Keywords: Chinese special poem, palindrome poem, Mirror Canon, music structure

Abstract: Palindrome poetry is one of the rhetorical devices used in Chinese and is called the "Mirror Canon" in the West, a close relationship with music. The structure and creative techniques of the Palindrome Poetry can be seen in music. It is reflected in the musical structures from single form to the rondo form. As one of the Chinese Special Poems, Palindrome poem is a unique genre with change the order of words regularly in Chinese classical poetry, produced in the early 1700s during the Jin Dynasty (266 A.D. – 420 A.D.). With the continuous development of the standard in literature and art, the emergence of special poetry become more and more frequent. The structural form of the palindrome poem includes different types. The way of reading or backward reading of the Palindromes has different order of words or units of sound and able to produce different meanings. My musical thinking has been inspired by the structure of palindrome. The inspiration for Palindrome poetry is not only reflected in the structure but also in the concept of work.

1 INTRODUCTION

Poetry and music have always been closely linked. Chinese poetry has its own unique display style and creative genre. It inherits and innovates traditional Chinese music and also is an important expression of traditional Chinese culture in the field of art. Bai Juyi, a famous poet and musician of the Tang Dynasty, advocated the poetry:

韵协则言顺,言顺则声易入;类举则情见,情见则感易交！When rhythm is coordination, then the language can become smooth, when the language is smooth, and then the sound will be easily to attract people; When classification is clear, and then the emotions are also expressed clearly, when emotions can be expressed, and then it is easy to move people.

It means that the rhythm coordination can make speech smoothly, and the smooth speech can make music easily to move others; The classification is clear can make the emotion clearly to be able to express, the emotion expressed can make others move easily. This reflects the laws of phonological art in traditional Chinese poetry, and through poetry, this literary genre can integrate word and music.

2 AN OVERVIEW OF THE ORIGIN AND CHARACTERISTICS OF SPECIAL STYLE OF A VERSE

Palindrome Poetry as one of the Chinese special style of a verse is the product of the development of literature and music, and based on our daily life. Palindrome style poetry is also called Love poetry and return poems. It is a unique rhetorical method in Chinese that uses word order to reciprocate. It is stylistically called Palindrome style. Many palindrome poems are characterized by expressions of emotion — tactful, repetitive, single-minded and complex.

2.1 The Origin of Palindrome Poetry

Many poets have written the palindrome style of poetry in history, such as Song Dynasty, Wanganshi's "Lv Wu": "Green turnips in the wide field, yellow chrysanthemum in the evening village appear particularly deep. The guest is tired, leaving the guest here to drink together. The body will feel tired after leisure time, and a long sigh of sadness in the heart.

Baijuyi’s prose “Yu Yuan Jiu Shu”
碧芜平野旷，黄菊晚村深。客倦留甘饮，身闲累苦吟。 This is a five-character palindrome poem. Reading backwards becomes: "Talking alone about " 碧芜平野旷，黄菊晚村深。客倦留甘饮，身闲累苦吟。 Another example is Su Shi's "Ti Zhi Jin Tu Hui Wen": "In the spring night, there are several green grass, sycamore trees in the cold night and the low moon. People will follow the geese away, the night is near the edge of the city, and rain falls through the sparse curtains in the air of the attic.春晚落花余碧草，夜凉低月半梧桐。人随雁远边城暮，雨映疏帘绣阁空。" From the end to the head, it can become a new poem again." As it rained, there were several curtains embroidered in the empty pavilions, and in the distance of the city at night there were geese flying with people to the sycamore, with their heads lowered in the cold moonlight. The grass was green and the flowers fell in the late spring; 野平疏映雨，暮城边远雁随人。梧桐半月低凉夜，草碧余花落春晚". In addition, Huang Tingjian, Qin Guan, Gao Qi, Tang Xianzu, Naran Xingde, Zhu Xi, etc. they all have works of palindrome poetry. So which is the earliest palindrome poem? Who wrote the first palindrome poem?

