勤 快 (欢 哪 哟) 这 不 愁 吃 来 (哪 哪 扯) (匡 扯)

Bar7-12:

Element A (Melody): Vocal.

Element B (Accompaniment): Sheng., L.Q., P.P., Bass S., Y.Q., Ruan., G.Z. Cell.,  
 Bass.

The musical score is for Bar 13-15, marked with a repeat sign and a 'D.C.' (Da Capo) instruction. The score includes the following parts:

- Zhudi:** Circled in green as Element C.
- Sheng:** Circled in green as Element C.
- Bass Sheng:** Circled in green as Element C.
- Element B:** A blue dashed box encompasses the Liuqin, Pipa, and Yangqin parts.
- Liuqin:** Part of Element B.
- Pipa:** Part of Element B.
- Yangqin:** Part of Element B.
- Zhongruan:** Circled in green as Element C.
- Daruan:** Circled in green as Element C.
- Guzheng:** Circled in green as Element C.
- Percussion:** Includes a section for 铃鼓 (Linggu).
- vocal:** Circled in red as Element A.
- Gaohu:** Circled in red as Element A.
- Erhu:** Circled in green as Element C.
- Zhonghu:** Circled in green as Element C.
- Cell o:** Circled in green as Element C.
- Bass:** Circled in green as Element C.

The lyrics for the vocal part are:

上	山	岗	(欧	呀	呀)。
和	豺	狼	(欧	呀	呀)。
忙	砍	柴	(欧	呀	呀)。
那	山	来	(欧	呀	呀)。

Bar13-15:

Element A (Melody): Vocal.

Element B (Second Melody): L.Q., P.P., Y.Q.

Element C (Accompaniment): Sheng. Bass.S., Ruan., G.Z., Cell., Bass., Vocal.

Element A

Element B

Element C

Element A

Element C

Bar19-24:

Element A (Melody): Zhudi., G.H., E.H., Z.H.

Element B (Second Melody): L.Q., P.P.,

Element C (Accompaniment): Sheng. Y.Q., Bass.S., Ruan., G.Z., Cell., Bass.

The musical score for bars 26-30 includes the following parts and annotations:

- Zhudi:** Annotated with "Element B" (blue dashed box) and "rit." (ritardando).
- Sheng:** Annotated with "Element C" (green oval).
- Bass Sheng:** Annotated with "Element C" (green oval).
- Liuqin:** Annotated with "Element B" (blue dashed box).
- Pipa:** Annotated with "Element B" (blue dashed box).
- Yangqin:** Annotated with "Element C" (green oval).
- Zhongruan:** Annotated with "Element C" (green oval).
- Daruan:** Annotated with "Element C" (green oval).
- Guzheng:** Annotated with "Element B" (blue dashed box).
- Percussion:** Includes a section for "小鑼" (Xiao Luo).
- vocal:** Annotated with "Element A" (red box) and "rit." (ritardando).
- Gaohu:** Annotated with "Element A" (red box), "rit." (ritardando), and "A tempo".
- Erhu:** Annotated with "Element B" (blue dashed box).
- Zhonghu:** Annotated with "Element B" (blue dashed box).
- Cello:** Annotated with "Element C" (green oval).
- Bass:** Annotated with "Element C" (green oval).

Bar 26-30:

Element A (Melody): Vocal.

Element B (Second Melody): Zhudi., L.Q., P.P., G.Z., G.H., E.H., Z.H.

Element C (Accompaniment): Sheng. Bass.S., Ruan., Y.Q., Cell., Bass.



In orchestration, the composer used wind, plucked, string, and percussion instruments. Each type of instrument is arranged in pitch from high to low. Except the vocal part to play the melodic part, the composer used Zhudi, Yangqin, Gaohu and Erhu to play the melodic part. The folk song “Tai Yang Chu Lai Xi Yang Yang” adopts the structure of upper and lower sentences, and its mode is pentatonic quotient mode with a lively rhythm of 2/4 time. The melody is simple and high, smooth and friendly, melodious and stretch, bright and optimistic, with the loud and clear style of Sichuan folk songs. The end of lyrics is often extended to express emotion. The first sentence of the song has four bars, with a higher pitch. And with the high-pitched "D" as the main part and a three-tone melody of "C D E". Although the melody line does not fluctuate, the song shows light and bright feeling. The end of the preceding sentence ends above the dominant sound "A", forming a semi-termination. The next sentence of the song has six bars, mainly in the middle "A", the melody uses the perfect fourth from the middle "A" to the high "D", which makes the melody more high, bold and lively. At the end of the song, the mezzo "A" and the high note "D" are used in four degrees, which has a strong local style.

### Conclusion

“Chun Jie Xu Qu” is an orchestral piece, composed of Yangko tones, rhythms and folk songs of northern Shanxi province. It has strong characteristics of Chinese folk music culture. In this work, the composer has skillfully handled the development of melody, harmonic techniques, changes in strength and the use of Chinese percussion instruments, which can be regarded as the perfect combination of Chinese music culture and western string art.

“Hong Lou Meng” is the most representative musical work of Liping Wang. In orchestration, the composer used wind, plucked, string and percussion instruments. Each type of instrument is arranged in pitch from high to low. The composer often used Soprano Sheng and Zhudi to play the melodic part. Sometimes, melodic parts are played with high-pitched instruments such as Yangqin and Pipa in plucked instruments and Gaohu and Erhu in stringed instruments.