One argument is that it began in the Southern Song Dynasty Hedaqing. The Liang Dynasty Liu Ze, "Wen Xin Diao Long·Ming Dynasty Poetry": "The place where the palindrome rises is the place where it began. Each sentence has a rhythm. It is the Bai liangxu system.回文手兴，道原为始，联句共韵，删柏梁徐制". The Dao Yuan mentioned in the poem is the first author of the palindrome poem, but there is no detailed record of the history of Dao Yuan, nor is there any relevant literature pointing out which one is the palindrome poem he wrote. Meigeng's note in the Qing Dynasty: "A four-character palindrome written by He Daoqing in the Song Dynasty has a total of twelve sentences and forty-eight words. From the first to the last, there will be a rhythm. However, Dao Yuan did not have it. Therefore, the word 'Yuan' should be 'Qing', the wrong word. 宋贺道庆作四言回文诗一首，计十二句，四十八言，从首至尾，读亦成韵。而道原无考，恐原为庆，字之误。" It means that because of mistakes, the " Dao yuan " mentioned in the poem should be " Daoqing. "

Another way of saying is the style verses written by the wife of Su Boyu in the Han Dynasty. Su Boyu once went to Si Chuan province to work. As soon as he arrived in Sichuan. He was attracted by the beautiful and strange scenery of the mountains and rivers. He spent a lot of time chatting with his friends through the mountains and rivers, and he was very busy with his work. He gradually forgot his wife who stayed at his home in Chang'an. His wife in order to express miss his husband and skillfully used poetry and Chinese characters to make a poetry in the plate to express her feelings. This kind of poem is written on a plate and is read from the center, so it is called "the poem in the dish盘中诗." The original picture of this poem has not been verified, but it should be round like a plate from the shape, but from the verse "Read from the center to the surroundings当从中央四角", it may also be square. It is a circle that is arranged clockwise from the inside out. No matter what kind of statement, we cannot ignore that Su Boyu's wife is a very intelligent person. This poem is written like this:

The trees in the mountains are tall and the birds are singing sadly. The spring water is deep, and the carp in it grow very large. The Sparrow in the granary often suffers from hunger. A small official's wife, rarely saw her husband, she went out of the door looking at her husband, far from seeing a white clothes, thinking that his husband, went in to see it is not. Turn back home, close the door, her heart is very sad. To the North room, and then to the West room, her heart is not unstable, she can only long sigh, who can she tell? her husband went away, how her miss him, time passed, but his return date has not been. Tie up the hair with a silk scarf, a long deep miss, do not know you have not forgotten me, I do not know. If I forget you, it likes a crime. You should have told me when you were coming back. Golden is gold, White is jade, tall is the mountain, planted in the field is rice, your surname is Su, the word is jade, you are very talented, smart and strategic, the family in Chang'an, Now the body is in Shichuan, why not ride back quickly. A few thousand pounds of lamb, drink a few hundred bottles of wine? Make your horse eat more food and grass. At this time, I am not smart now, I write letters to you. You can not read them. You should read from the middle to the outside four corners.
There is also a saying in history that the first palindrome poem named "璇玑图" is by a poetess who named Suhui in the former Qin Dynasty (350 A.D.-394 A.D.). Yan Yu’s book "Notes on Poets and Poetry-Poetry Style is the Second" mentioned in the Song Dynasty (960 A.D.-1279 A.D.): "The palindrome poem was written by Doutao’s wife and embroidered on handkerchief and sent to her husband. 回文起于窦滔之妻，织锦以寄其夫也." It means that the palindrome poem was written by Doutao’s wife and embroidered on handkerchief and sent to Doutao. The original poem has 840 words. Later generations added a "心" word to the original center. This poem has 841 words. It can be inferred from the meaning that it can be divided into three-character poetry, four-character poetry, five-character poetry, six-character poetry, and seven-character poetry. A total of 7,985 poems.

In summary, we can infer that Suboyu’s wife’s "盘中诗" is an earlier palindrome poem. Since the Western Jin Dynasty, the creation of many poets has promoted the development and innovation of palindrome poetry. There have been serial palindrome styles, disassemble words styles, overlapping palindrome styles, borrowed palindrome styles, and poetry double palindrome styles.

2.2 Characteristics of Palindrome Poetry

In the writing techniques, palindrome poems make full use of the rhetoric and grammar skills of Chinese characters, it can arrange the words according to certain rules, and the poems can be read back and forth. The form of this poem has changed a lot and is very interesting. According to the records of Wujiang’s "乐府古题要解" in the Tang Dynasty, "The palindrome poetry, can be repeated reading, it can become songs and words.回文诗，回复读之，皆歌而成文也." It means that the words in the verses can be read cyclically. On this basis, new, meaningful, rhythmic, and readable poems can be formed.

The form of palindrome was very popular after the Jin Dynasty and was adopted in various styles. People use this method to make sentences, write poems, write lyrics, and compose music. They are called palindrome poems, palindrome words, and palindrome songs. It shows the skill can use this grammar to make new sentences flexibly.

Luopong’s "学诗百法" records: "The Palindrome poetry are read in order from beginning to end. They can be poems in order from the end to the end. The structure is interlaced and exquisite. You can't treat it as an ordinary novel.回文诗反复成章，钩心斗角，不得以小道而轻之." It means that palindrome poetry can be repeatedly read as a coherent and meaningful poem, but often palindrome poetry is not only a positive reading and reverse reading, each word must be carefully considered, as long as the wrong word in the text, it may affect the meaning of the entire article or poem. Therefore, there are not many poems written palindrome poetry by the literati in the past. Due to the long history, there are few that have been preserved until now. The collection of palindrome poetry that we can see in modern times is composed of four volumes of "回文类聚" compiled by Sangshichang in the first year Qiandao of Song Xiaoazong (AD 1,165). In the early Qing Dynasty, Zhucunxiao supplemented a volume and received a total of Palindrome poetry about 150 poems.

3 THE RELATIONSHIP BETWEEN POETRY AND MUSIC

This connection between poetry and music is mainly manifested in people's life and witchcraft religious activities. Rhythm is a common basic element between poetry and music. Poetry and music are closely related.

3.1 Music and Daily Life

Lu Xun said, "Poetry originated from labor." Therefore, a kind of Chinese folk song called Chanty has a great relationship with poetry. In order to relieve fatigue in collective labor, in the process of coordinating the movement, people can make sounds unconsciously, then there’s rhythm and rhyme. The rhyming word has evolved into poetry, and rhythmic music is the prototype of Chanty in Chinese folk songs. This is the connection between rhythm and rhyme in poetry and music. The "Crossbow songs" in Zhaoye's "Wu Yue Chun Qi" in the Western Han Dynasty (202 B.C.-0 C.E.) described the process of ancestors from making tools to hunting. This poem is considered to be the earliest two-character poem in China. This poem records and reflects the real life of people in that era. The king of Yue, named Gou Jian, he asked archery expert Chenyin how to make a
slingshot. When Chenyin replied, he quoted this "Crossbow Songs" Cut bamboo 断竹, make a slingshot 续竹, shoot the mud-made projectiles 飞土, catch the wounded prey 追穴.

The feature of this two-character poem is its structure, and the two words are one syllable. This can be understood as a rhythm factor in music. Later, in the history of Chinese poetry, there appeared five-character poem and seven-character poem, and at the same time produced a corresponding rhythm.

3.2 Music and Witchcraft

The relationship between poetry and music is also reflected in the religious activities of witchcraft. In ancient times, because of the low level of productivity, witchcraft and religious activities were frequent. Wizards played a major role in these activities and were the hosts of sacrificial activities. Many wizards have a good knowledge of music and know some natural and medical knowledge. This provides more possibilities for the combination of poetry and music. The ancient ritual song "Zha Ci" in the Book Li Ji· Jiao Te Sheng reads: The soil should return to its original place, maintain the integrity of the land 土反其宅, the river should flow into its rivers, do not flood水归其壑, insects should not breeding into disasters 昆虫毋作, vegetation should grow in swamps, do not grow in farmland 草木归其泽.

It means that the sandstorm should not do evil, should return to its place. Don't flood the river and return to its ravines. Insects should not breed disaster. Wild weeds and trees go back to the marsh and do not grow in the fields. This is a message that is obviously sorcery. You can imagine witches chanting these "spells" singing and dancing to pray that the people are not affected by natural disasters.