“Bu Gu Niao Er Gu Gu Jiao” consists of the introduction section, section a, section b, and section c. In the harmonies of “Bu Gu Niao Er Gu Gu Jiao”, the

composer not only used a lot of I, V and vi, but also used ii and iii. The composer used Yangqin and Gaohu to play the melodic part with vocal. And used Sheng, Pipa, Zhongruan, Erhu, Zhonghu, Cello and Bass to plays the accompaniment part. With the development and progress of Chinese music, Sichuan Qingyin is one of the most representative and local folk music in Sichuan. Its lyrics are pronounced in Sichuan dialect and composed in accordance with the language tone of Sichuan dialect.

The folk song “Tai Yang Chu Lai Xi Yang Yang” adopts the structure of upper and lower sentences, and its mode is pentatonic quotient mode with a lively rhythm of 2/4 time. The melody is simple and high, smooth and friendly, melodious and stretch, bright and optimistic, with the loud and clear style of Sichuan folk songs. The end of lyrics is often extended to express emotion. In orchestration, the composer used wind, plucked, percussion and string instruments. Each type of instrument is arranged in pitch from high to low. Except the vocal part to play the melodic part, the composer used Zhudi, Yangqin, Gaohu and Erhu to play the melodic part.

At present, there are more than 100 pieces of music recorded in Sichuan Conservatory of Music, among which, approximately 40 pieces are most popular in Chinese Orchestra of Sichuan Conservatory of Music. The researcher selected four of those pieces (the Chinese Orchestra music “Chun Jie Xu Qu”, the Chinese Orchestra music “Hong Lou Meng Xu Qu”, the solo and Chinese Orchestra music “Bu Gu Niao Er Gu Gu Jiao”, the solo and Chinese Orchestra music “Tai Yang Chu Lai Xi Yang Yang”) and analyzed them through the methods of melody analysis, harmonic analysis and orchestration analysis. And the analysis of these four music in this research based on Walter Pitson (1990 quoted in Narongruch Woramitmaitee, 2001) mentions that orchestration is a study about how to use the musical instruments that have balance of sonority, unity and variety of tone color as well as the brightness and clarity of music. In orchestration, the composer used wind, plucked, string, and percussion instruments. Each instrument is arranged in pitch from high to low. The composer often used Soprano instruments (Soprano Sheng, Zhudi, Yangqin, Pipa, Liuqin and Gaohu) to play the melodic part. The alto, tenor and bass instruments are used to support melodic parts (see Table 5.1). From analyzing the Chinese Orchestra of Sichuan Conservatory of Musical works of two types by using the modern composition technology theory, the summary of the musical characteristics of these

four typical music works, and explores the national characteristics, and humanistic connotation of the Chinese Orchestra of Sichuan Conservatory of Music works can be written.

Table 5. 1 The soprano, alto, tenor and bass instruments

<b>Instruments</b>	<b>Soprano</b>	<b>Alto and Tenor</b>	<b>Bass</b>
String	Gaohu, Erhu	Erhu, Zhonghu	Cello, Double Bass
Plucking	Yangqin, Liuqin, Pipa, Soprano Ruan	Pipa, Zhongruan, Sanxian, Guzheng, Konghou	Daruan
Wind	Zhudi, Soprano Sheng, Soprano Suona	Alto Sheng, Tenor sheng, Alto Suona, Tenor Suona	Bass Sheng, Bass Suona

Source: Researcher

## CHAPTER VI

### CONCLUSION, DISCUSSION AND SUGGESTION

This study has the following two research objectives:

1) To study the development of Chinese Orchestra of the Sichuan Conservatory of Music.

2) To analyze the musical characteristics of the Chinese Orchestra of the Sichuan Conservatory of Music.

Using the method of collecting field data and document data the results of the study can be summarized as follows:

#### **6.1 Conclusion**

6.1.1 The development of Chinese Orchestra of the Sichuan Conservatory of Music, China.

Due to the requirements of the Sichuan Conservatory of Music, the number of the orchestra is medium-sized: in 2022 the orchestra has basically formed around 25 members. This was a compelling factor for the selection of Chinese orchestra music works in the past which was limited to this group. Sichuan Conservatory of Music invited Professor Wengong Cao from China Conservatory of Music to adapt the “Hong Lou Meng” and Sichuan folk song series. The music specially designed for the orchestra and received a lot of praises.

The players of the Chinese Orchestra of the Sichuan Conservatory of Music are the main body of the orchestra and are very important to the orchestra. More than 90 percent of the Chinese Orchestra of the Sichuan Conservatory of Music members have master's degrees. All of them have received professional bachelor's degree training in music. Most of them are graduated from music colleges in China. All the members of the Chinese Orchestra of the Sichuan Conservatory of Music come from professional music colleges.

Chinese Orchestra in all periods of history has been changed by the development of the instrument size, players, and musical characteristics of Chinese traditional instruments. The size gradually decreased from large to small, while the

players became more professional. The development of the music goes further towards being more Sichuan style. Satisfying, the development of the instruments in Chinese Orchestra of the Sichuan Conservatory of Music is closely related to the social environment and the background of the times. At that time, facing the dissemination of global culture, the Chinese musicians inspired a conceptual change in China. The Chinese Orchestra of the Sichuan Conservatory of Music. Despite many differences from the general professional Chinese Orchestra or the student orchestra, the Chinese Orchestra of the Sichuan Conservatory of Music – working on and improving the Sichuan style and the use of reformed instruments – has played a very important role in Chinese traditional music. It not only enjoys a high reputation in Sichuan province, but also has certain research significance for Chinese Orchestra.

6.1.2 The musical characteristic of the Chinese Orchestra of the Sichuan Conservatory of Music, China.

“Chun Jie Xu Qu” is an orchestral piece composed of Yangko tones, rhythms and folk songs of northern Shanxi province. It has strong characteristics of Chinese folk music culture. In this work, the composer has skillfully handled the development of melody, harmonic techniques, changes in strength and the use of Chinese percussion instruments, which can be regarded as the perfect combination of Chinese music culture and western string art.

“Hong Lou Meng” is the most representative musical work of Liping Wang. In orchestration, the composer used wind, plucked, percussion and string instruments. Each type of instrument is arranged in pitch from high to low. The composer often used Soprano Sheng and Zhudi to play the melodic part. Sometimes, melodic parts are played with high-pitched instruments such as Yangqin and Pipa in plucked instruments and Gaohu and Erhu in stringed instruments.

“Bu Gu Niao Er Gu Gu Jiao” consists of the introduction section, section a, section b, and section c. In the harmonies of “Bu Gu Niao Er Gu Gu Jiao”, the composer not only used a lot of I, V and vi, but also used ii and iii. The composer used Yangqin and Gaohu to play the melodic part with a vocal rendition. And used Sheng, Pipa, Zhongruan, Erhu, Zhonghu, Cello and Bass to plays the accompaniment part. With the development and progress of Chinese music, Sichuan Qingyin is one of the most representatives of local folk music in Sichuan. Its lyrics are pronounced in

Sichuan dialect and composed in accordance with the language tone of Sichuan dialect.

The folk song “Tai Yang Chu Lai Xi Yang Yang” adopts the structure of upper and lower sentences, and its mode is pentatonic quotient mode with a lively rhythm of 2/4 time. The melody is simple and high, smooth and friendly, melodious and stretch, bright and optimistic, with the loud and clear style of Sichuan folk songs. The end of lyrics is often extended to express emotion. In orchestration, the composer used wind, plucked string, and percussion instruments. Each type of instrument is arranged in pitch from high to low. Except the vocal part to play the melodic part, the composer used Zhudi, Yangqin, Gaohu and Erhu to play the melodic part.

To analyze the Chinese Orchestra works of two types by using the modern composition technology theory of China and the west, summarize the musical characteristics of these music works, and explore the national characteristics and humanistic connotation of the Chinese Orchestra works of the Sichuan Conservatory of Music. The musical characteristics such as melody, harmony, and orchestration were analyzed. The melody mostly uses the theme of Chinese style. The chord progression of I, IV, and V are frequently used in the harmony. In the orchestration aspect, improved instruments and Chinese national percussion music are used to render the musical atmosphere. There are reasons that the researcher chose the four music works of the Chinese Orchestra of Sichuan Conservatory of Music for this research. Firstly, the four works earned the recommendation and recognition of many experts and scholars. Secondly, the four works of the Chinese Orchestra of the Sichuan Conservatory are both typical and different. Finally, these musical works are well-known in Sichuan province. The translated music score can be found in the appendix. Through the study of musical characteristics, we can understand the musical characteristics of the Chinese Orchestra of Sichuan Conservatory of Music.

## 6.2 Discussion

6.2.1 According to the study results of the development of Chinese Orchestra of the Sichuan Conservatory of Music, China.

With the continuous development of Chinese Orchestra, the number of music works performed by Chinese Orchestra of the Sichuan Conservatory of Music has

increased. The researcher leans toward the following theory: "referred to Since 2010, it has been a period of flourishing and diversification and common development and integration for Chinese Orchestra. China's national orchestra is still developing. Every region, and even some universities and primary and middle schools have formed their own folk bands. The Chinese Orchestra will surely give more excellent performances and make greater contributions to the thriving of Chinese folk music." (Weixuan Chen, 2012). In the development of orchestras, the academic circles believe that with the improvement of China's economic level, the cultural industry has attracted greater attention from all walks of life, and its vigorous development is obvious. The number of stage performances of Chinese Orchestra, the number of orchestras and the number of professionals in the art management industry are increasing every year. The optimization of Chinese Orchestra and the improvement of music quality play a vital role in the development of China's cultural industry and performance industry. This result is the same as the academic circles. In the context of the globalization process, the exchanges between countries in the world are very close, not only on the economic and trade level, but also on the cultural level. The optimization of Chinese Orchestra and the improvement of music quality play a crucial role in the development of China's cultural. After investigation and research by researchers, the development of the national orchestra of the Sichuan Conservatory of Music has not changed in recent years, which is still consistent with the previous research.

6.2.2 Regarding the results obtained by recording scores and analyzing the musical characteristics of the Chinese Orchestra of the Sichuan Conservatory of Music, China.

The researcher analyzed four pieces of music using Western musical analysis methods while other researchers used Chinese musical analysis methods, and seldom used western musical analysis methods to analyze the works of Chinese Orchestra. The researcher adopted Walter Pitson's method to investigate the pieces. The emphasis is placed on orchestration including orchestral unison, melody and accompaniment, secondary melody, and part writing. Using Walter Pitson's method of music analysis makes the music analysis clearer and opens up to a new way of using the method of analysis, strictly applied to investigate a Chinese orchestra's musical elements.



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The researcher leans toward the following theory: "when talking about the establishment of the Chinese Orchestra, some people will think of the question whether the manifestation of the national orchestra is unified by unique characteristics, instrument constructions, sound emission, compositional aspects." (Zhanbao Wang, 2022). The researcher holds the same opinion with the Zhanbao Wang. From the perspective of historical development, many places and various types of music are gradually improving and perfecting the configuration of bands according to their own abilities. However, the researcher believes that no matter band organization is small, medium or large, but each group, each voice part has to be equivalent in terms of instrumentation. This is a crucial issue to be taken into consideration.