3.3 The Correspondence of Chinese Poetry Structure in Music Structure

Regarding the connection between the structure of poetry and the music, "Peng zhimin has made wonderful 'life explanations with Chinese characteristics' on the main types of music, and has a 'single' or 'inseparable' nature of 'Complete song form';As Li Bai said,"The water of the Yellow River comes from the heaven黄河之水天上来, running into the great ocean, and never returns 奔腾到海不复回". The beginning of Han Yu's "Ting Ying Shi Tan Qin" begins with "Like a pair of intimate little children are saying small words, whispering, mutual love, mutual forgotten hurt. 呢呢儿女语,恩恩相尔汝" A moment later, the voice suddenly became loud and violent, just as the brave soldiers rushed into the enemy line 喧然变轩昂,勇士赴战场". This is a binary form of contrast or dualization nature. It is easy to understand the basic characteristics of the Ternary Form from the famous phrase of Hezhizhang's "I left home when I was a kid, I came home when I was old 少小离家老大回" The case of "The mountains overlap, and when the water twists and turns, it is worried that there is no way to go 山重水复疑无路, Suddenly, a mountain village appears in front of the beautiful flowers and willows 离离原上草，一村一村. Naturally, it is related to the Rondo form; There are many characteristics of compatibility between the Variational Form and Wang Wei's "Yang Guan San Die" and also Mao Zedong's "Shi Liu Zi Ling San Shou". 3

The development of Chinese poetry has experienced two-character poems, "Shi Jing", "Chu Ci", Yuefu ballads, and then Tang poetry, Poetry of the Song dynasty, Yuan opera, and so on. In these stages of development, the relationship between poetry and music can be found in structure, genre, and creative techniques. The development process of Chinese poetry is a process of inheritance and innovation of national culture, and it is also a process of common development of literature and music.

4 THE EMNODIMENT OF THE PALINDROMIC STRUCTURE IN THE MUSIC STRUCTURE

In the process of the development of poetry, people use the grammar laws of Chinese to explore and recreate poetry, adding more colors to the original regular words. There are special poems such as leave poems, palindrome poems, collection poems, cycle poems, and overlapping poems. Among them, it can use the order of words from beginning to end or from the end to the head to form different meaningful poems, they are palindromes poetry. This poetic structure also has a correspondence in music.

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2 This is the earliest form of ancient Chinese poetry. With two words for a rhyme.

3 Qian Renkang.2003,“似倒而顺” 的回文诗和回文曲【J, Shanghai music university ,12.
Whether it is a large palindrome or a small palindrome, even in the West there is a Mirror Canon, which is the embodiment of palindrome structure in the music structure.

4.1 Form

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4.2 Types

As for the type of palindrome, the examples of palindrome in "辞海" actually include two different categories. One is the palindrome of words. such as: Pride can not progress, progress can not be proud. The other is to read backwards in the order in which the word appears. For example, in the Northern Song Dynasty, the poet Su Shi’s "记梦二首": First, "Jade color slightly red, beautiful girl slowly holding out the jade bowl, the bowl of tea splashed wet green clothes. The song stopped gradually, and the light of the sky was condensed into a quiet courtyard. When suddenly awakened in a dream, the snow on the pine branch had fallen into the hollow rock.酡颜玉碗捧纤纤﹐乱点余花吐碧衫。歌咽水云凝静院﹐梦惊松雪落空岩" Second, "The flowers were gone, the wine jar was empty, the sun rose, and the snow on the mountain melted. The melted snow flowed into the river and the river rose. The fire was baking the little pot of tea on the stove, and the poet was cooking the tea in the snow before the sunny window. "岩空落雪松惊梦，院静凝云水咽歌。衫碧吐花余点乱，纤纤捧碗玉颜酡" . Two, "The sky is clear, and the crushed tea is boiled on a new fire. The water in the river rised, the snow in the mountains melted under the sun, and the wine in the jar was filled with the petals that had fallen from the sky. "窗晴斗月小团龙，活火新煎浅焙红。江涨雪融山上日，缸倾酒尽落花空".

The famous Chinese musicologist and theorist Mr. Qian Renkang wrote in the article ""似倒而顺”的回文诗和回文曲" that there are three forms of palindrome poetry: 1. In units of sentences, the first sentence is reversed into the second sentence, and the third sentence is reversed into the fourth sentence, and so on; 2. take the paragrap as the unit, the previous paragrapah is read backwards into the next paragrapah; 3. the entire article is read into another complete poem. Later, there were palindrome songs in national musical instruments, which were created in the format of palindrome poetry. The palindrome in sentences is called "small palindrome", and the palindrome in paragrapahs is called "big palindrome." Large and small palindromes are microscopic palindromes. In units of sound sets and single sentences, it is called macroscopic palindromes.