### 6.3 Suggestion

#### 6.3.1 Suggestions for the further study

Firstly, the integration of Chinese Orchestra of Sichuan Conservatory of Music with local economic construction has given rise to a full play for its musical and economic value. To promote the transformation and upgrading of the cultural tourism industry in Chengdu with the Chinese national music as the engine, and to effectively improve the sense of gain, happiness, and security of the Sichuan style music. Further investigation by relevant experts is necessary.

Secondly, music can help promote musical perspectives from the past, examine the present, and plan for the future. In the collection of music of Chinese Orchestra of Sichuan Conservatory of Music, there are still myriad treasures to be dealt with. It is hoped that scholars in more industries will pay more attention to such fields as the Chinese traditional music.

#### 6.3.2 Suggestions for the future

In a series of studies on Chinese Orchestra of Sichuan Conservatory of Music, the researcher points out that from the characteristics of the orchestra music, it can be empirically seen that the Chinese Orchestra of Sichuan Conservatory of Music is an organic part of the Chinese national music. In the future, the Chinese Orchestra of Sichuan Conservatory of Music will collaborate with Chinese people of all Chinese Orchestras, continuing to dig the cultural connotation of Chinese Orchestra, refining



Chinese Orchestra wisdom. We must approach development with an open, cooperative mindedness. To make the Chinese dream come true, we must focus on heightening the sense of identity of the Chinese nation, and take the cause of ethnic unity and progress into our fundamental responsibilities.

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# APPENDIX I

## 春节序曲

Musical score for "Spring Festival Overture" (春节序曲). The score is written in 2/4 time and G major. It features a variety of instruments and vocal parts, including:

- Vocal Parts:** Soprano Sheng, Alto Sheng, Soprano Suona, Alto Suona, Tenor Suona, Bass Suona.
- Instrumental Parts:** Bangdi, Qudi, Yangqin, Pipa, Zhongruan, Sanxian, Daruan, Yunluo, Folk percussion (Luo, Shuicha, Xiaogu), Timpani, Gaohu, Erhu, Zhonghu, Violoncello, Double bass.

The score includes dynamic markings such as *ff* (fortissimo) and *p* (piano). It also features first and second endings, indicated by brackets and numbers 1 and 2. The piece concludes with a final cadence.

2

10 15

Bangdi *f* *sf* *f*

Qudi *f* *sf* *mp* *f*

Soprano Sheng *f* *sf* *mp* *f*

Alto Sheng *f* *sf* *mp* *f*

Soprano Suona *f* *sf* *f*

Alto Suona *f* *sf* *f*

Tenor Suona *f* *sf* *f*

Bass Suona *f* *sf* *f*

Yangqin *f* *sf* *mp* *f*

Pipa *f* *sf* *mp* *f*

Zhongruan *f* *sf* *mp* *f*

Sanxian *f* *sf* *mp* *f*

Daruan *f* *sf* *f*

Yunluo *f* *f*

Folk percussion *f* *f*

Timpani *f* *f*

Gaohu *f* *sf* *f*

Erhu *f* *sf* *f*

Zhonghu *f* *sf* *f*

Violoncello *f* *sf* *pizz. mp* *arco f*

Double bass *f* *sf* *f*

This musical score is for a large ensemble, likely a symphony or concert band, with a focus on traditional Chinese instruments. The score is written in G major and 4/4 time. It features 18 parts:

- Vocal Soloists:** Soprano Sheng, Alto Sheng, Soprano Suona, Alto Suona, Tenor Suona, Bass Suona.
- Chinese Instruments:** Bangdi, Qudi, Yangqin, Pipa, Zhongruan, Sanxian, Daruan, Yunluo.
- Western Instruments:** Folk percussion, Timpani, Gaochu, Erhu, Zhonghu, Violoncello, Double bass.

The score includes dynamic markings such as *mp* (mezzo-piano), *f* (forte), and *pizz.* (pizzicato). There are also performance instructions like *arco* (arco) for the cello. The score is divided into measures, with some measures containing repeat signs and first/second endings. The page number 212 is located at the top right.





40 45 5

Bangdi  
 Qudi  
 Soprano Sheng  
 Alto Sheng  
 Soprano Suona  
 Alto Suona  
 Tenor Suona  
 Bass Suona  
 Yangqin  
 Pipa  
 Zhongruan  
 Sanxian  
 Daruan  
 Yunluo  
 Folk percussion  
 Timpani  
 Gaohu  
 Erhu  
 Zhonghu  
 Violoncello  
 Double bass

6

50

Bangdi *mp* *mp*<sup>3</sup>

Qudi *mp* *mp*

Soprano Sheng *mp* *mp*

Alto Sheng *mp* *mp*

Soprano Suona

Alto Suona

Tenor Suona

Bass Suona *mp*

Yangqin *mp* *mf*

Pipa *mp* *mf*

Zhongruan *mp* *mf*

Sanxian

Daruan *mp* *mf*

Yunluo

Folk percussion

Timpani

Gaohu *mf*<sup>3</sup> *mf*<sup>3</sup>

Erhu *mf*<sup>3</sup> *mf*<sup>3</sup>

Zhonghu

Violoncello *mp*

Double bass *mp* *mf*



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8

Bangdi *mf* 65 *mp* 70

Qudi *mf* *mp* *mp*

Soprano Sheng *mf* *mp* *mp*

Alto Sheng *mf* *mp*

Soprano Suona

Alto Suona

Tenor Suona

Bass Suona *mf* *mp*

Yangqin *mf* *p*

Pipa *p*

Zhongruan *p*

Sanxian

Daruan

Yunluo

Folk percussion

Timpani

Gaohu

Erhu

Zhonghu

Violoncello *pizz.*

Double bass *pizz.*

Bangdi  
 Qudi  
 Soprano Sheng  
 Alto Sheng  
 Soprano Suona  
 Alto Suona  
 Tenor Suona  
 Bass Suona  
 Yangqin  
 Pipa  
 Zhongruan  
 Sanxian  
 Daruan  
 Yunluo  
 Folk percussion  
 Timpani  
 Gaohu  
 Erhu  
 Zhonghu  
 Violoncello  
 Double bass

Musical score for a symphony orchestra and vocal soloists. The score includes parts for Bangdi, Qudi, Soprano Sheng, Alto Sheng, Soprano Suona, Alto Suona, Tenor Suona, Bass Suona, Yangqin, Pipa, Zhongruan, Sanxian, Daruan, Yunluo, Folk percussion, Timpani, Gaohu, Erhu, Zhonghu, Violoncello, and Double bass. The score is in 2/4 time with a key signature of one sharp (F#). It features dynamic markings such as *mf* and *f*, and includes a rehearsal mark [75] above the first staff.

10

The musical score is arranged in a system of staves. The vocal parts include Bangdi, Qudi, Soprano Sheng, and Alto Sheng. The instrumental parts include Soprano Suona, Alto Suona, Tenor Suona, Bass Suona, Yangqin, Pipa, Zhongruan, Sanxian, Daruan, Yunluo, Folk percussion, Timpani, Gaohu, Erhu, Zhonghu, Violoncello, and Double bass. The score features various musical notations such as treble and bass clefs, key signatures, time signatures, and dynamic markings like *f* and *pizz.* The score is divided into measures, with some measures containing repeat signs and first/second endings. The page number '10' is located at the top left of the score area.

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This musical score is for a large ensemble, likely a traditional Chinese orchestra with vocalists. The score is written in a key signature of one sharp (F#) and a common time signature. It consists of the following parts:

- Vocalists:** Bangdi (Soprano), Qudi (Soprano), Soprano Sheng (Soprano), Alto Sheng (Alto), Soprano Suona (Soprano), Alto Suona (Alto), Tenor Suona (Tenor), Bass Suona (Bass).
- Instrumentalists:** Yangqin (Piano), Pipa (Pipa), Zhongruan (Zhongruan), Sanxian (Sanxian), Daruan (Daruan), Yunluo (Yunluo), Folk percussion (Folk percussion), Timpani (Timpani), Gaohe (Gaohe), Erhu (Erhu), Zhonghu (Zhonghu), Violoncello (Violoncello), Double bass (Double bass).

The score includes measures 90 and 95, marked with box numbers. The notation includes various musical symbols such as notes, rests, and dynamic markings.

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This musical score is for a large ensemble. It features the following parts:

- Vocal Soloists:** Bangdi, Qudi, Soprano Sheng, Alto Sheng, Soprano Suona, Alto Suona, Tenor Suona, Bass Suona.
- Orchestra:** Yangqin, Pipa, Zhongruan, Sanxian, Daruan, Yunluo, Folk percussion, Timpani, Gaohu, Erhu, Zhonghu, Violoncello, Double bass.

The score is written in a key signature of one sharp (F#) and a common time signature (C). It includes dynamic markings such as *mf* (mezzo-forte) and *ff* (fortissimo), and performance instructions like *div.* (divisi). Measure numbers 105 and 110 are indicated above the vocal lines.


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The musical score is arranged in a multi-staff format. The instruments and voices are listed on the left side of the page:

- Bangdi
- Qudi
- Soprano Sheng
- Alto Sheng
- Soprano Suona
- Alto Suona
- Tenor Suona
- Bass Suona
- Yangqin
- Pipa
- Zhongruan
- Sanxian
- Daruan
- Yunluo
- Folk percussion
- Timpani
- Gaohu
- Erhu
- Zhonghu
- Violoncello
- Double bass

The score includes a first ending bracket labeled '1.29' above the Bangdi staff. The music is written in a key signature of two sharps (D major or F# minor) and a 4/4 time signature. The notation includes various rhythmic values, slurs, and dynamic markings.

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17

rit. L35

Bangdi

Qudi

Soprano Sheng

Alto Sheng

Soprano Suona

Alto Suona

Tenor Suona

Bass Suona

Yangqin

Pipa

Zhongruan

Sanxian

Daruan

Yunluo

Folk percussion

Timpani

rit.

Gaohu

Erhu

Zhonghu

Violoncello

Double bass

pizz.