4.3 Mirror Cannon and Palindrome Song

Palindrome poetry and palindrome song are ancient and modern art forms with a long history. Palindrome song is a musical work created by composers using special and repeated combinations. It first appeared in Europe in the 15th century. The most famous palindrome song is a piece of "palindrome" written by the classical musician Mozart at the age of 18. It is called "The Mirror Duet for Violins", also known as "Table Music for Two." The creative technique of this Mirror Canon is a complex alignment technique in polyphonic techniques. The entire song does not have a termination symbol. From the beginning to the end, or from the end to the head, it can also become a good song. If two people play at the same time, that is, one person starts from the beginning and the other starts from the end, it can constitute a beautiful and strange duet, this belongs to an inverse palindrome.

The work uses only one row of treble clef, so the axis has been determined to be the third line, that is, B. Therefore, when writing, it must be conceived according to the axis of B. Mozart chose B as the commonly used III-axis, so G major (the same as in g minor) was used. After the reversal, the dominant became the tonic, and the conversion between the
subjects was also very convenient. In addition to this palindrome song, Palindrome

**Der Spiegel (The Mirror) Duet**

Figure 1: The Mirror Duet for Violins.

Cannon also appeared in the 14th and 15th centuries in the west. Cannon means imitation of the voice. It is a vocal part that mimics itself and forms two vocal parts. The music content of the two vocal parts is the same, but the time is staggered with each other, sometimes shifting place or changing the tone. Of course, there are many different forms of Canon, such as the expansion/tightening of Canon, no-final Canon, the riddle Canon ... and the mirror Canon. Mirroring Canon is to put a "mirror" in a certain part of the work, using the reflection of the "mirror" to form another part of the sound. This creative technique has the same effect as the poetry of the return style. Although it is not like the traditional Canon creation techniques--one voice chasing another, it is still Canon.

Many mirror Canon or palindrome song creation techniques are to move the "mirror" position. When the "reflective surface" of the "mirror" is a whole, what is formed is the retrograde of the music, which is like Mozart’s "The Mirror Duet for Violins" playing from the end. When the "reflective surface" of the "mirror" is up and down, the resulting music is Inversion. For example, Brahms's "Schumann theme variation". The external voice of the work uses the technique of reflection.

When a "mirror" is placed in two different directions at the same time, a reflection is retrograde. It is also a basic technique for creating sequence music. For example, Schoenberg's retrograde reflection of the Canon String Quartet in "Style and Creativity". This writing is an excellent exercise for the composer's ability to control the part of the voice. Schoenberg likes this practice.

In addition to these Western palindromes, there are also some palindromes worth studying in China. For example, Cantonese opera music "怨", The first subsection corresponds to the third subsection, and the two beats of the second subsection repeat to form a correspondence, which constitutes a large palindrome.

The famous Chinese composer and pianist Yan Xinghai's "到敌人后方去" and "回文"(1944) all use palindrome writing techniques. In particular, in 1944, he wrote the song "回文" based on the famous Hui nationality poet Ding Yaoyuan's poem "菩萨蛮" in the early Qing Dynasty. It was originally a palindrome poem based on sentences.

下帘低唤郎知也，
也知郎唤低帘下；
Xian Xinghai's creations in his works all use big palindromes instead of small palindromes. For example, in the second paragraph of the song, the music material of the first paragraph was used to create retrograde writing in units. It's a typical big palindrome.

Guangdong little tune "回文锦" and "双龙戏珠" are representatives of small palindrome's works. In the excerpt of "Two Dragons Play Ball", the first two subsections and the latter two subsections are based on the subsections of the second section to form a small essay. The fifth subsection to the eighth subsection form a small palindrome structure based on 5, 6, 7, 1, 2 sounds.

5 CONCLUSION

One of the special poems of Chinese poetry, the palindrome poetry, as China's national heritage, it left a deep impression on us. This is the basis for the exploration and inheritance of traditional Chinese musical thinking left by our ancestors. It includes the exploration of the structure of music and the form of existence, as well as includes the use and transformation of palindrome poetry in rhythm, breathing in chanting, elements of timbre, intensity, etc. embodied in poetry. And we can produce music creation thinking that influences the structure of palindrome style. This is a very meaningful exploration and study in the overall conception and performance form of the musical work.

The creation of the works will refer to the unique structure of Chinese verses in terms of conception and performance, and we hope that we can create a way in which the performance of palindrome works can be infinitely close to the literary creation. We realize how precious national culture is. This should be the culture we strive to inherited and innovate in our lives.

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