18

140

Bangdi  
 Qudi  
 Soprano Sheng *mf*  
 Alto Sheng *mp*  
 Soprano Suona  
 Alto Suona  
 Tenor Suona  
 Bass Suona  
 Yangqin *mp*  
 Pipa *mp*  
 Zhongruan *mp*  
 Sanxian  
 Daruan *mp*  
 Yunluo *mf*  
 Folk percussion  
 Timpani  
 Gaohu  
 Erhu *mp*  
 Zhonghu *mp*  
 Violoncello *mp*  
 Double bass

115

The musical score is arranged in a system of staves. The instruments and their parts are as follows:

- Vocalists:** Bangdi (rest), Qudi (melodic line starting at measure 115, *mp*), Soprano Sheng (melodic line), Alto Sheng (melodic line).
- Woodwinds:** Soprano Suona (rest), Alto Suona (rest), Tenor Suona (rest), Bass Suona (melodic line starting at measure 115, *mf*).
- Strings:** Yangqin (melodic line), Pipa (melodic line), Zhongruan (melodic line), Sanxian (rest), Daruan (melodic line), Yunluo (melodic line).
- Percussion:** Folk percussion (rest), Timpani (rest).
- Other Instruments:** Gaohu (melodic line starting at measure 115, *mp*), Erhu (melodic line starting at measure 115, *mp*), Zhonghu (melodic line starting at measure 115, *mf*), Violoncello (melodic line starting at measure 115, *mf*), Double bass (melodic line starting at measure 115, *pizz*).


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20

150

Bangdi

Qudi

Soprano Sheng

Alto Sheng

Soprano Suona

Alto Suona

Tenor Suona

Bass Suona

Yangqin

Pipa

Zhongruan

Sanxian

Daruan

Yunluo

Folk percussion

Timpani

Gaohu

Erhu

Zhonghu

Violoncello

Double bass



22

160

Bangdi

Qudi

Soprano Sheng

Alto Sheng

Soprano Suona

Alto Suona

Tenor Suona

Bass Suona

Yangqin

Pipa

Zhongruan

Sansxian

Daruan

Yunluo

Folk percussion

Timpani

Gaohu

Erhu

Zhonghu

Violoncello

Double bass

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165

The musical score is arranged in a system with the following parts from top to bottom:

- Bangdi**: Treble clef, playing a rhythmic pattern of eighth notes.
- Qudi**: Treble clef, playing a rhythmic pattern of eighth notes.
- Soprano Sheng**: Treble clef, melodic line with some rests.
- Alto Sheng**: Bass clef, playing a rhythmic pattern of eighth notes.
- Soprano Suona**: Treble clef, mostly rests.
- Alto Suona**: Treble clef, mostly rests.
- Tenor Suona**: Treble clef, mostly rests.
- Bass Suona**: Bass clef, mostly rests.
- Yangqin**: Treble and Bass clefs, playing a melodic line.
- Pipa**: Treble clef, playing a melodic line.
- Zhongruan**: Bass clef, playing a melodic line.
- Sanxian**: Bass clef, playing a rhythmic pattern of eighth notes.
- Daruan**: Bass clef, playing a rhythmic pattern of eighth notes.
- Yunluo**: Treble clef, mostly rests.
- Folk percussion**: Two staves with vertical bar lines indicating rhythmic hits.
- Timpani**: Bass clef, mostly rests.
- Gaohu**: Treble clef, melodic line.
- Erhu**: Treble clef, melodic line.
- Zhonghu**: Bass clef, melodic line.
- Violoncello**: Bass clef, playing a rhythmic pattern of eighth notes.
- Double bass**: Bass clef, playing a rhythmic pattern of eighth notes.

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24

170

Bangdi

Qudi

Soprano Sheng

Alto Sheng

Soprano Suona

Alto Suona

Tenor Suona

Bass Suona

Yangqin

Pipa

Zhongruan

Sanxian

Daruan

Yunluo

Folk percussion

Timpani

Gaohe

Erhu

Zhonghu

Violoncello

Double bass

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This musical score is for a large ensemble. It features the following parts:

- Vocal Soloists:** Bangdi, Qudi, Soprano Sheng, and Alto Sheng.
- Orchestra:** Soprano Suona, Alto Suona, Tenor Suona, Bass Suona, Yangqin, Pipa, Zhongruan, Sanxian, Daruan, Yunluo, Folk percussion, and Timpani.
- Western Instruments:** Gaohu, Erhu, Zhonghu, Violoncello, and Double bass.

The score is written in a key signature of one sharp (F#) and a common time signature (C). It includes dynamic markings such as *f* (forte) and a rehearsal mark **175** in a box. The page number 25 is located in the top right corner of the score area.

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26

Bangdi  
 Qudi  
 Soprano Sheng  
 Alto Sheng  
 Soprano Suona  
 Alto Suona  
 Tenor Suona  
 Bass Suona  
 Yangqin  
 Pipa  
 Zhongruan  
 Sanxian  
 Daruan  
 Yunluo  
 Folk percussion  
 Timpani  
 Gaohu  
 Erhu  
 Zhonghu  
 Violoncello  
 Double bass

The musical score is written for a large ensemble. It includes vocal parts for Soprano and Alto Sheng, and instrumental parts for various traditional Chinese instruments (Bangdi, Qudi, Suona, Yangqin, Pipa, Zhongruan, Sanxian, Daruan, Yunluo) and Western instruments (Timpani, Gaohu, Erhu, Zhonghu, Violoncello, Double bass). The score is in 2/4 time and features complex rhythmic patterns and melodic lines. The key signature is one sharp (F#).

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180 185

Bangdi

Qudi

Soprano Sheng

Alto Sheng

Soprano Suona

Alto Suona

Tenor Suona

Bass Suona

Yangqin

Pipa

Zhongruan

Sanxian

Daruan

Yunluo

Folk percussion

Timpani

Gaohu

Erhu

Zhonghu

Violoncello

Double bass

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28

187

Bangdi

Qudi

Soprano Sheng

Alto Sheng

Soprano Suona

Alto Suona

Tenor Suona

Bass Suona

Yangqin

Pipa

Zhongruan

Sanxian

Daruan

Yunluo

Folk percussion

Timpani

Gaohu

Erhu

Zhonghu

Violoncello

Double bass



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29

195

Bangdi

Qudi

Soprano Sheng

Alto Sheng

Soprano Suona

Alto Suona

Tenor Suona

Bass Suona

Yangqin

Pipa

Zhongruan

Sanxian

Daruan

Yunluo

Folk percussion

Timpani

Gaohu

Erhu

Zhonghu

Violoncello

Double bass

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30

Bangdi

Qudi

Soprano Sheng

Alto Sheng

Soprano Suona

Alto Suona

Tenor Suona

Bass Suona

Yangqin

Pipa

Zhongruan

Sanxian

Daruan

Yunluo

Folk percussion

Timpani

Gaohe

Erhu

Zhonghu

Violoncello

Double bass

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This musical score is for a large ensemble, likely a traditional Chinese orchestra. It features the following parts:

- Vocalists:** Bangdi, Qudi, Soprano Sheng, Alto Sheng, Soprano Suona, Alto Suona, Tenor Suona, Bass Suona.
- Instrumentalists:** Yangqin, Pipa, Zhongruan, Sanxian, Daruan, Yúnlúo, Folk percussion, Timpani, Gaohu, Erhu, Zhonghu, Violoncello, Double bass.

The score is written in a key signature of one sharp (F#) and a 2/4 time signature. It includes dynamic markings such as *mp* (mezzo-piano) and *f* (forte). A rehearsal mark '210' is present at the top of the first system. The score spans 31 measures, with the page number '31' at the top right.

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32

215

229

Bangdi

Qudi

Soprano Sheng

Alto Sheng

Soprano Suona

Alto Suona

Tenor Suona

Bass Suona

Yangqin

Pipa

Zhongruan

Sanxian

Daruan

Yunluo

Xiaocha

Daluo

Folk percussion

Timpani

Gaohu

Erhu

Zhonghu

Violoncello

Double bass

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33

225

Bangdi

Qudi

Soprano Sheng

Alto Sheng

Soprano Suona

Alto Suona

Tenor Suona

Bass Suona

Yangqin

Pipa

Zhongruan

Sanxian

Daruan

Yunluo

Folk percussion

Timpani

Gaohu

Erhu

Zhonghu

Violoncello

Double bass



# APPENDIX II

## 一、序曲

稍慢 5

Instrument list:  
Zhudi  
Soprano Sheng  
Alto Sheng  
Bass Sheng  
Suona  
Liuqin  
Pipa  
Yangqin  
Zhongruan  
Daruan  
Sanxian  
Guzheng  
Lvbanqin  
Gangpianqin  
Timpani  
Folk percussion  
Gaohu  
Erhu 1  
Erhu 2  
Zhonghu  
Cello  
Double Bass



4

10

Zhudi

Soprano Sheng

Alto Sheng

Bass Sheng

Suona

Liuqin

Pipa

Yangqin

Zhongruan

Daruan

Sanxian

Guzheng

Lybanqin

Gangpianqin

Timpani

Folk percussion

Gaohu

Erhu 1

Erhu 2

Zhonghu

Cello

Double Bass

15

Zhudi

Soprano Sheng

Alto Sheng

Bsaa Sheng

Suona

Liuqin

Pipa

Yangqin

Zhongruan

Daruan

Sanxian

Guzheng

Lvbanqin

Gangpianqin

Timpani

Folk percussion

Gaohu

Erhu 1

Erhu 2

Zhonghu

Cello

Double Bass


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4

20 25

Zhudi *mf*

Soprano Sheng *mf*

Alto Sheng *mf*

Bass Sheng

Suona

Liuqin *p* *mf*

Pipa *p* *mf*

Yangqin *p* *mf*

Zhongruan *p*

Daruan *p*

Sanxian

Guzheng *mf*

Lvbanqin *mf*

Gangpianqin *mf*

Timpani

Folk percussion

Gaohu

Erhu 1

Erhu 2

Zhonghu

Cello *pizz.*

Double Bass *mf*



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The musical score is arranged in a standard orchestral format. It features a vocal ensemble consisting of Soprano, Alto, and Bass soloists, along with a vocal group (Suona). The instrumental section includes a variety of traditional Chinese instruments such as the Zhudi (suona), Liuqin (pipa), Yangqin (yangqin), Zhongruan (zhongruan), Daruan (dalu), Sanxian (sanxian), Guzheng (guzheng), Lvbanqin (lvbanqin), Gangpianqin (gangpianqin), and Timpani. Western instruments like the Double Bass, Cello, and Folk percussion are also present. The score is written in a key signature of one sharp (F#) and a common time signature (C). The page number 248 is located at the top right, and the rehearsal mark 30 is enclosed in a box at the top center.

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35

Zhudi

Soprano Sheng

Alto Sheng

Bsaa Sheng

Suona

Liuqin

Pipa

Yangqin

Zhongruan

Daruan

Sanxian

Guzheng

Lybanqin

Gangpianqin

Timpani

Folk percussion

Gaohu

Erhu 1

Erhu 2

Zhonghu

Cello

Double Bass

*p* *f* *mf* *arco* *pizz*

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This musical score is for a large ensemble. It features the following parts from top to bottom:

- Vocalists:** Soprano Sheng, Alto Sheng, and Bass Sheng.
- Traditional Chinese Instruments:** Zhudi (flute), Suona (double reed), Liuqin (pipa), Pipa, Yangqin (yangqin), Zhongruan (zhongruan), Daruan (daruan), Sanxian (sanxian), Guzheng (guzheng), Lvbanqin (lvbanqin), Gangpianqin (gangpianqin), and Timpani.
- Western Instruments:** Folk percussion, GaoHu (gaoHu), Erhu 1, Erhu 2, Zhonghu (zhonghu), Cello, and Double Bass.

The score is written in a key signature of one sharp (F#) and a common time signature (C). It includes dynamic markings such as *f* (forte) and *mf* (mezzo-forte). A rehearsal mark '40' is present above the Zhudi staff. The score spans five measures.

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8 45

Zhudi  
 Soprano Sheng  
 Alto Sheng  
 Bass Sheng  
 Suona  
 Liuqin  
 Pipa  
 Yangqin  
 Zhongruan  
 Daruan  
 Sanxian  
 Guzheng  
 Lvbanqin  
 Gangpianqin  
 Timpani  
 Folk percussion  
 Gaohu  
 Erhu 1  
 Erhu 2  
 Zhonghu  
 Cello  
 Double Bass

第二次 rit.

1. 2. 50

The musical score is arranged in systems. The vocal parts (Zhudi, Soprano Sheng, Alto Sheng, Bass Sheng, and Suona) are at the top. Below them are the traditional Chinese instruments: Liuqin, Pipa, Yangqin, Zhongruan, Daruan, and Sanxian. The Western instruments include Guzhen, Lvbanqin, Gangpianqin, Timpani, Folk percussion, Gaochu, Erhu 1, Erhu 2, Zhonghu, Cello, and Double Bass. The score features a 'ritardando' (rit.) marking and a repeat sign with first and second endings. Dynamics such as *pp*, *p*, *mf*, and *f* are used throughout.

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# APPENDIX III

## 布谷鸟儿咕咕叫

曹文工 配

The musical score is arranged in a vertical format with the following instruments from top to bottom: Sheng, Pipa, Yangqin, Zhongruan, Guzheng (with a bass line), Celesta, Bangu, Vocal, Gaohe, Erhu, Zhonghu, Violoncello, and Double bass. The score is in 2/4 time with a key signature of one sharp (F#). The vocal line is mostly silent, indicated by a series of dashes. The instrumental parts feature a variety of rhythmic patterns, including eighth and sixteenth notes, and rests.

2

8

Sheng

Pipa

Yangqin

Zhongruan

Guzheng

Celesta

Bangu

Vocal

Gaohu

Erhu

Zhonghu

Violoncello

Double bass

solo

solo

布谷鸟儿咕咕 叫啊 飞出山林往南 飘哇 这边 绕 来



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15

Sheng

Pipa

Yangqin

Zhongruan

Guzheng

Celesta

Bangu

Vocal

那 边 绕 鼓 起 眼 睛 它 在 到 处 哇

Gaohu

Erhu

Zhonghu

Violoncello

Double bass



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# APPENDIX IV

## 太阳出来喜洋洋

曹文工 配

活泼的小快板

The musical score is arranged in a system of staves. The instruments listed on the left are: flute, Sheng, Bass Sheng, Liuqin, Pipa, Yangqin, Zhongruan, Daruan, Guzheng, Muyu, Xiaocha, Xiaogu, Shengyue, Gaohe, Erhu, Zhonghu, Cello, and Bass. The score includes a tempo marking '活泼的小快板' and a key signature of one sharp (F#). The piece concludes with a double bar line and repeat signs.

1. 太 阳 出 来
2. 手 里 拿 着
3. 喜 走 了 要
4. 只 吹 一 我
5. 只 吹 一 我

2

flute

Sheng

Bass Sheng

Liuqin

Pipa

Yangqin

Zhongruan

Daruan

Guzheng

Muyu

Xiaocha

Xiaogu

Shengyue

Gaohu

Erhu

Zhonghu

Cello

Bass

(啰 哎) 喜 洋 洋 (欢 哪 哟) 挑 起 扁 担 (哪 哪 扯) (匡 扯)  
 (啰 哎) 开 山 斧 (欢 哪 哟) 不 怕 起 虎 豹 (哪 哪 扯) (匡 扯)  
 (啰 哎) 不 稀 罕 (欢 哪 哟) 唱 起 歌 儿 (哪 哪 扯) (匡 扯)  
 (啰 哎) 又 多 勤 快 (欢 哪 哟) 这 不 愁 去 吃 来 (哪 哪 扯) (匡 扯)

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13

flute

Sheng.

Bass Sheng

Liuqin

Pipa

Yangqin

Zhongruan

Daruan

Guzheng

Muyu

Xiaocha

Xiaogu

Shengyue

Gaohu

Eruhu

Zhonghu

Cello

Bass

D.C.

3

(铃鼓)

上 山 岗 (欧 罗 罗)。  
和 豺 狼 (欧 罗 罗)。  
忙 砍 柴 (欧 罗 罗)。  
那 山 来 (欧 罗 罗)。

4

19

flute

Sheng

Bass Sheng

Liuqin

Pipa

Yangqin

Zhongruan

Daruan

Guzheng

Muyu

Xiaocha

Xiaogu

Shengyue

Gaohu

Erhu

Zhonghu

Cello

Bass

*tr*

*V*



25  $\Phi$  rit. A tempo 5

flute

Sheng

Bass Sheng

Liuqin

Pipa

Yangqin

Zhongruan

Daruan

Guzheng

Muyu

Xiaocha

Xiaogu

Shengyue

Gaohu

Erhu

Zhonghu

Cello

Bass

(小锣)

不愁穿(欧 哟 哟)!

## BIOGRAPHY

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